nature

biodiversity and climate change).

This is a sensible recommendation. A focus on a smaller, more integrated set of goals could help to reduce instances in which implementing one of the SDGs has the potential to hinder another. Take the case of wind energy. This has a part to play in meeting the climate action SDG, but if wind farms are sited in the wrong places, or if the turbines are the wrong height, they can potentially harm bird populations, which would affect the SDG on protecting biodiversity and ecosystems. Under the GSDR proposals, climate and biodiversity would sit under one category for action. If properly implemented, this would mean that decisions on new energy sources would need to consider the implications for biodiversity – reducing the numbers of wind power plants that end up in inappropriate locations.

So how could the GSDR's recommendations be implemented? So far, it's not clear that they have reached the ministries of finance and economics, and the central banks, where they need to be heard. Last month, Guterres appointed the departing Bank of England governor Mark Carney as UN climate envoy. That is a positive move because Carney's office has the potential to expand the report's footprint by creating a formal link between the GSDR team and economic policymakers.

As the 15 scientists tasked with preparing the next report take their posts, they must also urge Guterres to give them the resources to raise the profile of their work further, so that it becomes as well known and influential as the UN reports on climate and biodiversity.

The SDGs were launched in a 2015 UN report called *Transforming our World*. That's because a world without hunger and disease, with meaningful jobs and a clean environment, requires transformational change. But, on present trends, there are few signs that such change will be achieved by 2030. That's a reason to redouble policy efforts guided by evidence. Real change won't come until the research–policy interface is strengthened. Time is short, and there's a lot to do when a decade is all we have.

Index of improvement

A US–Chinese team shows how sustainability metrics can be improved.

How can a country tell that it's making progress on sustainability? How can it work out, from year to year, whether its environment is improving, along with the economy and well-being?

This is incredibly difficult. A successful measure must have at least three characteristics: it needs to be based on a comprehensive set of reliable data; it must be accessible to non-specialists; and it has to be updated regularly and presented so that progress (or lack of it) can be seen easily.

> **"It's possible to measure progress towards the Sustainable Development Goals, and to reveal where countries fall short."**

For decades, researchers and policymakers have been searching for a measure that everyone can agree on. But most efforts, from the Human Development Index to the Genuine Progress Indicator, end up lacking some aspect of those three characteristics.

The need is becoming more urgent now that the international community is set on its 2030 deadline to meet the United Nations' 17 Sustainable Development Goals (SDGs), which aim to end poverty and hunger, tackle climate change and more.

The UN publishes an annual report that ranks countries on their progress towards each goal, with a score out of 100. It shows how nations are doing relative to each other and whether they're on track to meeting the goals (most are not – see page 7). But the report doesn't record local-level data, and inter-year comparisons are hard.

For example, Denmark – the top-ranked country in the 2019 report, with an impressive aggregate score of 85.2 – still has some way to go in reaching Goal 14, which measures the health of the marine environment ('life below water'). But those who want to know whether Denmark's score has improved over time are forced to comb through PDFs of the previous years' reports, and these include nothing comparing different parts of the country.

But help could be at hand. In *Nature* this week, a team led by researchers from Michigan State University in East Lansing and China Agricultural University in Beijing show how it's possible to use the SDG reporting framework to construct an index that allows progress to be compared across regions and over periods of time (Z. Xu *et al. Nature* **577**, 74–78; 2020).

The team chose China as its case study, and the results show that the country's overall SDG score increased from 45.5 in 2000 to 55.4 in 2015. Each of its 31 provinces also increased its score. Nationally, the trend is in the right direction, although the rate of progress so far is not enough to meet the 2030 target. Moreover, China's scores have fallen in four goals – life below water, responsible production and consumption, gender equality, and climate action.

Can such an approach to data gathering be scaled up? Yes, but it needs a large literature base to draw on, and public authorities must be willing to recognize the value of such an effort – and must know how to use it.

China's government is aware of the environmental and social risks of rapid industrialization, and the country has an active community of researchers and policymakers working on sustainability measures. The authors of the paper went to national data sources such as the National Bureau of Statistics of China, as well as specialized sources that hold data on health, energy and population – all of which are accessible for research. But that is expensive on a global scale. In many low- and middle-income countries, especially, the infrastructure to collect such data still needs to be built.

This work is a milestone, nonetheless, because it shows how it's possible to measure detailed progress towards the SDGs, and to reveal where countries fall short. With 17 goals and just 10 years in which to achieve them, the world needs better measures to see both how far we have come, and how far we have to go.