



A flooded street in Havana, a day after hurricane Irma hit in 2017.

POLICY

Cuba adds climate to its constitution

Move draws mixed reactions from scientific community.

BY EMILIANO RODRIGUEZ MEGA

Cuba has become the latest country to enshrine the fight against climate change in its constitution — provoking a mixed response from the scientific community.

In late February, voters approved a new constitution that included amendments directing Cuba to “promote the conservation of the environment and the fight against climate change, which threatens the survival of the human species”. The country joins ten other nations, including Ecuador and Tunisia, that mention “climate” or “climate change” in their constitutions.

Some researchers think that the additions are a positive sign of a growing worldwide impetus to combat extreme weather events. Cuba has already introduced aggressive policies to combat global warming, including a long-term plan to adapt to more-destructive hurricanes, extreme droughts and sea-level rise.

“It’s very exciting to see what Cuba is doing,” says Carl Bruch, an attorney at the Environmental Law Institute in Washington DC. “The

fact that you’re seeing climate change in the highest law of the land reflects the growing urgency in addressing it.”

But others doubt that the move will amount to meaningful action.

The climate-related language in the constitution is “a nice sentiment”, says Rolando García, an atmospheric chemist and Cuban expatriate at the National Center for Atmospheric Research in Boulder, Colorado. But efforts to address climate change in Cuba seem to proceed slowly, he says. “The aspirational goal enshrined in the new Cuban constitution does not change anything.”

Cuba’s plans to reduce greenhouse-gas emissions will be a drop in the bucket for global carbon emissions, García says. Cuba was responsible for 0.1% of the world’s total carbon dioxide emissions in 2014; by contrast, the United States released about 15%, according to the World Resources Institute, an environmental think-tank in Washington DC.

Others say that the move is also political — a thumb in the eye of the United States, which has been reluctant to take meaningful measures to address climate change.

It’s not yet clear whether the development will change how climate research is conducted in Cuba. Juan Carlos Antuña Marrero, a physicist at the Camagüey Meteorological Center in Cuba, hopes that the amendments might translate into actions such as increased funding and the modernization of computer capabilities, but he isn’t sure whether they will.

Antuña Marrero’s team studies sulfur aerosols, which help to cool the atmosphere. But Cuba’s slow and unstable Internet connection makes it difficult for the researchers to stay up to date with the scientific literature. They’ve learnt to download papers and data whenever they leave the country for conferences and workshops.

Outdated equipment also means that Antuña Marrero and his colleagues have had to abandon research tools such as weather-prediction models, because their computers take too long — days or even months — to process data. “We’re a group of scientists trying to overcome the limitations of the country’s poverty,” says Antuña Marrero, who also collaborates with the University of Valladolid in Spain.

HOLDING BACK THE TIDE

Cubans have much to lose if the planet keeps warming. The country has experienced intense droughts and increased sea-level rise in the past 50 years. And, according to Cuba’s Institute of Meteorology in Havana, stronger, more frequent hurricanes have flooded cities, flattened cane fields and caused billions of dollars in damage.

In response, Cuba has begun mapping areas at high risk for sea-level rise, moving its citizens out of those regions and razing their homes. This is the opposite of what often happens in the United States, where houses are rebuilt exactly where they once stood before being washed away by a storm, says David Guggenheim, a marine biologist at the environmental non-profit group Ocean Doctor in Washington DC.

These efforts are part of Cuba’s 100-year plan, called Tarea Vida (Project Life) — a road map to guide the country in dealing with the effects of climate change. It includes a ban on new home construction in potential flood zones, the introduction of heat-tolerant crops to cushion food supplies from droughts and the restoration of Cuba’s sandy beaches to help protect against coastal erosion.

The inclusion of climate change in the constitution is also helping Cuba to distinguish itself politically from its neighbour to the north, says Oliver Houck, a lawyer at Tulane University in New Orleans, Louisiana, who travelled to Cuba in the 1990s to help draft some of its environmental laws. The Cuban government, after all, “has no love for the United States”, he says.

Few Cubans have told Houck that they don’t care about climate change. “And I can’t tell you the number of people in America who say that,” Houck says. “I mean, we have an entire political party who says that.” ■