

University of Vermont

ScholarWorks @ UVM

Reports and Policy Briefs

Collections

5-29-2020

Environment and Global Health: Investments in natural capital can improve human health

Stephen Posner

University of Vermont, sposner@uvm.edu

Taylor Ricketts

University of Vermont

Follow this and additional works at: <https://scholarworks.uvm.edu/gund-reports>



Part of the [Community Health Commons](#), [Human Ecology Commons](#), [Medicine and Health Commons](#), [Nature and Society Relations Commons](#), [Place and Environment Commons](#), and the [Sustainability Commons](#)

Recommended Citation

Posner, S., Ricketts, T. 2020. Environment and Global Health: Investments in natural capital can improve human health. Gund Policy Brief. Burlington, VT: Gund Institute for Environment at the University of Vermont.

This Report is brought to you for free and open access by the Collections at ScholarWorks @ UVM. It has been accepted for inclusion in Reports and Policy Briefs by an authorized administrator of ScholarWorks @ UVM. For more information, please contact donna.omalley@uvm.edu.



POLICY BRIEF

ENVIRONMENT AND GLOBAL HEALTH

Investments in natural capital can improve human health

May 2020

THE ISSUE

Investing in natural capital (natural assets like forests, soils, and freshwater that provide benefits to people) can achieve conservation goals and also improve human well-being. New research demonstrates that investments in natural capital in developing countries can have positive, measurable impacts on people's health and economic prosperity. This research has important implications for global commitments such as the UN Sustainable Development Goals and the Aichi Biodiversity Targets.

RESEARCH EVIDENCE LINKING HUMAN HEALTH AND THE ENVIRONMENT

- A novel study found improved health measures, higher wealth levels, and a lower likelihood of poverty for people who live closer to protected areas in developing countries.¹
- A related study showed that children living in watersheds with more tree cover are less likely to experience diarrheal disease, the second leading cause of death globally for children under the age of five.²
- An exploratory study suggested that people living closer to marine protected areas have fewer cases of child stunting, a measure of impaired human growth and development.³
- Restoring and protecting forests can increase positive health impacts of traditional interventions like improving household sanitation and water sources. For example, a study found that investments in improved household water sources are more effective in watersheds with significant forests remaining.⁴ In contrast, the impact of these household



A growing body of research is showing how investments in protecting natural ecosystems like forests can have positive impacts on human health.

investments was reduced to nearly nothing in watersheds with little to no forests.

- Another study looked across 27 countries and showed that exposure to forests leads to children having greater dietary diversity in rural areas, strengthening the evidence for integrating forest conservation and management into nutrition interventions.⁵

POLICY IMPLICATIONS

(1) Governments could protect natural capital as part of strategies to improve human health outcomes

Protecting watersheds, forests, and marine and coastal areas can be an investment in public health and a mechanism for alleviating poverty in

SOLUTIONS START HERE.

The Gund Institute for Environment brings scholars and leaders together to accelerate research, uncover solutions and tackle the world's most pressing environmental issues.



The University of Vermont



developing countries. Conversely, if national governments don't help to look after natural capital, there could be real consequences for people's health and livelihoods.

(2) Grey and green infrastructure work best together

Protecting natural resources is not a replacement for improvements in grey infrastructure, education, or other measures, but it can powerfully complement these efforts and increase their effectiveness.

(3) Countries could achieve multiple global commitments through investing in nature

Increasing protected areas is a valuable strategy for achieving multiple Sustainable Development Goals (including SDG 1, 2, 3, 8, and 15) and biodiversity conservation targets (including Aichi target 11).

(4) Research could guide national strategies

Research that measures the impacts of healthy and intact natural ecosystems on human health allows us to make smarter investments in conservation and development. These research efforts highlight promising partnerships between development organizations and conservation groups.

'Big data' research can guide development strategies by identifying broad linkages between human health and the environment. For example, protecting forests can increase the health and wealth of nearby people by providing opportunities for tourism, jobs, alternative sources of income, and better environmental quality. While 'big data' research is important, on-the-ground research is also critical for validating findings and informing strategies within local contexts.

CONCLUSION

This research joins a growing body of scientific evidence that investments in natural capital can pay off for human health and well-being. Studies within countries are important to validate these global findings within different contexts. Many such studies already exist, and they support the general patterns presented here.

This brief is based on the following research papers:

1. Naidoo, R. et al. Evaluating the impacts of protected areas on human well-being across the developing world. 2019. *Science Advances*.
2. Herrera, D. et al. Upstream watershed condition predicts rural children's health across 35 developing countries. 2017. *Nature Communications*.
3. Fisher, B. et al. Effect of coastal marine protection on childhood health: an exploratory study. 2017. *The Lancet*.
4. Rasolofson, R.A. et al. Forests moderate the effectiveness of water quality improvement efforts to reduce childhood diarrhea. *In Review*.
5. Rasolofson, R.A. et al. Impacts of forests on children's diet in rural areas across 27 developing countries. 2018. *Science Advances*.

CONTACT

Taylor Ricketts

Taylor.Ricketts@uvm.edu