SUSTAINABLE DEVELOPMENT GOALS

For each $1 spent to save reefs, $24 of environmental benefits are made

COMMENTARY
DR BJØRN LOMBORG

"We rely on the natural world for many different benefits or what experts call 'ecosystem services.' Forests don't just provide timber and firewood, but also flood protection.'

Biodiversity — the range of species we share our planet with — is important, but can we put a value on it? And can we estimate the benefits and costs of conservation? In three new scientific papers for the Copenhagen Consensus, Prof Anil Markandya and two other economists — Luke Brander and Alistair McVittie — find that not only can we estimate the costs and benefits for some projects but also that conservation can be a great investment.

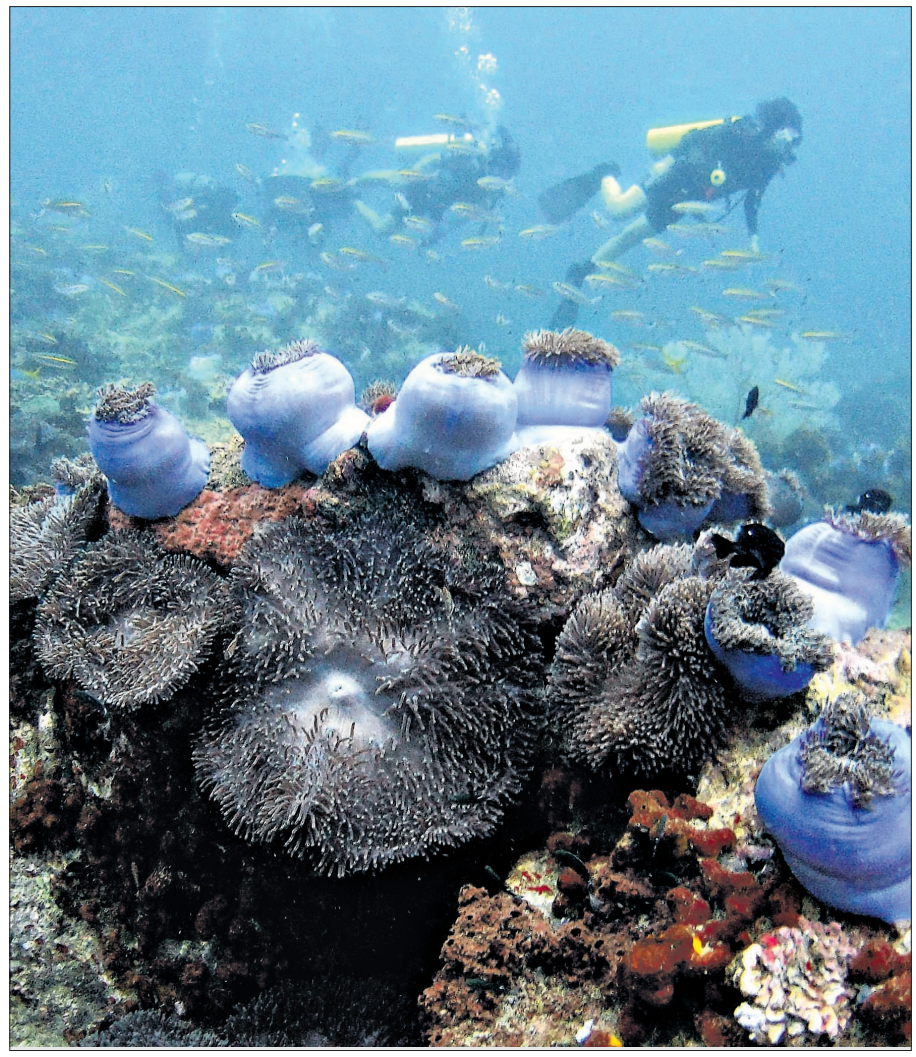
A target to prevent the loss of coral reefs will, for each dollar spent, deliver at least $24 of environmental benefits. Likewise, the researchers find that reducing future loss of forests by half would likely do about $10 of good for each dollar spent. This is of particular relevance for Tanzania, for instance, where about 37 per cent of the country is covered by forests. The economists also find that increasing protected areas is likely to be a poor target, an important point as 32 per cent of the area of Tanzania is already protected.

This matters because the global community, spearheaded by the UN, is currently working to formulate a set of key targets, which will guide how resources are used from next year until 2030. These follow on from the Millennium Development Goals, an ambitious set of targets that has directed the spending of hundreds of billions of development dollars since 2000.

The problem is that right now, most interest groups understandably battle to include their favourite targets, but having more than a thousand potential targets leaves the world with no priorities. That is why the Copenhagen Consensus is helping by asking top economists to analyse what works and what we can afford.

Of course, some of the obvious issues relate to adequate food, clean water and better schooling and healthcare. But humans don't live separately from the natural world. Rather, we rely on it for many different benefits or what experts call "ecosystem services." For example, forests don't just provide timber and firewood, but also provide flood protection, because they can soak up intense rainfalls — a big part of the reason Pakistan had such hugely damaging floods in 2010 was because large parts of its mountain forests had been cut down. Here forests could have protected many of the poor whose homes were flooded and whose children perished.

Forests also provide aesthetic experiences for local residents while drawing in tourism, generating more benefits. At the same time, growing forests take up carbon dioxide from the air and lock it away for decades or even centuries while producing oxygen. Forests also provide refuge for enormous numbers of bird, animal and plant species, especially tropical rainforests.



Coral reefs possess an amazing beauty that shows up not only in large tourism revenues but also in most individuals saying they are willing to pay a certain amount to make sure they continue to exist for their grandchildren. Picture: File

All of these benefits can be valued. Timber has a commercial price, so that is straightforward. Locking away carbon can be priced based on likely costs of avoided climate damage, and likewise flood protection value shows up as lower costs of future floods. There is also a value for recreation and tourism, but not all of this is paid for by the users. Moreover, preserving species clearly has a benefit, but typically not one we pay for. This is where putting a price on a natural resources become more difficult, and economists have to fall back on surveys that ask people how much they are willing to pay to keep forests in place.

That makes it more difficult to put a firm value on a hectare of forest, but the academics all agree that spending a dollar is likely to do more than a dollar 'sworth of good. The most likely outcome of a series of cost-benefit analyses shows that setting the goal "reduce global forest loss by 50 per cent" is likely to do about $5-$15 worth of social good for every $1 spent.

The same kind of analysis suggests that preserving wetlands could be a good idea. The economists show that reducing global wetland loss by 50 per cent will most probably do more good than its cost, falling in the same range of about $10 back on each dollar.

More spectacular is the analysis for coral reefs, which both act as fishery hatcheries and fishing resources while storing abundant numbers of species. At the same time, coral reefs possess an amazing beauty that shows up not only in large tourism revenues but also in most individuals saying they are willing to pay a certain amount to make sure they continue to exist for their grandchildren. The analyses illustrate that reducing global coral loss by 50 per cent may cost about $3 billion per year but the total benefits are likely to run to at least $72 billion, or about $24 back for every $1 invested.

However, economics also reveals poor targets: Substantially increasing protected areas is likely to cost so much —close to a trillion dollars — that it will generate less environmental benefit than the cost.

Of course, as we look forward to the next 15 years, we have to focus most of our attention on the obvious wrongs that afflict billions of people who are poor, lack food, water, health and education. But these analyses suggest that carefully crafted environmental targets should also be a part of this solution.

Our job is to make sure that economic arguments are heard so we pick the smart targets but drop the poor ones, to make sure the next 15 years help the world and its inhabitants as much as possible.

Dr. Bjørn Lomborg, an adjunct professor at the Copenhagen Business School, directs the Copenhagen Consensus Centre, ranking the smartest solutions to the world's biggest problems by cost-benefit. He is the author of The Sceptical Environmentalist *and* Cool It.

UN: Emissions pledges by US, others 'not enough'

By JOBY WARRICK
The Washington Post

PLEDGES BY the US and other countries to sharply reduce greenhouse-gas emissions still aren't enough to prevent global temperatures from rising beyond levels that scientists believe could be dangerous to the planet's health, a UN-commissioned study says.

The report by the United Nations Environmental Programme (UNEP) cited a sizeable "emissions gap" between the promises made by world leaders to lower pollution and the maximum amount of carbon the atmosphere can safely absorb.

"Without additional climate policies, global emissions will increase hugely up to at least 2050," said the study, which also argues that nations could eliminate the gap by ramping up investments in renewable energy and making smarter policy decisions on economic development.

"On the one hand, we're way off track. But on the other hand, there is increasing evidence that much of this can be done more cheaply than has previous been estimated," said Andrew Steer, president of the World Resources Institute, a Washington think tank that provided technical support for the study.

Citing warnings from climate scientists, world leaders agreed four years ago to a goal of limiting the rise in global temperatures from greenhouse gases to no more than 2 degrees Celsius. But carbon emissions have continued to soar, making that goal harder to achieve.

To stay below a 2-degree temperature rise, nations will have to achieve "global carbon neutrality" — meaning no net increase in the amount of carbon in the atmosphere — sometime in the second half of the century, the report said. For that to happen, countries will have to rapidly shift to cleaner forms of energy while also creating new carbon "sinks," such as expanded forest cover, to draw carbon dioxide out of the atmosphere.

Under current projections, the study said, the growth of global carbon emissions will have to peak within the next decade and fall by half by 2050 to meet the 2-degree goal.

"Taking more action now reduces the need for more extreme action later to stay within safe emission limits," said Achim Steiner, UNEP executive director.

The report comes after China and the US announced historic pledges to scale back carbon emissions in the next two decades.

Cuntries have to rapidly shift to cleaner forms of energy. Picture: File