

## The Adaptive Age

*No institution or individual can stand on the sidelines in the fight against climate change*

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PHOTO: IMF

**WHEN I THINK** of the incredible challenges we must confront in the face of a changing climate, my mind focuses on young people. Eventually, they will be the ones either to enjoy the fruits or bear the burdens resulting from actions taken today.

I think of my 9-year-old granddaughter. By the time she turns 20, she may be witness to climate change so profound that it pushes an additional 100 million people into poverty. By the time she turns 40, 140 million may become climate migrants—people forced to flee homes that are no longer safe or able to provide them with livelihoods. And if she lives to be 90, the planet may be 3–4° hotter and barely livable.

Unless we act. We can avoid this bleak future, and we know what we have to do—reduce emissions, offset what cannot be reduced, and adapt to new climate realities. No individual or institution can stand on the sidelines.

### Reality check

Our efforts to reduce greenhouse gas emissions through various mitigation measures—phasing out fossil fuels, increasing energy efficiency, adopting renewable energy sources, improving land use and agricultural practices—continue to move forward, but the pace is too slow. We have to scale up and accelerate the transition to a low-carbon economy. At the same time, we must recognize that climate change is already happening and affecting the lives of millions of people. There are more frequent and more severe weather-related events—more droughts, more floods, more heat waves, more storms.

Ready or not, we are entering an age of adaptation. And we need to be smart about it. Adaptation is not a defeat, but rather a defense against what is already happening. The right investments will deliver a “triple dividend” by averting future losses, spurring economic gains through innovation, and delivering social and environmental benefits to everyone, but particularly to those currently affected and most at risk. Updated building codes can ensure infrastructure and buildings are better able to withstand extreme events. Making agriculture more climate resilient means investing more money in research and development, which in turn opens the door to innovation, growth, and healthier communities.

The IMF is stepping up its efforts to deal with climate risk. Our mission is to help our members build stronger economies and improve people’s lives through sound monetary, fiscal, and structural policies. We consider climate change a systemic risk to the macroeconomy and one in which the IMF is deeply involved through its research and policy advice.

### Mitigation plus adaptation

On the mitigation side of the equation, this means intensifying our work on carbon pricing and helping governments craft road maps as they navigate their way from brown economies dependent on carbon to green ones that strive to be carbon free.

Carbon taxes are one of the most powerful and efficient tools at their disposal—the latest IMF analysis finds that large emitting countries need to introduce a carbon tax that rises quickly to \$75 a ton in 2030, consistent with limiting global warming to 2°C or less. But carbon taxes must be implemented in a careful and growth-friendly fashion. The key is to retool the tax system in fair, creative, and efficient ways—not just add a new tax. A good example is Sweden, where low- and middle-income households received higher transfers and tax cuts to help offset higher energy costs following the introduction of a carbon tax.

This is a path others can follow, strategically directing part of the revenues that carbon taxes generate back to low-income households that can least afford to pay. With the revenues estimated at 1–3 percent of GDP, a portion could also go to support firms and households that choose green pathways.

While we continue to work to reduce carbon emissions, the increasing frequency of more extreme weather like hurricanes, droughts, and floods is affecting people all across the world. Countries already vulnerable to natural disasters suffer the most, not only in terms of immediate loss of life, but also in long-lasting economic effects. In some countries, total economic losses exceed 200 percent of GDP—as when Hurricane Maria struck Dominica in 2017.

Our emergency lending facilities are designed to provide speedy assistance to low-income countries hit by disasters. But the IMF also works across various fronts on the adaptation side to help countries address climate-related challenges and be able to price risk and provide incentives for investment, including in new technologies.

We support resilience-building strategies, particularly in highly vulnerable countries to help them prepare for and rebound from disasters. And we contribute to building capacity within governments through training and technical assistance to better manage disaster risks and responses.

We work with other organizations to increase the impact of our climate work. One of our most important partnerships is with the World Bank, in particular on Climate Change Policy Assessments. Together, we take stock of countries' mitigation and adaptation plans, risk management strategies, and financing and point to gaps where those countries need investment, policy changes, or help in building up their capacity to take the necessary action.

## New frontiers

Moving forward, we must also be open to stepping in where and when our expertise can help, and there are other areas where we will be gearing up our work. For example, we will be working more closely with central banks, which, as guardians of both financial and price stability, are now adapting regulatory frameworks and practices to address the multifaceted risks posed by climate change.

Many central banks and other regulators are seeking ways to improve climate risk disclosure and classification standards, which will help financial institutions and investors better assess their climate-related exposures—and help regulators better gauge system-wide risks. The IMF is offering support by working with the Network of Central Banks and Supervisors for Greening the Financial System and other standard-setting bodies.

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Central banks and regulators should also help banks, insurers, and nonfinancial firms assess their own exposures to climate risk and develop climate-related “stress tests.” Such tests can help identify the likely impact of a severe adverse climate-driven shock on the solvency of financial institutions and the stability of the financial system. The IMF will help push forward efforts around climate change stress testing, including through our own assessments of countries' financial sectors and economies. Careful calibration of stress testing for climate change will be needed, because such testing requires assessing the effects of shocks or policy actions that may have little historical precedent.

All these efforts will help ensure that more money will flow into low-carbon, climate-resilient investments. The rapid increase of green bonds is a positive trend, but much more is required to secure our future. It is that simple: we all need to intensify our efforts to work together to exchange knowledge and ideas, to formulate and implement policies, and to finance the transition to the new climate economy. Our children and grandchildren are counting on us. **FD**

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