

IPCC Summary for Financial Players

IPCC, 2022: Climate Change 2022: Impacts, Adaptation, and Vulnerability. Contribution of Working Group II to the Sixth Assessment Report of the Intergovernmental Panel on Climate Change [H.-O. Pörtner, D.C. Roberts, M. Tignor, E.S. Poloczanska, K. Mintenbeck, A. Alegría, M. Craig, S. Langsdorf, S. Lösschke, V. Möller, A. Okem, B. Rama (eds.)]. Cambridge University Press. In Press.

What is this report?

This report was published by the Working group II of the Intergovernmental Panel for Climate Change (IPCC) and acts as a summary of their current assessment of climate impacts and risks. This summary for the SSF Newsletter readers highlights the most pertinent aspects of this report for the financial sector. Read the full report [here](#) and the summary for policymakers [here](#).

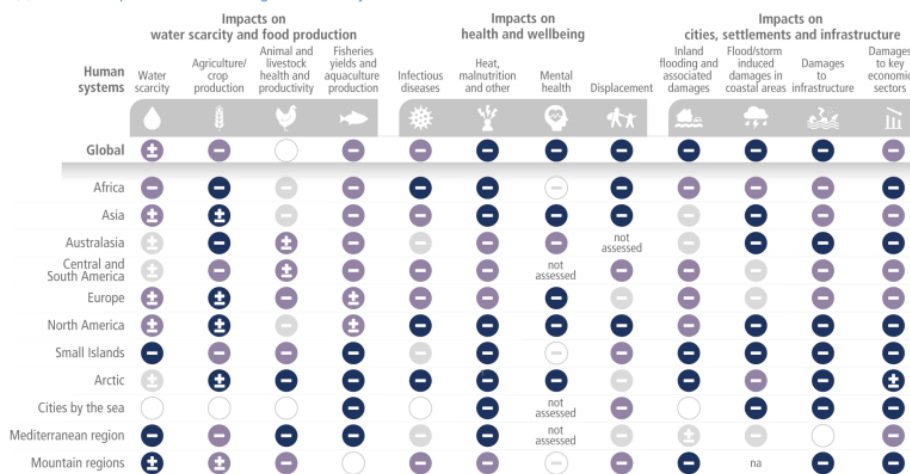
Why is this important for the financial sector?

All IPCC Working Groups monitor risk and create risk frameworks to determine the often-irreversible impacts to the environment and human society. This report recognizes risk as arising from the dynamic interactions between climate related hazards and the exposure and vulnerability of affected human and ecological systems. Human responses to risks can exacerbate or mitigate impacts. Like other forms of human systems, the financial system can contribute towards the problem or help solve it.

Climate and Risk for Economic Sectors and Supply Chains

The observed and regional impacts on ecosystems and human systems, including damages to key economic sectors, caused by climate change are detailed in the following chart. The + and – symbols indicate the direction of observed impact. In the case of damage to key economic sectors, the impact related to or directly caused by extreme climate hazards show a clear negative impact, across all regions except the Arctic.

(b) Observed impacts of climate change on human systems



Source: Climate Change 2022 Impacts, Adaptation and Vulnerability. IPCC Report 2022. Available [here](#)

Negative impacts, have increased across a number of climate-exposed economic sectors including agriculture, forestry, fishery, energy, tourism and outdoor labour productivity. In addition, extreme events such as tropical cyclones, have reduced short term economic growth globally. Economic damages are projected to increase non-linearly with global warming levels; getting significantly worse as we approach high warming scenarios. Non-climatic factors, such as the patterns of settlement and location of infrastructure, have been observed to contribute to the exposure of more assets to extreme climate hazards. Thus these non-climatic factors act as threat multipliers. This effect is observed for the economy at large and for individual livelihoods. Economic losses will be greater in countries with lower GDP; such losses will represent a higher fraction of income.

Weather and climate extremes are causal to a number of economic impacts across national boundaries, acting via supply chains, markets and natural resource flows. Especially at risk are the water, energy and food sectors. Supply chains, particularly those that rely on specialized commodities and key infrastructure, are particularly vulnerable to extreme weather and climate events. Water and rainfall patterns increased the risk in planned infrastructure projects, such as hydropower, in some regions.

Financing for Climate Resilient Development

An analysis of current global financing reveals that financing for adaptation currently focuses primarily only physical infrastructure rather than natural and social infrastructure. Additionally, financed adaptation responses are overwhelmingly focused on ecosystem-based adaptation.

Global financing into the climate resiliency of the health system is lacking, but would have significant benefits for human health and wellbeing. Areas in need of investment include extreme heat action plans, water-borne and food-borne diseases, water accessibility, exposure of water and sanitation systems to extreme weather, vector-borne diseases and food. Such financing could help overcome the soft limits to human adaptation that have been reached. However, this would require collaboration between financial, governance, institutional and policy areas. In addition it must be considered how constraints are increased by inequity and poverty and how investment in areas can overcome these challenges.

Financial constraints are important determinants of soft limits to adaptation across sectors and all regions. Although global tracked climate finance has been on the increase, current global financial flows for adaptation, including from public and private finance sources, are insufficient and they constrain the implementation of adaptation options especially in developing countries. Overwhelming majority of tracked climate finance is targeting mitigation, while a small proportion goes to adaptation. It is important to make a global effort to mobilize investment and other financial flows into implementing adaptation and overcoming adaptation gaps. Public finance is an important enabler of adaptation. Public mechanisms and finance can leverage private sector finance for adaptation by addressing real and perceived regulatory, cost and market barriers, for example via public-private partnerships.

"Climate resilient development is enabled when governments, civil society and the private sector make inclusive development choices that prioritise risk reduction, equity and justice, and when decision-making processes, finance and actions are integrated across governance levels, sectors and timeframes. Climate resilient development is facilitated by international cooperation and by governments at all levels working with communities, civil society, educational bodies, scientific and other institutions, media, investors and businesses; and by developing partnerships with traditionally marginalised groups, including women, youth and Indigenous Peoples, local communities and ethnic minorities. These partnerships are most effective when supported by enabling political leadership, institutions, resources, including finance, as well as climate services, information and decision support tools." (SPM.D.2)

Conclusions

The cumulative scientific evidence is clear: Climate change is a threat to human well-being and planetary health. Any further delay in concerted anticipatory global action on adaptation and mitigation will miss a brief and rapidly closing window of opportunity to secure a liveable and sustainable future for all. Inclusive governance, investment aligned with climate resilient development, access to appropriate technology and rapidly scaled-up finance, and capacity building of governments at all levels, requiring action from the private sector and civil society, will enable the development of a climate resilient society.

Zurich, 17 March 2022

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