



COMMITTEE ON THE BUDGET

Chairman John Yarmuth

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Hearing: The Costs of Climate Change – From Coasts to Heartland, Health to Security

Climate change threatens millions of Americans unless we act now

Last month, expert witnesses told us that the [economic costs of climate change](#) will be significant. But what will these costs look like for the individuals, businesses, and communities facing severe coastal flooding and storms, decreased agricultural productivity, increased health threats, and national risks to security? To answer this question, on July 24th, the House Budget Committee will hear testimony from five expert witnesses on the impacts of climate change to coastal communities, agricultural economies, public health, and national security – and the implications for the federal budget.

Climate change puts millions of people at risk from coastal flooding and storms — Coastal homes, businesses, infrastructure, and lives are threatened by more intense hurricanes, increased flooding, saltwater intrusion into freshwater supplies, and reduced fishery productivity. [More than 300,000 residential and commercial coastal properties](#), valued at approximately \$136 billion today, are projected to be at risk of chronic tidal flooding by 2045 – even absent heavy rains or storms. Major disasters related to hurricanes, severe storms, and flooding have been getting worse, too. In the last three years, such disasters caused [more than 3,400 deaths](#) in the United States, compared to less than 200 deaths over a similar period 35 years ago. By 2050, the risk of being hit by a category 4 or 5 hurricane could increase by [275 percent](#) from 1980 levels, and [eight out of nine U.S. real estate companies](#) are already citing operational risks and costs from flooding and hurricanes in their environmental disclosures. Cumulative damages to coastal property from sea level rise and storm surge are projected to reach [\\$3.6 trillion](#) through 2100 unless we take action. The federal costs for flood prevention, flood insurance, and disaster response will grow. Flood insurance claims under the National Flood Insurance Program are already increasing, with the [six costliest years](#) all occurring since 2005, and federal spending on hurricane relief and recovery is projected to increase [33 percent faster](#) than the growth in the economy by 2075.

Climate change will further strain farmers and the agricultural economy — The changing climate will lead to heat stress in plants and livestock, reduced soil health and moisture, shifts in pollination, and greater pressure from weeds, pests, and diseases. These changes will result in [declining crop yields and livestock and poultry productivity](#), increased rates of crop failure, and [reduced food nutrition](#). For example, hotter temperatures and a doubling of water deficits by midcentury are expected to reduce [corn yields in Indiana](#) by 16 to 20 percent, reduce soybean yields by 9 to 11 percent, and double the number of livestock heat stress days. The average inflation-adjusted price of crops is projected to increase [20 percent by 2050](#). Planting alternate crops, new farm and soil management practices, and emerging technologies can help farmers

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adapt but come at a [cost for agricultural communities](#) already under significant financial pressure. The federal government will also absorb additional costs. For example, climate change could increase crop insurance costs for corn, soybeans, and wheat by [40 percent](#) by 2080.

Climate change is the greatest public health challenge of the 21st century — More than 90 health organizations have jointly identified climate change as a [public health emergency](#), and children, pregnant women, older adults, outdoor workers, and low-income and marginalized communities are disproportionately vulnerable. By midcentury, more than 90 million people in the United States – a 100-fold increase – will experience [30 or more days with a heat index above 105°F](#) in an average year. Such extreme heat and heat waves will increase hospitalization for [heatstroke and cardiovascular, respiratory, and kidney disorders](#) and could cause [thousands of deaths](#) annually. Degraded air quality and higher pollen concentrations will increase the incidence of respiratory illnesses, heart attacks, asthma, and allergies. More people will be exposed to infectious diseases transmitted by mosquitoes and ticks (such as Zika and Lyme disease), toxic algal blooms, and waterborne diseases. Cases of tickborne disease have already [more than doubled](#) from 2004 to 2016. Severe storms can disrupt critical healthcare systems and infrastructure for months, as well as directly costing lives. The costs to the public health system and federal programs such as Medicare and Medicaid, although not yet quantified, are likely to be significant.

Climate change threatens defense readiness and stability around the world — The [intelligence community](#), [senior defense officials](#), and Department of Defense (DOD) [strategies](#) and [plans](#) have consistently identified climate change as a national security challenge and threat multiplier. U.S. military facilities, operations, and equipment are vulnerable to storms, sea level rise, flooding, wildfires, and drought. In just the last year, hurricane and flood damage to [Camp Lejeune](#) and [Tyndall and Offutt Air Force Bases](#) will require \$8.5 billion to repair – and the DOD assesses that approximately [two-thirds](#) of mission assurance priority installations are at risk. Melting sea ice is opening the Arctic to increased competition with Russia and China for natural resources and access to sea routes. Globally, climate change will exacerbate food and water insecurity, infectious disease outbreaks, natural resource scarcity, commodity price shocks, economic distress and inequality, natural disaster severity, and population displacement and migration. These in turn will increase the risk of social unrest, political instability, and conflict abroad – and increase the frequency, scale, complexity, and cost of future DOD missions.

At this upcoming hearing, the Budget Committee will continue to examine the challenges that climate change poses to the American people and economy, building on [its June hearing](#) and looking more closely at specific sectors. Expert witnesses who will inform our discussion are:

- **Georges C. Benjamin, M.D. (Executive Director, American Public Health Association)**
- **Stefani Millie Grant (Senior Manager for External Affairs & Sustainability, Unilever)**
- **Ann C. Phillips (Rear Admiral, U.S. Navy (Retired) and Special Assistant to the Governor of Virginia for Coastal Adaptation and Protection)**
- **David W. Titley, Ph.D. (Rear Admiral, U.S. Navy (Retired) and Affiliate Professor of Meteorology and of International Affairs at Pennsylvania State University)**
- **Rich Powell (Executive Director at ClearPath)**