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A swan stands between dumped plastic bottles and waste on the Danube river near Belgrade, Serbia, on April 18, 2022. (AP Photo/Darko Vojinovic)

Effective climate action requires us to abandon viewing our efforts as a 'sacrifice'

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If you're like most people, you've been taught that climate action is a sacrifice. Cutting emissions from fossil fuels, you've probably been told, is the economy-squeezing price we must pay for a livable planet. But our research explains why we should look at this issue through a different frame.

Frames help us think about complex issues. They suggest starting assumptions, problems to be solved and point towards possible solutions. Sacrifice frames begin with the assumption that climate action is a burdensome cost.

Given that assumption, it naturally follows that climate action is all about convincing people to make sacrifices. But scholars have criticized sacrifice frames for being bad at motivating action. Tell a person to sacrifice, and they're likely to give you a list of reasons why they shouldn't have to do it.

We suggest a different approach. Instead of explaining why you should sacrifice for the climate, we explain why climate action isn't a sacrifice. We also suggest an alternative, more hopeful frame that fits with current science.

Three crumbling frames

One frame holds that wealthy countries have little to fear from climate change but much to lose economically from reduced emissions. Given this frame, the problem is to persuade wealthy countries to sacrifice for poorer ones, which are more vulnerable.

However, droughts in Europe, wildfires in Canada and record-breaking severe weather in the United States show that nowhere is safe from climate change.

Another frame insists that the climate changes too slowly for emissions cuts to make a difference in our lifetimes. Current generations pay now, the thinking goes, but all the benefits go to the future. According to this perspective, the challenge is to persuade people to not "pass the buck" to unborn generations.

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Yet research finds that the cooling effects of mitigation would start within two decades from the beginning of a fossil fuel phaseout. Many co-benefits of mitigation, such as improved air quality, are also immediate. According to a recent estimate, air pollution from burning fossil fuels kills approximately 8.7 million people annually.

Finally, the tragedy of the commons says that, despite the collective benefits of reining in climate change, climate action is always a net cost for each country, whatever other countries decide to do.

In this picture, self-interest leads governments to drag their feet and insist that others pick up the tab for cutting emissions. That suggests the problem is to prevent "free-riding" and to encourage sacrifice for the common good.

However, a transition to renewable energy is an investment likely to yield greater economic savings the sooner we start. A green transition has upfront costs. But the estimated average payback time of a transition to renewables by 2050 from energy savings alone is only about 5.5 years, and less than a year if co-benefits like air quality are taken into account.

Solar panels pictured at the Michichi Solar project near Drumheller, Alta. THE CANADIAN PRESS/Jeff McIntosh

Each of the frames canvassed above contains a kernel of truth. Disparities of vulnerability tied to wealth, inertia in the climate system and challenges to collective action are all real. The mistake lies in thinking that climate action is a sacrifice.

On the contrary, switching to renewable energy can generate economic savings and improve health today. We propose a frame that fits these facts.

Tipping games

In a tipping game, players can win a shared prize by making individual contributions to a common pot. But there's a catch. Each player's contribution passes a rebate along to those who contribute later.

That means a tipping game has a tipping point. That happens when enough people contribute so that further contributors enjoy a net savings. After that, people have an incentive to put their money in even if they don't care about the collective good.

Falling costs of renewables can be seen as a tipping game. Early actions to promote the adoption of solar power, like Germany's feed-in tariffs in 2000, led to increased demand and lower prices. The more solar panels people bought, the more efficiently manufacturers learned to make them and the greater incentive for performance-improving innovations.

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One tipping point arrived around 2014 when wind and solar power started being cheaper than electricity from coal and gas.

But a transition to renewables will necessitate crossing tipping points in other sectors, like transportation and steel manufacturing. Given the risks a green transition poses for fossil fuel exporters, this process is a matter of politics as well as economics and technology.

One might rightfully point out that there's more to climate action than renewable energy. What do cheaper solar panels have to do with deforestation, for example? But we suggest that tipping games can also be a helpful frame here.

The largest cause of deforestation is animal agriculture, especially clearing land to graze cattle and to grow soy beans for livestock feed. Reducing meat consumption and transitioning to mostly plant-based diets is also widely recognized as a positive from a health and climate perspective.

A deforested area that will be used as a cattle farm, next to the Juari village, part of the Karitiana Indigenous reserve near Porto Velho in Brazil. Animal agriculture is the single largest cause of global deforestation. (AP Photo/Andre Penner)

In this context, tipping dynamics may be more centred on policy diffusion and social norms than technological innovations. Policies that effectively reduce meat consumption or deforestation in one place can be modelled elsewhere. Evolving social norms would also be likely to play an important role in a widespread transition towards reduced meat consumption.

Tipping games offer hope for climate action. They provide a simple model for understanding the growth of renewable energy that is relevant to other aspects of tackling climate change. And they explain how solutions to collective problems don't require everyone to become a self-sacrificing saint.

Changing how we think about climate action just might change what we do. As we look forward to this year's COP28 climate meeting, we hope both government officials and members of the public will understand these risks and grab these opportunities. Every action has the chance of helping us tip ourselves away from danger.