

Saavedra, Julio

Research Report

The climate is changing - Will we? Weatherproofing the future

EconPol Policy Brief, No. 75

Provided in Cooperation with:

Ifo Institute – Leibniz Institute for Economic Research at the University of Munich

Suggested Citation: Saavedra, Julio (2025) : The climate is changing - Will we? Weatherproofing the future, EconPol Policy Brief, No. 75, CESifo GmbH, Munich

This Version is available at:

<https://hdl.handle.net/10419/319528>

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The Climate Is Changing – Will We? Weatherproofing the Future

Julio Saavedra

- Adaptation to global warming should no longer be seen as an undesirable alternative to mitigating carbon emissions, but as an unavoidable complement to it instead.
- Adaptation is highly cost-effective, and its benefits accrue locally and instantaneously when extreme weather strikes. Mitigation's benefits, in contrast, are spatially diffuse and occur farther in the future. Both, however, must be pursued simultaneously.
- Insurers can advise policymakers, municipalities, and investors on how to properly assess the risks posed by climate-related events.
- Developing countries need the full support of developed economies to help them boost their preparedness and resilience in the face of an increasingly hostile climate.
- Contrary to widespread perception, most migration in Africa is internal, with the bulk being of the rural-to-urban sort. The flows towards the EU are small by comparison and can be managed with proper support.

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EconPol Policy Brief

Publisher and distributor: CESifo GmbH
Poschingerstr. 5, 81679 Munich, Germany
Telephone +49 89 9224-0, email office@cesifo.de
EconPol Europe: www.econpol.eu

Editor: Andrea Balestracci

Editorial Board: Clemens Fuest, Oliver Falck, Lisandra Flach, Sarah Necker, Karen Pittel, Niklas Potrafke, Panu Poutvaara, Andreas Peichl, Helmut Rainer, Marcel Thum, and Ludger Woessmann

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The Climate Is Changing – Will We? Weatherproofing the Future

Julio Saavedra *

Whatever the degree of success we achieve in curbing carbon emissions, the climate will be more inhospitable in the coming decades. Extreme weather events are already becoming the new normal. Therefore, along with renewing our mitigation efforts, we need to *adapt*, which basically entails enhancing our *preparedness* and our *resilience* in order to preserve our way of life.

This will require generosity on the part of developed economies toward less developed ones, creative financial approaches leveraging the strengths of the public and private sectors, insurers working in lockstep with municipalities and educators, and, most of all, a realization that adaptation is an investment where the benefits not only outweigh the cost, but also accrue locally every time disaster strikes. Adaptation will also require research, innovation, and lots of widely shared data.

The 2025 EconPol Europe Annual Conference, on whose proceedings this policy brief is mostly based, approached the need to adapt from three perspectives: adaptation strategies to build a climate-resilient European Union; adaptation to climate change in developing countries; and migration as an adaptation strategy.

* Saavedra (saavedra@cesifo.de): CESifo and Royal Academy of Oman

Introduction

The planet could not care less. Whichever way the temperature goes in the coming centuries, the Earth will continue to be a planet. This puts our human fight against global warming into perspective: it is not about saving the *planet*, nor merely about *surviving*, but about preserving our way of life. And we are losing.

The red line of yore – i.e., of just a few years ago – was not surpassing 1.5°C above pre-industrial temperatures. We blew past that threshold around the end of 2023, with 2024 becoming the first calendar year averaging consistently above that mark (Tollefson 2025) and, according to the World Meteorological Organisation (WMO, 2025), it will likely stay that way all the way to 2029. (True, the 1.5°C threshold is supposed to be the average of a 50-year period, but the trend is clear.)

Thus the next absolute red line became, unofficially, 2°C. But by now it is clear that even if we got to Net Zero right away – that is, if we stopped adding carbon dioxide to the atmosphere from this minute – we would still blow past that threshold all too quickly for comfort. The WMO warns of a frightening, but mercifully still small, possibility that the 2°C threshold could be breached, suggesting that the world will experience the hottest year ever recorded by 2029, beating the record set in 2024.

So, the talk now is about how to *cope* with a truly dystopian, and only too likely, eventual rise to a whopping 3–4°C above the pre-industrial level for many decades to come.

And dystopian it will be. [Kurt Vanderberghe](#), head of the Directorate-General Climate Action at the European Commission, describes the many nightmarish ways in which this brave new world is already making itself evident. In 2022, floods submerged one-third of Pakistan, affecting 33 million people and killing more than 1,700. A year later, a single extreme climate event wiped out 10 percent of Slovenia's annual GDP (Peternel, Jemec Auflič, Šegina, Turk, Jež, and Bavec 2023). Then, in 2024, freakishly heavy rain brought catastrophic flooding to central Spain, causing more than 200 deaths. That year, even Dubai, of all places, was flooded when it received a year's worth of rainfall in just 24 hours. As 2025 dawned, wildfires destroyed more than 16,000 homes and structures in Los Angeles (Semancik 2025). Just now, as these lines are written, massive floods are inundating Australia's New South Wales.

Meanwhile, the melting of the ice sheets in Greenland and Antarctica threatens to devastate coastal areas around the world and displace millions of people in the coming decades. The worst part? Research shows that even staying below the 1.5°C, as the world has pledged to, might not be good enough to save the ice sheets (Stokes, Bamber, Dutton, and DeConto 2025).

With carbon dioxide concentration in the atmosphere at its highest level in 3 million years (or 14 million, if you believe other reports), such extreme weather events will become the new normal. The damage, thinks Mr. Vanderberghe, will be comparable to that wreaked by the Great Depression – *permanently*. Günther Thallinger, a top executive at Allianz, one of the world's largest insurers, even fears that global warming is on track to kill capitalism (Carrington 2025). And for us in the Old World, a further worry: Europe is warming at double the pace of the rest of the world. At this rate, Mr. Vanderberghe fears, we might be the last generation to experience a stable climate.

Thus, *we need to adapt*.

That was the focus of the 2025 EconPol Annual Conference, held this May in Brussels. It looked at the issue from three different perspectives: adaptation strategies to build a climate-resilient European Union; adaptation to climate change in developing countries; and migration as an adaptation strategy. This policy

brief builds upon the conference's discussion and complements it with ifo and CESifo Network research findings to provide a number of policy pointers.

Adaptation: From Risk to Readiness

Adaptation was long a dirty word in the fight against global warming. It was seen as a sort of capitulation, of giving up the fight to decarbonize, with humanity, in defeat, battenning down to try to weather the calamities spawned by an increasingly inhospitable climate. Luckily – or unluckily, if you consider what brought about the change of heart – the word has lost that edge. Now it encapsulates the one thing we definitely cannot do without. Crucially, though, adaptation is not being promoted as an *alternative* to mitigation, but as a vital *complement* to it.

A further factor that has made adaptation a hard sell is that, just like the efforts to reduce carbon dioxide emissions, it calls for huge investments up front, while the payoff is still decades away. Unlike reducing emissions, however, the benefits of which are felt far and wide and in the future, adaptation benefits often accrue locally every time disaster strikes, increasing the acceptability of going ahead with the investment. In any case, investing in adaptation is anything but a luxury and, as [Karen Pittel](#), Director of the ifo Center for Energy, Climate, and Resources and Professor of Economics at Munich University, makes clear, the benefits of adaptation measures often exceed their costs. In Germany, she says, it has been shown that investing in adaptation can reduce damages by up to 50 percent (Pfeiffer and Pittel 2025, 5–12).

Greening the grid, for instance – i.e., making it more resilient to the intermittency of renewable energy supplies or to a rare atmospheric phenomenon (or to acts of external aggression, for that matter) – might have made it possible to avoid the 2025 Iberian Peninsula blackout (Sánchez León 2025), which affected Spain, Portugal, Andorra, parts of France, Morocco, and even telecommunication services in Greenland, in addition to causing seven deaths and billions of euros in damages. Another case in point was the rolling blackouts in California in 2020, which exposed the power grid's unreliability during extreme weather events, in this case an extreme heatwave (California Municipal Utilities Association 2021).

As these examples illustrate, global warming is a massive threat multiplier. To counter it, two key areas need to be massively enhanced: *preparedness* and *resilience*. The first step to achieve either is to assess risk properly. [Blaž Kurnik](#), Head of Climate Change Impacts and Adaptation at the European Environment Agency, points out that risk varies significantly from region to region, but tends to spill over regional borders. And risks tend to cascade: one bad thing leads to another, and then another. Thus, we need to understand not only the current and potential regional risk, but the systemic one as well. This calls for solid climate intelligence, which means research and lots of data. Small wonder then that the market for climate intelligence is growing by 15 percent a year, while that for climate solutions is expected to hit EUR 1.3 trillion by 2030.

Once the relevant parties have taken ownership of the risk assessed in their regions, they must seek ways to close the gap between the financing needs to implement the required adaptation measures – which, as pointed out above, are mostly carried out at the local level – and the available funding. This brings up a conundrum for investors, namely that investing in stocks is the opposite of investing in resilience: the former pays off when things go well, whereas the latter pays off when things go bad – and the payoff, in terms of damage avoided when nature strikes, is not easily convertible into monetary rewards. Inevitably, then, public finance must be leveraged so as to de-risk private investment. One good option for this is to mobilize finance and insurance in lockstep, through instruments such as catastrophe bonds, the market for which is growing at 20 percent per year.

Despite all the current warnings and such recent climate-related catastrophes as Germany's Rhein-Erft Kreis flash flood of July 2021, we are failing to adapt, at least on the insurance front. [Nicolas Jeanmart](#), Head of Personal and General Insurance at Insurance Europe, points out that we are still building in high-risk areas, leading insurers to consider some of those areas, like certain corners of California, henceforth uninsurable. That makes them also not investable.

[Frank Venmans](#), a professor at the Grantham Institute, London School of Economics, concurs. If it is uninsurable, he advises, *don't invest* – and don't insure, since providing insurance in such risky cases may give rise to a moral hazard issue, i.e., a lack of incentive to guard against risk since one feels protected from its consequences by the existing coverage.

This suggests that municipalities would do well to consider getting input from insurers when contemplating the issuance of building permits, for example. Insurers can also help steer education toward raising awareness of the costs and benefits involved in adaptation measures.

That would lead, for instance, to better policies that can incentivize more effective protection measures. Mr. Venmans highlights one example: despite high-visibility events such as flash floods, the biggest climate-related killer is actually heat waves. And when those waves hit, insulation usually falls short. Yet, insulation is what policymakers focus mostly on, given their preference for reducing energy consumption over implementing more effective protection. A suitable solution would be to complement insulation with heat pumps, since they can provide not only heating in winter but cooling as well, whenever needed. This suggests where incentives should be applied.

In the end, much comes down to collecting and updating data, crunching it, and sharing the resulting information with policymakers, municipalities, companies, and all the way down to the individual, through well-tailored communication campaigns, not only to identify the best adaptation measures to invest in, but also to win hearts and purses for investing in adapting to a more hostile climate.

Not just for the planet. But for the preservation of our way of life.

From Vulnerability to Viability: Adaptation to Climate Change in Developing Countries

Developed countries have been very generous toward developing countries – in formulating promises. Much less so in fulfilling them, points out [Andrei Marcu](#), Executive Director of the European Roundtable on Climate Change & Sustainable Transition. By whatever moral, human, technical, or political standards, less-developed countries cannot be left behind.

Unfortunately, the support seems to be going backward. The demise of USAID by the Trump administration has already had a noticeable impact, says [Johan Swinnen](#), Director General of the International Food Policy Research Institute. At the same time, public investment in food and agriculture research and development (agrifood R&D) in the US, the EU, and the UK is fairly stagnant; the only ray of hope at the moment is that its growth rate is picking up in India, Brazil, the Gulf states, and especially China (Ruane and Ramasamy 2023).

The agrifood sector is among the first to be impacted by climate change, which makes it particularly worrying that agrifood R&D investments in low-income countries continue to be extremely low, at a meagre 2 percent of the total, and are often highly volatile (Ruane et al. 2023).

An interesting development is that agrifood R&D spending by the private sector is rising faster than that of the public sector. That said, private-sector research will not, and could not, replace the public sector kind, since public research organizations do not need to make an economic profit and can thus work on problems affecting smallholders that are not prioritized by the private sector. High among these problems is climate change.

Adaptation, as mentioned previously, is highly decentralized, and therefore very local, requiring instruments that are very specific to each location. Local inhabitants seek it almost by instinct; indigenous farmers in India, China, and other parts of Asia and sub-Saharan Africa know how to adapt. The problem is, as Mr. Marcu observes, that the pace of change they are faced with now is of a wholly different magnitude. Furthermore, mitigation, in contrast to adaptation, appears much more diffuse to them, and also requires lots of innovation.

Maria Waldinger, Professor of Economics & Sustainable Economic Policy at the Catholic University Eichstätt-Ingolstadt, highlights how adaptation as an investment decision faces unique challenges – climate uncertainty, long time horizons, and complex externalities – that private actors struggle to address alone. Full public responsibility, however, risks crowding out private investment and creating moral hazard, as demonstrated by cases where national insurance programs have encouraged development in high-risk areas. Public policy should focus on enabling and incentivizing private adaptation investments while addressing market failures, providing climate information and risk assessments, developing financial instruments, and creating frameworks that help monetize adaptation benefits (Waldinger and Wintersteller 2025, 19–25; Waldinger 2016, 204–221).

What is clear is that the local drive for adaptation will require a good measure of education, knowledge transfer, outside financial support, and guidance. This is one area where the promises of the developed world would do well to be fulfilled.

Walking with the Weather: Migration as a Coping Strategy

One of the arguments for richer nations to help developing countries mitigate global warming and adapt to its effects is the fear of waves of climate refugees knocking on their doors. But actual migration, so far, has had little to do with the climate.

Panu Poutvaara, Director of the ifo Center for Migration and Development Economics, argues that while it is difficult to make precise predictions regarding future climate-related refugee movements, it can be assumed that, regardless of the extent to which global warming increases, some densely populated regions will become unsafe or completely uninhabitable, thus triggering migration movements. The range of predicted climate-induced population displacement by 2050 is high and ranges between 31 and 143 million people for Central and South America, sub-Saharan Africa, and South Asia (Albrecht and Poutvaara 2023). Even more worryingly, forecasts of displacement due to rising sea levels in Africa alone estimate that 186 to 245 million people will be affected by 2060 (Beyer and Milan 2022).

Ibrahima Amadou Dia, Director of the African Centre for the Study and Research on Migration at the African Union, points out that around 80 percent of African migration is internal, from rural to urban areas within the same country, followed by cross-border migration within the continent. Migration out of Africa comes a very distant third, contrary to the dramatic images of irregular African migrants risking their lives to cross the Mediterranean. Research shows that Africa accounts for only 14 percent of international migrants, whereas migrants from Asia account for 41 percent and from Europe for 24 percent of the global migrant population (Food and Agricultural Organization of the United Nations 2017). Internal migrants mostly come from rural areas, while international migrants originate mostly from urban areas, since rural dwellers usually do not possess the financial means and international migration is very expensive.

If global warming worsens rural conditions, migration into urban areas is likely to pick up significantly. Most African countries, says Mr. Dia, do not have the resources to manage this influx, a fact that should be considered in policymaking.

Still, it is difficult to say who are environmental migrants, in particular as regards those currently daring the Mediterranean crossing, according to **Orlane Mathieu Maincent**, of the Humanitarian Programme Development, Migration & Climate Change/Disaster – IOM, UN Migration. Many Africans, he says, move to Libya to seek work in that country, which traditionally has had lots of jobs to offer. But many migrants get caught up in a web of trafficking, exploitation, and worse, prompting them to get on a boat and risk the perilous crossing to Europe.

So what to do? **Francesco Luciani**, of the Migration & Forced Displacement Unit at the European Commission's Directorate-General for International Partnerships, proposes "mobility partnerships" as a way for communities to plan for adaptation, relocation, and agricultural resilience. But that is easier said than done. Even the terminology is a problem. The words "mitigation," "resilience," and "adaptation" do not even exist in many languages. "Drought," in turn, can be an "act of God." Still, as Mr. Dia stresses, we must strive to understand the root causes for migration and, at the same time, unclog the regular channels to enable it.

After all, many migrants contribute hugely to the countries they move to. When these countries try to keep them out in response to political headwinds – a phenomenon all too prevalent in the EU nowadays – they are undermining themselves. The current situation in the United States is a stark reminder of the folly of slamming the door on foreign talent: just consider that, of the Magnificent Seven (Alphabet, Amazon, Apple, Meta, Microsoft, Nvidia, and Tesla), four are headed by foreign-born CEOs.

In short, turning the EU into a fortress against immigration, without providing help to address the root causes driving people to emigrate, or without supporting their efforts to adapt to global warming's effects in their countries of origin, is a strategy doomed to fail not only on the economic or demographic fronts, but most of all on the humanitarian one.

Policy Conclusions

Given that mitigating carbon emissions will not check global warming sufficiently to avert extreme weather events in the coming decades, we need to enhance our preparedness and our resilience to cope with the new normal. This requires putting adaptation on an equal footing to mitigation among the strategies that we must unavoidably pursue.

First, we need to **assess risk properly**. A combination of serious research and the wealth of knowledge and data accumulated by insurers can serve to inform local and regional policies. Building permits, and

insurance, should not be provided for new construction in high-risk areas. Talking about data, it is crucial to make a concerted effort to harmonize and share data between EU institutions, member states, regions, agencies, and other key actors.

Second, we need to **anticipate**. The signs point to an increasingly fast melting of the Antarctic and Greenland ice sheets. The measures to prepare coastal communities and infrastructure around the world must be accelerated.

Third, to be able to anticipate, we need to be properly **informed**. Scientific research and analyses must be suitably incentivized so that their findings, forecasts, and projections are available to policymakers, municipalities, educators, communicators, and households on a timely basis.

Fourth, the fact that the European Union is warming at twice the global rate does not mean that this is solely an EU problem. Developing countries will bear the brunt of the climate onslaught, and it is the **duty** of all developed economies to **provide all the assistance** they need, financial and otherwise.

Fifth, **public finance must** be leveraged so as to **de-risk private investment** in adaptation by such instruments as catastrophe bonds and the like. Public policy should also create frameworks that help **monetize adaptation benefits**.

Sixth, **migration** requires a comprehensive approach that goes well beyond the fear of waves of immigrants storming the borders of developed economies. Urban areas in developing countries must be helped to cope with increased rural-to-city migration. Local communities must be assisted in developing and implementing their own adaptation measures through initiatives such as EU-supported “mobility partnerships.” Finally, regular immigration channels must be streamlined and kept open to protect migrants from the perils and exploitation of irregular migration.

Adaptation, in the end, is the bridge between the harsher reality of today’s higher temperatures and the more benign conditions of tomorrow’s decarbonized climate. If we do not build the bridge today, we will not be able to reach that tomorrow unscathed.

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