

# A global conservation basic income is achievable for a fraction of the costs of inaction

Providing a basic income to individuals living in areas important for global biodiversity is one way to support conservation. Our calculation shows how the gross cost can vary, depending on prioritization, eligibility and payment scenarios, and will support discussions about the implementation of basic income as a global conservation policy.

## This is a summary of:

de Lange, E. et al. A global conservation basic income to safeguard biodiversity. *Nat. Sustain.* <https://doi.org/10.1038/s41893-023-01115-7> (2023).

## Publisher's note

Springer Nature remains neutral with regard to jurisdictional claims in published maps and institutional affiliations.

Published online: 18 May 2023

## The project

Global biodiversity conservation has a history of grave injustice, imposing costs on rural communities, especially in the Global South. This is despite the fact that governance by Indigenous peoples and local communities (IPLCs) is the most effective pathway to effective and equitable conservation<sup>1</sup>. Conservation basic income<sup>2</sup> (CBI) – unconditional payments to individuals living in or near important conservation areas – is one among several conservation tools proposed to redress colonial legacies of dispossession. These payments could support efforts by IPLCs to manage biodiversity, enabling them to pursue their own visions of a good life as an alternative to capitalist and other environmentally destructive development models and extractive industry<sup>3</sup>. Evidence from similar cash-transfer programmes aimed at reducing poverty, such as in Indonesia, suggest that these can also achieve reductions in deforestation<sup>4</sup>.

As global conservation policies, such as the United Nations' Post-2020 Global Biodiversity Framework, gain momentum, robust data are urgently needed to evaluate different policy options. We therefore estimated the potential costs of the CBI under different scenarios based on different payment, prioritization and eligibility options.

## The observation

We calculated the gross cost of CBI for human populations residing in terrestrial areas that were identified using three different plausible global conservation scenarios: key biodiversity areas (which contain the greatest numbers of threatened species), existing protected areas, and the minimum lands required to safeguard biodiversity. For each scenario, we also modelled three different payment rates: paying 25% of national gross domestic product (GDP) per capita, which is proposed as a reasonable baseline in the universal basic income literature; a fixed rate of US\$5.50 per day, which is considered the minimum required for healthful living globally; and a tiered rate set at the World Bank's poverty line for each country's income group.

Altogether, this presents a range of feasible options, allowing us to estimate, using publicly available data, how payments would be distributed across the globe under different policy choices. We found that estimated gross costs vary widely from \$351 billion to \$6.73 trillion annually (Fig. 1). Low- and middle-income countries have the greatest share of eligible populations

(75–88%) but receive only around half of payments when payment rates are set in proportion to national GDP or income. Paying \$5.50 per day to residents of existing protected areas in low- and middle-income countries would cost \$478 billion annually.

These costs are substantial when compared with current government conservation spending, which amounted to around \$133 billion in 2020; however, they are well within what conservationists claim is needed for effective global conservation. Considering that CBI holistically addresses a range of human and non-human needs – and that an estimated \$44 trillion in global economic production is dependent on nature – this represents a potentially sensible investment.

## Future directions

Our findings suggest that CBI is a feasible policy to safeguard human and planetary well-being in a way that is equitable and socially just. Paying CBI will require a significant increase in conservation financing, but, for example, redirecting public funds away from harmful industries, such as fossil fuels, would be sufficient to achieve \$5.50 per day for residents of protected areas in low- and middle-income countries. Policy development should focus on delivering this mechanism in the Global South.

Our global analysis presents a first step towards concrete policy discussions but leaves many questions unanswered. We have not included marine areas, nor have we considered how non-resident populations dependent on biodiverse lands can be included in cost estimates. Although we are hoping to contribute to global policy discussions, CBI will ultimately need to be developed from the ground up through locally designed pilots that are led by local communities and that consider local institutions, norms and power dynamics. Without operational pilots, there is also a lack of direct evidence for how CBI could impact social and conservation outcomes.

We are excited to see that there are already proposals for site-specific pilots, such as in Indonesian Papua<sup>5</sup>, and hope to begin exploring specific case studies to identify design considerations and then collaborate with governments and communities to evaluate and build evidence for the impacts of CBI.

## Emiel de Lange<sup>1</sup> & Omar Saif<sup>2</sup>

<sup>1</sup>Wildlife Conservation Society Cambodia Programme, Phnom Penh, Cambodia.

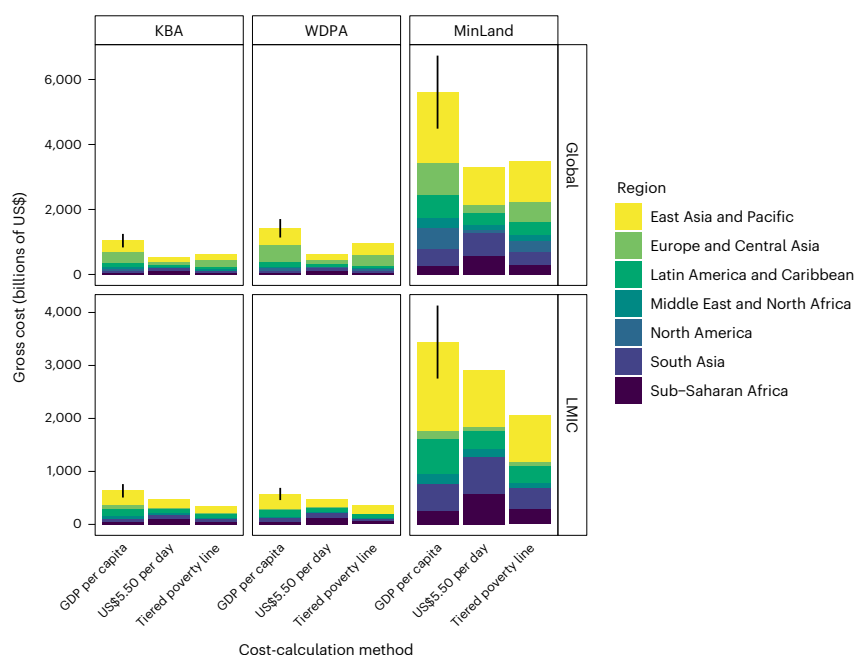
<sup>2</sup>University of Edinburgh, Edinburgh, UK.

## EXPERT OPINION

“The study will be of wide interest and hopefully a stimulus to more transdisciplinary and, more importantly, ‘trans-UN conventions’ thinking. This is needed as a focus on just biodiversity without considering climate change and

land degradation is unlikely to attract the vast amounts of investment required. This paper represents a limited but valuable step in this direction.” **Richard Thomas, Consultant Natural Resources Management, Oakville, Ontario, Canada.**

## FIGURE



**Fig. 1 | A global CBI could cost between \$351 billion and \$6.73 trillion and support just conservation pathways.** Total gross costs are shown globally and for low- and middle-income countries (LMICs), for a CBI scheme applied to key biodiversity areas (KBA), current protected areas (WDPA) and minimum lands required to safeguard biodiversity (MinLand). Different payment rates are indicated: 25% of mean national GDP per capita; a flat rate of \$5.50 per day; and tiered poverty lines set according to country income group. © 2023, de Lange, E. et al., [CC BY 4.0](#).

## BEHIND THE PAPER

This was a passion project for a group of early-career researchers without funding. In summer 2020, we were emerging from the UK COVID-19 lockdowns. I was reading Robert Fletcher and Bram Büscher’s paper<sup>2</sup> where they develop the concept of conservation basic income and had the idea for this analysis. But I didn’t know how to go about it — so I shared it on Twitter, looking for collaborators. My co-authors, most of whom I had either studied with or

worked with previously, enthusiastically replied. Robert Fletcher also responded and provided important conceptual guidance. Over the following two years, we met regularly online and developed the paper and the analyses together, using only publicly available data. Jocelyne S. Sze had the necessary technical skills and conducted most of the analyses. The process was iterative and smooth. It was a great pleasure! **E.d.L.**

## REFERENCES

1. Dawson, N. M. et al. The role of Indigenous peoples and local communities in effective and equitable conservation. *Ecol. Soc.* **26**, 19 (2021).  
**A review showing that Indigenous and locally led governance is the primary pathway to effective and equitable conservation.**
2. Fletcher, R. & Büscher, B. Conservation basic income: a non-market mechanism to support convivial conservation. *Biol. Conserv.* **244**, 108520 (2020).  
**The original paper in which the idea of CBI is developed.**
3. Lawhon, M. & McCreary, T. Beyond jobs vs environment: on the potential of universal basic income to reconfigure environmental politics. *Antipode* **52**, 452–474 (2020).  
**An article analysing some of the potential political and ecological impacts of basic income schemes.**
4. Ferraro, P. J. & Simorangkir, R. Conditional cash transfers to alleviate poverty also reduced deforestation in Indonesia. *Sci. Adv.* **6**, eaaz1298 (2020).  
**A study providing evidence that cash transfers in Indonesia aimed at poverty alleviation also reduced deforestation.**
5. Mumbunan, S. et al. *Basic Income for Nature and Climate* (Research Center for Climate Change Universitas Indonesia, 2021); [https://www.forclime.org/documents/Books/Mumbunan2021\\_Basic\\_Income\\_for\\_Nature\\_and\\_Climate\\_final\\_version.pdf](https://www.forclime.org/documents/Books/Mumbunan2021_Basic_Income_for_Nature_and_Climate_final_version.pdf)  
**A report that describes how CBI could work in the context of West Papua, Indonesia.**

## FROM THE EDITOR

“This paper is one of the first analyses of how much it would cost to provide a ‘conservation basic income’ — making unconditional payments that could relieve individuals from having to pursue environmentally damaging livelihoods — and provides much needed baseline data to help researchers and policymakers develop this concept further.” **Editorial Team, Nature Sustainability.**