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Governance and Cooperation over Food and SDG 2 in the Arab Region

Dr Martin Keulertz and Dr Rabi Mohtar

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Dr Rabi Mohtar

Dean of the Faculty of Agricultural and Food Sciences, American University of Beirut

Dr Rabi Mohtar is the Dean of the Faculty of Agricultural and Food Sciences, American University of Beirut, Lebanon. He is also the TEES Endowed Professor at Texas AM University, College Station, USA. He is the Founding Director of Qatar Environment and Energy Research Institute (QEERI). He was also the inaugural Director of the Global Engineering Programs at Purdue University, Indiana, US. Dr Mohtar focuses on conserving natural resources (including land, water, air and biological resources) that face global challenges such as increasing food and water supplies for a growing population. He has published over 200 publications, including peer-reviewed articles, refereed conference proceedings and book chapters



Dr Martin Keulertz

Assistant Professor and Director of the Food Security Programme, American University of Beirut

Dr Martin Keulertz works as Assistant Professor in the Food Security Programme at the American University of Beirut, which is the only regional graduate studies programme in the MENA region on food security. He teaches MSc students on food security issues facing the MENA region and the world. His research interests centre around strategies for food and water security in the MENA region and how a rapidly growing region can address its future food requirements through sustainable and adapted domestic production, food technology innovation as well as agricultural trade.

Executive Summary

◇ The Arab region is one of the most food import-dependent regions in the world, and land and water scarcity will further increase the need for more food imports in the future. At present, 33 million people in the region are undernourished.

◇ Enduring conflict, prolonged drought, climate change, resource scarcity and population growth have taken a heavy toll on food security in the region. Achieving Sustainable Development Goal (SDG) 2 (end hunger, achieve food security and improved nutrition and promote sustainable agriculture) is therefore a political imperative for decision-makers across the region.

◇ SDG 2 is about more than just food and nutrition security. It is also about improving governance to bring the region together. The Arab region can learn from other regions such as Latin America, Europe and East Asia, to collaborate on food to eradicate hunger and undernourishment.

◇ In the aftermath of the food crisis in the 1970s, several regional and international organisations working on food security were established. However, at present these organisations often lack either funding or political support. Nevertheless, a governance architecture is in place in the Arab region. By making existing governance structures fit for the future, the Arab world could transform its future food and nutrition security.

◇ Arab countries should equip the regional food company Arab Authority for Agricultural Investment and

Development (AAID) to purchase a global commodity trader. Commodity traders ship and distribute food around the world, provide finance to farmers in key producing regions, provide agricultural inputs such as seeds and fertilisers and conduct food processing activities. At the moment, agricultural traders are comparatively affordable. Owning a trader could enable the region to become a key player on the world market and achieve economies of scale in relation to food imports.

◇ Innovative concepts such as the water-energy-food nexus could further close the gap to meet future demand for food in the Arab world. Local production can be enhanced through increased resource-efficiency practices. Innovative technologies could enable the region to use its solar energy potential to desalinate water to grow food in even desert areas. For this purpose, a food production innovation fund should be established involving all Arab countries to induce cooperation over new technologies.

◇ Pooling of resources such as subsidies can provide important environmental and political benefits, which can foster transnational collaboration.

◇ Moreover, traditional diets in the Arab world are profoundly more resource-efficient. Resource-efficient diets could enable the region to reduce its resource demand by rediscovering healthy traditional diets. A regional strategic framework with common targets for all countries could support efforts in this area.

The Issue

Regional cooperation and governance over food security will need to play a fundamental role if the Arab world wants to end hunger and achieve food and nutrition security by 2030, as set in the UN Sustainable Development Goal (SDG) 2 on 'zero hunger'. This will require strengthening existing but partly defunct policy institutions. Moreover, subsidy regimes will have to be harmonised alongside upscaling technological innovations based on the water-energy-food nexus (see Box 1). Finally, the Arab world should rediscover traditional diets to fill the gap in supply and demand of food.

In 2015, the United Nations agreed on the 2030 Agenda for Sustainable Development. At its heart are the 17 Sustainable Development Goals (SDGs), which provide a call for action to multiple stakeholders worldwide.¹ The goal 'to end hunger, achieve food security and improved nutrition and promote sustainable agriculture' has been placed high on the agenda, as goal number two.

At present, around 33 million people in the Arab region are undernourished.² Enduring conflict, prolonged drought, population growth, climate change and resource scarcity may lead to an increase of this number in the coming years and decades. Achieving SDG 2 is a political imperative of great importance, not least because it serves as a basis for social peace in the Arab region. Yet it is also one of the most difficult

challenges the region faces due to severe land and water constraints to produce food: the region is the world's largest net-food importer and will remain so in the future.³ However, the region also possesses a range of opportunities to address food and nutrition security by seizing joint governance opportunities to manage food. At the moment, regional cooperation over food security is nearly absent.

This EDA Insight is divided in three parts: first, it describes a vision of the 'desired state' in food security and nutrition in the Arab world. It highlights various goals that a regional governance framework on SDG 2 can achieve. It also shows which governance mechanisms can be most effective by using examples from other world regions such as Europe and Latin America.

Second, the paper critically examines the current gaps in addressing SDG 2 in the Arab region by analysing presently existing governance frameworks and the state of cooperation in the region. It highlights the strengths and weaknesses of existing governance arrangements, which largely stem from the 1970s – a time when food prices were sky high on the world market.⁴

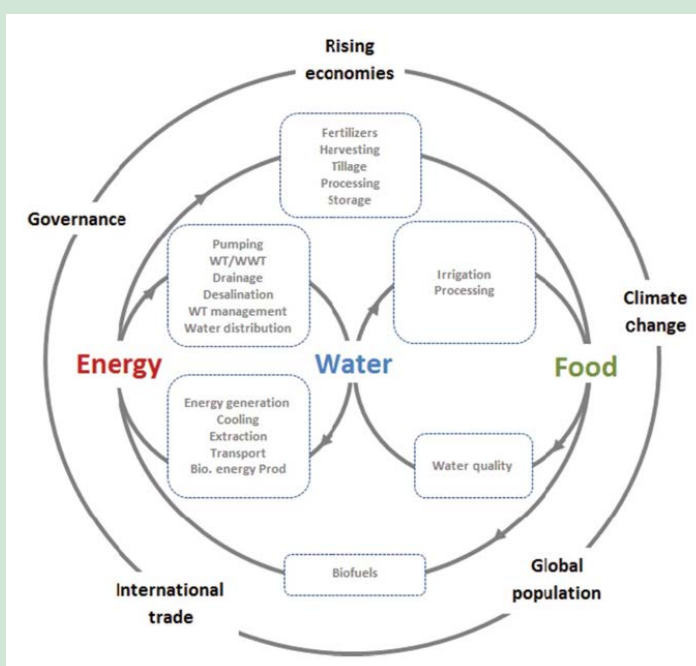
Finally, this Insight provides recommendations on how to leverage the potential of regional governance and cooperation in four key areas, namely trade, technological innovation and investments, subsidies and diets. It shows where new public-private partner-

Box 1: What is the Water-Energy-Food Nexus?

Food production requires water and energy; energy production requires water and so forth. In recent years, the scientific community has understood that water, energy and food are interdependent systems, which need to be managed in an integrated way to achieve synergies and improved outputs.

For instance, Australia's Sun Drop farms mark an example of producing vegetables using the WEF nexus in practice. Sun Drop farms are Australia's leading tomato producer, which the company achieves by desalinating sea water with solar energy to produce 30% of all tomatoes on the driest continent in the world.

Source: Mohtar and Daher, 2012.



ships are needed and what role governments like the United Arab Emirates (UAE) can play to provide future leadership. In short, the paper suggests that it is time for the Arab world to rethink how it grows, shares, consumes and trades its food.

The 'Desired State' of Regional Cooperation on SDG 2 and Best Practices from Other World Regions

The Arab region has to set itself an ambitious goal: no one should suffer from food insecurity by 2030. This is the vision we put forward in this policy paper. At present, the Arab world is far away from regional food self-sufficiency. In particular, the non-availability of sufficient areas of arable land and water scarcity remain the main bottlenecks for domestic and regional food security. As a result of domestic natural resources scarcity, most of the food consumed in the Arab world is imported from other regions, making the Arab region highly dependent on the world market. For example, cereal imports have increased by about 15% in the past twenty years.⁵

Decision-makers in Arab countries were reminded of their vulnerability when global food prices spiked in 2007/08 and 2010/11 when social unrest followed on the streets of the Arab world. Food price spikes contributed to the so-called Arab Spring after 2011 making food security a political imperative for social peace on many governments' policy agendas.

This sets out the challenge for achieving SDG 2: the Arab region has to rely on global food markets on which it presently has little influence and on increased domestic production.

Regional governance on SDG 2 can play a crucial role in addressing this vulnerability in relation to food security in three ways:

- Despite scarce land and water resources in the Arab region, regional approaches can help manage agricultural systems using best environmental practices and making use of Arab smallholders to manage them. Rivers and groundwater can be managed in a regional context to achieve the most beneficial comparative advantage. For example, Egypt and Sudan could work together on the Nile to allocate water to areas where better soil is located and where land and water can be used to produce more food with less resources.

- Regional pooling of food subsidies could leverage production and storage on the regional level. At present, the Arab world has a flurry of subsidy systems. For example, while Lebanon provides almost zero subsidies to its farmers, Syria has a long tradition of subsidising the agricultural sector. Pooling of financial resources could help decrease cross-border competition and enable food to be produced where the highest returns are possible. For example, if subsidies were pooled, a country like Syria where land is more abundantly available could focus on field crops such as wheat, while Lebanon could place its production emphasis on fruits and vegetables.
- Regional cooperation over food trade can enable the Arab region to become a much stronger stakeholder on the world food market. At present, all countries procure food individually through their governments or private sectors. This leaves smaller countries with less market power than they could have if they were pooling resources with their bigger Arab partner countries. If the Arab world were purchasing bulk commodities together, it could achieve lower procurement prices due to its large demand.

The Arab region can learn important lessons from other parts of the world. For example, Latin America and the Caribbean halved its population affected by hunger between 1990 and 2014. While in 1990, 68.5 million people or 15.3% of the population in Latin America and the Caribbean were undernourished, this number was reduced by 60%, to 27 million people or 6.1% of the population in 2014, making it the only region to achieve the goal of 'halving the percentage of people suffering from hunger' set for 2015 by the Millennium Development Goals (MDGs).⁶

This success story was driven by a policy focus on family farming and their diversified agricultural production patterns: family farms in Latin America produce highly diverse crops such as legumes, beans, maize, vegetables and fruits. Latin America's success is based on increasing domestic yields and is considered a global success story.⁷ The Arab region could learn from this success story by providing small farmers with subsidies on a regional level.

This would then mirror the European example. The European Union (EU) has pooled its agricultural sector since the 1950s by providing subsidies to farmers, liberalising trade within the EU to allow farmers to export to any market within the EU and investing in rural areas to strengthen the socio-economic sustainability of the countryside within Europe.⁸ Although the Common

Agricultural Policy has been met with severe criticism, it has provided Europe with food security for the past 60 years. Especially, cooperation over agriculture has provided European countries with institutional frameworks to cooperate politically, which has been a key element in sustaining peace and security for the longest time in its history.

More recently, the rising powers of Asia have established food traders with a focus on global markets. Food traders are economic agents that fulfil several functions. They not only trade food but also purchase and distribute grain and other agricultural commodities, such as for example palm oil.⁹ Moreover, they raise livestock and produce animal feed. They also produce food ingredients such as starch and glucose syrup, vegetable oils and fats for application in processed foods and industrial use. They also engage in financial services for farmers to provide credit and to manage financial risk in the commodity market. Food traders have been described as key companies in the global economy despite not being very well known.¹⁰

The crucial role of traders has been understood in Asia. For example, Temasek Holdings (the Singaporean government holding company) purchased the majority shares of the Singapore-based agricultural trader Olam in 2014 to increase its presence on the world food market. In the same year, the Chinese sovereign wealth fund COFCO purchased Hong Kong-based Noble Group. These policy measures seek to replicate US and European traders such as the ABCD companies (see Box 2),¹¹ which control 75% of global cereal trade. China and Singapore are seeking to establish similar companies to increase their role in global food trade in the coming decades. To follow Asia's example, the Arab region could establish a regional initiative to purchase a trader of its own.

Box 2: What is Meant by the ABCD Companies?

The companies referred to as the ABCD companies are:

Archers Daniels Midlands (US) – Revenues of US\$ 64.34bn (2018)

Bunge (US) – Revenues of US\$45.74bn (2018)

Cargill (US) – Revenues of US\$114.7bn (2018)

Louis Dreyfus (France) – Revenues of US\$36.5bn (2018)

Source: Authors' own research.

Status of Current Cooperation and Food Governance Frameworks

There are several organisations working on food security in the Arab world (see also Table 1). These organisations were largely established in the 1970s as a response to the oil crisis. At this time, driven by an OPEC-imposed oil embargo to support the Palestinians, food prices spiked even higher than in the first decade of the new millennium. In the aftermath, several organisations addressing food security in the Arab world were established, mainly led by Gulf Cooperation Council (GCC) member governments, including Saudi Arabia, UAE, Kuwait and Bahrain.¹² Countries on the arid Arabian Peninsula realised their vulnerability stemming from low food self-sufficiency and high dependence on global markets.

Today, these institutions still exist and have interesting mandates that could be expanded for the coming decades. The Arab Authority for Agricultural Investment and Development (AAAID) and the Arab Organisation for Agricultural Development (AOAD) were intended to provide support for food security. AAAID especially provides a framework for cooperation. All Arab countries are stakeholders in the company. The GCC countries, Iraq, Sudan, Egypt, Algeria and Morocco hold most of the shares, presently valued at about US\$1.1bn, and contribute capital available for investments in food manufacturing, plant and livestock production and food services in Sudan.¹³

At the time of the AAAID's establishment, Sudan was considered to be the most promising agricultural net-exporter if capital investments were made in its agricultural infrastructure. This perception stemmed from Sudan's unrealised use of the Nile water, of which it had been allocated 25% by the Nile Treaty in 1959. Sudan never fully utilised this share and, given its low population and an availability of fertile land, it offered itself as an 'untapped breadbasket' for the entire Arab world.¹⁴ However, due to decreasing food prices on the world markets, governance issues such as corruption and domestic political problems such as revolutions, both Sudan's role in regional food security and Arab food security institutions have remained less effective than they could be.¹⁵ Most of the intended investments either never happened or were not well-maintained.

The Arab world also possesses several research organisations of significant potential. AOAD for example can be described as an Arab version of the Food and Agriculture Organization of the UN (FAO). Established in 1970 under the umbrella of the League of Arab States, it functions as a research and statistics organisation across the region.¹⁶

Table 1. Arab and International Organisations Working on SDG 2 in the Arab Region

Sources: Authors' own research

Organisation/Headquarters	Purpose/Mission	Strengths/Weaknesses
Arab Authority for Agricultural Investment and Development (AAAID) , Khartoum and Dubai	AAAID seeks to provide the Arab world with basic food commodities through investment. 22 Arab countries provided US\$1.1bn in 1976 to mainly invest in Sudan to produce basic food commodities such as cereals for human consumption and as animal feed.	AAAID possesses a governance structure that encompasses all Arab states, yet the main shareholders are the GCC countries, Sudan, Egypt, Iraq, Algeria and Morocco. All other Arab countries own very limited shares. Only half of the money has been invested thus far, with Sudan being no longer the 'perceived breadbasket' due to high population growth, soil degradation and water insecurity.
Arab Organisation for Agricultural Development (AOAD) , Khartoum	'Arab FAO' under the umbrella of the League of Arab States, established in 1970. AOAD collects and publishes agricultural data on all Arab countries.	AOAD has strong expertise on markets, agricultural statistics and policy. However, it is an under-funded organisation with decreasing impact on the regional level. Khartoum as the headquarter city is also increasingly politically volatile.
International Center for Biosaline Agriculture (ICBA) , Dubai	Research centre established by the Islamic Development Bank (IsDB), the Organisation of the Petroleum Exporting Countries (OPEC) Fund, the Arab Fund for Economic and Social Development (AFESD), and the Government of the UAE. Main focus of work is to produce food in marginal environments through improved technology and crop management.	ICBA has strong scientific expertise in growing crops under conditions of saline water and soil, with a highly renowned but small team of international researchers. It lacks expertise on markets, gender, policy, economics and social sciences overall. It also has a limited project portfolio due to a focus largely on Arab Gulf States where food security challenges are unique.
International Center for Agriculture in Dry Areas (ICARDA) , Beirut	ICARDA is a CGIAR centre with a strong focus on semi-arid and arid areas, established in 1977. The mandate of the centre spans from the Arab region to other dry areas in Central and South Asia, as well as Sub-Saharan Africa.	Equipped with world-class scientists from around the world, ICARDA hosts one of the most important global seed banks, which has been replicated in Norway and Lebanon since the former headquarters in Aleppo has been under siege and destroyed by Syrian war parties. Funding could be increased to help private and public sector stakeholders in agriculture to leverage its knowledge.
International Food Policy Research Institute (IFPRI) , Washington D.C. and Cairo	IFPRI was established in 1975 to conduct research on food policy reform to address malnutrition, rural development, gender and development and later climate change. The Cairo office serves the entire Arab region.	IFPRI's regional office conducts research on rural development and policy reform in the Arab region, including subsidy reform. It has a strong economics focus, with the aim to provide quantitative advice to governments. However, it is still a small office with little leverage across the region

Table 1. Arab and International Organisations Working on SDG 2 in the Arab Region (continued)

Organisation/Headquarters	Purpose/Mission	Strengths/Weaknesses
League of Arab States (LAS) , Cairo	Formed in 1945, the League's main goal is to draw closer the relations between member states and co-ordinate collaboration between them, to safeguard their independence and sovereignty, and to consider in a general way the affairs and interests of the Arab countries.	LAS mainly partners with international organisations to address food and nutrition security issues in the region. Yet, it has not been able to provide significant regional governance on food and agriculture as of now.
UN Economic and Social Commission in West Asia (UNESCWA) , Beirut	Established in 1973, UNESCWA is the most important UN regional commission. The commission brings together stakeholders from governments, private sector and NGOs to facilitate dialogues on the SDGs.	UNESCWA has published an important body of literature on Arab food security in the past decades despite having only a small team working on food security. It receives significant donor interest, which provides funding for food security measurement and monitoring. Given the political turmoil in the region, some countries have imposed travel restrictions on government representatives, making Beirut a somewhat difficult host city.
Food and Agriculture Organization of the UN (FAO) , Rome and Cairo	Established in 1945, FAO is the UN organisation in charge of agriculture and food and nutrition security. The regional office is located in Cairo.	FAO has a global mandate to address food and nutrition security. Given the recent focus on food and nutrition security in Asia and Africa by international donors, the Arab world may not have received sufficient attention.
World Health Organization (WHO) , Geneva and Cairo	WHO is the directing and coordinating authority for public health within the UN system. The WHO Regional Office for the Eastern Mediterranean is one of WHO's six regional offices around the world. It serves the WHO Eastern Mediterranean Region, which comprises 21 Member States and Palestine (West Bank and Gaza Strip).	The Regional Office provides emergency assistance to countries facing conflict and to refugees. Moreover, it works on healthy diets, tobacco prevention and non-communicable diseases such as diabetes. Given the recent waves of conflict in the region, WHO is often consumed with emergency responses as opposed to long-term policy advice.

The Arab region also hosts research centres of the Consultative Group on International Agricultural Research (CGIAR), which function as an international research collaboration on food security. The International Center for Agricultural Research in the Dry Areas (ICARDA) is headquartered in the Arab world. It is one of the world's key research centres for farming in dry areas. Its technical expertise is of global relevance, especially since ICARDA hosts one of mankind's key seed banks for dry areas, which helps farmers in these areas produce food with improved seed technologies.¹⁷

The International Food Policy Research Institute (IFPRI)

has a regional office in Cairo, where it covers issues around food policy and rural development.¹⁸ IFPRI advises governments on economic issues around food security such as subsidies or global food markets. Moreover, the International Water Management Institute (IWMI) has its regional head office in Cairo. The scientists at IWMI work on improving water management in agriculture to make efficient use of available water resources in the region.¹⁹

The International Center for Biosaline Agriculture (ICBA) is a more recent institution dedicated to production of food under marginal conditions.²⁰ All these research

institutes are poorly linked to each other, often serving only their domestic markets. This has hindered regional progress in scaling up research across the region.

In addition, there are important international organisations covering SDG 2 with a presence in the region. The UN Economic and Social Commission for Western Asia (UNESCWA) in Beirut serves as the regional UN commission for fostering dialogue amongst stakeholders in government, NGOs and the private sector in the areas of economic development and integration, statistics, natural resources, gender and women issues, social development, technology for development and governance and conflict issues. Dialogues on food security and SDG 2 are part of UNESCWA's agenda. These dialogues are intended at promoting regional food trade as intra-Arab food trade has never reached its full potential, hampered by tariffs and regulatory differences.²¹

The FAO serves the Arab region by making use of international donor money to support SDG 2. The FAO's mandate serves similar purposes as in other developing regions: to promote the smallholder base to increase domestic production.²² However, the FAO has not had a strong focus on activities that promote regional cooperation on SDG 2.

The World Health Organization (WHO), in turn, addresses issues around health, including non-communicable diseases derived from food consumption such as diabetes, cardiovascular diseases and cancer, by monitoring and early-warning systems, and implementing policy action frameworks together with national governments.²³ The WHO also developed a regional strategy on nutrition for the period of 2010-2019. Its aim was to improve the nutritional status of people throughout their life-cycle through encouraging countries to reposition nutrition as central to their development agenda according to their national situation and resources. The strategy also served as a framework to assist countries to decide which nutrition actions were appropriate for a particular context and according to the most prevalent health problems to contribute to achieving the targets of the MDGs. It also addressed emerging issues of overnutrition to overcome increasing rates of obesity and diet-related noncommunicable diseases.²⁴

The most suitable organisation for the governance of food is arguably the League of Arab States (LAS). However, despite the Sustainable Development Unit at LAS convening ministerial meetings on food security and the organisation partnering with FAO on food security, there is significant room for upscaling its

activities on SDG 2. For example, the collaboration between FAO and LAS has a budget of merely US\$500,000,²⁵ which is very small compared to the task ahead on governing food security.

Recommendations

Meeting SDG 2 is a very crucial policy area for which the Arab world is not sufficiently prepared as of now. The region's countries could, however, in theory rely on existing organisations that could very well aptly help address SDG 2. This policy brief concludes with four recommendations on how to increase cooperation over food security in the Arab region and on how to improve regional food governance so as to achieve SDG 2.

1. Increase the private sector's role in trade:

The Arab world is highly dependent on world food markets, yet it does not have a trader operating in the private sector. However, food security today is an area strongly influenced by the private sector. We therefore propose that the financially strong Arab countries increase funding for AAAID to turn it into a global food trader. This would mean purchasing an existing trader in the Northern Hemisphere because these companies have already existing contracts with farmers in key agricultural regions of the world such as North and South America. Establishing an Arab trader would increase the region's trading role globally, which means it could use its existing infrastructure such as Dubai's Jebel Ali (the ninth largest port in the world): food would have to be shipped through the port and the region could get a grip on food prices and therefore increase food security.

However, not all traders are public companies: the world's largest trader Cargill, for example, is a family business, not available for purchase. Louis Dreyfus is also a private company owned by the Dreyfus family. ADM and Bunge, however, are US-based public companies that can be purchased. While ADM has a market capitalisation of approximately US\$23bn, Bunge stands at US\$13bn, thus both companies could be acquired for comparatively 'little money' if compared to the social and political benefits that could be achieved through increased food security.²⁶

Delegating food security to the Arab private sector could also bring a boost for the existing institutional framework in the Arab world. Equipping an Arab company with sufficient funds to play a global role would also mean that research organisations would become more

important to back up private sector activities, providing jobs for the young generation. Finally, especially the GCC countries already possess very significant trade infrastructure in the form of ports, storage facilities and food manufacturers, which would also see a boost as the result of increased trade.

2. Upscale and invest in resource-efficient and sustainable technologies:

Although the Arab world has a limited availability of arable land and water, it can make use of technologies inspired by the water-energy-food nexus (WEF Nexus) to increase resource efficiency. For example, Arab countries have access to an abundance of solar energy that could be leveraged to desalinate water to produce food. Moreover, the WEF Nexus provides highly important opportunities for scaling up technology in the Arab countryside, where most of the poorest people in the region reside as small farmers.²⁷ It is therefore not just a technological concept of high utility but also one that could mitigate social inequalities across the Arab world.

In addition, the WEF Nexus can provide opportunities for regional integration: if the interdependencies of resources are fully understood, countries could collaborate on determining how to most efficiently use resources. The need for such collaboration is especially acute where water resources are of transboundary nature, such as areas with river basins or groundwater aquifers. For example, Egypt and Sudan could cooperate not just over the Nile but also over energy and food production to maximise resource returns.

Other innovations such as climate-smart agriculture or plant-based and cultured meat innovations could fill important gaps to achieve SDG 2. Climate-smart agriculture is a set of integrated but diverse principles that aim to increase resource efficiency. The key areas of climate-smart agriculture are water management, crop tolerance to stress, intercropping, organic inputs and conservation agriculture.²⁸

However, these principles require further investment in research and development across the region, hence they depend on improved funding for academic and other research institutions in the Arab region. Such investment could be made possible through an innovation fund spearheaded by UAE capital but also involving other countries' capital. Given that food innovations are amongst the most promising capital investments at the moment, such investments could pay off within years through new patents in food sciences that can be marketed to other world regions also faced by high population growth and limited natural resources.

3. Pool subsidies on the regional level:

The key bottleneck in the Arab region is the lack of sufficient political will to place food security on a higher level of priority so as to identify joint opportunities. As a result, governance among governments on food is weak, which acts as an obstacle to achieving similar results as in Latin America, Europe and East Asia where political collaboration has been proven to be successful.

Especially the lack of coordinated subsidies for farmers, such as producer support and crop insurance schemes, leads to poor outcomes across the region. For example, while Lebanese farmers receive little or no support, Syrian farmers have received producer support and input subsidies by the government. This has led to a situation in which Syrian farmers are often more competitive in terms of costs than their Lebanese counterparts. As a result, Lebanese produce may be too expensive for the consumers to purchase and therefore may end up as food waste.²⁹ At the same time, due to a lack of food quality screenings, Syrian produce may not satisfy quality standards. Such inefficiencies are problematic in a region where resource scarcity prevails. Managing agriculture from a regional perspective can in fact reduce inefficiencies and make every drop of water used in the most productive way.

The organisation most suitable for such purposes would be the League of Arab States, yet its political importance has decreased in recent years.³⁰ However, it could play a key role in harmonising subsidies and trade across the Arab region to meet the challenges of SDG 2 in the coming decades if it was equipped with a stronger political mandate and increased financial resources targeted on food security.

Pooling resources is a political challenge as it would mean a new way of supranational collaboration. However, achieving food and nutrition security is in fact an excellent opportunity to induce new ways of joint political governance and cooperation as all countries in the Arab region are facing the same predicament of an uncertain food future.

4. Strengthen traditional diets:

Earlier in 2019, the EAT-Lancet Commission comprising 22 leading interdisciplinary researchers on food and the environment published its findings on how to feed a growing world population using fewer natural resources and through healthy diets. The findings show that mankind can only be fed sustainably if diets shift from carnivore to flexitarian (semi-vegetarian) diets with a strong emphasis on wholegrains, legumes, nuts and seeds and vegetables and fruits.³¹

Such a diet is very close to the traditional Mediterranean diet that has been consumed by generations of Arabs for millennia. Hence, by changing diets from the Western pattern rich in meat and dairy to the traditional Arab pattern high in legumes, fruits and vegetables, nuts and seeds and little meat, the demand side could be curbed in a way that the world (including the Arab world) can be fed sustainably by 2050.

Moreover, this diet can also address the increasing problem of obesity in the Arab world and associated health impacts such as non-communicable diseases in the form of diabetes, cardiovascular diseases and cancer. The Arab world suffers from among the highest rates of obesity in the world with about one quarter of the population – double the world average – being obese. In the GCC countries, this share rises to around half of the population. Women are particularly affected, hence the challenge also involves a gender dimension.³²

Changing the existing diets would also aide the production side by allowing farmers to produce more sustainably. Conservation agriculture for example relies on three principles: no-tillage (mechanical agitation of the land) of the land; using cover crops such as mulching for covering the soil; and crop rotation between cereals and in particular legumes to improve soil health. If diets are adapted to higher consumption of legumes and wholegrains, farmers could more easily introduce climate-smart agricultural methods to grow food that positively impacts food availability and food utilisation through healthier diets.

In terms of regional cooperation and governance, revising the WHO's 2010-19 strategy on nutrition according to SDG 2 with clear targets for all countries to revise their national dietary guidelines to improve diets could serve as the basis for a new governance mechanism led by WHO, UNESCWA and FAO and involving national governments, academia, civil society organisations and the private sector to identify clearly measurable targets and results for an SDGs-aligned 2030 agenda in the Arab region on nutrition.

Conclusions

Combined, implementing these four policy recommendations could significantly support sustainable food and nutrition security in the Arab world. It would allow the region to address SDG 2 through using existing governance structures, making them fit for the future and connecting them with novel concepts to ensure a prosperous and healthy future for the Arab region.

However, success will depend on political will and thus political leadership. The UAE, as a country that places food security and sustainability high on its agenda, could increase its regional impact by placing SDG 2 on the forefront of its regional foreign policy agenda and, by doing so, play a forward-looking role in bringing the region together. The UAE could provide funding for a regional food innovation fund that addresses integrated solutions based on the WEF nexus principles. Such political leadership could also bring financial and geopolitical returns.

Moreover, the UAE could also increase its leadership by strengthening the activities of LAS on food security by for example promoting the launching of a new SDG 2 forum based at LAS. This way, through fostering intergovernmental dialogue, the highly emotional topic of food could become a trigger for improved regional governance and cooperation.

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