

Policy makers and ecologists must develop a more constructive dialogue to save the planet

July 19 2016

An international consensus demands human impacts on the environment "sustain", "maintain", "conserve", "protect", "safeguard", and "secure" it, keeping it within "safe ecological limits". But, a new Trinity College Dublin-led study that assembled an international team of environmental scientists shows that policy makers have little idea what these terms mean or how to connect them to a wealth of ecological data and ideas.

Progress on protecting our planet requires us to dispel this confusion, and the researchers have produced a framework to do just that.

Ian Donohue, assistant professor at Trinity, and leader of this study, said: "Human actions challenge nature in many ways. We lump these into a grab-bag of ideas we call ecological stability. We want nature to be stable in some sense of that word. But what do we know about stability from our theories and experiments? And how can that knowledge help policy makers? We offer some solutions to these important questions."

In the paper published today in the journal *Ecology Letters*, Donohue and an international team of colleagues outline exactly what policy makers, ecological experimenters, and theoreticians all think about this term "stability."

The answer is very different things—and there's a real problem with this lack of agreement. Professor Donohue said: "We need to be talking about the same things, using the same language, so that what ecologists know can sensibly inform the choices of policy makers."

"Consider this example" says Stuart Pimm, Doris Duke Chair of Conservation at Duke University, in the USA, and one of the paper's co-authors. "There's a lot of discussion about "tipping points"—the idea that there are boundaries beyond which, if we push nature it will collapse. There may be places where this happens, but while nature may work this way sometimes, there is no compelling argument that it must always."

Why should this matter? Pimm responds: "if politicians think there are tipping points and the world hasn't collapsed thus far, then it encourages policies that continue to degrade our world. If there isn't a catastrophe so far, why worry? The more likely alternative is not a sudden change, but a progressive loss of fisheries, croplands, damage to all our natural worlds. A wrong view of nature can have disastrous consequences."

So what can we do? Professor Donohue and his colleagues believe that the solution is to recognise that nature responds to human pressures in complex ways, even as [policy makers](#) often demand simple solutions. Acknowledging the need for better communication on the science-policy interface is essential.

Policy makers sometimes have designed crisp, clearly defined targets, such as several of those for the Intergovernmental Science-Policy Platform on Biodiversity and Ecosystem Services—a body broadly based on the more familiar IPCC that deals with climate change. "That's good. The issue is when they have not. Our work identifies those discrepancies," argues Donohue. "And we suggest solutions."

Unfortunately, most of the policies examined by Professor Donohue and his colleagues contain terms that are ambiguous, or have multiple definitions that mean different things to different people. The recently announced United Nations Sustainable Development Goals are no exception.

Professor Donohue added: "This ambiguity is a huge problem as it means that we cannot measure progress, or indeed a lack of progress, towards achieving policy goals. This paralyses policy. Ecologists, policymakers and practitioners urgently need to develop a shared language in order to be more effective in managing the world's ecosystems—our life-support system."

More information: Ian Donohue et al, Navigating the complexity of ecological stability, *Ecology Letters* (2016). [DOI: 10.1111/ele.12648](https://doi.org/10.1111/ele.12648)

Provided by Trinity College Dublin

Citation: Policy makers and ecologists must develop a more constructive dialogue to save the planet (2016, July 19) retrieved 25 April 2024 from <https://phys.org/news/2016-07-policy-makers-ecologists-dialogue-planet.html>

This document is subject to copyright. Apart from any fair dealing for the purpose of private study or research, no part may be reproduced without the written permission. The content is provided for information purposes only.