

Study explores how to make conservation initiatives more contagious

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New research shows conservation initiatives often spread like diseases, helping scientists and policymakers design programmes more likely to be taken up.

The study, led by researchers at Imperial College London, modelled how conservation initiatives are adopted across regions and countries until they reach 'scale' - at a level where they can have real impact on conserving or improving biodiversity.

By understanding how initiatives have reached scale, the team identified some ways new or existing initiatives could boost their uptake, helping the efforts go further.

The research suggests that one key factor is to facilitate contact between those who have already taken up a new initiative and those who might potentially adopt it. For example, if one community that has established local marine protections talks about what they have done and what the benefits are to another community considering doing something similar.

Dr. Morena Mills, from the Centre for Environmental Policy at Imperial, said: "Conservation initiatives like managing fishing resources and offsetting land for nature are critical for protecting biodiversity and the valuable ecosystems that help provide us with [clean water](#) and air.

"We found that most of these initiatives spread like a disease, where they depend on a potential adopter catching the conservation 'bug' from an existing one. We hope our insights into how biodiversity conservation initiatives spread will allow practitioners to design them so that they reach scale, which is critical for enabling them to make a tangible, lasting impact."

The research, published today in *Nature Sustainability*, looked at 22 conservation initiatives from across the globe to see how they spread, and how fast.

The study included initiatives covering land and water, those by low to high-income countries, and those at local, national and international

scales. For example, the initiatives ranged from villages introducing protections around local marine sites to governments designating areas as international World Heritage Sites, including state and privately protected areas.

The team found that most (83 percent) of the schemes followed a slow-fast-slow model, where initial adoption is slow as few people take it up, but then grows quickly as more [early adopters](#) connect with potential adopters. Finally, the rate slows again as all potential adopters have either taken up the scheme or refused it.

One example of a scheme following this model was resource management systems within the local waters of communities across the Solomon Islands and Fiji. A similar scheme in Samoa followed a different trajectory of fast-slow, with a quicker earlier adoption likely aided by the government, who provided boats and aquaculture resources to get more communities on board. This fast-slow trajectory is not dependent on interactions among adopters.

The team say that further insights into what ingredients make a [conservation](#) initiative spread successfully are needed, as no initiative they studied had the desired properties of being taken up quickly, and being taken up by the majority of adopters. Most initiatives had one or the other of these properties, with more than half being adopted by less than 30 percent of potential adopters.

Dr. Mills added: "In our study we did not find any initiatives that were taken up relatively quickly and by a large proportion of the potential pool of adopters. We are seeking to understand more about how local context facilitates or hinders spread, to help initiatives that benefit both nature and people reach scale."

More information: Modelling how conservation initiatives go to scale,

Nature Sustainability (2019). [DOI: 10.1038/s41893-019-0384-1](https://doi.org/10.1038/s41893-019-0384-1) ,
[nature.com/articles/s41893-019-0384-1](https://www.nature.com/articles/s41893-019-0384-1)

Provided by Imperial College London

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