

MATT DAVIES



OPINION

NEWSDAY/MATT DAVIES

# Glacial melt bodes human upheaval

Warmer temperatures deplete sources of water, triggering refugee migrations



The Ganges, the sacred river of Hinduism, flows nearly 1,600 miles through fertile and densely populated areas of India and Bangladesh.

The Indus, stretching nearly 2,000 miles, is the heart of the breadbasket of Pakistan.

The Yellow River, some 3,400 miles long, winds through northern China, and its basin is the birthplace of that country's civilization.

The Mekong River's 2,700 miles run through Laos, Thailand, Cambodia and Vietnam.

They are among the world's great rivers, fabled in reality

and in legend. And they all have something in common with another half-dozen vital river systems in that part of Asia. Each is fed by the glaciers of the Himalayas, the world's tallest mountain range. Those glaciers provide water resources — for drinking, farming, recreation, transportation, power and more — to one-quarter of the world's people.

And they are projected to melt by at least one-third, and as much as two-thirds if warming trends continue, by the end of the century, according to new peer-reviewed research by more than 350 scientists from 22 countries.

What that will mean for supplies of water and food is obvious. Equally critical is what those scarcities will unleash.

Namely, massive displacement

of people that will destabilize the regions they leave and the places to which they move.

You don't have to use your imagination to see how this will play out. Just look around. It's already happening, in ways quiet and loud, with results that rattle societies and leave individuals traumatized.

In Africa, once-massive Lake Chad has shrunk by 90 percent since the 1960s. Some 20 million to 30 million people depend on the lake — which borders Chad, Niger, Nigeria and Cameroon — for farming, fishing and raising livestock. Thousands have become unemployed, nearly 7 million lack access to food, and some 2.5 million people already have been displaced from that region, part of the exodus of migrants to North Africa and then Europe that has created so much unrest.

Many analyses have shown that severe droughts and desertification — the transformation

of fertile land to desert — was a contributing factor to Syria's horrendous civil war. Rural residents whose livelihoods were tied to farming were forced to flee to cities, and rising tensions over unemployment and overcrowding were part of the unrest that led to war.

Closer to home, changing weather patterns in Central America, including droughts, have caused crop failures and lower incomes for small farmers, and lack of food in general, adding to the flow of migrants toward our Southern border, based on reporting in The Guardian newspaper. Nearly half of Central American migrants say they lack food, according to the UN's World Food Program.

In Louisiana, the state paid \$11.7 million for mainland farmland to relocate residents of Isle de Charles, an island that has lost 98 percent of its land to rising seas, erosion and storms since 1955.

There are lots of ways to think about a warming world. Forced migration is among the more compelling.

The mass movement of people has lots of consequences for the areas being emptied and the areas being inundated. Housing, jobs, food, education, transportation, demographics, cultural attitudes — all of it gets put under stress.

U.S. national intelligence chiefs in their annual global threat assessment released recently warned of population migration. Director of National Intelligence Dan Coats told Congress that factors like water scarcity and a warming climate “are likely to fuel economic and social discontent — and possibly upheaval . . .”

We can try to plan for that. Or we could try to stop the glaciers from melting.

Michael Dobie is a member of the editorial board.

newsday.com NEWSDAY, SUNDAY, FEBRUARY 10, 2019