

# Action on demand

The recent IPCC report highlights the importance of demand-side solutions in mitigation strategies. Understanding the motivation and capacity of these solutions is essential, and could help to promote collective and practical actions for this critical decade.

On 4 April 2022, the Intergovernmental Panel on Climate Change (IPCC) published the third section (Working Group III) of the Sixth Assessment Report (AR6), or the ‘mitigation report’. This is the first full assessment since the Paris Agreement, which provides a comprehensive understanding of the current situation and why we need to act swiftly. In particular, it delivers the strong message that this decade is critical to meet the goal of limiting warming to 1.5 °C, and that the window of action is short. Although the development of mitigation policies has avoided large amounts of emissions in the past, to be in line with the Paris Agreement targets, governments around the world still need to set up more ambitious commitments, as well as to take more accountable implementations.

Previous mitigation policies have focused on the supply-side, such as energy system transitions or land-use changes. The AR6 WG III report, for the first time, includes an independent and full chapter on ‘Demand, services and social aspects of mitigation’, which puts individual needs centre stage of the analysis. With contributions from scholars across the different social-science disciplines, the report shows demand-side solutions, including social-cultural transitions and lifestyle changes, that could have great potential for emissions reductions in almost every sector. It also summarizes the factors of motivations of individuals to adopt low-carbon behaviours and what actions need to be improved.

Beyond reducing carbon emissions in different sectors, the demand-side options could also bring large interacting benefits and enhance human well-being. In their [Article](#), Creutzig and colleagues conducted a systematic literature review and used expert judgments to demonstrate that most demand-side solutions, such as consumption pattern shifts, active and shared mobility, and dietary changes, have positive impacts on human well-being. The most notable improvements can be observed in health, air quality and energy access, which are often framed as co-benefits. These actions could also improve the social aspects of well-being, such as security and stability.

Demand-side mitigation solutions also have important implications for justice. They



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can be effective tools to reduce emissions and well-being gaps. Income and wealth inequalities are closely linked to inequalities in the average carbon footprint, which are both a cross- and within-country issue (L. Chancel et al. *World Inequality Report 2022*; <https://go.nature.com/37IyiVr>). It is estimated that about 0.5% of the wealthiest households account for 13.6% of global lifestyle-related emissions (I. M. Otto et al. *Nat. Clim. Change* 9, 82–84; 2019), which shows great potential for demand-side solutions to reduce emissions by changing the way of life. On the other side of the spectrum, well-designed demand-side climate-related interventions could help to alleviate the inequality of access to clean and affordable resources, such as renewable energy and services. This is essential for the poorest groups in developing countries, so that their basic needs can be met without compromising mitigation targets (N. D. Rao et al. *Nat. Energy* 4, 1025–1032; 2019).

Just like mitigation instruments on the supply-side, there are no shortcuts to meaningful demand-side actions. In fact, the demand-side mitigation options require deep and fundamental changes. The WG III report summarizes that such transitions would need actions at different levels, including individual, cultural, corporate, institutional and infrastructure. Both motivation and capacity are necessary for the changes to happen. The complex nature of these changes means that any action with a single dimension or actor is far from being enough.

Coordinated and collective efforts are key for such strategies to be successful in practice.

Governance and policy are important to promote the multidimensional societal changes for demands. This requires innovative, effective, feasible and equitable designs that will meet both the mitigation targets as a society and provide people with a decent living. In addition, awareness and willingness of the general public is necessary for such policies to be accepted and even properly implemented. Recently, Sweden's political parties agreed on a deal to include consumption-based emissions in the national climate target, which makes it the first country to officially address demand-side emissions. It is not hard to conclude that implementing such a policy will be more challenging in countries with more polarized political environments or where people are less concerned about climate issues. There is still a lot of work needed to overcome all of the possible obstacles.

Demand-side solutions aren't the silver bullet for the climate crisis. Climate action requires systematic transitions from both the supply and demand sides. At the same time, collaboration between researchers, policy professionals and the general public is needed across the world. Rapid and fundamental demand-side shift is in no doubt challenging, yet it is the direction that we cannot dodge or bypass. □

Published online: 9 May 2022  
<https://doi.org/10.1038/s41558-022-01369-7>