



GLOBAL VIEWS OF LOCAL FOOD SYSTEMS

Reflections on the growing worldwide local food movement

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The fatal synergy of war and drought in the eastern Mediterranean

Published online March 17, 2014

Citation: Zurayk, R. (2014). The fatal synergy of war and drought in the eastern Mediterranean. *Journal of Agriculture, Food Systems, and Community Development*, 4(2), 9–13. <http://dx.doi.org/10.5304/jafscd.2014.042.013>

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Winter is not coming to the Fertile Crescent. No rain, no snow, no cold weather. A drought has taken hold of the land. Trees have blossomed but no one knows if they will bear fruits.

The countries affected include Syria, Jordan, Lebanon, Syria, and southern Turkey where the headwaters of the Tigris and the Euphrates are located. The region is politically unstable and the scene of many of conflicts and intrigues. Since the end of WWII it has witnessed tens of coups, large-scale invasions, and occupations, as well as wars, all of which have caused repeated displacement and exodus. These countries today host, in addition to their populations, 3 millions Palestinian and 2.5 millions Syrian refugees.

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The region is also ecologically fragile and water deficient, and is expected to suffer as climate change unfolds. In this part of the world, winters are short and wet and summers long and dry. Long-term meteorological data (1902–2010) indicates that wintertime droughts are not unusual, but their frequency appears to have increased over the past 20 years. Anthropogenic climate change is believed to only partly explain this phenomenon (National Oceanic and Atmospheric Administration [NOAA], 2011).

The countries concerned are in the midst of profound agrarian transformations. They have all witnessed massive rural-to-urban migration over the past 50 years as their rural economies were transformed by the global food regime. Except for Turkey, all are today net food importers. A 2011 IFPRI study (Breisinger, Zhu, Al Riffai, Nelson, Robertson, Funes, & Verner, 2011) predicted significant declines in agricultural yields accompanying climate change. This year's drought may irreversibly damage the resilience of the landscape and have far reaching consequences on agrarian communities. It may also impact countries far

beyond the political borders of the region.¹

Each of the countries is enduring the drought in its own way. In Lebanon cumulative precipitation this year at the time of writing is at a 140-year low. It has barely reached 50 percent of the 30-year average in Beirut city. In the main agricultural region of the country, the Bekáa plain, precipitation is around 20 percent of the annual mean. This is the lowest year on record. There has been not enough snow for the winter sports stations to operate. This was devastating for the thousands of small farmers whose livelihood is diversified between tourism and agriculture. If the trend continues, there will not be sufficient soil moisture for rain-fed crops. The underground reservoirs, already overpumped, will not refill. Drinking water is in short supply in all urban centers, where basic services have been overstretched by one million refugees from the Syrian war.

Jordan took its name from the river that now runs almost dry. A *National Geographic* article published a few weeks ago asked whether the mystic river could still be saved as it dwindles, while refugees from Syria keep flowing into Jordan (Schwartzstein, 2014). If the river can be saved, it won't be by this year's rains.

Precipitation so far is below 35 percent of the long-term average. This comes at a time when the country has to deal with over 600,000 Syrian refugees (UN High Commission for Refugees [UNHCR]), in addition to 1.9 millions Palestinian refugees (IRIN, 2010) and 30,000 Iraqi asylum seekers. Water shortages are expected to devastate the largely irrigated agriculture in the Ghor valley on the East bank of the River Jordan, and to have serious impacts on other sectors. The people of Jordan have been

¹ For linkages between worldwide water security and U.S. national security see, for example, the U.S. National Intelligence report *Global Water Security*. available at http://www.dni.gov/files/documents/Newsroom/Press%20Releases/ICA_Global%20Water%20Security.pdf

praying for rain since early February (Freij, 2014).

Turkey's farmers are concerned by the low amount of precipitation and snow the country has received this year. Snow, needed to strengthen to the wheat crop, has been absent from many regions. Rainfall has failed to meet expectations in the mountains feeding the Tigris and the Euphrates in eastern and southeastern Anatolia. The region had received 40 percent less than the long-term rainfall average (Salacan, 2014) in January, which is usually the wettest month. A decline in the flow of the rivers will pose a threat to the two downstream countries: Syria and Iraq.

Nearly half the water used in agriculture in Syria originates as surface water, mainly from the Tigris, Euphrates, and Orontes (which originates in Lebanon). Underground water from aquifers fed from the Turkish mountains form a significant part

of the remaining irrigation water, especially in the farming regions of Al Hasakeh, Al Raqqa and Al Jazeerah in the northeast of the country. The drought will further damage the resilience of the people who have stayed behind, and who are not on the distribution list for food aid. The World Food Program, which already distributes rations to 3.7 million people, estimates their number to be 500,000 (More than 500,000 in Syria without food aid: WFP, 2014).

These farming communities rely on whatever the land produces to survive.

This is not the first drought in Syria in recent times. Since the beginning of the 20th century, Syria and its neighboring countries have experienced six major droughts. According to Peter Gleick (2013), a writer on climate issues, these were droughts where precipitation was less than one third of the long-term yearly average. And they may become more frequent. In a paper published in 2010, Skaf and Mathbout present their analysis of 50-year rainfall data in selected regions of the north, north central and northeastern region of Syria. They report "an increasing tendency in annual and

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seasonal drought intensity in 15 regions from North, East and Central Syria corresponding with an increasing dry days number in rainy season” (Skaf & Mathbout, 2010, p. 112).

The last drought struck between the years 2006 and 2011, just as the Bashar Assad regime opened the country and engaged in economic liberalization after decades of planned protectionist economy. After the economic opening, according to the IFPRI study cited above, Syria became a net importer of food commodities such as rice, maize, barley, and poultry.

In the poor hinterlands, such as the agricultural region of Al Hasakeh bordering the steppic rangelands, total crop failure caused by the multiyear drought affected up to 75 percent of farmers and herders. A joint UN-ACSAD study (Erian, 2011) reported that pastoralists lost around 85 percent of their flocks, which were sold at a quarter of their cost. The story was repeated in the rain-fed northeast of the country, as well as in the middle north and in the southwest. This drove millions of small farmers and rural folks into extreme food insecurity; over a million people left the countryside. A survey of drought-affected regions showed that only 10 percent of houses in villages surveyed were occupied, mostly by old people and children. While men migrated to Lebanon to seek employment, many women went to work in the packing plants of Tartous on the Syrian coast, where they suffered from chronic exploitation and abuse, leading to systemic social dislocation.

The 2006-2011 drought is widely credited by academic and mainstream writers to have catalyzed the insurrections and fed the war,² as the moral economy of the autocratic Baath regime collapsed without concomitant amelioration of civil and

² See for example the “One-stop list of resources on Syria, drought, climate change and unrest,” retrieved March 12, 2014, from <http://climateandsecurity.org/2014/01/23/updated-one-stop-list-of-resources-on-syria-drought-climate-change-and-unrest/>

political liberties or standards of living. In true neoliberal fashion, a handful of people became richer while the masses experienced reduced access to basic commodities and services. Regime cronies increased their reach and control over farmland as subsidies were slashed. Agriculture, which accounted for 25 percent of GDP in the year 2000 and employed 40 percent of the workforce, according to the UN-ACSAD study, went into freefall,

reaching 14 percent of GDP in 2010 (Al Munayyar, 2014). Disenchanted and disaffected rural residents and jobless urban refugees formed the human base of the contestation, which rapidly degenerated into violent armed confrontations. They also became the cannon fodder of the war. The estimated death toll of the Syrian war has exceeded 150,000,³ and 2.5 millions people have been displaced.

The areas that were most strongly affected by the drought were also the hotbeds of the insurrection. They are today under the domination of armed groups, some of which are linked to Al Qaeda.

The official data-collection infrastructure has been disrupted by the war. Informal reports indicate that, depending on location, rainfall could be up to 80 percent lower than last year. According to the data I was able to scrape together from news reports, the declines in the area planted in the 2012–2013 season were 83 percent for wheat and 86 percent for barley, compared to the previous season. Yield dropped by 33 percent for wheat and 14 percent for barley. The crop production share of the GDP fell by 40 percent and animal production share by 50 percent.

It may sound frivolous to raise the issue of drought and of the demise of the Syrian farm sector in the midst of a devastating war. Drought, it may seem, should be the least of our worries when there are people to protect from violence and death. There are at least three reasons why action

³ Approximate figures as the UN stopped updating the death toll of the Syrian war in January 2014.

Every possible effort must be deployed to prevent the collapse of Syrian agriculture. Should this happen, the impact will be irreversible and catastrophic in the long term.


on the drought in Syria and the region is important today: First, a state of protracted conflict imposes on relief agencies the need to identify and locate the most vulnerable groups in order to address issues of food security. Drought will obliterate the resilience of food-producing communities isolated by war. Overlaying the map of conflicts over the map of droughts will help target efforts in order to maximize the impacts of aid programs.

Second, disaster management practitioners agree that the best time to build preparedness is during a crisis, especially since the Syrian war shows no signs of receding. Research (before the war) by IFPRI showed that yield reductions due to climate change of up to 50 percent in strategic crops were to be expected by 2050 (Breisinger, Al-Riffai, & Wiebelt, 2013), with rural households set to suffer the most. With war acting as a multiplier, the worst is to be expected.

Third, every possible effort must be deployed to prevent the collapse of Syrian agriculture. Should this happen, the impact will be irreversible and catastrophic in the long term. Take Iraq for example, which was, like Syria, one of the cradles of settled agriculture. The poorly thought policies of the “modernist” Baath regime made the sector vulnerable. The two Gulf Wars, the protracted siege, and the U.S. invasion all but annihilated Iraqi agriculture. The oil-for-food program dealt the final blow to the local production systems by flooding the markets with cheap foodstuffs. Small farmers exited the system, and from being a food producer, Iraq has become a major importer of food, and its agricultural sector is wide open to exploitation by multinational corporations.

In the parched Eastern Mediterranean, climate fluctuations are chronic, and traditional farming systems are adapted and resilient. However, extreme events can wreck havoc and cause social and political instability. Environmental historians are only starting to unravel the relationship between climate and historical events. In a recent book on the subject, Sam White (2013) shows how the Celali rebellion of 1595–1610, which exhausted the Ottoman Empire and had far-reaching consequences, was in part triggered by a Little Ice Age which brought extreme cold and extreme drought to region of Turkey and Syria. Hole (2007) ana-

lyzed archeological and historic data from Al Hasakeh in Syria. He found that the region witnessed ebbs and flows of human settlements from 7000 BC till modern times, due to the combinations of wars, conquests, droughts, and unsustainable land use.

Enriched by this new knowledge, agencies must include creative approaches to sustaining farming communities across the Syrian territory in their aid operations. This will have longer-term impacts than exclusive reliance on the distribution of food rations in a region plagued by conflicts, occupations, and recurrent droughts. 

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