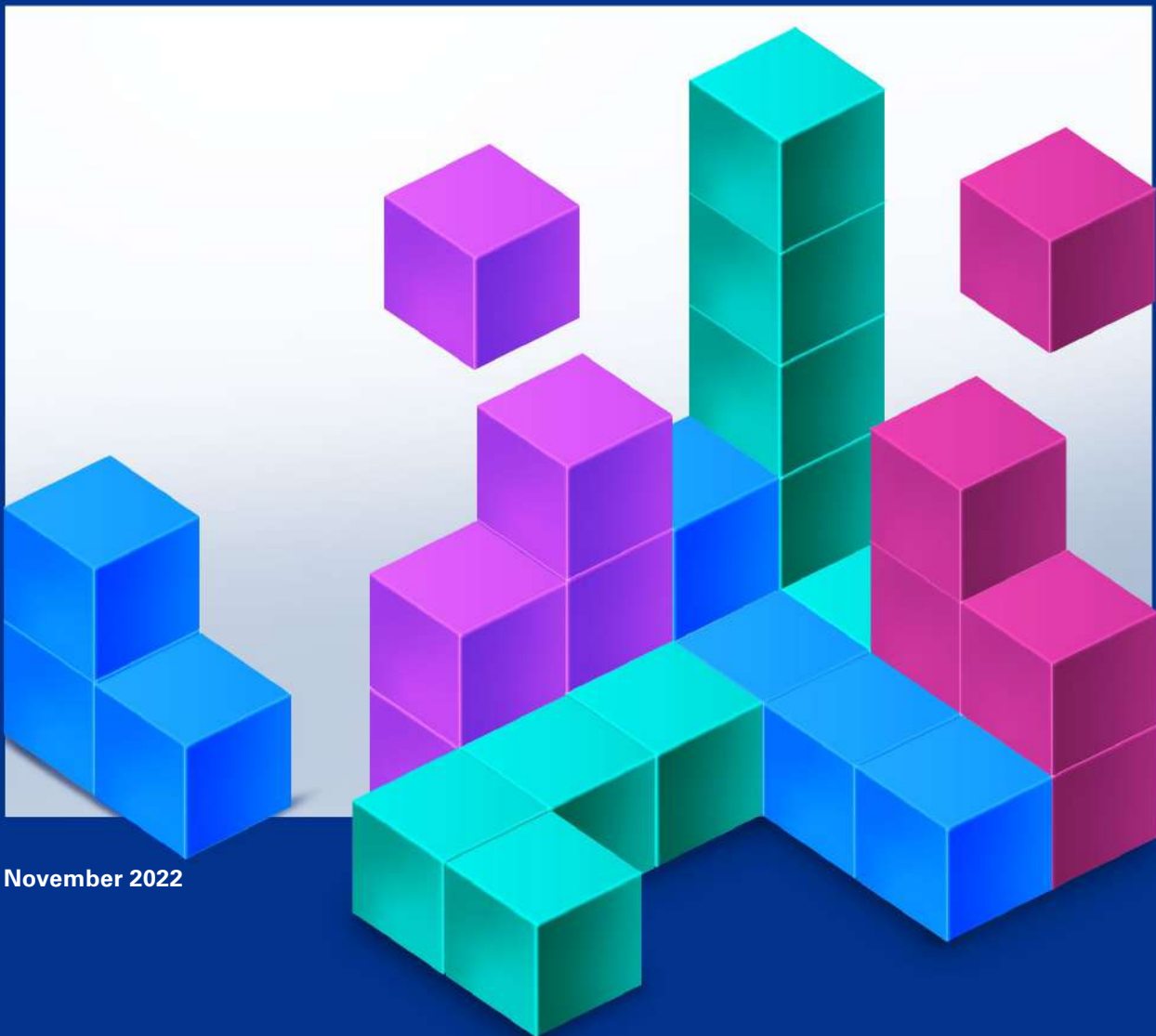




Closing the climate finance gap

A rapid yet sustainable scale-up of financing is critical to realise the Global Net Zero ambition



November 2022

Foreword

CoP 27 at Sharm el Sheikh has produced in a mixed bag of results. The disappointing part has been the realisation that pathways for containing global warming to 1.5 degrees have pretty much disappeared, and the world has to prepare for the extreme effects of climate change. However, on the positive side we have seen a sense of urgency among stakeholders to take talk to action. Loss and damage has found recognition in the formal global agenda. The key sentiment prevailing among attendees is that the initiative has now gone beyond governments to civil society, businesses and the world of finance. The CoP 27 event saw the release of four new reports on climate finance by UNFCCC's Standing Committee on Finance (SCF), reflecting on the importance of moving ahead on finance if this all has to come together. It was backed by a number of purposeful discussions the remit of which has expanded quite substantially into funding both mitigation and adaptation at scale, transition finance, newer approaches to risk management, etc., across energy, infrastructure, cities, manufacturing, agriculture, food, water, health, and transport.

ENRich 2022, KPMG's global annual event on energy and related themes, is focusing significantly on reinforcing the finance agenda for several reasons. Firstly, despite the

increasing focus, climate financing supply remains well short of levels needed. Secondly, given the heterogeneity of demand segments in terms of emission impact, technology evolution and distance to commercial viability, differentiated financing pathways will need to be configured and a one-size fits all approach is unlikely to work. Most importantly, it struggles to reach where it is most needed due to risks that the geographies and the emergent technologies carry.

Solving the challenges will require greater resolve among governments, especially emerging markets and developing economies (EMDEs) to squarely tackle the intractable issues including reforms in financial markets, rationalisation of fossil-fuel subsidies, building institutional capacities, and nurturing vibrant carbon markets. Tackling the climate finance issues will also require deep collaboration at scale among governments, multi-laterals, corporates and financial institutions.

This paper, released on the occasion of ENRich 2022, builds on the above strands and the underlying financing demand-supply context they emanate from. It enhances the growing body of knowledge in the rapidly evolving landscape, and specifically points to the calls to action. I trust you will find this useful.

Regards,

Anish De

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KPMG International

Summary

The increasing recognition of the immediacy and potency of climate change threat is reflected in the growing number of Net Zero commitments by countries and corporates alike. Yet, climate financing supply, a leading marker for meaningful, expeditious progress towards the global Net Zero aspiration, is falling well short of levels needed.

Estimates of investment needed to undertake required climate mitigation and adaptation initiatives range between 3-6 per cent of global Gross Domestic Product (GDP) through 2050. Prevalent level of financing supply prints at below 1 per cent is dominated by financing flows to mitigation, and remains narrowly concentrated by sector and geography.

Near-term headwinds, including inflation, interest rate hikes, public debt overhang and an ensuring growth slowdown following COVID-19 pandemic and Ukraine shocks, complicate the climate financing math further.

In this milieu, a redoubling of commitment to step up and sustain a higher trajectory of climate finance flows is vital. Concerted action is required on five fronts.

- First, a sharper prioritisation of different demand segments considering emission impact and distance to commercial viability is crucial to configure differentiated financing pathways. Renewables are tuned for a sharp scale-up of private investment. On the other hand, low carbon hydrogen, electric vehicles and storage will require policy thrust, incentives/ viability support and risk sharing mechanisms to usher in private capital. R&D spending needs to be incentivised too. By some estimates, a third of emission reduction targets for 2050 are contingent on technologies in prototype or demonstration stages. With over USD200 billion invested in climate-related technology firms between 2013 and 2021, venture capital flows have been promising, but still short. Adaptation will require higher levels of public spending, and blended finance flows. Varied resourcing pathways are needed to deal with the heterogeneity of financing demand.
- Second, a threshold level of public financing is a *sine qua non* to crowd-in private financing. A public debt overhang notwithstanding, finding adequate public outlays will be critical in view of evolving nature of technologies, sub-scale capacities and elevated credit risk profile of climate risk investments in relative terms. In addition, governments ought to back higher and ring-fenced financing outlays with conducive policies, institutional stewardship, well-conceived programmes-at-scale, and de-risked bankable project structures to expand commercial

financing. Nurturing capable, well-funded public institutions that can conceptualise and deliver programmes at scale, to translate policy intent into action, will be particularly critical.

- Third, sustained efforts to deepen financial markets while concurrently strengthening risk management mechanisms will be crucial. The proliferation of an array of financing instruments including green bonds, sustainability-linked structures, and risk sharing / credit enhancement facilities holds promise and needs policy facilitation for wider adoption. An expanding investor base that includes pension and insurance funds, private equity and sovereign wealth funds, philanthropic capital and impact investors, offers cause for cautious optimism as well. The imperative to scale cost-competitive capital flows will need to be balanced with putting in place effective risk management mechanisms. Governments and regulators will be challenged to stay ahead of the curve.
- Fourth, carbon markets and ESG disclosure frameworks need harmonious design, expanded coverage and effective operationalisation. A wider coverage of well-designed carbon market instruments is essential to create, monetise emission reductions that can be securitised to raise financing for climate initiatives. The implicit and explicit cost of global fossil fuel subsidies (estimated at 6.8 per cent of GDP and growing) contradicts the challenges in tapping climate finance and needs to be dealt with squarely and expeditiously. Concomitantly, reporting and disclosures centered around clear ESG frameworks will help build higher order assurance among investors and stakeholders.
- Fifth, emerging markets and developing economies (EMDEs) need to be expeditiously co-opted into the climate action agenda. EMDEs account for two-thirds of emissions but receive a tiny fraction of climate finance flows. They will require not only sizable financial commitments, but technology transfers, transition financing and hand-holding support to strengthen policy and institutional enablers from the developed world. Developed countries need to translate their commitments into tangible actions on the above fronts. Multilateral agencies need to play a catalytic role in co-creating programmes, helping governments build capacity to deliver emission reduction programmes at scale and tailor innovative financing instruments to multiply private financing.

This paper expands on the above ideas and the underlying financing demand-supply context they emanate from. It adds to a growing body of knowledge in the rapidly evolving climate finance landscape.

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Scaling up climate finance: An urgent global imperative

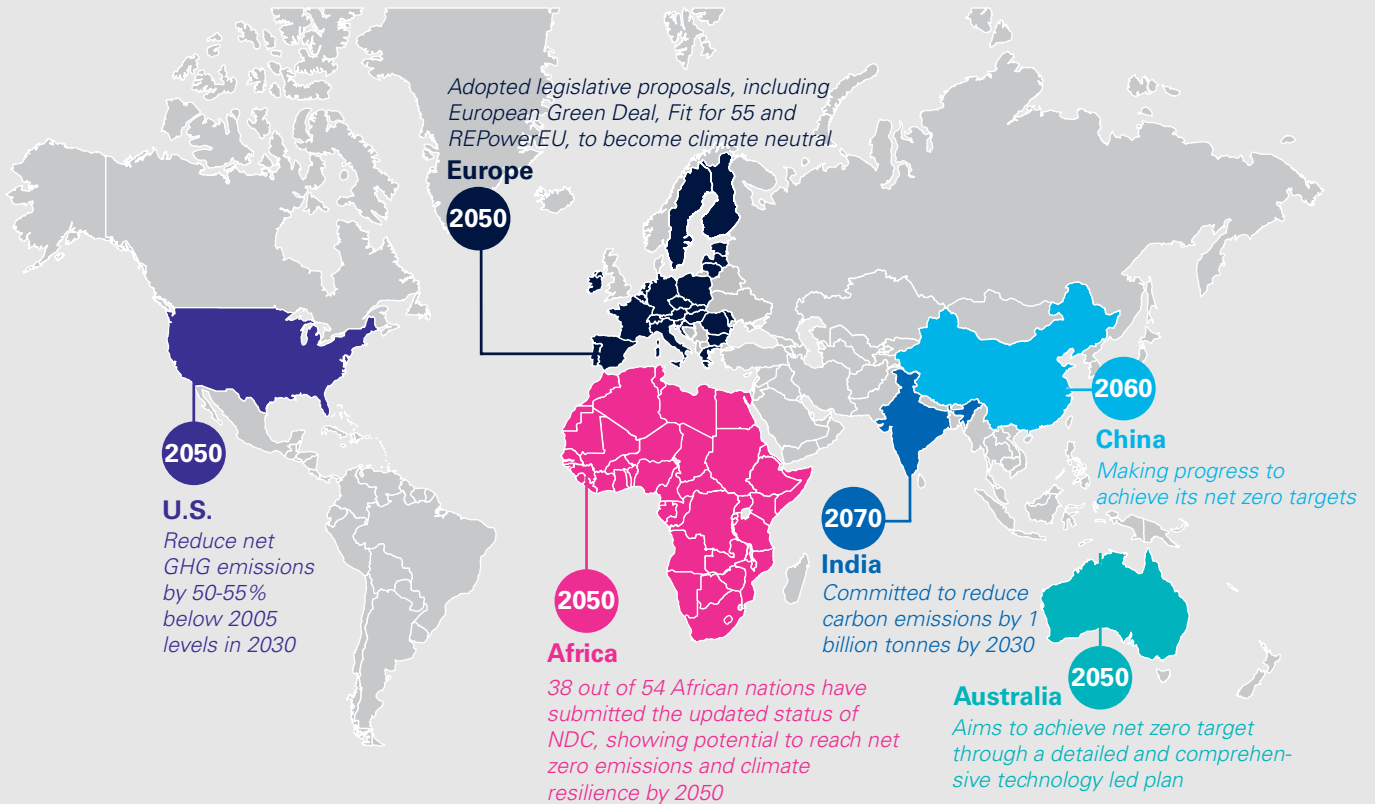
The climate clock is ticking. Pathways to keep global temperature rise to below 1.5°C have disappeared.

Bending the emissions curve at scale and speed, is among the pressing challenges humanity has had to contend. Events in recent times confirm the potentially catastrophic impacts of climate change. The value of losses from natural catastrophic events was estimated at USD270 billion in 2021, up sharply from an estimated USD210 billion in 2020¹. The effects of climate change are well and truly visible. Not acting to tackle the same is clearly not an option.

139 countries accounting for 88 per cent of global emissions have announced or are considering Net

Zero targets. These include the big five – China, US, European Union (EU), India and Russia – which together account for over 63 per cent of global emissions. Refer Exhibit 1. The Glasgow Financial Alliance for Net Zero (GFANZ), comprising over 550 financial firms and handling over USD130 billion in assets, and over 1500 corporates globally have made Net Zero commitments. Although these targets by themselves don't mean much unless backed up with real action and outcomes, they signal a global acknowledgment and recognition of the immediacy and potency of this threat.

Exhibit 1: Net Zero commitments by large emitters. Net Zero pledges/announcements cover 139 countries



Source: Secondary research, KPMG analysis.

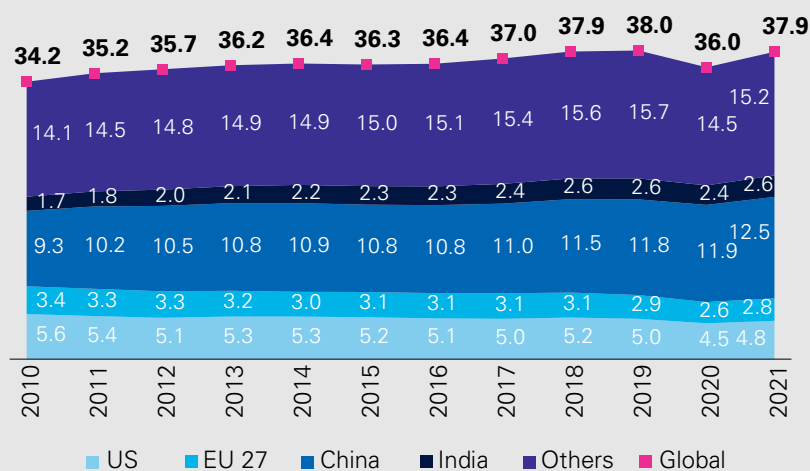
¹ Facts + Statistics; Global Catastrophes/ Insurance Information Institute/ October 2022

Notwithstanding these commitments, CO₂ emissions continue to rise: Overall emissions increased by 6 per cent in 2021, after a dip in 2020 owing to COVID-19 pandemic. The spike was largely on account of increased coal use in China, India and increase in natural gas use in rest of the developed world, which offset gains from growth in power generated from renewables globally.

Analysis by the International Energy Agency (IEA) in October 2022 suggests that emissions may grow at a much slower pace in 2022. This is despite the energy crisis being sparked by the Russian invasion of Ukraine. Though the war increased global coal demand in 2022, IEA projects this to be considerably offset by expansion in renewables. Refer Exhibit 1

Exhibit 2: Global CO₂ emissions still on the rise, with developing countries showing a slow tapering

Global CO₂ emissions trend (billion tonnes)



Source: Emissions Database for Global Atmospheric Research (part of Europe), IEA press releases 2022.

- A silver lining was a dip in emissions in the US, EU and Japan which were lower in 2021 by 2 to 4 per cent relative to 2019 levels.
- Reported per capita emissions in developed countries at 8.2 tonnes was lower than the 8.4 tonnes reported for China in 2021.
- Also, new IEA analysis, however, suggests CO₂ emissions may register a lower growth in 2022.

Realisation of intermediate targets for 2030 will be crucial to build credible pathways to Net Zero. The EU, under its 'Fit for 55' package, targets to reduce its 2030 emissions by 55 per cent relative to its 1990 baseline, while the US has committed to bring down 2030 emissions by 50-52 per cent relative to 2005 levels. China seeks to reach its emissions peak, while India targets to reduce its emission intensity of GDP by 45 per cent by 2030 from 2005 levels. As of 2019, Europe and US had reduced their emissions by 26 per cent and 7 per cent against their respective baselines.

As the intent around Net Zero acquires momentum, it is yet to gain 'currency'. Climate finance supply falls well short of levels needed.

Climate financing demand is estimated at ~USD7.6 trillion annually through 2050. Annual investment required to achieve necessary transition, as estimated by various agencies, ranges between USD5.2 and 11.5 trillion through 2050, and varies widely depending on scenarios, transition pathways and other assumptions. Taking a doubling of global GDP between 2022 and 2050 (or 2.5 per cent CAGR), the mid-point of the above range of ~7.6 trillion translates to 5 per cent of global GDP through this period. *Energy and Transport account for a dominate share of climate financing demand with a 44 per cent and 34 per cent shares respectively. Buildings & Infrastructure accounted for 11 per cent share and Industry had a 5 per cent share. Other sectors accounted for the remainder 6 per cent share.*

² Global landscape of climate finance – a Decade of Data 2011-2020/ Climate Policy Initiative, 2022/ October 2022

Against this, climate finance supply was estimated at USD850 billion in 2021 after trending lower at ~USD653 billion in 2019 and 2020. The supply of climate finance trailed demand by a wide margin and translated to just 0.7 per cent in GDP terms in 2019/20 and slightly higher at 0.9 per cent in 2021. In 2019 and 2020 51 per cent of

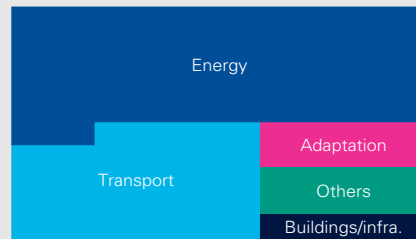
climate finance supply was in Energy while Transport had a 25 per cent share. Buildings & Infrastructure accounted for 8 per cent share and Industry had a 0.5 per cent share. Adaptation measures secured only a 8 per cent share despite an increase in investment in 2021.² Refer Exhibit 3

Exhibit 3: Climate finance supply trails the levels needed for a 1.5 OC pathway

Annual financing demand 2020-50 ~USD7.6 trillion



Annual financing supply ~USD0.65 trillion



The climate financing gap is large

- Supply @ ~0.7 per cent of GDP
- Demand @ 3-5 per cent of GDP

Source: Climate Policy Initiative



As a leading marker for climate agenda, the climate finance gap needs urgent attention and collective action.

² Global landscape of climate finance – a Decade of Data 2011-2020/ Climate Policy Initiative, 2022/ October 2022