



Social scientists give climate talks a human touch

Research into human displacement drives debate about migration and human rights.

Jeff Tollefson

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PARIS

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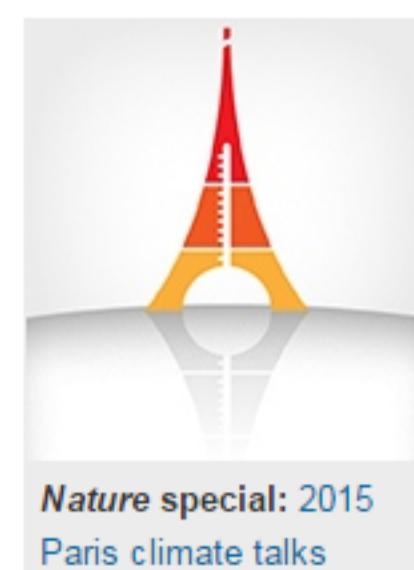
Rarotonga is the population centre of the remote Cook Islands.

The Cook Islands' fate might depend on the United Nations climate summit in Paris this week. The low-lying Pacific Ocean nation is threatened by sea-level rise driven by global warming. But its Prime Minister Henry Puna fears that international action to reduce greenhouse-gas emissions won't be enough to help his country.

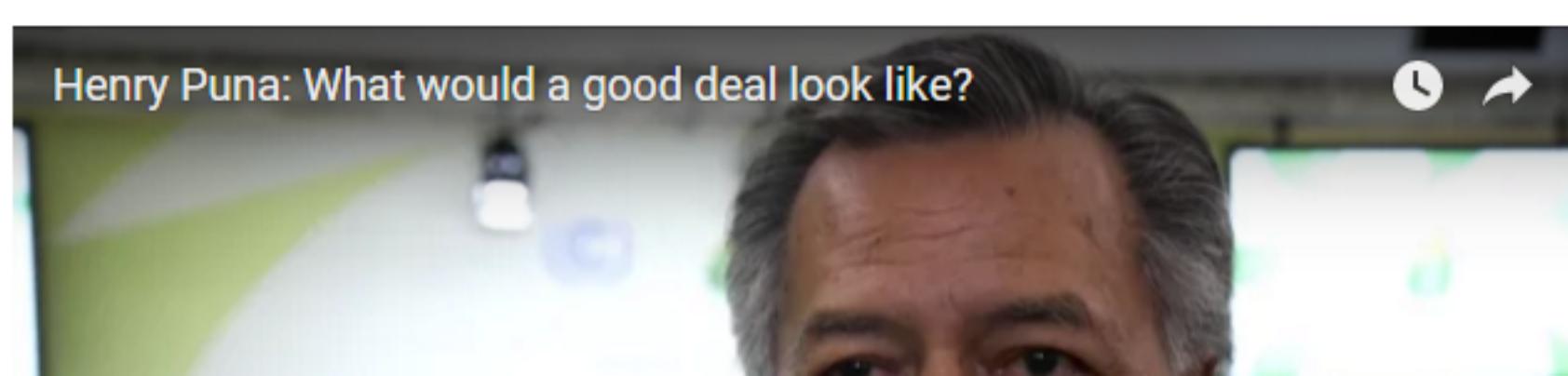
He wants the world to begin planning to help his people to migrate if they are overwhelmed by rising tides. "There needs to be more thought, more dialogue and more data," says Puna — adding that money alone won't solve the problem. "Can you put a dollar figure on a birthright, a nationhood, on a sense of belonging? I suggest not."

Over the past several years, social scientists have helped to shine a light on populations around the world that are vulnerable to the effects of climate change. The notion of human 'mobility', be it the result of migration or displacement, is just one example of this social-science effort that is influencing the political debate at the Paris climate talks.

Media and government attention often focuses on dramatic estimates of millions of 'climate refugees' flowing across borders — and into legal limbo because the 1951 Refugee Convention does not recognize those displaced by environmental factors. But the [draft agreement](#) that negotiators are shaping in Paris refers more broadly to "climate change induced displacement, migration and planned relocation".



Nature special: 2015
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Henry Puna: What would a good deal look like?

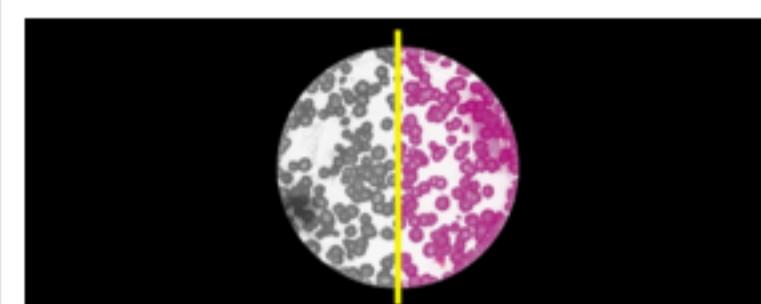
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Henry Puna: What would a good deal look like?

The prime minister of the Cook Islands, Henry Puna, outlines his hopes for the UN climate talks in Paris.

Shifting tides

Developing countries such as the Cook Islands want the agreement in Paris to include the establishment of a formal body within the UN climate convention to advance a more comprehensive approach to human movements. In addition to migration across international borders, this could include internal migration to farms to cities as well as displacement resulting from natural disasters.

Although rising seas, higher temperatures and shifting rainfall patterns could eventually render many areas uninhabitable, social scientists' work suggests that such projections are one of many factors that people consider when deciding whether and when to abandon their homelands in search of better opportunities.

"When you talk to people, they say migration isn't good or bad — it's just another way to manage their situation," says Koko Warner, a development economist at the United Nations University in Bonn, Germany, who has canvassed residents in dozens of vulnerable countries since 2006. "Human mobility in all of its facets is something that all countries need to reckon with."

In surveys of more than 6,800 people from the Pacific island countries of Kiribati, Nauru and Tuvalu, most residents said that they are already experiencing events such as saltwater intrusions, floods and droughts. Warner and her team found that people who have immigrated from these countries over the past decade generally did so to pursue work and educational opportunities.

But most of those interviewed said that migration will be necessary if environmental damages continue to mount. However, only 26% of the survey respondents believe that they have the resources they would need to migrate.

Politics racing science

Warner says that governments of vulnerable nations need to better investigate why and when their citizens might abandon their land — and where they might go. Governments are already tapping social-science expertise to learn which demographic groups want to stay and which expect to leave. "There is demand for case studies in these countries, and that drives our research," Warner says.

If the Paris talks produce a climate deal that addresses climate migration, that could help developing countries to win international aid to begin planning for these population shifts as they adapt to climate change, says Walter Kaelin, envoy of the chairmanship of the Nansen Initiative, a government-led research organization created by Switzerland and Norway in 2012.

The initiative studies human displacement driven by natural phenomena, without distinguishing between the effects of climate change and other types of natural disasters, such as earthquakes. In November, the organization estimated that 181 million people lost their homes between 2008 and 2014, mostly owing to extreme weather, and displacements have more than doubled since 1980.

Some worry that the political debate about climate migration has moved ahead of the science itself, given that the link between climate change and migration — which humans have been doing for millennia — is hard to pin down. Whatever governments do moving forward, the policy debate needs to remain open, says Andrew Baldwin, co-director of the Institute of Hazard, Risk and Resilience at Durham University, UK.

"The question for the twenty-first century is what kind of migration do we want," Baldwin says. "We don't know the answer to that question."

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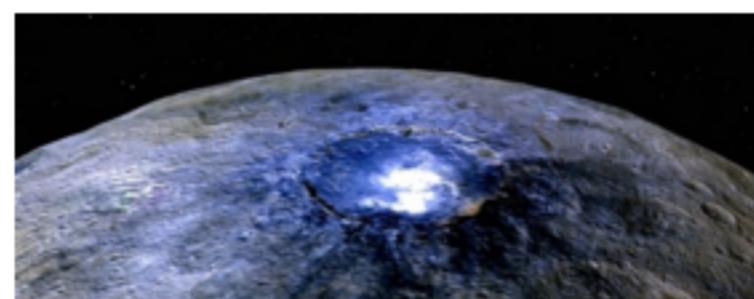
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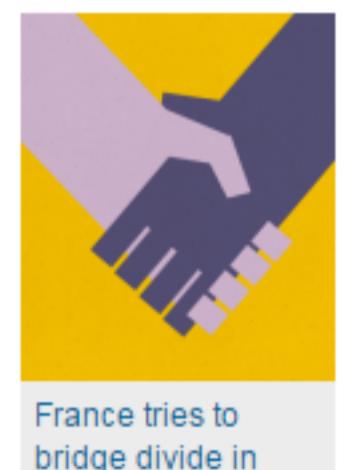
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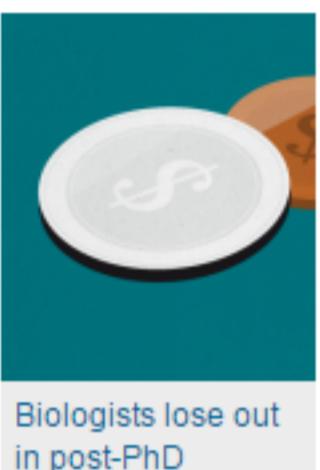
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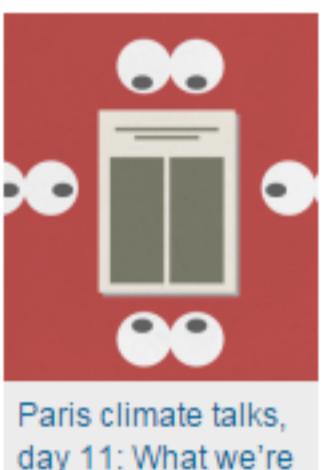
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