## natureresearch

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## Reporting Summary

**Statistics** 

Life sciences

Nature Research wishes to improve the reproducibility of the work that we publish. This form provides structure for consistency and transparency in reporting. For further information on Nature Research policies, see <u>Authors & Referees</u> and the <u>Editorial Policy Checklist</u>.

For	all statistical analys	es, confirm that the following items are present in the figure legend, table legend, main text, or Methods section.		
n/a	Confirmed			
	The exact sam	ple size $(n)$ for each experimental group/condition, given as a discrete number and unit of measurement		
	A statement of	on whether measurements were taken from distinct samples or whether the same sample was measured repeatedly		
	The statistical Only common to	test(s) used AND whether they are one- or two-sided ests should be described solely by name; describe more complex techniques in the Methods section.		
	A description of all covariates tested			
	A description	of any assumptions or corrections, such as tests of normality and adjustment for multiple comparisons		
	A full descript AND variation	ion of the statistical parameters including central tendency (e.g. means) or other basic estimates (e.g. regression coefficient) (e.g. standard deviation) or associated estimates of uncertainty (e.g. confidence intervals)		
$\times$	For null hypothesis testing, the test statistic (e.g. <i>F</i> , <i>t</i> , <i>r</i> ) with confidence intervals, effect sizes, degrees of freedom and <i>P</i> value noted <i>Give P values as exact values whenever suitable.</i>			
$\times$	For Bayesian analysis, information on the choice of priors and Markov chain Monte Carlo settings			
$\times$	For hierarchical and complex designs, identification of the appropriate level for tests and full reporting of outcomes			
$\times$	Estimates of effect sizes (e.g. Cohen's d, Pearson's r), indicating how they were calculated			
		Our web collection on <u>statistics for biologists</u> contains articles on many of the points above.		
Software and code				
Policy information about <u>availability of computer code</u>				
Data collection		Primary data was not collected in this study. Instead, we utilize a range raster layers to estimate climate mitigation potential and return on investments. We also utilize data from the Verra database to validate our estimates. These are listed in the Methods.		
D	ata analysis	All analyses was performed in R version 3.6.0, utilizing the package "raster" for processing and calculations of raster layers. Map visualizations were formed in QGIS.		
For manuscripts utilizing custom algorithms or software that are central to the research but not yet described in published literature, software must be made available to editors/reviewers. We strongly encourage code deposition in a community repository (e.g. GitHub). See the Nature Research guidelines for submitting code & software for further information.				
Da	ita			
Poli	cy information abou	ut <u>availability of data</u>		
	- Accession codes, un	include a <u>data availability statement</u> . This statement should provide the following information, where applicable: ique identifiers, or web links for publicly available datasets have associated raw data		
	- A description of any restrictions on data availability			
All	maps generated are a	vailable from Zenodo, DOI: 10.5281/zenodo.4287780		
Fi	eld-speci	fic reporting		

Please select the one below that is the best fit for your research. If you are not sure, read the appropriate sections before making your selection.

Ecological, evolutionary & environmental sciences

Behavioural & social sciences

## Ecological, evolutionary & environmental sciences study design

all studies must disclose or	these points even when the disclosure is negative.	
Study description	Investing in forest protection is a way to generate tradable carbon (C) credits to support biodiversity conservation and climate change mitigation. Here the authors assess and map the global supply of tropical forest C credits with the goal of informing climate policy and investments.	
Research sample	Not applicable	
Sampling strategy	Not applicable	
Data collection	Data was collected from multiple publication and online-datasets by YZ and TVS.	
Timing and spatial scale	Analyses was done for the global tropics, based on data collected between 2012–2017.	
Data exclusions	No data was excluded	
Reproducibility	We performed uncertainty analyses to ensure reproducibility	
Randomization	No randomization was needed for this study.	
Blinding	No blinding was needed for this study.	
Did the study involve fiel	d work? 🔲 Yes 🔀 No	
Reporting for specific materials, systems and methods		
	authors about some types of materials, experimental systems and methods used in many studies. Here, indicate whether each material, Evant to your study, If you are not sure if a list item applies to your research, read the appropriate section before selecting a response.	
Materials & experimental systems  Methods		
n/a Involved in the study	n/a Involved in the study	
Antibodies	ChIP-seq	
Eukaryotic cell lines	Flow cytometry	
Palaeontology	MRI-based neuroimaging	
Animals and other organisms		
Human research participants		
M Clinical data		