

Finding the next famine

March 9 2015, by Julie Flaherty

Last year, Christopher Hillbruner, N07, had 10 countries on the front burner, all in danger of boiling over. In Central America, drought and an epidemic of coffee rust had reduced crop yields and driven down wages, making it harder for people to feed their families. South Sudan's outlook remained dire, with 2.5 million people expected to be in food crisis in early 2015, thanks to the protracted conflict. And then there was the Ebola outbreak in West Africa, which, in addition to the thousands who will die from the virus, could leave an estimated 1.3 million people without enough to eat.

"It's going to be a busy year ahead," he says.

Hillbruner is the decisions support advisor for the [Famine Early Warning Systems Network](#) (FEWS NET), an organization tasked with monitoring the most precarious food situations in the world. Its mandate is to predict which populations are most in danger—of crop failure, of [food crisis](#), of starving to death—in the next six to 12 months. The forecasts help governments and humanitarian organizations decide where they will focus their efforts and resources.

FEWS NET, a project of the U.S. Agency for International Development (USAID), was created in the wake of the mid-1980s famines in West Africa, Sudan and Ethiopia that killed as many as 1 million people. Aid poured into the region, but not before a world of shocked onlookers asked, "Why didn't we see this coming?"

So Hillbruner and his colleagues watch and warn. Predicting hunger is

not as simple as forecasting the weather, although that is a big part of the calculation. Rainfall, snowfall and sea and surface temperatures affect farmers' ability to grow crops, raise livestock, fish or forage for food. FEWS NET partners with other agencies to gather the facts. The National Oceanic and Atmospheric Administration contributes remote sensing data from aircraft and satellites to track hurricanes, earthquakes, erosion and flooding, as well how farmland is being used. NASA and the U.S. Geological Survey provide similar bird's-eye view information, including land and sea temperatures.

In addition, FEWS NET employs 85 technical professionals in offices in locations most likely to need help around the globe. Mostly nationals of the countries they cover, these analysts report on such matters as the price of sweet potatoes at a local market in Burundi, the average daily wage for a worker in urban Niger or how often households in Malawi are relying on charcoal production to make ends meet.

FEWS NET puts it all together to make a prediction, showing where the greatest need will be in the next six months. It takes special knowledge about each location to decide how much weight to give each variable. In Central Asia, FEWS NET spends a lot of time looking at snowfall in winter, as it will provide the irrigation for crops when it melts. In northern Uganda, the health of livestock markets is a bellwether of hunger levels. In some places, household crop production is a strong indicator of food security, but not always.

"What is often more important to poor households is wage labor, whether on other people's farms or from mining or other sources," Hillbruner says. Then, even if their crops fail, people might still be able to purchase food.

Words Matter

The result is like an oracle's prediction, but much less cryptic. In fact, one of Hillbruner's biggest contributions in his five years at FEWS NET has been his work with the global food-security community to make the vocabulary for talking about severe hunger crystal clear.

"In the past, you would have one agency calling it famine, one calling it an emergency and one calling it a crisis," Hillbruner says. "And it wasn't always apparent—particularly to decision-makers and donors—are people really saying different things, or are they saying the same thing and just using different words?"

FEWS NET, along with other leading humanitarian agencies, now uses and promotes a scale with very specific definitions. A "crisis," phase 3, means that 20 percent of households can meet their minimal food needs only by selling off livestock or other assets. (FEWS NET predicted last year that 15 places in the world could reach that level by March.) When even selling off belongings isn't enough, that region is considered in phase 4, "emergency."

For "famine," the worst level on the scale at phase 5, "we deliberately set the bar higher," Hillbruner says. The word "famine" is always cause for alarm, and in the past, aid agencies have brandished it when they needed to draw attention to a particular situation—perhaps even when they shouldn't.

"People who are advocating for a given crisis are going to make that crisis sound as bad as they can," Hillbruner says, hinting at the damage that can be done when NGOs cry wolf too often. FEWS NET, on the other hand, can be impartial and makes all its reports publicly available on its website, because, Hillbruner says, "we have no other stake in the game."

The last time FEWS NET declared a famine was in 2011, in Somalia.

Many people thought that a similar declaration would be made about South Sudan in 2014, but FEWS NET disagreed, even as it called for immediate response to avoid "dramatic deterioration."

Hillbruner says there is often too much weight put on famine declaration as the trigger for action. It is much less expensive—and much less deadly—to intervene before things get that bad.

"There should be urgent response starting at phase 3," he says. "If you are waiting for phase 5 to respond, you are always going to be too late."

For the most part, FEWS NET's predictions have been correct, but numbers and places are still only a rough estimate. In 2012, FEWS NET was concerned about price increases in Malawi, as it anticipated the government was going to devalue its own currency. "We made a prediction that prices were going to double," Hillbruner says. "Prices quadrupled."

There is always uncertainty in dealing with the future. And that can be a problem, Hillbruner says, because the international system of humanitarian assistance isn't that adept at dealing with uncertainty.

"If a massive earthquake happens and there is clear need right now, the international community is able to mobilize quickly," Hillbruner says. "But if you say there is a 50 percent chance that there is going to be famine in South Sudan in nine months, we are not as good at knowing what to do."

Provided by Tufts University

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