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The Immediate Climate Threat Is Water Scarcity, Not Rising Sea Levels

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Reuters

When it comes to explaining how [climate change](#) will harm future civilization, many media outlets ([including this one](#)) tend to focus on hurricanes or rising sea levels. These are natural topics to generate interest in the heating Earth – the mental image of a city overrun with briny water, like New Orleans after Katrina, is charged with worry and doom.

But what the media should be focusing on is not the ocean but the land, specifically how dried out vast regions are becoming and the major effects it's having on societies. Intense droughts influenced by climate change are happening now, devastating farmers, causing mass migrations, and perhaps even contributing to the recent uprisings in the Middle East.

Arguing that the media should pound less on rising sea levels might not be appropriate when talking with somebody from [the Pacific islands](#), or any other low-lying area that's anticipating nasty flooding. But the most punishing impacts of sea-level rise – excluding, perhaps, its [debilitating amplification](#) of tidal surges as with Superstorm Sandy – isn't expected to occur until later in the century. Meanwhile, many researchers say that climate change is [actively worsening droughts](#) and shriveling up access to water for hundreds of millions of people.

"When talking about what the greatest threats are that we face with climate change, I would put right at the top drought and water availability," says meteorologist Jeff Masters, who I spoke with recently. Masters, who co-founded the [Weather Underground](#), finds it understandable that reporters don't rush to the site of droughts as much as they do for whirling cyclones: It's not like

descriptions of hardened mud and wheat slowly dying in the field makes an intrinsically great narrative. "It's not as exciting; people don't run away from giant droughts like they do with hurricanes."

But droughts are "what will be causing the greatest trouble," Masters says. "Throughout history, that's what caused many civilizations to fail," from the [Mayan Empire](#) to the ancient kingdom of [Egypt](#).

There's evidence the parching of the planet is already helping sow chaos across the Middle East. In the years prior to the Syrian conflict, for example, a historic drought that NOAA linked with climate change had decimated up to three-quarters of crops in the country's growing regions. That forced an exodus of roughly 1.5 million farmers and herders into the cities, injecting more unrest among crowded urban populations.

"We can't say climate change caused the civil war," Francesco Femia of the D.C.-based Center for Climate and Security recently told the [Washington Post](#). "But we can say that there were some very harsh climatic conditions that led to instability."

Femia also believes that droughts were partial motivators behind the government-toppling Arab Spring revolts. She explains:

We looked at a number of different dynamics. Troy Sternberg, Sarah Johnstone and Jeffrey Mazo looked at [the impacts of climate change in Ukraine and Russia](#) and how droughts in those parts of the world in 2010 may have contributed to a wheat shortage. That, in turn, led China to purchase a lot of wheat on the global food market [which led to spikes in the price of food worldwide].

Again, they don't claim that the price spikes caused the revolution in Egypt or Tunisia. But they do look at how those prices spikes led to parallel bread protests in Egypt in particular. The point here is that the proximate cause of the protests that led to [Egyptian President Hosni] Mubarak's downfall may have been the response to the earlier Tunisian revolt. But the broader appeal of that movement in rural areas may have been partly due to the fact that bread prices were high. The Egyptian government tried to use subsidies to keep the price of bread down, but that didn't affect rural areas.

All this is a lead-up to point out that new research on Monday predicts that even in an optimistic warming scenario, up to [500 million people will be subject to water scarcity](#) by the end of the century. In a more-dire scenario it could mean 1 billion lives experiencing water deprivation, mainly in North Africa, parts of Asia, the Mediterranean and (great news!) the Middle East. As one of the researchers at the Potsdam Institute for Climate Impact Research put it, "Our findings support the assertion that we are fundamentally destabilizing our natural systems – we are leaving the world as we know it."

Top image: A girl looks up as she stands at a dried well in a village of Weining county, Guizhou province, in March 2013. More than one million people in Guizhou and Gansu provinces are facing a drinking water shortage due to two lingering droughts, according to Xinhua News Agency. (China Daily / Reuters)

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