Lack of evidence hampers progress on corporate-led ecosystem restoration

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Heathy coral reef in Indonesia. Credit: Dr Tim Lamont, Lancaster University

A "near total" lack of transparency is making it impossible to assess the

quality of corporate-led ecosystem restoration projects, according to a Lancaster University-led study titled "Hold big business to task on ecosystem restoration" and published in *Science*.

Efforts to rebuild degraded environments are vital for achieving global biodiversity targets. The United Nations has launched a Decade on Ecosystem Restoration, and in recent years businesses around the world have collectively pledged to plant billions of trees, hundreds of thousands of corals and tens of thousands of mangroves, with corporate-led projects offering huge potential to restore damaged and lost ecosystems around the globe.

An international team of scientists analyzed publicly-available sustainability reports released by 100 of the world's largest companies and found that around two thirds of these global corporations are undertaking ecosystem restoration. However, the results highlight that despite many businesses claiming to actively rebuild damaged ecosystems, we know very little about what is actually being achieved.

The study reveals that more than 90% of corporate-led restoration projects fail to report a single ecological outcome. Further, around 80% of projects do not reveal how much money is invested in restoration, and a third fail to even state the area of habitat that they aim to restore.

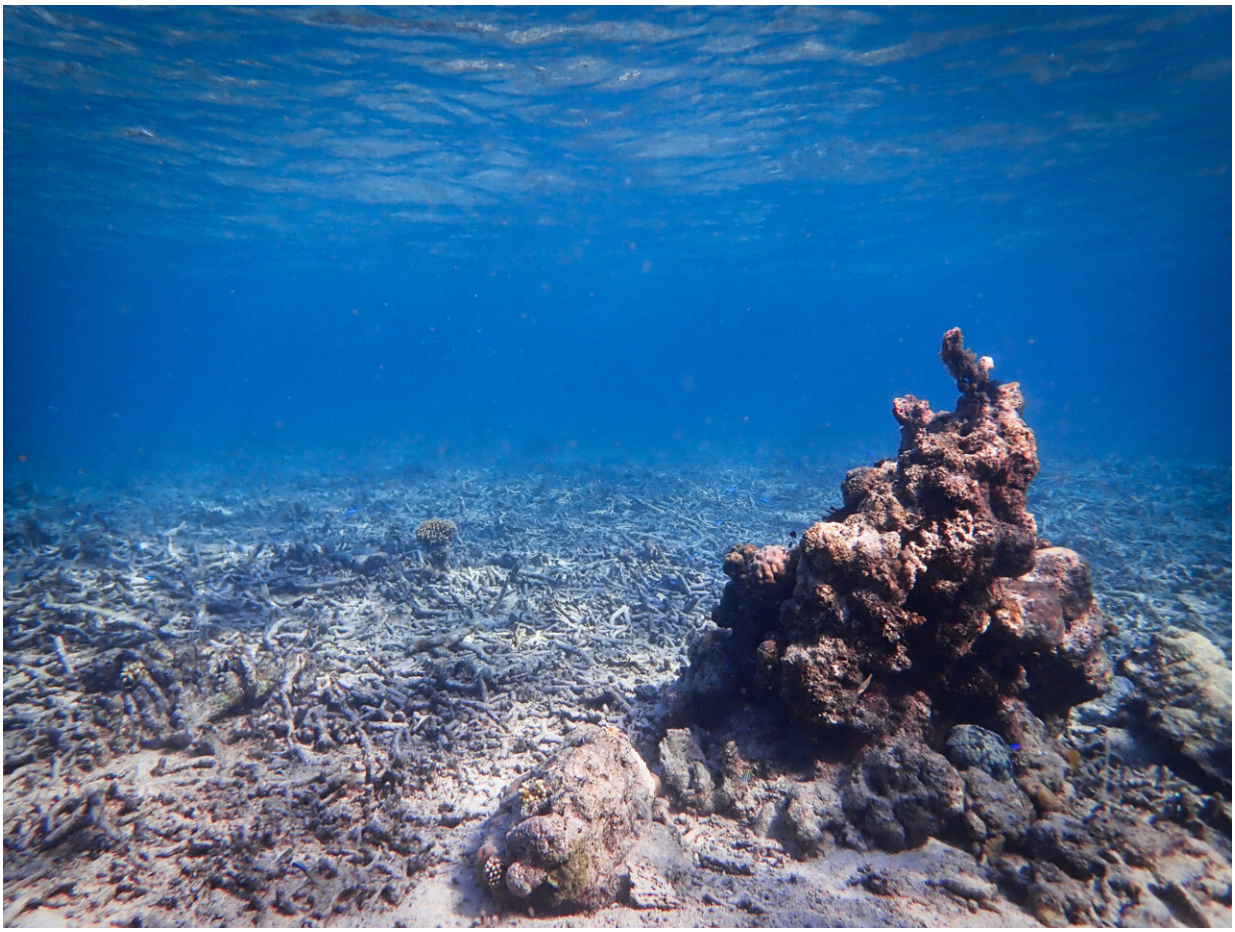
"Restoring degraded ecosystems is an urgent challenge for this decade, and big businesses have the potential to play a vital role," said Dr. Tim Lamont of Lancaster University, lead author of the study. "With their size, resources and logistics expertise, they could help deliver the large-scale restoration we need in many places.

"However, at the moment there is very little transparency, which makes it hard for anyone to assess if projects are delivering benefits for ecosystems or people.

"When a business says it has planted thousands of trees to restore habitat and soak up carbon—how do we know if this has been delivered, if the trees will survive, and if it has resulted in a functioning ecosystem that benefits biodiversity and people? In many cases, we've found that the evidence provided by large corporations to support their claims is insufficient."

Many countries require businesses to conduct Environmental Impact Assessments (EIAs) to quantify and reduce their environmental damage, and other private-sector initiatives also encourage companies to measure and disclose their biodiversity impacts. However, the study finds that current guidelines and legal frameworks around ecosystem restoration are inadequate, and are not yet resulting in appropriate reporting by businesses.

The researchers are calling for more transparency around the reporting of corporate-led ecosystem restoration projects, and for reporting to be more consistently centered around scientific principles that determine ecosystem restoration success.



Degraded coral rubblefield, Indonesia. Credit: Dr Tim Lamont

Professor Jan Bebbington, Director of the Pentland Center for Sustainability in Business at Lancaster University and co-author of the study, said, "It is clear that corporate reporting around restoration projects needs to be improved. Guidelines need to ensure that corporations are transparent when reporting and quantifying the aims and results of their sustainability efforts.

"Greater transparency will ensure that some businesses can't get away with doing ineffective restoration and claiming reputational gain for it.

But transparency is also vital for the credibility of those corporate-led schemes that are genuinely attempting to deliver significant environmental benefits. And transparency also provides opportunities for others to learn.

"There is definitely potential for businesses to be important global leaders in the restoration space. But that potential will go unrecognized, and the maximum benefits unrealized, without better regulation and transparency."

The researchers say new improved reporting guidelines around ecosystem restoration should:

- Recommend that companies clearly differentiate between restoration activities that merely mitigate the negative environmental impacts of a business' operations from those that aim to provide wider climate, biodiversity and social justice outcomes.
- Recommend a principle-based approach, drawing from conservation science, for planning and reporting, so that restoration projects in a range of different contexts can all maintain high standards across core areas.
- Ensure corporations engage with and empower local stakeholders to co-design restoration projects from the outset.

Professor Rachael Garrett, a co-author of the study from the University of Cambridge, said, "Ultimately, if big businesses are going to contribute effectively to the UN Decade on Ecosystem Restoration, there needs to be transparency and consistency in reporting.

"This is in the interest of the businesses themselves, who stand to gain from demonstrating to their customers, shareholders, employees and the wider public that they are making meaningful impacts with their

declared restoration efforts.

"The world's largest corporations have the potential to lift ecosystem restoration efforts to an unprecedented scale. But their involvement has to be managed with proper evidence and accountability, to make sure the outcomes are beneficial and fair for everyone."

More information: Timothy A. C. Lamont, Hold big business to task on ecosystem restoration, *Science* (2023). DOI: 10.1126/science.adh2610 . www.science.org/doi/10.1126/science.adh2610

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