

The Food Security Factor

Stability, Governance, and Development Choices



Dialogue Snapshot Report
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the Hollings Center
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Dialogue Summary

Food security in the Middle East and North Africa (MENA) region is viewed as one contributing factor in catalyzing conflicts in the region as well as perpetuating multiple humanitarian crises. The MENA region is the largest importer of food in the world, accounting for nearly 1/3rd of global cereal imports. Rising prices in staple foods since 2009, coupled with rising turmoil since the Arab Spring in 2011, growing water scarcity, and poorly developed environmental and agricultural policies by regional governments have all contributed to the growing food crisis. The region contains some of the highest risk countries for food insecurity, such as Yemen, in which severe water scarcity and prolonged civil conflict have combined to make Yemen the 11th least food secure country in the world. Countries like Iraq, Syria and Egypt used to be large producers of grains, but due to instability and decades of mismanaged agricultural, they have become dependent on grain imports. Growing food insecurity has led wealthier countries like Saudi Arabia to lease land in different countries to produce food, including land from some of the world's most food insecure countries such as Ethiopia. Countries such as Turkey, Lebanon and Jordan also face changing food security needs as their populations grow in part due to large influxes of refugees.

The challenges in this region foster many questions. How will the region meet the growing demand for food? What are the implications of the current political environment in the region on food security? What type of food security planning is needed in this environment? How can food security policies be implemented? What type of economic and environmental policies can support food security management?

To address some of these questions, the Hollings Center for International Dialogue, together with the University of Central Florida and the Executive Education Center of Al-Akhawayn University of Morocco, convened a dialogue in Casablanca, Morocco in September 2017. Participants at the dialogue reached several conclusions, but more importantly raised further questions, thus highlighting the intricacies and complexities that surround this critical issue. Some of the key conclusions included:

- **Food Security is politics.** Wavering political will, corruption, and poorly developed bureaucratic systems create the largest impediments to addressing food security challenges. Addressing these political barriers will be the key to creating more resilient food systems.
- **Many deployable technical solutions to food security challenges already exist.** Better crop management technologies, water usage strategies, and conservation techniques can be readily utilized today, some with minimal cost. However, **the food security challenge is not just a technical problem.** The issue generates many other sensitivities that require addressing at the same time as these technical solutions.
- National self-sufficiencies in food will no longer serve the needs of countries in the MENA region. Better developed local and regional approaches can replace outdated policies. One possible way to do this is **promote trade liberalization.** At the same time, actors need cognizance of national fears of external dependence and the risks such dependence on outside sources of food entails.
- **Emphasis should shift from caloric production to better nutrition.** Health components should be considered in the adoption of new strategies.

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What Does It Mean to be “Food Secure”?



Fruit and vegetable market in Istanbul, Turkey. Photo: Olga Kashubin.

Early on in the dialogue it became quite clear that the issue of food security and its many challenges can elicit significant sensitivities. The issue at hand is not simply a logistical or infrastructural challenge, but one that can evoke moral arguments, spark political disagreement, and affect cultural norms. A key debate during the dialogue centered on the question of what it meant to be “food secure.” The international community provides many definitions, none of which proved satisfactory to the entire group. One participant quoted the definition of the 1990 World Food Summit: “Food security exists when all people at all times have sufficient access to nutritious food to have an active and healthy life.” Another participant provided a macroeconomic definition, stating that a country was “food secure” when it could attain a status of “zero imports.” Another quantified it, stating that security was reached when “silos can be full for six months.” Others utilized definitions akin to the concept of “food sovereignty” – that “people who produce, distribute and consume food should control the mechanisms and policies of food production and distribution.”

Debates over these definitions create the first challenge in working to improve food security in the region. Setting a fixed definition normally would help define scope and scale, and thus make the challenge clearer. However, establishing a definition ultimately may be in the eye of the beholder. While a country may be “food secure” by the numbers on a national level, a household or individual may be far from it. A country resorting to imports to provide foodstuffs could suddenly find store shelves empty due to trade disputes. An entire region could discover it is one natural or man-made disaster away from a significant food crisis. With these realities in mind, discussion shifted instead to how to develop more sustainable and resilient food systems for short-term needs and long-term realities, such as the increasing effects of climate change, patterns of overconsumption and waste, and demographic shifts.

Changing Demographics and Negative Perceptions

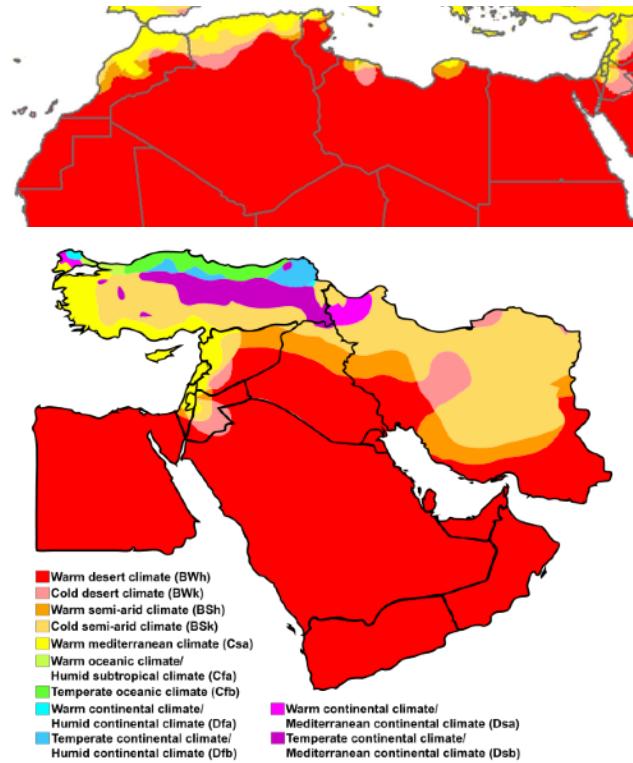
While not moribund, the agricultural sector faces significant pressure across the region, with some nations facing more daunting challenges than others. Like many other issues, food security questions are directly linked to changing demographics, which impact both the immediate and long-term outlook. Indeed, demographics are stretching the ability of many of the governments, businesses, and farmers in the region to provide nutritious food to the populace. The population of the region is increasingly young, with approximately 60% under the age of 30 according to one participant. Like elsewhere in the world, a pattern of urban migration

is underway particularly with youth, with more leaving rural agricultural areas in favor of employment opportunities in the cities. This pattern creates dual stresses on the system. Not only does it create a need for supply chains to adapt, but it also puts strain on the production side, with fewer independent or small scale farmers producing crops. The effect could be permanent without successful intervention. As one participant said, "Once people move into the city, they will not go back to the rural areas." What results in some countries is a declining agricultural sector and increased dependence on food imports. In Egypt alone, agriculture's share of GDP has dropped from 20% to 11%, according to one participant.

Agriculture as a profession suffers from an image crisis, which needs to improve in order to better the livelihoods of those who farm. The pay is often bad, resulting in inevitable poverty and making a career in agriculture undesirable. One participant noted an analogy in North Africa that highlighted the sector's negative perceptions. "Even if you grow gold, you will be poor." The resulting poverty has psychologically stigmatizing effects throughout the region in rural areas. As a result, the urban migration trend in some of these countries is exacerbated. Families prioritize education and seek better employment and subsidies found in the cities. As one participant noted, the lack of individual security in this sector is unfortunate, as agriculture is one sector that can be more resilient to societies in conflict.

Climate Challenges

The Middle East and North Africa is one of the more vulnerable regions in the world to the effects of climate change, and as a result, food systems are strained by water scarcity, land degradation, and population growth. According to World Bank Data, only 5.67% of the land in the region is considered arable. This is down from about 6.2% in 1993.¹ Most of this land is concentrated in parts of the fertile crescent around the Tigris and Euphrates (Iraq and Syria), the Nile basin, Turkey, and to a lesser extent Morocco and Tunisia.² Most of the region already falls into the Koppen climate classification of Warm Desert (BWh). Further climate change could put additional stress on the resources required for farming and lead to further desertification of land in the region. And, currently, many of the crops and livestock being raised in the region are particularly climate sensitive. One participant projected, "agricultural output could decrease 20-40% by 2080 due to high dependence on climate sensitive agriculture." Rural populations stand the most likely to be affected, further straining systems by decreasing output and accelerating urbanization trends noted above.



Climate maps of the MENA region show the challenges of agriculture in the region. Most of the region classifies as warm desert. Image Source: Wikimedia Commons.

¹ <https://tradingeconomics.com/middle-east-and-north-africa/arable-land-percent-of-land-area-wb-data.html>

² https://en.wikipedia.org/wiki/Arable_land#/media/File:Arable_land_percent_world.png

One positive item to note is that populations and governments in the region recognize that climate challenge exists. Even if somewhat skewed given the sample size, a participant cited an on-line poll conducted by the Arab Forum for Environment and Development, which showed 95% of those surveyed believed in human induced climate change. Regional frameworks for dealing with climate change exist, as governments in the region met in 2014 on a Strategic Framework for Sustainable Development. Thirteen countries have submitted nationally determined contribution (NDC) statements. But one participant warned that regional and international climate agreements have minimal value. “There is no accountability system in the League of Arab States. There is no monitoring and verification mechanism built into these structures.” Regional populations recognize this gap. 75% of those surveyed believe that their governments are not doing enough about it.

Some participants contended that one way to deal with the climate challenges is to move beyond the thinking of the “Green Revolution” of the 1960s and 1970s. The Green Revolution refers to the rapid growth and industrialization of agriculture with a focus on caloric production that coincided with the rise of Arab nationalism. This model assumes infinite growth in production in otherwise finite systems, and because climate change may decrease overall yields, some participants called for a shift of focus from increasing production toward better nutrition. Others called for adoption of more climate resilient and efficient crops. Genetically modified crops were raised as a possibility, but was not discussed much by those present. Other participants called for stricter water usage standards like those in Lebanon and the incorporation of wastewater usage techniques such as those seen in Gaza. As one participant noted, “It’s lost money to throw away wastewater” and further noted that in some crops like papyrus, wastewater and nutrients within could also increase yield. Technologies such as drip irrigation were discussed, even though this may increase the cost of production in the short term. The conclusion, therefore is that both agricultural technologies and different methodologies already exist that could mitigate climate effects, reduce loss and waste, and improve health. Changing behavior and deploying these strategies remains the more difficult challenge.

Infrastructural Challenges and Trade Barriers

Part of addressing food security on the regional, national, local, and household level requires recognition of the technical and infrastructural challenges that if addressed could provide more available food through less loss or waste. As one participant noted, “40% of harvest is lost because of inefficient business practices.” Better farming techniques, improving road infrastructure, increasing available storage, and improving refrigeration could cut down on the amount of crop loss and in turn reduce wasted energy and water to produce those crops.

Participants discussed multiple options for improvement and which entities may be best positioned for impact. Some advocated deployment of better technology, such as anti-frost technologies used in Morocco to improve on the 18% crop loss to frost. Others advocated for greater private sector investment, while at the same time some cautioned against it as a panacea to all problems. Some noted that governments need to do more. One said, “Government is trying to recover from economic crisis and agriculture is not prioritized.” Instead, domestic priority is given to attracting foreign investment and industrial trade. Another participant advocated for a more local-driven approach by creating local employment opportunities that will in turn result in infrastructure investment by communities themselves. “We found that when you plant [nut] trees beyond the main road, the farmers know that they have to move product, and they actually build the roads. Sometimes you have to create the economic opportunities first to have other things like infrastructure happen.”



Desert farm in the Arabian peninsula that highlights the extreme conditions faced by agriculture in the region.
Photo: Nullplus.

the production in the MENA region. Players in the MENA region have met about this and have set some targets to reduce food waste by 50% by 2020.” Achieving such targets will have meaningful impact.

Another method that would alleviate supply-side issues would be liberalization of regional trade for food. As one participant noted, “food security is a symptom, not the cause” of significant distrust between governments in the region. Interstate political distrust plays a role in both the immediate food security crises, like that in Qatar, and in long-term sustainability crises, such as the situation in Yemen. Adding such political challenges to existing resource and climate challenges is extremely counter-productive. International actors, such as the United States, the EU, and Russia, have not helped to remove these interstate political tensions. Corruption within and among governments further disincentivizes trade.

Some countries have turned to alternative means to secure necessary imports. Nations like Qatar, which experienced an import embargo during the diplomatic disputes between members of the GCC, found themselves suddenly food insecure. Qatar, with its financial resources, sought other trading partners. “What happened is that Turkey and Iran helped them. If you have the money, you will never be food insecure.” But some cautioned this money-food correlation. “Money will not last forever. You need to think about sustainability.”

Other countries have sought other models to bypass trade impasses. Countries like Saudi Arabia have outsourced their agricultural production directly, turning to land use in Ethiopia or Arizona as an alternative. This has led to some important ethical questions and debates, as well as its own set of challenges. Some participants were supportive of the outsourcing method, in that it combined necessary factors for agricultural development, namely investment capital, technological deployment, and efficiency of production and distribution. One participant even stated, “Business is about good ecology.” However, other participants had significant questions about the ethics of such approaches. “I think the problems with [these investments] is that they sought to gain rights to land and water. They’re not interested in engaging with local communities.” This approach also creates scenarios where market valuation does not reflect actual need. Participants cited the example of growing flowers for European export in Ethiopia as an example of disconnection from a local community that could better benefit from growing

In addition to food loss due to poor agricultural infrastructure or badly managed policies, food waste is also a major issue in the region. This occurs in a region where per capita food consumption in some countries exceeds developed counterparts. Saudi Arabia, for example ranks third globally in wasted food. On the other hand, citizens in other countries are suffering from severe malnutrition. There is a regional need to ensure that the food produced is consumed with as little waste as possible. Some countries have recognized this challenge, but better efforts in waste reduction and conservation are sorely needed. As one participant stated, “There are some credible studies that suggest the total losses in food production cycle account for 30% of

different crops. Outsourcing may be a solution, but most participants agreed that it required more transparent legal and ethical processes.

Political Will

Throughout the dialogue, participants discussed what became the central theme of the dialogue: food security is politics. Arguments in the 1960s and 1970s for national self-sufficiency in agriculture that formed the basis for most current agricultural policies came from political calculations rather than sound economics. Domestically, this led nations to implement agricultural development plans which emphasized crops which, while yielding short-term benefits, were unsustainable. In many cases these new crops and the agricultural practices employed in their production, were environmentally damaging. Development plans also produced some foods that were neither traditional nor healthy, and in some cases altered national diets in significant ways. Farmers also regularly resisted, and still do, central government dictates determining crops choices and production levels – taking economic decisions out of the hands of individual farmers.

On the international and regional levels, giving preference to national food self-sufficiency helped suppress regional trade. Some participants even argued that food trade has become over securitized in the region, even “weaponized.” In part the lack of vigorous regional trade, particularly in the agricultural sector, was attributable to rivalries and distrust. Additionally, the availability and access to food has become a powerful political tool for international actors to exert influence and for national leaders to exercise social control. In the name of maintaining the prevailing political order, the most practicable solutions are not always adopted. At the same time, in some of these countries, the rural, farming poor constitute a political constituency, which can further delay necessary reforms. This was most apparent when discussing food subsidies and trade protections. As one participant commented, some countries fall into subsidy traps. “Protection policies such as guaranteed prices and input subsidies for cereals may have negative impact on efficiency, sustainable competitiveness, and better resource allocation.” Ending these subsidies and protections risks popular revolt. However, continuing the status quo risks decreasing agricultural resiliency as resources deplete. The result too often is political paralysis.

“There is no way one single Arab country can achieve food security if they do not work regionally. The important thing is political will.”

- Egyptian Conference Participant

“There is no way one single Arab country can achieve food security if they do not work regionally,” said one participant. “The important thing is political will.” The challenge of creating political will for change was theme highlighted throughout the dialogue. It is not clear to those in decision-making positions what needs to be done. Participants noted multiple examples of times when lack of political will has stalled meaningful action that other actors are ready to pursue:

- A participant from a major European NGO outlined how a project that aimed to teach farming to refugees in Jordan was scuttled by the government, due to political concerns of using limited water resources in refugee communities.
- A member of the business community noted an example where a company was ready and planning to invest, but the lack of political and bureaucratic response prevented the investment. “We were willing to put the money up front. But decision makers were not ready for us to invest.”

Creating and encouraging political will to address these challenges, some participants argued, is the key to end the downward cycles of food insecurity in some of these countries. A lack of open spaces for debate in parts of the region is a major reason why. Supportive political systems can be beneficial in moving the issue to the forefront, identifying possible politically destabilizing concerns, and implementing solutions to the challenges. Multiple participants called for better inclusion of local communities into the decision-making process, and one highlighted the work Morocco has done in this area. As one participant outlined, Morocco created “venting systems” to alleviate tension in rural agricultural communities and better ascertain local needs. Morocco adopted a law in 2008 that decentralized agricultural projects and requires plans to incorporate the wishes of local communities into development projects. The law requires that larger companies work with local families and better communicate what is being done and for what purpose. Such transparency and political intent creates mutual good will.

Further Questions

The dialogue produced far more questions than answers when it comes to food security, not only how it is perceived as a concept, but what strategies could be reasonably considered or deployed to meet growing needs.

Rural Populations: How can “marginal environments” be better managed so that people can have sustainable and prosperous livelihoods in rural areas? How can rural income sources be diversified? How can small farmers be better linked into larger agribusiness systems?

Businesses: How can business improve their practices to not only be more efficient in regard to their bottom lines, but more responsive to the communities in which they operate? How can the gap between sustainability and development be better bridged? How can businesses be encouraged to adopt more transparent postures when dealing with governments, communities, and international organizations?

Science & Technology: How can technologies be better deployed in the region? What about genetically modified crops? How can remote sensing technologies be used and have that data better shared between countries? How can research and development be better encouraged in the region? Can institutions in the region be developed to monitor biosafety? How can improved health and better healthcare be integrated into a food security strategy?

Governments: How can tradeoffs between efficiency and resiliency be better managed? How can political leaders be better encouraged to address these challenges? Are there any good examples?

While this dialogue left many further open-ended questions, it is clear from the discussion that there are many available options for action and ideas that can be explored further. Perhaps the best course is to experiment on the micro level – in community or sub-regional levels – in order to demonstrate potential benefits and thus lower political costs of making sweeping but necessary agricultural policy decisions.

For More Information

Reports

[The Water Energy Food Nexus: An Integrated Approach to the Middle East Water Challenge](#)

The Middle East and North Africa region faces growing pressure on its water systems due to population growth, socio-economic development, security issues, urbanization, and environmental degradation. As a follow-up to this conference, the Center adopted an integrated approach known as the 'Water Energy Food (WEF) nexus' to address some of the critical development challenges the MENA region faces today and in the future. Understanding the dynamics and linkages among these three sectors is needed to understand potential opportunities, trade-offs, and synergies, and to develop integrated solutions to the growing demand for resources. The WEF approach is not without criticism, but it is increasingly being considered as a strategy to deal with issues of water, energy, and food security.

[High and Dry: Addressing the Middle East Water Challenge](#)

Often overshadowed by its political turmoil, the Middle East faces increasing environmental and resource-based challenges, such as depleting water resources. Recognizing the need to find possible collective solutions, the Hollings Center and the Prince Mohammad bin Fahd Program for Strategic Research and Studies at the University of Central Florida convened a conference to address challenges and opportunities in conservation, and analyze prospects for and obstacles to cooperation on water issues. To that end, the organizers brought together a diverse group of 20 experts that includes academics, scientists, regional water specialists, private sector representatives, and policymakers from the region and the international community. Our report presents the discussed recommendations of solutions for governments and the private sector in the region and beyond.

Videos



[Creating Solutions for Water Security in the Middle East](#)

Often overshadowed by political turmoil, the Middle East faces increasing environmental and resource-based challenges, notably its depleting water resources. Despite the gravity of the issue, many innovative ideas for solutions do exist and technological improvements provide hope for addressing these challenges.



[The Middle East Water-Energy-Food Nexus](#)

The Middle East is faced with a set of complex interrelated problems related to the water, energy, and food sectors. Understanding the dynamics and linkages between these three sectors is needed to understand potential opportunities, trade-offs, and synergies and to develop integrated solutions to the growing demand for resources. These dynamics were the focus of an expert roundtable to explore government, civil society, and private sector policy solutions to these dynamic challenges, and the outcomes of that conversation were compiled in a recent report.

The Prince Mohammad Bin Fahd Program (PMBF Program) for Strategic Research and Studies, which is supported by the Prince Mohammad Bin Fahd University Annual Fund, was established in 2012. The program is administered by the Department of Political Science in the College of Sciences at the University of Central Florida (UCF). The program sponsors or co-sponsors public presentations by distinguished scholars and practitioners, an annual forum, student fellowships and research activities. The program seeks to advance public awareness and knowledge about the United States-Saudi Arabia relationship, including bilateral relations, security, culture and the economy.

To learn more about the PMBF Program at UCF:

<https://sciences.ucf.edu/pmbfprogram/about/>
<https://sciences.ucf.edu/pmbfprogram/contact-us/>

The Hollings Center for International Dialogue is a non-profit, non-governmental organization dedicated to fostering dialogue between the United States and countries with predominantly Muslim populations in the Middle East, North Africa, South Asia, Eurasia and Europe. In pursuit of its mission, the Hollings Center convenes dialogue conferences that generate new thinking on important international issues and deepen channels of communication across opinion leaders and experts. The Hollings Center is headquartered in Washington, D.C. and maintains a representative office in Istanbul, Turkey.

To learn more about the Hollings Center's mission, history and funding:

<http://www.hollingscenter.org/about/mission-and-approach>
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