Predictors of public climate change awareness and risk perception around the world improve our understanding of public's thinking and response for 21st climate action

Dr. Chia-Ying Ko, a postdoctoral research fellow in the Research Center for Environmental Changes, Academia Sinica *and America research teams, mainly led by* Dr. Anthony A. Leiserowitz, Director of the Yale Project on Climate Change Communication, have identified the factors that most influence climate change awareness and risk perception using an unprecedented survey of 119 countries. This research is vital for public engagement and support for climate action in the *21st century*. The research was published in *Nature Climate Change* on July 27, 2015.

The data, conducted in 2007 and 2008, representing over 90% of the world's population, showed that there *exist huge differences* between developed and developing countries. In North America, Europe and Japan, more than 90 percent of the public is aware of climate change. But in many developing countries relatively few are aware of the issue, although many do report having observed changes in local weather patterns. Overall, there are about 40 percent of adults worldwide have never heard of climate change, including more than 65% of respondents in some developing countries, like Egypt, Bangladesh and India.

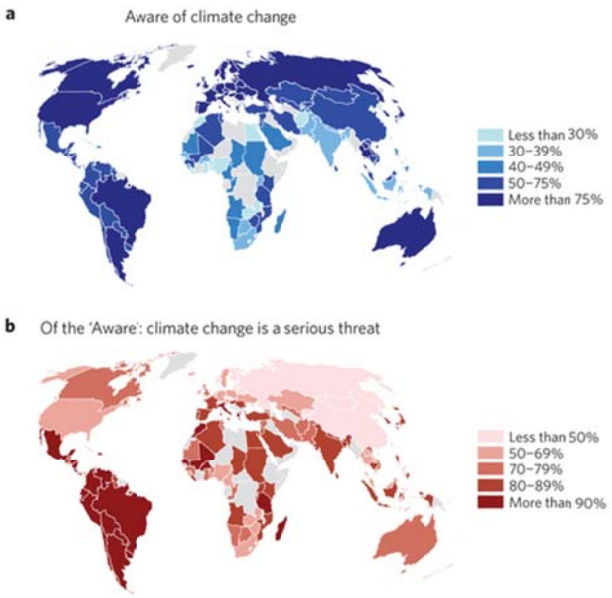

Figure: Geographic patterns of global public climate change (a) awareness and (b) risk perception. (from original article)

Worldwide, educational attainment is the single strongest predictor of climate change awareness. However, other key factors associated with public awareness are highly different among countries. For example, in the USA, the most important predictors of climate change awareness are

civic engagement, communication access and education, whereas in China, the key predictors are education, geographic location (urban/rural) and household income.

When further exploring climate change risk perception, this study has found an interesting pattern opposite to that of awareness, i.e. people in most developing countries perceived climate change as a much greater threat than people in developed countries. Predictors across the regions are different too. Perceived local warming can influence climate change risk perceptions in many Asian and African countries.

In addition, this study raises the question: do nations that share the same key predictors of climate change awareness and risk perception also share similar national characteristics, such as the Human Development Index (HDI), GDP, carbon emissions per capita…etc.? The Latin American region is the most homogeneous (the nations in this region are more similar to each other than those in other regions) and is different from other regions. For climate change risk perception, many nations have a distinctive set of predictors with *less similarity*. Overall, the national indicators of sustainability (for example, HDI and GDP) are poor predictors of the correlative structure of climate change awareness and risk perception globally, and therefore to investigate other social and cultural measures is needed.

The results provide potential strategies and management for public engagement and support for climate action. Meanwhile, countries, or even in different regions within a country, may require tailored "local climate actions". This international study underlines the strength of the Research Center for Environmental Changes in *interdisciplinary studies.*

The full article entitled "Predictors of public climate change awareness and risk perception around the world" is available at *Nature Communications* website at:
http://www.nature.com/nclimate/journal/vaop/ncurrent/full/nclimate2728.html

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