



# Cultures of Expertise Academics in exile and their role in the future of food security in Syria

Syrian Food Futures Final Project Report 2022

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## List of Abbreviations

AHRC	Arts and Humanities Research Council
Cara	Council for At-Risk Academics
COVID-19	Coronavirus disease 2019 caused by the severe acute respiratory syndrome coronavirus 2 (SARS-CoV-2).
FAO	Food and Agriculture Organization
FCAS	Fragile and Conflict-Affected States
FSL	Food Security Cluster – Food Security and Livelihoods
GDP	Gross Domestic Product
IGO	Intergovernmental Organisation
ILO	International Labour Organization
LMIC	Lower- and Middle-Income Countries
NGO	Non-governmental Organisation
SDG	Sustainable Development Goal
SWOT Analysis	Strengths, Weaknesses, Opportunities and Threats Analysis
UK	United Kingdom
UN	United Nations
UNHCR	United Nations High Commissioner for Refugees

## Executive Summary

The SyrianFoodFutures project aimed to establish a network of diverse expertise between Syrian, Turkish and UK researchers, practitioners and decision-makers, so that local, cultural and technical knowledge and experience can be incorporated into socio-economic development and reconstruction programmes. This would allow for a successful transition away from humanitarian provision of short-term food supplies and agriculture inputs towards long-term contingency planning for food security and adequate nutrition.

Sustainable Development Goal (SDG) attainment is severely compromised not only in fragile and conflict-affected countries (FCAS), such as Syria, but also in lower- and middle-income countries (LMICs, such as Turkey, Jordan and Lebanon) that host their refugee populations. Under conditions of protracted conflict, food production, availability, distribution and consumption are compromised, with attendant effects on food insecurity and malnutrition. There is also extensive loss of in-country human and intellectual capital as academics are displaced from high-risk areas as a matter of safety and security.

Local knowledge, connection and expertise offered by Syrian academics in exile in the Levant is a major part of Syria's intellectual and cultural capital that has, so far, been largely ignored by the intelligence-gathering and analysis activities informing humanitarian responses to the crisis. Furthermore, certain cultures of expertise, such as the arts and humanities, may be deprioritised by decision-makers and funding bodies in favour of investments in projects that improve physical capital (infrastructure, technology and agricultural inputs) and natural resources, to address immediate humanitarian food and health security needs. For example, displaced Syrian agricultural communities hold considerable knowledge about sustainable farming, but their oral and embodied traditions have been disrupted by conflict and flight, and are seldom recognised by development actors. As a result, relevant, context-specific intelligence and expertise may be neglected or excluded from intergovernmental organisation (IGO)-, non-governmental organisation (NGO)- or government-led social and development programmes.

The consequences are that some interventions may not be compatible with consumption habits, local practices, or growing conditions. Agricultural inputs, such as new cultivars, may be supplied in advance of suitability testing and without knowledge of any long-term unintended consequences for local species.

This project aimed to strengthen partnerships between UK researchers at the universities of Edinburgh, Kent and Aberdeen, and Syrian academics affiliated with Cara (Council for At-Risk Academics) Syria Programme who are living in Syria and in exile in Turkey, Jordan and Lebanon. It facilitated opportunities to build trusted relationships between scientists, academics and decision-makers to promote integration of cultural and technical knowledge, and expertise in international decision-making and strategy development efforts for the long-term future of Syria. We employed foresighting approaches (e.g., scenario planning) to create a platform for dialogue between diverse groups of stakeholders, in which we explored a number of plausible long-term futures for agriculture and food production in Syria. This allowed us to co-construct sustainable, locally informed strategies for research and education to meet future needs.

This approach was informed and grounded by foundation research led by Syrian academics (from the arts and humanities and agriculture and food-security networks within the Cara Syria Programme) to explore the history and impact of cultural and religious practice on agriculture and food-production, preparation and consumption through different disciplinary lenses – including Syrian folklore and music. This was complemented by in-person and remote ethnographic research about the impact of the conflict on current food environments in Syria, Turkey, Jordan, Iraqi Kurdistan and Lebanon. The Syrian Humming Project, which accompanied this work, sought to capture the accompanying emotional and psychological aspects of food (in)security through an interactive online soundscape, developed from a collection of hums and related ethnographic narratives from displaced Syrian communities, so that these collective memories will not be forgotten.

# 1. Importance

The SyrianFoodFutures project aimed to strengthen partnerships between researchers, practitioners and decision-makers in the UK, Syria and countries receiving academics in exile (primarily Turkey, Lebanon, Jordan) so that local cultural and technical expertise can be incorporated into future Syrian socio-economic development and reconstruction programmes. This will help to ensure a successful transition away from humanitarian provision of short-term food supplies and agriculture inputs towards long-term contingency planning for food security and adequate nutrition under conditions of protracted conflict.

Protracted political conflict creates conditions for severe and widespread food insecurity. The conflict in Syria has not ended and there is currently a wealth of local knowledge, connection and expertise offered by Syrian academics in exile (as well as displaced Syrian agricultural communities) and in Syria. This is a major part of Syria's intellectual and cultural capital that has so far been largely ignored by the intelligence-gathering and analysis activities informing humanitarian responses to the crisis. Improving local knowledge-sharing about the culture and history of agriculture, food access, production, preparation and food behaviours will improve the effectiveness of strategy development for future reconstruction of the agricultural sector and Syrian food systems, particularly if there are lessons to be learned from responses to previous food-system shocks, such as conflict and drought.

## Wider research context

Sustainable development goal (SDG) attainment is severely compromised, not only in FCAS, but also in LMIC that host their refugee populations. Syrian agriculture and food production, availability, distribution and consumption in-country have been distorted as a result of the ongoing civil war, with attendant effects on food insecurity and malnutrition. In Syria, 12.4 million people are in need of food assistance due to the sustained crisis since 2011.<sup>1</sup> Despite this, agriculture is still considered an important part of Syria's economy (26% GDP)<sup>2</sup> and critical for self-sufficiency for more than 75% of households who grow their own food for consumption.

Capturing stakeholders' visions for the future of agriculture in Syria is critical as attitudes, beliefs and coping strategies for producing and consuming food will have changed considerably over the long duration of the conflict.

Uncertainties about governance, weakened institutions and diminished research funding and capacity constrain traditional opportunities for long-term contingency planning and inhibit access to local expertise, which is essential for timely, evidence-based decision-making. Interventions understandably focus on survival and short-term food-security needs (i.e., food supplies and agricultural inputs such as fertilisers, seeds, medicines) at the expense of longer term strategic approaches that incorporate broader socio-economic or environmental considerations.<sup>3</sup> This may result in unforeseen tensions between short- and long-term food security demands, which could undermine resilience in the long-term. This is exacerbated by diminished regional and international collaborative research ties between researchers, universities, producer organisations and the private sector.<sup>4</sup> Forced migration, resulting in the internal and external displacement of people, means that much of the country's scientific and technological expertise may now reside outside Syria and is largely ignored, or difficult for decision-makers to find. The extensive loss of in-country human and intellectual capital in Syria, as academics are displaced from high-risk areas as a matter of safety and security, has resulted in a disconnect between local cultural knowledge and expertise and decision-makers who are responding to the crisis and trying to influence future societal rebuilding efforts positively, based on social trust, cultural values and pluralism. The low-level continuation of the Syrian conflict and the absence of a clear pathway towards transitional justice and inclusive reconstruction make documenting such local cultural knowledge even more relevant to more localised efforts at rebuilding agriculture and strengthening agricultural communities.

## Need for interdisciplinarity

Certain cultures of expertise (such as the arts and humanities) may be deprioritised by decision-makers and funding bodies in favour of investments in projects that improve physical capital (infrastructure, technology and agricultural inputs) and natural resources to address immediate humanitarian food and health security needs. Relevant, context-specific and interdisciplinary sources of intelligence may be neglected or excluded from IGO-, NGO- or government-led social and development programmes. As a result, some interventions to address food security have not been compatible with consumption habits, local practices, or growing conditions in Syria. Some agricultural inputs, such

as new cultivars, have been supplied in advance of suitability testing and without knowledge of any long-term unintended consequences on local species.

## Adding value

The SyrianFoodFutures project, through the strengthening of partnerships between University of Edinburgh and Cara Syria, and collaboration with local and international NGOs and IGOs, sought to utilise innovative, transdisciplinary foresighting approaches to explore the utility and role of different cultures of expertise in decision-making. The project combined knowledge and expertise from the arts and humanities (music, history, literature, anthropology), social sciences, food systems and agriculture (livestock and crop production) to answer questions about the future of food security. This is fundamental if we are to improve "understanding of linkages between cultural practices or resource use and socio-economic outcomes"<sup>5</sup> and increase awareness of the cultural norms and power asymmetries that exist and influence short- and long-term decision-making processes in fragile and conflict-affected states.

# 2. Equitable Partnerships

This project facilitated the creation of an interdisciplinary SyrianFoodFutures network of Syrian experts within the Cara Syria Programme from STEM (food security, livestock and crop production) and arts and humanities backgrounds, UK and Turkish academics, local and international NGOs, which was built on a principle of equitable partnerships and compromise. It builds on the outcomes of a Cara Syria arts and humanities workshop in March 2019 and a Global Challenge Theme Development-funded roundtable (19–20 June 2019), which focused on developing interdisciplinary tools and approaches to addressing food security and related public health outcomes.

Interdisciplinary research collaboration was not common practice in Syrian universities prior to the conflict, with most research occurring within disciplinary silos. As a result,

a primary aim of the SyrianFoodFutures Network was to catalyse Cara Syria academics to lead, design and deliver foundation research that focused not only on the delivery and implementation of technical solutions, but also on the exploration of the emotional and affective experience of Syrians. This aimed to provide a more nuanced evaluation of the performance of food-security interventions and programmes and inform foresighting work to improve food-security resilience.

Our joint Syrian-Turkish-UK network provided project mentorship to Syrian academics and worked in partnership with the Cara Syria Programme to facilitate meetings, supervision of ongoing research activities and knowledge-sharing. Complementary ethnographic data-gathering activities (which, due to the COVID-19 pandemic, were conducted remotely in Turkey, Jordan, Northern Syria, Iraqi Kurdistan and Lebanon) offered opportunities to widen participation in the research through engagement with Syrian refugee communities. SyrianFoodFutures members built capacity by training UK and Syrian academics in new foresighting skills and sharing this knowledge through delivery of scenario-planning workshops. These workshops were designed to combine lessons learned from traditional and historical approaches with pioneering technologies and expertise to inform best-practice guidelines and strategies for agriculture and food production in Syria and other fragile and conflict-affected states.

Through those workshops and an online symposium (held in December 2021), the SyrianFoodFutures network sought to create sustainable communication pathways to decision-makers in NGOs and IGOs to help: a) identify future food-security funding, research areas, education and training priorities for Syria and UK; b) develop a local, culturally appropriate and scientifically robust evidence-base to underpin decisions about food-security interventions and social development programmes; and c) increase research capacity and expertise of displaced academics in Turkey, Jordan and Lebanon so that they may independently co-develop inter- and trans-disciplinary research approaches and strategies for successful agricultural redevelopment in the future.

1 Boden LA et al. (2019) Global Health and Food Security in Fragile and Conflict Affected States (FCAS) Syrian Academics and their Role in the Future of Food Security for Syria. Available at [https://www.ed.ac.uk/files/atoms/files/ghafs\\_fullreport\\_eng\\_jan20.pdf](https://www.ed.ac.uk/files/atoms/files/ghafs_fullreport_eng_jan20.pdf); Food Security Cluster (2017) Food security situation in Syria: Expanded version of the Food Security

Sector Humanitarian Needs Overview 2018. Whole of Syria Food Security Sector.

2 FAO (2017). Counting the cost: Agriculture in Syria after six years of crisis. Available at: <http://www.fao.org/3/b-i7081e.pdf>

3 Longley et al. (2006). Agricultural rehabilitation: Mapping the linkages between humanitarian relief, social protection and development. Humanitarian Policy Group Research Report 22, Overseas Development Institute, London.

4 Giordano, T. (2011). Agriculture and economic recovery in post-conflict countries: Lessons we never learnt. Development Bank of South Africa. Development Planning Division Working Paper Series No. 22.

5 Wilson et al. (2018). Why culture matters for planetary health. The Lancet Planetary Health 2 PE-467-E468.

## 3. Research Activities

The SyrianFoodFutures project addressed the focal question: “What is the future of food security in Syria and what role do Syrian academics have in shaping this?” through the following five themes: 3.1. Collective memory; 3.2. Current food-security environment; 3.3. Food security and mental health; 3.4. Syrian Humming Project; 3.5. A future vision of agriculture for Syria.

### 3.1 Collective memory

#### Summary

Syrian academics led a series of foundation projects to document and explore the collective memories, vernacular, indigenous knowledge and histories of food access, production, preparation and consumption, through interviews and interactive workshops. These included:

1. The impact of modernisation on women’s roles and identities in food production, preparation and consumption.
2. The impact of religious practice on the emergence of different types of food production pre- and post-conflict with a focus on honey, olives and wheat.
3. The history of food insecurity in Syria through the lens of Syrian literature, folklore and living memory, and lessons learned from previous system “shocks” such as drought and war.

#### Background

Interdisciplinary knowledge (anthropology, literature, sociology, theology, Islamic studies, history, archaeology, gender studies, etc) may be neglected or excluded from IGO, NGO- or government-led social and development programmes. In this work, Syrian researchers sought to:

- Contribute local and culturally appropriate humanities perspectives to the evidence base underpinning decisions about food-security/social-development interventions.
- Explore and highlight the cultural and social dimensions of food (in)security.
- Capture oral tradition/history/wisdom through analysis of the testimonies of living subjects, literature, folk songs, poems, folk tales and proverbs.

#### Approach

Syrian participants were recruited through the researchers’ personal networks using snowball sampling techniques. The sample accounted for demographic diversity in terms of age, marital status, occupational status, education level, region/city of origin and region/city of domicile. In order to protect the participants’ confidential information, their real names were replaced by pseudonyms.

Travel restrictions and safety concerns surrounding the COVID-19 pandemic required researchers to adapt to remote data collection. Online focus groups were deemed unfeasible, due to many participants’ limited access to technology and good quality internet connection. Instead, one-to-one semi-structured interviews were conducted with all participants over the telephone or WhatsApp, depending on participants’ preferences. Interviews typically lasted between 45 minutes and an hour and followed a loose question schedule exploring participants’ experiences of food production, preparation, and consumption prior to, during and after displacement; the role and place of food in their lives prior to, during and after displacement; the meanings and significance they attached to food(s); and their wider experiences of displacement. Interviews were conducted in the participants’ native language of Arabic and were audio recorded. Recordings were transcribed as soon as possible following each interview and anonymised, with each participant ascribed a pseudonym. Data were stored on encrypted pen drives and transferred promptly onto the University of Edinburgh’s secure server.

#### Key messages

- Food insecurity is a prominent theme in Syrians’ collective memory and is not limited to the consequences of the current crisis.
- Food aid provided by humanitarian agencies in Northern Syria is crucial to alleviating the impacts of the current crisis, but there is insufficient aid available and what food does arrive is often unfairly distributed and may be spoilt or of poor quality.
- Food culture continues to play a crucial role in community cohesion, psychological wellbeing and placemaking, especially among displaced Syrian women. Women’s roles in food acquisition, production and consumption have changed significantly during and after displacement. Traditional food knowledge has become an important asset for Syrian women in all stages of displacement.
- Olives, honey and wheat are considered by Syrians in this study to be blessed foods due to scriptural references and are widely believed to have spiritual, medicinal and nutritional benefit. However, it is not clear whether any of these benefits outweigh challenges associated with agricultural production under current conditions.

An ethnographic exploration of the food-insecurity situation in Syria, coupled with a series of participatory artistic interventions, were conducted to complement this work. The latter aimed to stimulate debate and further insight about social, historical, ethical and cultural impacts of food-system shocks and resultant acute and chronic food insecurity.

### Study 1. Impact of modernisation on women’s roles and identities in food production, preparation and consumption

- Despite comparative abundance of food in Turkey, Syrians who are living there are still facing food insecurity. This may stem from a combination of cultural and socio-economic factors, restrictive asylum policies (which force Syrians into informal labour) and the disruption of traditional foodways, which may exacerbate Syrian refugees’ feelings of isolation and loss, and negatively impact their mental health.
- Women may be disproportionately exposed to these risks due to cultural expectations around their behaviour, and traditional domestic roles and responsibilities. Household management, food preparation and childcare are all predominantly the duties of women.
- Syrian women suffer from lack of access to rights and social security in asylum<sup>6</sup>. As such, many refugee women in Turkey experience traumatic shifts in status and lifestyle when compelled to take on new and unfamiliar responsibilities required of them such as becoming the primary earner/head of household.<sup>7</sup>
- When asked about their experiences of food production, preparation and consumption before, during and after their displacement, and the impact of war and displacement on their experience of food security, Syrian women highlighted the changing domestic dynamics, food roles, and food culture due to displacement.
- Women’s traditional role as the head of household has changed, with increasing acceptance of the need to work to secure household income. Male household members now participate in food preparation, with some experiencing depression and loss of status as a result. Envisaging their futures, younger women expressed an expectation that both income-generating and domestic responsibilities would be shared with their husband.
- Previously, family roles and responsibilities were considered to be delineated according to a male domain of income generation and economics, and a female domain of domestic management (although this varied according to rural/urban locale and economic/professional status).
- Men typically held economic responsibility both within nuclear families and within extended families, particularly in rural communities where land-owning patriarchs were expected to distribute agricultural yields among family members, even if young people were married and far away from the family. Women passed on cooking skills to their children; Syrian girls supported their mothers at home.
- In Turkey, reduced household budgets have constrained Syrian refugee women’s ability to express themselves through their cooking and hospitality and are a daily reminder of lost status and identity. Lack of income as a result of loss of men’s livelihoods contributed to women’s lack of food security; women and children have to share the responsibility of generating income for the food budget; women can no longer stockpile supplies. Food has to be acquired on a daily basis, limiting access to out of season produce. Lack of time, agricultural land and limited employment opportunities are also important contributing factors. Job opportunities for women outweigh those available for men. As a result, many men now cook for the family.
- Family bonding is still anchored in food preparation and shared meals. Female heads of family retain responsibility for bringing dishes or raw ingredients to prepare food for large extended family gatherings. Women living in asylum missed such gatherings that occurred on Fridays, holidays, weddings and during Ramadan. Families in Turkish cities with large Syrian populations (such as Gaziantep and Istanbul) were able to sustain these gatherings, while others spoke of being separated by “geography and death”.
- Older participants, and those from rural backgrounds who had settled in Turkish cities, struggle to access nutritious and culturally acceptable food, because of difficulties with shopping. This may be due to language barriers, or anxieties about visiting traditionally male spaces such as markets. Abrupt transitions from traditional lifestyles and gender roles to dynamic urban life in a new country can be destabilising and traumatic. Many participants expressed anxieties about a loss of control over family mealtimes and diet. This loss was also felt as a loss of status and identity.
- Younger women are at risk of food insecurity for different reasons. Despite adapting to the culture of the host country more readily, their diet comprised higher proportions of processed food and takeaways. This was mainly due to time scarcity as a result of having to work to support their families, or studying. Women supported each other across generations to mitigate these risks, supporting food security for all and strengthening community bonds.
- Traditional food knowledge constitutes a vital resource for Syrian refugee women at all stages of their displacement journeys. It enables them to feed their families in times of food scarcity, or in the absence of electricity or domestic technologies, and is also vital to their sense of resilience. Food culture supports their psychological wellbeing and positive settlement in their host country of Turkey, and collective preparation and consumption of traditional food supports social cohesion and strengthens intergenerational bonds and support networks.
- Traditional recipes enable Syrian refugee women to evoke place and identity and provide a source of comfort and sanctuary to those experiencing loss, trauma and uncertainty. These insights highlight the importance of acknowledging the sociocultural significance of food in assessments of food security: traditional food knowledge engendered a sense of *cultural* food security<sup>8</sup> that facilitated

displaced Syrians' access to and use of food in socially acceptable ways.

- Humanitarian organisations often fail to account for culture in their responses.<sup>9</sup> The findings in this study, however, highlight the importance of attending to the cultural and

biosocial dimensions of food security,<sup>10</sup> and the need to consult with women refugees, in order to better understand the complex intersections of displacement, gender and food security, both in asylum and transit.

- 6 Özerim, M. G. and Çetin, E. (2019). "The Interplay between Migration and Women. The case of Syrians in Turkey". In *Women Economic Empowerment in Turkey*, edited by O. B. Celik and M. Ince Yenilmez, 64–78. New York: Routledge.
- 7 Kyung-Sup, C. (1999). Compressed modernity and its discontents: South Korean society in transition. *Economy and society*, 28 (1): 30–55.
- 8 Power, E (2008) Conceptualizing Food Security for Aboriginal People in Canada. *Can J Public Health*.Mar; 99(2): 95–97.

- 9 Chatelard, G. (2017). *Intangible Cultural Heritage of Displaced Syrians*. Paris: UNESCO. Available at <https://ich.unesco.org/doc/src/38275-EN.pdf> Accessed 17 April 2020
- 10 Moffat, T., Mohammed, C. and Newbold, K.B. (2017). Cultural dimensions of food insecurity among immigrants and refugees. *Human Organization*, 76 (1): 15-27.

## Study 2. Impact of religious practice on the emergence of different types of food

- Olives, honey and wheat are of religious importance as they are mentioned in the Holy Quran and are considered by many to be "blessed" foods. Other foods such as figs, grapes, dates, black seed, cumin, pumpkin, lemon balm, pomegranate and ginger, are also noted.
- Olives, honey and wheat are also thought to have medicinal properties and are being used by Syrians to treat conditions ranging from abdominal cramps, to burns, to infections and more.
- Olive oil is claimed by users to treat constipation, cramps, colic, arterial heart, liver and skin diseases, hair loss and for physical therapy and psychological comfort.
- Honey is used for burns, wounds, impotence, infertility, weak immunity, arterial diseases, strokes, the respiratory system, stomach and prostate cancer prevention, and strengthening the body after varicose vein operations.
- Some Syrians claim they use wheat in their food to "remove toxins and pus from the body", in addition to being an important source of nutrition.
- High prices and lack of availability mean that medical benefits are one of the main justifications for the purchase of these foodstuffs and for their high value. In areas where there are blockades, wheat is the most important priority purchase for bread-making (and survival).
- Some Syrians interviewed for this study felt that plants and foods should be better documented and classified, and included in Sharia courses, and that there should be greater emphasis on interpretation of religious texts. They highlighted the need for community education on religious symbolism, which makes some foods especially important, and which may be useful in protecting the body and increasing its immunity. They acknowledge however that these are not a substitute for appropriate medicine.

*"[Need to] warn people against clerics who use the effects of some foods as a cover for practising sorcery, astrology and the like, seeking money in the name of religion."*

- It must be emphasised that the religious "symbolism" of some plants does not necessarily mean their cultivation is prioritised. Rather, the suitability of the soil for cultivating them, people's need of them, as well as their commercial value, must all be taken into account.
- Oral heritage (songs and folk tales) revealed the rooted importance of wheat, honey and olives in Syrian heritage, which relates to the monotheistic religions (Judaism, Christianity and Islam) and is linked to myths and folk tales struck in the depth of ancient history. This may reveal more about the characteristics of the ancient Syrian man, his religious beliefs, his artistic and medical practices, and his behaviour in relation to agriculture, food security, and medical security.
- Work needs to be done to quantify which of the potential benefits of these foods are scientifically supported, as well as to improve education around these crops. Whilst it is essential to consider the religious significance of food products, it is equally important that this and sometimes medicinal significance does not outweigh the agricultural disadvantages or advantages of growing them.

## Study 3. History of agriculture in Syria (through the lens of Syrian folklore) and lessons learned from previous system "shocks" such as drought and war

- Throughout Syrian history, food crises have been brought about by both natural and human causes.
- Before the 2011 crisis, the most distinctive feature of food insecurity was food shortage. However, since 2011 even when food is available it is unaffordable for most people.
- Historically the state has taken a role in trying to mitigate how food insecurity affects citizens. Since 2011, though, the role of the state has declined significantly, especially in Northern Syria. Reliance on international and local relief organisations is critical, but many Syrians worry about the integrity of their distribution processes.
- Whilst state and international responses to food crises have varied throughout history, the response of people has been similar throughout: storing essential materials, searching for food alternatives, reducing consumption, helping their communities and supplicating to God.
- As well as the economic and health impacts of food crises, the impacts of food crises on the arts, literature and folklore is a potent reminder of the long-lasting emotional and cultural effects of food insecurity.
  - Stories such as Memories of Al-Huffaz School (Walid Ikhlassi), When Will the Rain Return (Adib Al-Nahawi), The Tale (Haseeb Kayali) and To Al-Dahdah (Haseeb Kayali) tell of bread made from barley and potatoes, electricity shortages, the devastation of lack of rain, farmers having to "steal" river water due to government policies stopping them irrigating their crops, and merchants taking advantage of food insecurity to sell inferior produce and force customers into debt.
  - Rain-invocation rituals are prevalent in Syrian folklore. When drought occurs, the "Um Al-Ghaith" (piece of wood carved to resemble a woman) is prepared with a veil and wedding jewellery. Women and children go door to door collecting food gifts and alms, which are cooked to provide for children and the hungry. People chant, sing and celebrate until the rain falls, or repeat the event a few days later.
  - Many Syrian proverbs relate to agriculture and food, such as: "a hungry person may eat parts of brooms" and "nakedness and hunger cause all diseases".
  - Several prominent television series such as Al-Frari (The Fugitive), Ikhwat Al-Turab (Soil Brotherhood), Al-Thuraya, Al-Hasad Al-Mur (The Bitter Harvest), and Hijratu Alqulub Ila Alqulub (Hearts to Hearts Migration), also depict famine and its consequences throughout history. Ranging from the Ottoman era to World War I and the beginning of the French Mandate for Syria, these series depict families forced to sell possessions (and even their children) for food, farmers losing crops and income due to drought and increasing banditry, looting and violence in the face of extreme hunger.
- Food crises occurred in Syria as early as 1250, in the Mamluk era (1250–1516) and later in the Ottoman era (1516–1918). The causes were complex and interlinked, with both human-made (war, monopoly, siege) and natural (locusts, drought, disease) drivers of change.
- Drought, famine and locust plagues were not infrequent within the Mamluk era. Locust swarms destroyed both human food sources and grazing land, reducing the ability to farm livestock as well as impacting arable agriculture.
- Diseases such as the plague, measles and tuberculosis led to concurrent labour shortages that further weakened economic activities.
- Many peasants (people working in rural areas) chose to grow commercial crops (cotton and tobacco) rather than food, whereas wealthier members of society stored large amounts of food to adapt to food shortages.
- Famines not only increased the prevalence of disease and death from starvation, but also resulted in significant social impacts such as disruption of social classes due to landowner deaths, mass displacement of peasants, queues for foodstuffs, and rising levels of theft and prostitution.
- These crises were viewed as religious phenomena or divine punishment, and were accompanied by calls for fasting, prayers and worship in the mosques. The Mamluk state attempted to combat these crises by controlling the weight of silver and gold coins, breaking monopolies that were hoarding food, price-controlling foodstuffs (e.g., bread), and importing foodstuffs from Egypt to the Levant.
- During the early Ottoman era, famine remained a constant threat. Severe taxation and legislative changes saw smaller landowners stripped of their land, accompanied by extreme weather (e.g., 1756) also affected food security.
- The famine associated with World War I "Safar Barlik" 1914–1918 was the worst famine in Syria's modern history. 1916 was known as the "Year of Hunger", claiming the lives of more than 150,000 people. This occurred because of a naval blockade imposed by the allies, which stopped imports of food into Syria; a rise in food prices, as a result of the food demand from German officers who were sending Syrian food to Germany; compulsory recruitment, confiscation of land/crops/means of transport; increasing taxation to fund war efforts; and severe drought and locust swarms that invaded the country in 1915.
- People lived on wild plants and sold everything they owned, including their homes, for a sack of flour. They were compelled to eat locusts, barley extracted from animal dung, and even dead bodies. Women turned to prostitution, working as maids or marrying nomads in an attempt to secure their livelihood. Banditry, theft and money lent under exorbitant interest rates were rife.

- The government attempted to mitigate the disease effects of the famine by forcing people to hand over any food that was surplus to their needs, while distributing poor-quality bread.
- The Ottoman empire founded the Lebanese Catering Company to try and feed the people, but it failed due to corruption. Clerics opened restaurants and alms-houses to feed the poor. Syrian and Lebanese communities abroad set up charities and institutions that raised over 259 million dollars to be sent to the Levant over the course of the famine, although never properly distributed.

- In the 1980s, the geopolitics between Britain and Israel resulted in economic sanctions on Syria. On the 16 April 1986 an attempt to bomb an Israeli civilian plane in London Heathrow Airport was blamed on Syria, which led to the Prime Minister Margaret Thatcher cutting diplomatic ties with Syria; the United States and Canada summoning their ambassadors from Syria; and Europe imposing economic sanctions. These sanctions resulted in shortages of flour, oil, sugar, tea, infant formula, medicines, building materials and fuel and an increase in smuggling of basic goods and provisions from neighbouring countries.

## 3.2 Current food-security environment

### Summary

In-person and remote ethnographic fieldwork was conducted to identify knowledge gaps and gather information from Syrian academics and their extended networks (both inside and outside Syria) about their local agriculture and food environments pre- and post-conflict, including consideration of the various emotional, cultural, financial and logistical drivers for food behaviours. This work included an exploration of the current relationship between Syrian academics, NGOs and IGOs involved in strategic planning for agriculture and food security in Syria and mapping with key informants to understand how social constructions reinforce or weaken support for implementation of selected strategies.

### Background

Through ethnographic fieldwork with Syrian agricultural communities in the Middle East, this project aimed to grasp the multifaceted present of refugee labour, and to counter simplistic representations of refugees as passive victims and aid beneficiaries. Syrian refugees in Middle-Eastern host countries are not merely stuck in protracted displacement, they show agency in choosing certain types of jobs and opting for seasonal movements between different agricultural production sites. It is important to understand the socioeconomic, legal and cultural factors that shape this agency. Extended research with refugees on the ground, in their homes and at agricultural worksites, can tell us about the complex lived experiences of Syrian labour, gendered and generational dynamics within refugee households, and the often-overlooked cultural aspects of precarious refugee livelihoods. Seasonal agricultural labour is nothing new to many Syrians who migrated widely for work before 2011. In addition, many refugees working in agriculture today come from rural backgrounds and have preserved a rich intangible cultural heritage and traditional farming practices. The aim of this fieldwork was to:

1. Connect our findings on present-day refugee labour to their previous working experiences and mobilities in agriculture.

2. Understand how Syria's current forms of labour, and NGO vocational training targeted at refugees, shape employment opportunities in Middle-Eastern host countries.
3. Map different settlement and movement patterns, and working conditions, across the entire region, given huge intraregional variations in agricultural production.

### Approach

In December 2019, a ten-day pilot study was conducted with Syrian agricultural labourers and entrepreneurs in the Adana region, western Turkey, and around Gaziantep, southern Turkey. We interviewed approximately ten Syrian families at their homes, in orchards, on fields, and in plant nurseries. We also interviewed Syrian agricultural entrepreneurs, including the owner of a plant nursery close to Mersin, and two Syrian beekeepers in southern Turkey.

Due to COVID-19- related movement restrictions and social distancing measures put in place since March 2020, we had to adapt our ethnographic approach. Fortunately, we were able to build on our Syrian partners' existing relationships of trust with rural communities in the Middle East, and on the social networks that we had established with refugees in Turkey in December 2019, to launch two follow-up projects. For the *From the Field* project (April–June 2020), we collected remote household surveys with 100 Syrian families working in agriculture in Northwest Syria, Lebanon, Turkey, Jordan, and the Kurdistan Region of Iraq (KRI), exploring the effect of pandemic restrictions on refugee livelihoods and food security. For the *Refugee Labour under Lockdown* project (October 2020–May 2021), we conducted remote ethnographic interviews with 80 Syrian agricultural workers, 20 intermediaries, and 20 employers in Northwest Syria, Lebanon, Turkey, and Jordan, studying the impact of related restrictions on refugees' working conditions in agriculture.

In 2021, we also used our existing networks with Syrian communities to explore two related phenomena: gendered forms of agricultural knowledge, and Syrians' traditional harvesting songs. First, we conducted remote ethnographic

interviews with a group of Syrian refugee women originally from the Baba Amr district in Homs, well known for its Bedouin population working with livestock before the onset of the Syrian conflict. Second, we collected traditional Syrian harvesting songs remotely with ten Syrian families in Turkey and Northwest Syria.

Given the movement restrictions during the pandemic and some participants' limited literacy, all remote surveys and interviews were conducted as semi-structured interviews via WhatsApp. All interactions were realised by Syrian academics affiliated with Cara Syria who brought to the research native Arabic-language skills, an emic understanding of cultural and gendered sensibilities, and the lived struggles of displacement. To avoid vicarious trauma for the Syrian interviewees, we regularly met as a team to debrief, and discuss emotionally challenging findings. In addition, refugees included in the *From the Field* and the *Refugee Labour under Lockdown* project were asked to document their everyday lives, food consumption and working conditions through WhatsApp diaries. Together with Cara Syria, we developed a safe payment protocol that allowed us to reimburse all refugee participants for the costs of data used during phone interactions.

### Key messages

- It is important to acknowledge that working and living conditions for displaced Syrians greatly differ across countries and regions in the Middle East, and types and seasons of agricultural production.
- Across the Middle East, our interlocutors live in big cities like Irbid (Jordan), Gaziantep (Turkey) and Erbil (KRI), in villages and small towns along Syria's borders, and in IDP camps in Northern Syria, and formal and informal refugee camps in Lebanon and the KRI. What all have in common is that they originally come from rural areas, and most of them still work in agriculture or food production, even when they now live in urban centres. In many cases, this income complements additional sources of revenue, including other work in the informal economy and humanitarian assistance.
- While many displaced people find agricultural jobs through intermediaries, others liaise directly with employers. Refugees' legal status and access to humanitarian assistance also differs across host countries. In the follow-up project, *Refugee Labour under Lockdown*, for example, 100% of interviewees in Lebanon and Jordan, but only 32% of interviewees in Turkey were registered with the United Nations High Commissioner for Refugees (UNHCR). This is unsurprising, as the Directorate General of Migration Management of the Turkish Government, rather than UNHCR, is responsible for registering individuals under temporary protection in Turkey. Similarly, 100% of Syrian respondents in Turkey were registered with the local authorities.
- Overall, 42% of Syrian workers outside Syria reported having a valid permit to work in agriculture, with 65% in

Jordan, 50% in Lebanon, and 11% in Turkey. However, according to agricultural intermediaries, refugees' possession of work permits was much lower.

- Taken together with limited sample sizes and convenience sampling through our existing networks, these important intraregional differences between Syrian communities mean that our ethnographic findings are hardly representative of all displaced Syrians working in Middle-Eastern agriculture, let alone all Syrian refugees in the Middle East. However, they do paint a picture of wider trends in precarious refugee employment in increasingly globalised agriculture before and during the COVID-19 pandemic (see Boxes 1 and 2).

### Next steps

Drawing on our findings so far, we suggest three types of future research.

1. To understand the pressures that global companies exert on those at the beginning of global supply chains, it will be important to extend our fieldwork to "upstream" actors in global supply chains. Beyond agricultural intermediaries and employers, future research should include national and international retailers. Retracing agricultural supply chains will help de-exceptionalise the study of precarious refugee labour, which is subject to similar market dynamics as irregular migrant workers around the globe.
2. Our in-person and remote ethnographic research indicates that displaced Syrians hold on to their intangible cultural heritage, notably through harvesting songs and traditional ways of food production. However, in exile, there is also a growing rift between older and younger generations of Syrian farmers; displacement has torn apart not only tightknit agricultural communities, but also traditional forms of oral knowledge. In the allied Arts and Humanities Research Council- (AHRC) funded *FIELD SONGS* project, we partnered with the Syrian NGO, Douzan Art & Culture, to organise a series of joint workshops with Syrian farmworkers and Syrian musicians in Gaziantep, southern Turkey, to produce a digital archive of Syrian harvesting songs and to initiate conversations on cultural heritage between older and younger refugees.
3. Syrian women and children may experience precarious agricultural labour differently, and it is vital to understand better their paid and unpaid contributions to refugee households, and the specific risks that they face at agricultural work sites. In the *Refugee Labour under Lockdown* project, we did not find that female and child labour had increased in our sample during the first year of the COVID-19 pandemic. However, this indicates that in many poor households, women and children who were fit to work had already been toiling, at least occasionally, in agriculture before 2020. We need more research on the generational dynamics of refugee labour to explore how hostile asylum policies, and the absence of educational opportunities and alternative livelihoods, produce the next generation of refugee workers.

## BOX 1. WHY DO FARMWORKERS GO HUNGRY DURING A PANDEMIC?

- Although many Syrian refugees work in agriculture, they are at an increased risk of food insecurity during the COVID-19 pandemic.
- For Syrian refugees working in agriculture, the pandemic has been experienced as an economic, not a health crisis. In spring 2020, our Syrian participants in the From the *FIELD* project had all heard about the new virus, but most felt and behaved as though they were healthy and things were normal.
  - No one had been tested for the virus.
  - Instead, a more imminent threat was the loss of jobs and price hikes due to lockdowns and the economic effects of COVID-19 mitigation measures. Over 70% of respondents reported a decrease in their monthly income in Spring 2020; almost half did not have access to cash at the time of the interview.
  - Refugees' dependency on food markets exacerbated their precarious livelihoods. In spring 2020, 90% of respondents bought food from main shops, while only a tiny fraction grew their own food, or received food from employers. As a consequence, initial price hikes in local markets exacerbated the pressures on refugee households, which now found themselves with a reduced income or no income at all; 89% of respondents reported major increases in prices of basic food commodities, e.g., wheat, flour, rice, oil and sugar, compared to the previous year.
  - Over the seven days before the interview, 94% of households had sometimes or always relied on less expensive food. 27% had borrowed food from friends or relatives, while 65% had purchased food on credit. A staggering 19% had spent between one and three days without eating.
- In March 2020, the onset of the COVID-19 pandemic coincided with the beginning of the agricultural season in many Middle Eastern countries, and many business owners felt pressured to continue production, usually with no health precautions for workers during transport and at worksites, and in contravention of existing movement restrictions.
- Pandemic-related lockdowns hit refugee workers during Ramadan 2020, reducing work opportunities at a time associated with festive food consumption. Many interlocutors complained to us that they were unable to cook traditional food, share meals with the neighbours, and buy gifts for their children.
- Refugees' employment precarity and the ways in which new economic shocks interacted with seasonal religious events and cultural practices must be taken into account.
- In the follow-up project, *Refugee Labour under Lockdown*, we learned that pandemic-related job losses in Spring 2020 were only temporary. However, the accumulated economic pressures of the pandemic have worsened refugees' standing in already volatile labour markets. Importantly, the pandemic did not only cause disruptions, but also entrenched problems.
- Despite widespread movement restrictions, agricultural labour continued for most displaced Syrians across the region; only 13% lost their jobs permanently in the first year of the pandemic. At the same time, greater job insecurity, reduced working hours, and the absence of protective measures worsened precarious working conditions in agriculture: Syrian households, who had entered the pandemic with no financial safety net, had become even more vulnerable, and some had entered debt relationships with intermediaries.

## BOX 2. REFUGEES' "UNFREE" LABOUR IN GLOBAL SUPPLY-CHAIN CAPITALISM

- Precarious labour in agriculture remains the only option for many displaced Syrians during the pandemic.
- This type of work is not a "local" phenomenon, nor a humanitarian anomaly. It has to be understood in the context of displaced Syrians' longstanding structural marginalisation in Middle-Eastern labour markets, and within the context of global migrant labour more broadly.
- Chronic job insecurity is typical of refugee labour in the Middle East. Due to the seasonal nature of agriculture, a surplus of workers and refugees' insecure legal status, many displaced people worked on an on-off basis in the sector long before the pandemic. The unpredictability of work, rather than its absence, at the bottom of segmented labour markets has made refugee lives precarious and stopped them from rebuilding financial safety nets in exile.
- At the same time, the globalisation of Middle-Eastern agriculture has increased the pressure on producers to cut costs by employing exceptionally vulnerable workers without rights: refugees, (irregular) migrants, women and children. Our pre-pandemic findings from in-person fieldwork in Turkey in 2019 suggest that short-term NGO trainings and employment programmes, aimed at increasing Syrians' self-reliance, fail to address these underlying structural conditions of precarious refugee labour.
- The definition of "forced labour" that is used by the International Labour Organization (ILO) accounts for individual acts of coercion; however, it fails to capture many Syrians' complex experiences of work. In the *Refugee Labour under Lockdown* project, all workers confirmed that their employers did not confiscate their identity documents, and 50% reported that there would be no negative consequences if they left their jobs early; 36% of workers said they would abandon jobs if they did not like the conditions or the pay.
- At the same time, 22% of workers felt that leaving was not an option, because these were the only available jobs. By Autumn 2020, 75% had become unemployed temporarily, and 83% found it more difficult to find jobs in agriculture, compared to before the pandemic. If we accept a broader definition of "unfree labour" that takes account not only of economic necessity and the effects of structural forces, but also of workers' agency in opting for exploitative work, then we can reappraise the factors that push displaced Syrians to accept work in agriculture: longstanding sociolegal marginalisation in host countries, together with the added economic pressures of the COVID-19 pandemic.
- Unlike historical forms of forced labour, informal employment in agriculture is often short-term, paid, and accepted by displaced Syrian workers without coercion by employers. However, there is also an intimate dimension of refugee labour, one that only in-depth ethnographic research can make visible: many refugees are recruited into global supply chains along kinship lines, and by agricultural intermediaries from their own kinship networks. Patriarchal expectations between "intermediary fathers" and "refugee children", family obligations, and complicated financial arrangements all shape the complex relationships between intermediaries and workers.
- Through focusing on labour, we expand our understanding of displacement, not simply as the source of humanitarian crises, but as a process that generates precarious workforces. This allows us to advance debates on the blurring of distinctions between refugees and migrants, placing Syrian labour in the context of migrant farmworkers' struggles globally.
- However, not all displaced Syrians working in agriculture are day labourers. In Turkey in 2019, we also interviewed Syrian agricultural entrepreneurs who had established plant nurseries and beekeeping businesses. While some of them were already exporting their products regionally, all struggled with accessing domestic markets, catering to the tastes of the host society, and upscaling logistics. Some of these Syrian businessmen also employed Syrian refugees, often under exploitative conditions.



### 3.3 Food security and mental health

#### Summary

Mainstreaming mental health is a critical element of any humanitarian programming response. However, the application of inappropriate, externally driven frameworks may be impeding progress and may lead to a lack of conceptual clarity around mental health and psychosocial programming.<sup>11</sup>

Amongst the many impacts of the current conflict in Syria is its significant effects on mental health and psychosocial wellbeing of Syrian refugees and internally displaced peoples. Food insecurity remains a central concern for the humanitarian response to the ongoing Syrian crisis. The spread of Covid-19 has highlighted the complex, interconnected and dynamic effects of public health crises within already fragile settings (UNDP & UNHCR, 2022). This project explored the impact of Covid-19 on the lives and livelihoods of Syrians living in Lebanon, Iraqi Kurdistan, Jordan, Syria and Turkey using bespoke remote survey and ethnographic approaches. It highlights the opportunities and challenges that come with such an approach and to what future research can aspire.

#### Background

According to Burke et al. (2021)<sup>12</sup>, the link between food insecurity and mental health is well-established. Risk factors for mental health, including traumatic or violent events, forced multiple displacements, unresolved grief, disruption to meaningful activities, breakdown of social roles, loss of social support and persistent daily stressors, such as poverty, overcrowded shelters and inadequate access to food persist in Northwest Syria. Syrians are exhibiting elevated levels of mental ill-health, in terms of depression, low subjective wellbeing and anxiety.

#### Approach

Spin-off funding from the Global Challenges Research Fund for the *From the Field* project enabled our team to explore the impact of the COVID-19 virus on the lives and livelihoods of Syrians living in Lebanon, Iraqi Kurdistan, Jordan, Syria and Turkey. One hundred survey questionnaires were deployed through local networks of researchers and practitioners to obtain data using mental-health scales and food-security measures. Participants were selected on the basis of having originally come from a rural area, with most still working in agriculture or food production, even if they currently live in urban areas.

#### Key messages

- Syrians displayed a number of coping strategies to maintain their food intake. This included borrowing, relying on others, buying on credit, choosing less expensive foods, limiting portions and reducing meals, or going without food.
- Of the Syrians surveyed, those with greater food security, were likely to be experiencing higher levels of mental wellbeing. Positive psychological wellbeing of those facing humanitarian crisis is required for robust food security.
- Public health restrictions increased domestic demands and the economic pressures on households.
- Women experienced disproportionate burdens with respect to domestic chores and food production.
- Funding appeals will need to increase to meet growing needs. For instance, there may be benefits of prolonged multipurpose cash assistance in reducing food insecurity *and* improving mental health. This points towards the need to explore the possibilities of “Cash Plus” programmes that can provide parallel, linked mental-health and psychosocial services.

### 3.4 The Syrian Humming Project

#### Summary

Hums are never just about songs. They are always more about individual stories, memories, and feelings. Syrian hums were collected through a crowd-sourcing method in collaboration with research colleagues, partners and volunteers who were in Turkey, Jordan, Lebanon and Scotland. When we asked displaced Syrian families to share with us their hums of songs and tunes about food and meals, their hums were more than about food. They were for people with whom they shared meals. The crowd-sourcing method resulted in over 120 hums and songs through which the memories and experiences of Syrian people on food, and in a broader sense, on their country, people, their hopes and dreams were captured. Our spin-off project, *From the Field* also helped us collect the intimate soundscapes of the places and spaces of individuals and their families through their video diaries on food security under the pandemic and the consequent restrictions.

#### Background

The efficiency and performance of any decision-support system is not entirely based on technical outputs. The “felt” (emotional and psychological) experience is also critical to improving implementation and uptake of any interventions, as such interventions related to food are emotional tasks.

The Syrian Humming Project focused on the experiences of Syrian academics and their families in the context of three community sites in Turkey, Jordan and Lebanon. The aim for this work was to explore, share, and commemorate personal and collective memories with a particular focus on food culture in Syria, through the collection of hums and related stories from the displaced Syrian communities.

#### Approach

Researchers collected Syrian people's humming and other related sound materials as a means to explore their experiences with food. We conducted this exploration of such memories and experiences not as a unilateral approach, where we merely analyse the collected sound materials for the sake of our project. We wanted this exploration to be a mutual one, to explore, share and celebrate personal and collective memories on food culture.

Our initial plan for achieving this aim was to collect two types of sound recordings: hums from Syrian refugee communities in three regions (Turkey, Lebanon, and Jordan) and the soundscape recordings of those sites during our visits. This plan came to a halt due to the pandemic. Our subsequent contingency plan, developed in early March 2020, was to collect hums from Syrian families who had now settled in Scotland. Thus, a series of meetings were held by Dr Suk-Jun Kim, the Humming Project lead, with officers at the Scottish Refugee Council in Dundee and Aberdeenshire to introduce the project and establish links with Syrian families and with groups of Syrian families and youth groups to introduce the project. The meetings for gathering their hums were abruptly halted when the UK went into the full lockdown in late March 2020. As a result, we decided to collect those hums and the soundscapes from the fields through a crowd-sourcing method. This method was implemented on the one hand, through research colleagues, partners and volunteers who were in those regions, and on the other hand, through another project that had interrelated research aims: *From the Field*.

#### Key messages

The crowd-sourcing method resulted in more than 120 hums and songs through which the memories and experiences of Syrian people on food and, in a broader sense, on their country, people, hopes and dreams, were captured. *From the Field* helped us collect the intimate soundscapes of the places and spaces of individuals and their families through their video diaries on food security under the pandemic and the consequent restrictions.

#### Next steps

With these rich source materials, an online exhibition of Syrian Humming Project (<http://syrianhummingproject.com>) was created, consisting of ten humming compositions based on the collected hums and soundscapes, quotes from the stories, and images of food being prepared and shared by those who participated in *From the Field*. The current online exhibition, which launched in December 2020, is its first version. In the second version of the project, and in partnership with arthereistanbul (<https://www.arthereistanbul.com/>; artistic director: Omar Berakdar), we have asked Syrian visual and sound artists who are dispersed in Turkey and other parts of Europe to respond to this online exhibition with their own artwork. By August 1, 2021, seven responses were selected (four sound compositions, two audio-visual compositions, and one collection of hums from an art centre in Turkey), which have been used to develop the Syrian Humming Project version 2, launched in October 2021.

### 3.5 Future for food security in Syria

#### Summary

The aim of this component of the project was to develop relationships, strengthen partnerships and facilitate a platform for dialogue between academics, decision-makers, practitioners and lay people, in order to integrate local knowledge, and cultural and scientific expertise, to improve decision-making and strategy development for long-term and highly uncertain futures.

Participatory scenario-planning methodologies were employed to combine knowledge and create a variety of “what if” scenarios to explore uncertainties associated with these long-term drivers of change. This transdisciplinary approach brings together diverse groups of participants with different interests/beliefs to engage in qualitative, structured long-term strategic thinking about the future. It includes the systematic examination of the history and current trends and developments that are played out in plausible ways to allow participants to challenge their own commonly held beliefs and identify potential blind-spots in thinking, which may be otherwise ignored by decision-makers.

Boden and colleagues were among the first to apply this methodology to explore the long-term future resilience and sustainability of livestock systems and agriculture in the UK.<sup>13</sup> In this project, we applied this approach to explore the future of Syrian food security and build strategic partnerships between stakeholders in Syria and Scotland, to identify influential industry drivers, explore future scenarios and develop robust contingency plans.

11 Miller, K. E., Jordans, M., Tol, W. A., & Galappatti, A. (2021). A call for greater conceptual clarity in the field of mental health and psychosocial support in humanitarian settings. *Epidemiology and psychiatric sciences*, 30, e5. <https://doi.org/10.1017/S2045796020001110>. Research methodologies which do not integrate bottom-up processes, emphasising

local expertise are arguably undermining efforts to respond to the needs of displaced Syrians.

12 Burke et al. (2021). Food security and mental health under the Covid-19 syndemic. Humanitarian Practice Network. Available at <https://odihpn.org/publication/food-security-and-mental-health-under-the-covid-19-syndemic/>

13 Boden L.A. et al. (2017). Animal health surveillance in Scotland in 2030: Using scenario planning to develop strategies in the context of “Brexit”. *Frontiers in Veterinary Science*, vol 4, no. NOV, 201; Boden, L.A. et al. (2015). Scenario planning: the future of the cattle and sheep industries in Scotland and their resiliency to disease. *Preventive Veterinary Medicine*, 121(3–4), pp. 353–364.

UK experts in scenario planning and agriculture trained Syrian and Turkish partners in participatory futures techniques such as horizon scanning and scenario planning to map drivers of change, explore long-term futures and co-create strategies to consider a broad range of options to improve both the short- and long-term resilience of food security in Syria. The aim is not to “predict the future” but rather to create opportunities for stakeholder-led dialogue about potential constraints and benefits, and to evaluate whether proposed policy and investment decisions are likely to be robust in the context of evolving uncertainties. This allowed stakeholders to share their views on how the future agriculture sector in Syria, and in their host country, might

develop in a sustainable and robust manner, not driven by excessive optimism or pessimism, and to make policy makers aware of potential side effects of decisions to mitigate these.

A scenario-planning workshop was conducted to facilitate stakeholder discussion and prioritisation of important drivers of change, agreement on the definition and characteristics of a sustainable agriculture industry and identification of stakeholder-led strategies/policy interventions to improve long-term food security. This process facilitated discussion about a shared five-year vision for food security and included strategy-development exercises to generate different policy options around livestock restocking, recovery of assets, land

rights, access to markets, increasing social capital, promotion of knowledge, technology innovation and exchange, and development of education and training programmes. This should increase technical competence and capacity at a local level to address short-term stakeholder-felt needs.

### Background

Agriculture is still considered an important part of Syria’s economy and is important for the country’s future self-sufficiency. Capturing stakeholders’ visions for the future of agriculture in Syria is now critical and timely, as attitudes and beliefs towards producing and consuming food will have changed considerably over the long duration of the conflict.

### Approach

Scenario-planning methodologies were employed to explore uncertainties associated with long-term drivers of change and to create a vision for the future of food security. Scenario planning is a transdisciplinary approach, which brings together diverse groups of participants with different interests/beliefs to engage in qualitative, structured, long-term strategic thinking. We drew on previous work that systematically explored the history and prioritisation of important drivers of long-term trends and developments in food security in the region as a starting point for this exercise.<sup>16</sup>

Participatory workshops were held to facilitate stakeholder discussion and agreement on the definition and characteristics of a future vision for a sustainable agriculture industry through consideration of the following focal question:

*“What is a desirable future for food security in Northwest Syria in five years’ time?”*

Although a “Whole-of-Syria” approach was acknowledged to be pragmatic, the geographical scope of the focal question was narrowed to consider only Northwest Syria, to reflect the expertise and sphere of influence of the participants in the discussion, as well as the variability and specificity of the region with respect to agricultural production.

A “SWOT” (strengths, weaknesses, opportunities and threats) analysis was linked to strategy development exercises, which generated a number of policy options around livestock production, land use, promotion of knowledge and technology innovation, and exchange and development of education and training programmes to increase technical competence at a local level to address short-term stakeholder-felt needs.<sup>17</sup>

A detailed discussion of social, technological, economic, environmental and political drivers was conducted in 2019 at a roundtable discussion on the future of food security in

fragile and conflict-affected states.<sup>18</sup> A summary of critical uncertainties for the future of food security in Syria are presented in Table 1. Of these, three themes: displacement, natural resource management and agricultural policy, were considered by participants as the critical axes underpinning any future scenario.

### Key messages

- Relevant, context-specific and interdisciplinary sources of intelligence may be neglected or excluded from intergovernmental, third sector and local initiatives, NGO- or government-led social and development programmes.
- The aim of this work is to highlight the potential role and contributions of Syrian academics, and to facilitate a platform for dialogue between academics and practitioners, in order to integrate local knowledge with cultural and scientific expertise to improve strategy development and prioritisation for long-term future planning.
- The emphasis of that dialogue is not to predict the future, but rather to create opportunities to discuss potential constraints and benefits, and to evaluate whether proposed policy and investment decisions are likely to be robust in the context of evolving uncertainties (Figure 1). As one participant highlighted, “It’s difficult to make plans even for the next six months in Syria.”
- In this workshop, participants employed such a framework to explore uncertainties associated with long-term drivers of change according to three axes: displacement, natural resource management and agricultural policy, in order to articulate a vision for the future of food security over the next five years (Table 1).
- Participants stressed the importance of harmonising and centralising data curation, management and information sharing to ensure a coordinated approach in the region.
- Affordable, accessible and acceptable locally led interventions to improve agriculture and food security from production to consumption were proposed across a series of themes. Among these were: crop and livestock production, other agricultural enterprises and land and water management (Table 2).
  - Community-based actions should be incentivised and integrated into sustainable institutional arrangements capable of countering displacement and low connectivity. This includes a graduation from relief initiatives to those focused on sustainability, self-reliance, cost recovery and empowerment of women.
  - Technological change improves natural-resource management when supported by an institutional framework structured around transnational and local efforts (e.g., networks of agricultural knowledge).

**TABLE 1. CRITICAL UNCERTAINTIES** (reproduced from Boden, et al. 2019<sup>14</sup>; Boden et al. 2021<sup>15</sup>)

A. HIGH IMPACT AND UNCERTAINTY (MODIFYING OR UNDERPINNING DRIVERS)

DISPLACEMENT	NATURAL RESOURCES	AGRICULTURAL POLICY
<ul style="list-style-type: none"> <li>• Lack of access to academic expertise that is no longer in country and cannot return.</li> <li>• Lack of access to veterinary services.</li> <li>• Increased role of women in the workforce.</li> </ul>	<ul style="list-style-type: none"> <li>• Increased water poverty: reduced groundwater levels and replenishment sources for safe drinking, sanitation, irrigation.</li> <li>• Dependency on water sources outside Syria (in Turkey) and elsewhere for replenishable water supply.</li> <li>• Preservation of natural-resource heritage (i.e., genetic resources and seeds from loss Syrian forests).</li> </ul>	<ul style="list-style-type: none"> <li>• Market forces (prices, value chains, agriculture as a private rather than public good).</li> <li>• De-regulation and absence of strong institutions responsible for standards and certification of agricultural products (inputs such as pesticides, fertilisers etc.).</li> <li>• Emergence of privately run and owned businesses.</li> <li>• Increase in black markets, counterfeit drugs and agricultural inputs.</li> <li>• Changing donor-funding priorities.</li> </ul>

B. LOWER IMPACT AND UNCERTAINTY (MODIFYING OR UNDERPINNING DRIVERS)

DISPLACEMENT	NATURAL RESOURCES	AGRICULTURAL POLICY
<ul style="list-style-type: none"> <li>• Competition from expatriate experts: China, Russia, Iran, to develop markets for their populations, exacerbating “brain drain”.</li> <li>• Kinship networks: sources of income, communication and expertise.</li> </ul>	<ul style="list-style-type: none"> <li>• Trade-offs between natural environment, agricultural machinery and transport infrastructure (i.e. availability and cost of fuel, inaccessible or damaged road networks (due to security threats), old machinery etc).</li> <li>• Fire hazards (resulting from conflict activities).</li> <li>• Climate change: increase in greenhouse gas emissions; extreme weather events such as drought, flooding; changes in distribution of pathogens, pests, vectors and hosts/ reservoirs of infectious disease.</li> </ul>	<ul style="list-style-type: none"> <li>• Land ownership and tenure in response to Legislation #10, i.e. availability, access, use for agriculture, ownership (state or private).</li> <li>• Movement of people across porous borders.</li> </ul>

14 Boden et al. (2019). Global Health and Food Security in Fragile and Conflict Affected States (FCAS) Syrian Academics and their Role in the Future of Food Security for Syria. Available at [https://www.ed.ac.uk/files/atoms/files/ghafs\\_fullreport\\_eng\\_jan20.pdf](https://www.ed.ac.uk/files/atoms/files/ghafs_fullreport_eng_jan20.pdf)

15 Boden et al. (2021). Syrian Food Futures: Visioning for the future of food

security in Northwest Syria One Health FIELD Network 2021. Available at [https://static1.squarespace.com/static/5fa3d6390e27d76c3131e8cb/6228454f0083ce69900aa8a2/1646806353109/SFF\\_SPRReport\\_fullreport\\_2022.pdf](https://static1.squarespace.com/static/5fa3d6390e27d76c3131e8cb/6228454f0083ce69900aa8a2/1646806353109/SFF_SPRReport_fullreport_2022.pdf)

16 Boden L.A. et al. (2019). Global Health and Food Security in Fragile and Conflict Affected States (FCAS) Syrian Academics and their Role in the

Future of Food Security for Syria. Available at [https://www.ed.ac.uk/files/atoms/files/ghafs\\_fullreport\\_eng\\_jan20.pdf](https://www.ed.ac.uk/files/atoms/files/ghafs_fullreport_eng_jan20.pdf)

17 Boden L.A. et al. (2022). Syrian Food Futures: Visioning for the future of food security in Northwest Syria

18 Boden L.A. et al. (2019). Global Health and Food Security in Fragile and

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- The links between food security, agricultural production, and local and international markets, should be explored at the intersection of a conflict-driven institutional landscape, the economic determination of long-term contingency planning, and the impacts of chronic global emergencies, e.g., COVID-19, climate.
- The connectivity and resilience of Syrian food systems is addressed in terms of the constitution of sites of local knowledge-sharing about the culture and history of agriculture, food access, production, preparation and behaviours. These networks of agricultural knowledge form the basis for sector reconstruction, by counteracting conflict- and economic-driven deterritorialisation.

- The scenario-planning workshop was a unique opportunity to facilitate dialogue between academics, researchers, practitioners and decision-makers with multi-disciplinary expertise working towards food and health security in Syria. It prompted the development of strategic guidelines for a situated re-imagining of Syrian food futures, by questioning the legitimacy and relevance of the scenario-planning rationale itself, relative to the specificity of Syria.

#### Next steps

1. Understand and trace the tensions between emerging paradigms of global public policy (state dynamics) prompted by the COVID-19 and climate-change

emergencies, and collective actions occurring at the community level – linking knowledge networks into a pathway of food security (One Health) innovations.

#### 2. Re-imagine an agriculture network pathway.

- a) Recognise the gendered nature of knowledge production/creation/transfer and of the appeal to agricultural innovations.
- b) Horizontally connect local, transnational (displaced Syrians) and external (non-Syrian) expertise.
- c) Vertically connect academic knowledge and local lore.
- d) Refound Syrian higher education around principles of knowledge co-creation and the critical assessment

of international guidelines (exigencies) on food security innovations.

- e) Co-construct a One Health framework for the Syrian specificity as a means to scaffolding Syrian higher education.
3. Determine the reach and impact of the resulting networks of (gender-critical) agricultural knowledge into various instances of institutional decision-making.

**TABLE 2. PROPOSALS FOR LOCALLY APPROPRIATE INTERVENTIONS TO IMPROVE AGRICULTURAL INNOVATION**

CROP PRODUCTION	LIVESTOCK PRODUCTION	OTHER FORMS OF PRODUCTION	LAND MANAGEMENT	WATER MANAGEMENT
<ul style="list-style-type: none"> <li>• Climate-smart practices.</li> <li>• Increase land yield where appropriate.</li> <li>• Crop diversification (e.g., Azola cultivation for fodder/grass).</li> <li>• Support for winter foraging crops.</li> <li>• Improve crop yield, methods and irrigation (e.g., crop rotation) to increase land fertility.</li> <li>• Plant crops suited to climate and geographical conditions (e.g., barley as fodder, alfalfa where enough water).</li> <li>• Support strategic industrial crops, such as cotton and beet, to support farmers.</li> <li>• Use of new seed varieties.</li> <li>• Improve nutritional value of crops.</li> </ul>	<ul style="list-style-type: none"> <li>• Support for extension services which are now lacking (to rebuild trust between farmers and experts).</li> <li>• Focus on fodder-crop production for livestock.</li> <li>• Strengthen local markets, and marketing practices to give farmers access to greater market capability.</li> <li>• Reduce pressure on grazing land through fodder improvement.</li> <li>• Implement vaccination campaigns to reduce risks of animal disease outbreaks.</li> <li>• Improve access to artificial insemination to improve productivity.</li> </ul>	<ul style="list-style-type: none"> <li>• Beehive/ bee breeding, breeding of silkworms.</li> <li>• Cottage industries: yoghurt and cheese production.</li> <li>• Strengthen local markets, and marketing practices to give farmers access to greater market capability.</li> </ul>	<ul style="list-style-type: none"> <li>• Agroforestry approaches for sustainable development, conservation and rehabilitation in post-conflict times.</li> <li>• Support communities to utilise secondary plant products).</li> <li>• Encourage tree-planting (to support soil health) and other forms of sustainable re-purposing of land after camps are removed.</li> <li>• Support efforts to improve biodiversity and conservation.</li> <li>• Reduce pressure on grazing land through fodder improvement.</li> </ul>	<ul style="list-style-type: none"> <li>• Collect and conserve rainfall.</li> <li>• Early warning systems to anticipate and prepare for drought.</li> <li>• Restore water/ irrigation canals – develop new technology systems for irrigation.</li> <li>• Use of alternative energy sources (solar, biogas) and new technologies to support grey-water recycling.</li> </ul>

**FIGURE 1. A VISION FOR THE FUTURE OF FOOD SECURITY IN NORTHWEST SYRIA IN THE NEXT FIVE YEARS** (reproduced from Boden et al. 2021)

- **Increasing stability** and security in majority of regions within Syria; reduced frequency of security risks.
- **Return of externally displaced Syrians from host countries** (Turkey, Jordan, Lebanon and Iraq) – dependent on political change and increased trust in government over time.
- **Return of internally displaced people** to their homes with new skills in food production.
- **Development and integration of local knowledge (by academics, practitioners and organisations)** into policy pathways and decision-making processes.
- **Support for new businesses and economic development** opportunities for returning displaced people.
- **Strengthening pipelines of expertise and data-driven approaches** to decision-making.
- **Closing gaps in trust between policy makers and people** to facilitate implementation of policy-decisions.
- **Return of donors**, such as **World Bank**, which facilitates mobilisation of people and products.
- **Infrastructure** in place for effective decision-making and support for animal, plant and environmental health and security.
- **Access to international markets** and enhancement of local markets for agricultural products and food supply chains.
- **Climate-smart farming practices** that are driven by community-led decision-making.
- **Self-determined policy and decision-making** that is balanced between community- and state-led.
- **Access by farmers to fair distribution of resources.**

## 4. COVID-19 Impact

The declaration of the COVID-19 pandemic in March 2020, and the subsequent restrictions and regulations imposed by governments around the world, had a significant impact on the delivery and outcomes of the SyrianFoodFutures project.

Foremost, the pandemic had a notable effect on food security, influencing research participants' access to food, healthcare, employment and financial status. As such, it affected participants' responses to interviews and questionnaires, and meant that interviews and questionnaires needed to be adapted to more relevant Covid-19 impacts, e.g., border closures shifting focus to food access and loss of markets.

The health and safety of researchers, research participants and beneficiaries were of the utmost priority in this project. Travel from the UK to Turkey, Lebanon, Jordan and Iraqi Kurdistan was nearly impossible throughout the project and project work had to take place remotely and online. Instead, we needed to develop innovative remote ethnographic methods to obtain data, including:

- Survey interviews that would have otherwise been conducted face-to-face were conducted via WhatsApp.
- Research participants were invited to send in video diaries they had filmed. Travel restrictions influenced the equality, diversity and inclusivity experienced within the project.
- Survey interviews over WhatsApp required participants to use phone cards and access to a smartphone.
- Sharing food diaries offered participants increased agency within the research project with respect to the types of data they wanted to share – something that is not typically achievable in traditional ethnographic methods where external researchers come into a community to collect data and then leave. However, these diaries may have presented a selective view of life under lockdown.
- Online workshops were not limited by access to different geographies, and real time translation capabilities meant that participation could be widened, but:
  - Subtle social cues, which normally inform face-to-face facilitation, were more difficult to identify, changing the dynamics of discussion.
  - Fatigue, associated with extended periods of working online, meant that these workshops were shortened and activities adapted to improve the quality of participation.
  - Simultaneous translation became more complex via Zoom, requiring breakout groups to be split into “English speaking only”, and “mixed English and Arabic speaking”.
  - Workshop organisers prepared materials for circulation to participants for comment in advance, improving stakeholder engagement.
  - Introverted participants were able to contribute via online messages, improving their experience.

Despite these limitations, the unintended positive consequences of online interactions meant it was still feasible to collect robust, rich and highly relevant data and to provide a supportive and more equitable research environment during a challenging time. Research personnel commented:

“People wanted to talk and have someone to listen to them. All participants understood that we were contacting them to fill out a survey, and still felt the need to share their story, what they are going through and the challenges they were facing, just for the sake of talking.”

## 5. Discussion and Conclusions

Stories of the Syrian conflict and its impact on food culture have been documented through narratives (i.e., the telling of stories, allowing stories to be heard, etc.). However, certain memories and experiences may be excluded, rendering important emotional and psychological dimensions or responses invisible to planners and decision-makers.

In this project, we attempted to document a local, culturally appropriate and scientifically robust evidence-base to underpin decisions about food-security interventions and social-development programmes combining lessons learned from traditional and historical approaches with new technologies and expertise to inform best-practice guidelines for Syrian agriculture. Concurrently, we explored existing knowledge gaps (based on literature, interviews and focus groups) to understand the differences between cultural needs and rights, and scientific inputs necessary for decision-making.

Through facilitated discussion and a series of structured processes, all partners, despite power asymmetries, had an opportunity to participate and make an equitable contribution to dialogue that would otherwise traditionally be restricted to scientists and government civil servants. Scenario-planning and other related activities conducted within this project facilitated the creation of a new knowledge network and empowered individuals to take responsibility and interest in these issues. Data derived from scenario-planning (i.e., priority risks to health/welfare; industry drivers of change; scenario narratives and stakeholder impact assessments) was used for strategic planning and delivery of a stakeholder-led foresight report on Syrian's view of the future of food security in Syria, which identified and prioritised strategic interventions, education, training and research activities.

A unique feature of this project was the complementary, participatory artistic interventions, which included collecting music and hums of tunes related to food production and

consumption, to stimulate debate and further insight about social, historical, ethical and cultural impacts of food system shocks, and resultant acute and chronic food insecurity. This element of the project will inform current and future individual

and collective mechanisms for various healing processes and the different dimensions of the impact of the conflict on food security, which is being shared within families, schools and communities in Turkey, Lebanon and Jordan.

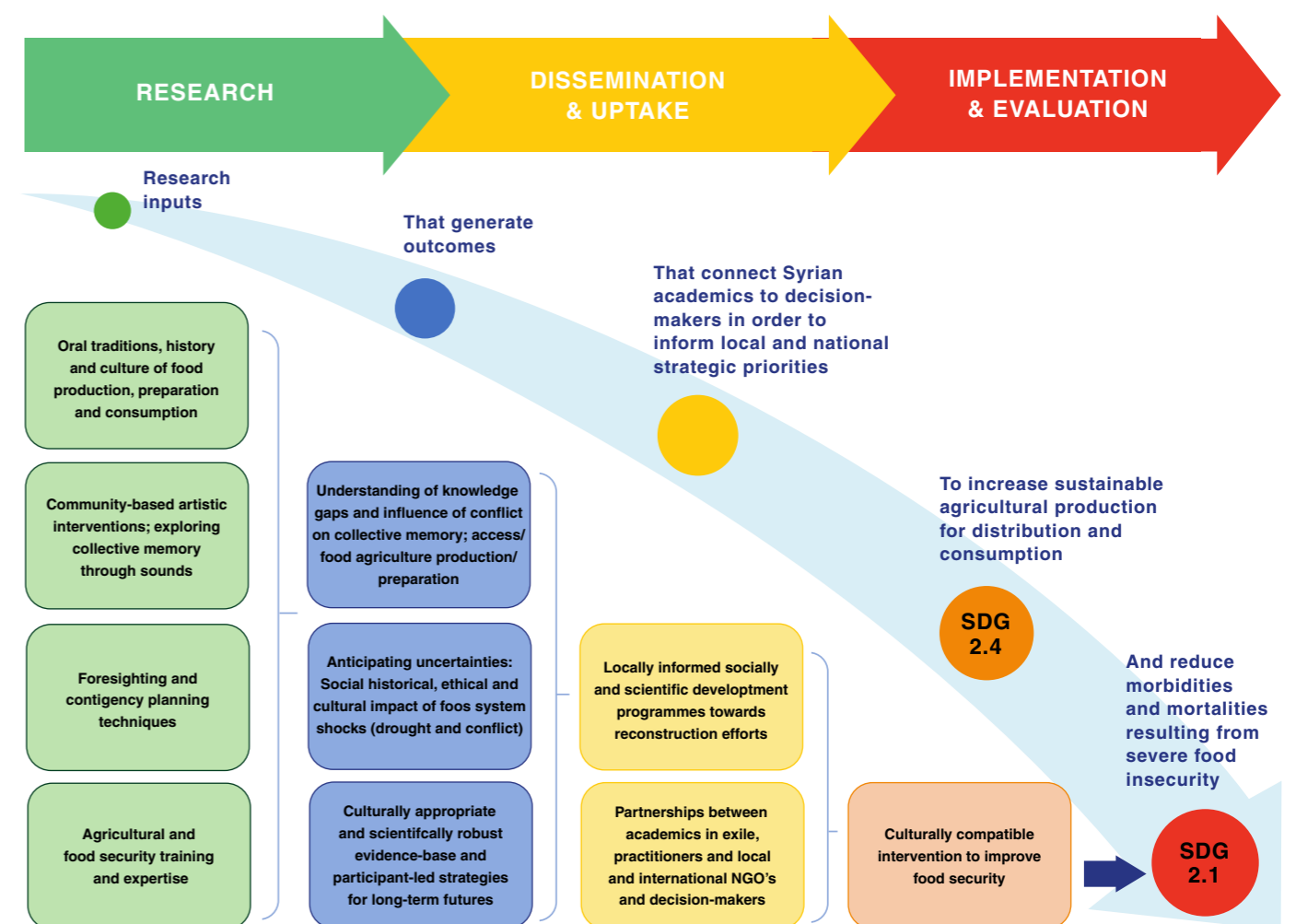
## 6. Impact

The ultimate impacts of this project were to:

- Capture individual and group-level data and knowledge about practical, cultural and emotional impacts of the conflict on food access, production and preparation.
- Build local interdisciplinary research capacity and expertise in qualitative and quantitative techniques, including foresighting and strategic planning.
- Bring together (online) a geographically dispersed Syrian academic community (located in Syria, Turkey, Iraqi Kurdistan, Lebanon and Jordan) in order to connect them with transboundary public – private organisations involved in food security so that local cultural and technical expertise is included in future strategic planning efforts for Syria.

- Establish longer term UK-Syria-Turkey research networks, so that Syrian academics in exile can horizon-scan, mobilise resources and research partnerships to respond to future funding opportunities.

It is increasingly recognised that, whilst higher education institutions are often targeted during periods of conflict, they also have the capacity to be part of reconstruction efforts. There is currently a wealth of local knowledge, connection and expertise offered by Syrian academics in exile, a major part of Syria's intellectual and cultural capital that has been largely ignored by the intelligence-gathering and analysis activities informing humanitarian responses to the crisis.



This project strengthened partnerships and extended a network of expertise that has been developed between local displaced academics, practitioners living in Syria and surrounding refugee host countries such as Turkey, Jordan and Lebanon, and research partners in the Universities of Edinburgh, Kent and Aberdeen (through our project partner Cara Syria). The project also strengthened interdisciplinary working relationships within the Cara Syria network of Syrian academics, living in exile in Turkey, where the greatest number have sought refuge.

## 7. Recommendations

The long-term legacy of the project lies in the scalability of its outcomes. Creating sustainable communication pathways at the science-policy-industry interface, complemented by capacity-building in knowledge-brokering and foresighting expertise, means that as this network grows, members can apply these approaches themselves and train others to use them to address food security or other long-term strategic questions in the future. Immediate benefits include:

1. Access to a network of diverse UK-Syrian-Turkish expertise that can sustainably connect with decision-makers in local and INGOs to identify priorities in research, training and education; provide a robust evidence-base which should inform and improve delivery of locally compatible food-security interventions and direct future research funding agendas.
2. Access to foresight training to create a “futures toolkit” for Syrian academics to utilise in other contexts and prioritisation of the critical drivers for the future of the Syrian agriculture (specifically crop and livestock production).
3. Support-provision for science policy communication and knowledge exchange. This will include delivery of a stakeholder-led foresight report on the future of food security in Syria, which will identify what strategies are needed, by whom they will be implemented and how they will perform against a range of future conditions.
4. Widening participation to Syrian non-academics through public engagement activities (e.g., Syrian Humming Project with arthere space in Istanbul).
5. Identification and co-construction with the Cara Syria Programme and relevant NGOs, education, training and future research priorities for implementation in future phases of the project, subject to funding opportunities.

## Appendix.

### Publications

Boden L.A., Wagner (now Zuntz) A., Abdullateef S., Al Kaddour A. (2020). *Community-led responses to COVID-19 are a matter of urgency in Syria. (NA). COVID-19 Perspectives.*

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Klema M. (2020). *A Crisis within a Crisis: Investigating the Economic Domino Effects of COVID-19 on the Food Security of Displaced Syrians.*

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