

Amazonian protected areas benefit both people and biodiversity

September 27 2021



Credit: Unsplash/CC0 Public Domain

Highly positive social outcomes are linked to biodiversity efforts in Amazonian Sustainable-Use Protected Areas, according to new research from the University of East Anglia (UEA).

The study investigated the social consequences of living both inside and outside Sustainable-Use Protected Areas containing aquatic and terrestrial ecosystems in Brazil's state of Amazonas. Researchers used data from more than 80 local semi-subsistence communities along a 2,000-km section of the Juruá River, the second-longest tributary of the Amazon River.

Amazonian Sustainable-Use Protected Areas (PA) are a joint initiative sponsored by government agencies to expand protection of the Amazon rainforest in Brazil.

Communities inside the PAs consistently enjoy better access to health care, education, electricity, basic sanitation and communication infrastructure, according to research published in the *Proceedings of the National Academy of Sciences (PNAS)*. The paper, "Sustainable-use protected areas catalyze enhanced livelihoods in rural Amazonia," is published today.

The research was co-led by Dr. João Campos-Silva, a postdoctoral researcher at Norwegian University of Life Sciences with Carlos Peres, a Professor of Conservation Science at UEA's School of Environmental Sciences.

Less tangible measures of welfare, such as perceptions of the future, were also better in communities inside PAs. Moreover, living within a PA was the strongest predictor of household wealth, followed by cash-transfer programs and family size (number of people per household). These collective co-benefits clearly influence life satisfaction, with only five percent of all adult residents inside PAs aspiring to migrate to urban centers, compared to 58 percent of adults living in unprotected areas.

The researchers said sustainable-use PAs can encourage multi-partnerships, strong local associations, land tenure, co-management,

economic subsidies, strong leadership, public policies and polycentric governance—resulting in clearly enhanced local welfare well beyond biodiversity protection.

Tropical PAs are typically understaffed and underfunded and will continue to become increasingly degraded due to poor resource management, growing populations and external encroachment, the researchers said. It remains unclear how to implement existing PAs under conditions of scarce financial resources, if not hostile political climates.

Prof Peres said: "Contrary to the prevailing perception in rural development, local communities can accrue substantial benefits, rather than incur opportunity costs, from tropical forest protected areas.

"These protected areas (PAs) can, therefore, deliver multiple co-benefits to different stakeholders at local to global scales. This is particularly the case of tropical freshwater systems worldwide, which are poorly managed, yet are inhabited by hundreds of millions of local users.

"In low-governance tropical regions, where PAs are severely starved by dysfunctional environmental agencies, it is critical to forge successful working alliances with local communities that can ensure win-win socioecological outcomes."

Dr. Campos-Silva said: "Beyond a conservation triumph, well-implemented sustainable-use protected areas can work as a socio-ecological laboratory, where new conservation tools can be developed and expanded to larger scales, aligning social welfare and biodiversity protection within Amazonia."

With the Brazilian PAs severely understaffed and underfunded, affecting implementation, strengthening the Amazonian PA network

toward a full implementation is imperative for both government- and non-[government agencies](#) that aspire to a sustainable future for Amazonia that is socially fair.

Prof Peres said: "The new study is a story of optimism that provides a rare positive outlook on the future of protected areas in many developing countries."

The study was carried out under the full support of Instituto Juruá, a non-profit conservation NGO working in the Amazon.

More information: Sustainable-use protected areas catalyze enhanced livelihoods in rural Amazonia, *PNAS* (2021). [DOI: 10.1073/pnas.2105480118](#)

Provided by University of East Anglia

Citation: Amazonian protected areas benefit both people and biodiversity (2021, September 27) retrieved 28 April 2024 from <https://phys.org/news/2021-09-amazonian-areas-benefit-people-biodiversity.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.