Assessing community vulnerability across West Africa.

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The COVID-19 pandemic is likely to have both immediate and long-lasting effects on food security, with uneven impacts across regions and countries due to differences in underlying patterns of vulnerability. AKADEMIYA2063 is using its eAtlas platform with data from various sources to identify locations within countries where multiple dimensions of vulnerability intersect to put populations at particular risk for severe repercussions from shocks.

We define vulnerability as the likelihood of exposure to negative food security effects resulting from the COVID-19 crisis. We construct a composite vulnerability indicator for each subnational area examined, based upon several indicators representing different dimensions of vulnerability. Each area is classified as “much less”, “less”, “more”, or “much more” vulnerable compared to the regional average. In this newsletter, we discuss vulnerability patterns in eight West African countries.

As reported in Figure 1, the values of the composite indicator suggest that vulnerability in West Africa is highest in parts of the Sahel, including northern Mali, most of Burkina Faso and Niger, and northern Nigeria. The least vulnerable areas are in western Senegal, central Mali, and southern Ghana and Nigeria, with pockets of higher vulnerability in these areas. In Senegal, Matam in the North East is the most vulnerable location while in Mali, the Tombouctou region is the most vulnerable. While near-

Figure 1: Composite vulnerability index - Geographic distribution of community vulnerability to Covid-19
ly all regions of Burkina Faso and Niger are classified as much more vulnerable than the regional average, Zinder in Niger and Plateau Central in Burkina Faso emerge as the most vulnerable regions of these countries. In contrast, the Northern region, Savanes region, and Alibori department are the most vulnerable areas in Ghana, Togo and Benin, respectively. Seven Nigerian states, mostly in the north—Bauchi, Bayelsa, Jigawa, Katsina, Sokoto, Taraba, and Zamfara—show the highest levels of vulnerability in that country, although five other states are also classified as much more vulnerable than the regional average.

A sizeable share of the population of the 8 countries, around 30 percent, live in areas which are much more vulnerable than the regional average, while 61 percent live in areas classified as less or much less vulnerable. A breakdown of national population (see Figure 2) shares as much more vulnerable than the West Africa average, a much higher share than in any of the other countries examined. In contrast, Senegal and Ghana have by far the largest population shares living in much less vulnerable areas—over 75 percent for both countries.

Every country in the world is experiencing profound effects from COVID-19; however, countries with already alarming food, nutrition and health conditions face greater risks of severe and long-lasting impacts. Given the multifaceted aspect of the pandemic, most vulnerable communities must be prioritized with programs such as social safety nets programs that reinforce the food and health security of vulnerable populations even as they work to contain the pandemic. Stunting as an indicator of longer term nutritional status and food expenditure as a reflection of current capacity to cover nutritional needs both have significant implications in terms the extent of the consequences faced by local communities should the pandemic reach their shores. This needs to be reflected in possible interventions by governments and other actors fighting the pandemic and its impact on vulnerable populations.

Figure 2: Vulnerability distribution by country

![Vulnerability distribution by country](image-url)

Note: The graph shows shares of total population living in areas with vulnerability classification values; population of areas with missing data is not included.