

# Splashing the cash

Large philanthropic donations to climate causes attract media headlines, but headlines will not solve the challenges ahead. Financial commitments need to be accompanied by action to mitigate climate change before it is too late.

**T**en billion US dollars — that's the amount that Amazon CEO Jeff Bezos recently committed to fund climate research and activism. It's a lot of money for a personal commitment; in fact, it is slightly more than all current confirmed monies (US\$9.8 billion) to the Green Climate Fund (<https://www.greenclimate.fund/>): a fund set up ten years ago with a commitment of the developed world to channel US\$100 billion to developing countries to reduce emissions and increase their ability to respond to climate change.

This pledge follows the recent announcement that Bill Gates, who co-established the Bill & Melinda Gates Foundation 20 years ago, has stepped down from the Microsoft board to focus more time on his philanthropic efforts. The Gates Foundation (<https://www.gatesfoundation.org/>), now one of the largest non-profit organisations, aims to reduce inequalities and is possibly best known for their efforts in disease eradication; however, there is also support for climate change action, such as helping small-scale food producers to face the effects of climate change. Additionally, his efforts include the Gates-established Breakthrough Energy Venture (<https://www.b-t.energy/>), launched in 2015 at Paris UNFCCC COP21, working to improve energy access and net-zero energy technologies. Plus, others have made sizeable and generous donations recently: in 2019, American billionaires Stewart and Lynda Resnick gave US\$750 million to Caltech to address climate change and environmental sustainability.

These commitments are welcome, particularly as climate change has previously lagged behind other causes in charitable donations. It was estimated in 2017 as only receiving 2% of all USA donations (<https://on.ft.com/2xeOtHi>). Why this is the case is not clear — maybe the distance nature of climate change impacts did not provide the tangible results that donors may look for.

There has been a recent increase in philanthropy: for example, pledges announced at the 2018 Global Climate Summit totalling US\$4 billion from a coalition of 29 philanthropies (<https://bit.ly/2Wwr2Eg>). January 2020 saw the announcement of the India Climate Collaborative, created by India's foremost philanthropists with over 40 members,



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which aims to be a leader in climate action (<https://bit.ly/3djFzc4>).

Yet however large these amounts sound, they are a small amount of what is needed. Estimates run to the trillions of dollars: an amount that is not currently being achieved — for further discussion of climate funds and investments, see Sophie Yeo's news feature in *Nature* (*Nature* 573, 328–331; 2019).

Philanthropic efforts are not going to solve climate change alone, and splashing the cash does not release an individual from responsibility. Action at the individual level along with changes in behaviour are needed. As Ilona Otto and colleagues highlighted in a Comment (*Nat. Clim. Change* 9, 82–84; 2019), the wealthy are the ones best positioned to protect themselves from climate change impacts, but also the best positioned to mitigate through embracing new technologies, such as those that could modify their homes to zero carbon. Their calculation that the top 0.54% wealthiest of the global population contribute 13.6% of total global lifestyle-related emissions shows that individual actions by this group could result in large emissions reductions. This is backed up by recent work in *Nature Energy* (*Nat. Energy* 5, 231–239; 2020). Yannick Oswald and colleagues looked across 86 countries and found that the richer you are, the more energy you use. Energy is considered across all aspects of life, with the top 10% using ~39% of total energy, which is around 20 times more than the bottom

10%, who account for ~2%. Transport is the area with the greatest divide, with 187 times higher use by the wealthy. These results are in line with previous findings in 2015 that the top 10% produce half of all emissions (<https://bit.ly/2vCuJgx>).

As well as in their personal life, action should carry through to responsible business and investment. Bezos has been challenged on Amazon's lack of climate action, with employee pressure seeming to be the driver behind an announced Climate Pledge in September 2019 — the company plans to be carbon neutral by 2040. However, there has been criticism that this pledge does not go far enough, and Amazon is not alone in their limited action to mitigate emissions and take action. An assessment of 138 companies across seven high-emitting sectors by Simon Dietz and colleagues in 2018 (*Nat. Clim. Change* 8, 1072–1075; 2018) showed most had implemented basic practices for carbon management; however, more detailed strategic plans were less common. Hopefully this has improved over time.

Funds from governments, philanthropists and foundations are all needed to move us towards a sustainable and equitable future. We all need to do what we can, meaning we should keep on giving, supporting, talking and acting as much as we can to avoid the worst predicted future. □