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## **Research shows decline in human well-being linked to ongoing environmental degradation**

Collaborative research involving the University of Cape Town (UCT) and University of Minnesota warns of risks to human well-being and prosperity stemming from ongoing environmental degradation. The research found global declines in most of nature's contributions to people over the past 50 years.

In the paper published on Proceedings of the National Academies of Sciences, the authors document the many ways that nature provides benefits, from the production of material goods (fish, timber, medicines, etc) to non-material benefits (recreation, learning, experience, etc) and the benefits of ecological processes that regulate environmental conditions (water filtration, carbon sequestration, storm protection, etc).

The paper also examines not only the trajectory of land-based nature, but seascapes as well. Commenting on the worrying state of ocean Nature's Contributions to People (NCP), co-author and chief research officer at UCT's Department of Biological Sciences, Associate Professor Lynne Shannon says: "Over the past 50 years, overexploitation and increased fishing effort have resulted in declines in potential and realised catches of fish in the wild, begging the question as to how our future ocean will help to meet the increasing demand for food to sustain the increasing world population."

According to Shannon, there has been a decline in the regulation of ocean acidification, the regulation of climate and the regulation of natural hazards, both in the ocean and on land. "By comparison, other key provisioning NCPs in the ocean, such as provision of materials and medicines have been increasing over the past 50 years," Shannon says. "It is clear that maintaining healthy and diverse ocean ecosystems will be essential to sustain contributions of marine nature to people."

"Negative impacts on people's well-being are already occurring, including reductions in crop yields from declining pollinator populations and soil productivity and increased exposure to flooding and storms as coastal ecosystems are degraded," says lead author Kate Brauman from the University of Minnesota. "Nature contributes to our health and well-being in many ways, and our actions put these benefits at risk. Understanding and tracking nature's contributions to people provides critical feedback that can improve our ability to manage earth systems effectively, equitably, and sustainably."

Ute Jacob from the Helmholtz Institute for Functional Marine Biodiversity at the University of Oldenburg notes that this work amasses “solid evidence that if we want to ensure sustainable provision of essential marine benefits, we need to get active and protect marine biodiversity now.”

By making values of nature’s contributions to people’s well-being more visible, the authors hope that actions are taken to protect nature, so that nature can continue to provide benefits for future generations.

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***Issued by: UCT Communication and Marketing Department***

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