

SOLUTIONS Huck Fairman

CHANGES in Weather, Energy & Diet.

Anyone paying attention to the news lately cannot have missed reports of environmental changes to our world and of our responses to those changes. Here, the focus will be on predicted weather, on Congressional efforts to reduce fossil fuel usage, and on new sources of food we need to adopt.

First, climate scientists at NOAA recently forecast that the severe drought across much of the west will continue, with “above-normal temperatures” for October. Only Pacific Northwest and Gulf states will see average temperatures. But this will allow drought conditions to expand to the Rockies, the Southwest, the Northern Plains, and into central Minnesota, Texas, Oklahoma, and Nebraska.

The lack of water in these western states has had devastating effects on farmers, forcing some to leave fields fallow or sell off parts of their herds.

In contrast, the Pacific Northwest, much of the East Coast, and the Upper Midwest will see wetter conditions continuing into the late Fall.

At the same time, La Nina, predicted to develop toward the end of the year as a result of lower than normal ocean temperatures, will affect weather circulation in parts of the U.S. This means continuing warmer temperatures and less rain for California, the Southwest, and Southeast, while the northern part of the country will see colder, wetter conditions. More generally, NOAA's seasonal prediction sees warmer than average temperatures in the lower two-thirds of the states, while wetter conditions will spread over the Pacific Northwest, the Upper Midwest, northern New York State and northern New England.

But, in much of the country, with no significant precipitation predicted, it is probable that the drought will continue. The middle and western regions of the country have not seen temperatures like this since 1936, when the Dust Bowl resulted from similar hot, dry conditions. And now, in a warming world, we should expect these stresses - droughts, fires, lower water supplies, along with increasing temperatures – to remain with us.

At least one Congressional committee has been looking into the causes of these weather and environmental changes. The House Oversight Committee has widened its investigation into the oil and gas industry's role in spreading misinformation about the role that fossil fuels play in causing global warming.

Their investigation comes as Congressional representatives are wrestling with legislation to reduce reliance on oil and gas. Committee members, led by chairwoman Carolyn B. Maloney of New York, are questioning oil and gas executives about their misinformation campaign. A committee letter to Exxon's chief executive, Darren Woods, reads as follows: "We are deeply concerned that the fossil fuel industry has reaped massive profits for decades while contributing to climate change that is devastating American communities, costing taxpayers billions of dollars, and ravaging the natural world."

"We are also concerned that to protect those profits, the industry has reportedly led a coordinated effort to spread disinformation to mislead the public and prevent crucial action to address climate change."

The committee has requested internal documents going back to 2015 related to the companies' efforts to undermine climate

policy. Representative Maloney said that she intends to “hold the fossil fuel industry to account for its central role in causing and exacerbating this global emergency.” Subpoenas and other steps will be used as needed.

This Congressional inquiry is not unlike that of the 1990’s tobacco industry hearings which resulted in changed tobacco usage. But even as the inquiry continues, industry lobbying also continues in an effort to influence climate provisions in Congressional bills. Groups, including the U.S. Chamber of Commerce, have been working to protect fossil fuel subsidies. Senator Joe Manchin has allegedly met with Exxon to help draft “bipartisan fossil fuel bills.”

But more than investigating industry policies, it will be essential that Congress find ways to stop approving new oil and gas fields. And of course, replacing gas powered vehicles with electric ones will be another part of this. While in the Princeton area increasing numbers of Teslas, Nissans, BMWs and others are encouraging, the transition needs to expand and accelerate.

Another response to our warming world is taking place in food.

Individuals, restaurants, and food producers are turning away from meats and fish to plant-based substitutes. The reasons are that meat production uses large amounts of fossil fuels to both provide feed and market the animals. Cows also produce quantities of methane, which exceeds CO₂ in heat-trapping capacity. And the larger and more efficient fishing industry's new boats and processing plants have already diminished fishing stocks around the world, at the same time that growing populations need more protein.

Fortunately this need is being increasingly addressed by plant-based substitutes. In U.S. cities, Hong Kong, Singapore, and elsewhere, companies and individuals are experimenting with, and adopting, alternative, plant-based foods that provide benefits and tastes similar to meats and fish, but without the various environmental costs.

The public's consumption of these plant-based products is reportedly growing quickly. And a possible, future step may be "lab-grown" seafood which is grown from real seafood cells but in a laboratory, and may combine plant cells and plant-based technologies in the end product.

Thus, in various ways, our warming, changing world has pushed science, industry, restaurants, and individuals toward new directions. Science tells us that this is necessary for survival. People are beginning to respond. Whether the responses will be adequate and soon enough remains to be seen.

