

By:



INDONESIAN CHAMBER OF
COMMERCE AND INDUSTRY

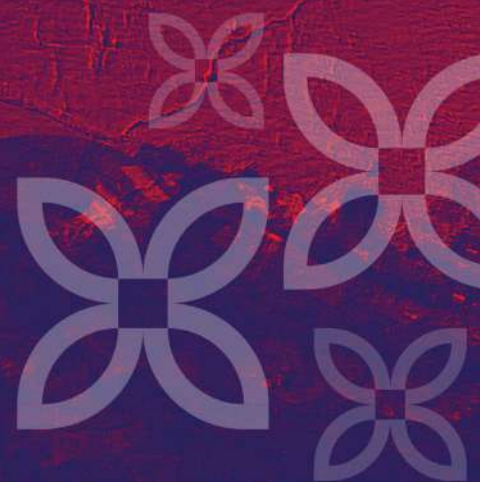


B20
INDONESIA
2022 BUSINESS

ADVANCING
INNOVATIVE,
INCLUSIVE AND
COLLABORATIVE
GROWTH

FINANCE AND INFRASTRUCTURE TASK FORCE

POLICY PAPER



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FOREWORD BY THE TASK FORCE CHAIR



Infrastructure is an enabler of economic prosperity and provides a solid basis for strong, sustainable, balanced, and inclusive growth and development. These are key goals of The Group of Twenty (G20) and The Business Twenty (B20), and they are critical for promoting global and national development priorities. Whether serving our everyday needs or supporting our undertakings in finance, trade, or technology, infrastructure supports society's wellbeing and development. Infrastructure can also act as an enabler for the B20 2022 goal of advancing innovative, inclusive and collaborative growth.

Recalling this year's G20 theme – "Recover together, recover stronger" – infrastructure investment brings a multiplier effect that reverberates through the economy, with increased impact in times of recession. Infrastructure is also a driver of human development. It has a positive impact on factors such as health, education, and standards of living (as measured by the Human Development Index (HDI)) as well as digital inclusion, financial inclusion, pandemic resilience, climate resilience, and more, especially when delivered with a gender and social inclusion perspective. Successful outcomes in these areas are dependent on the availability and quality of infrastructure (which can be measured by the infrastructure pillar of the Global Competitiveness Index (GCI)).

However, it is widely recognised that there is an "infrastructure gap", a significant difference between estimated infrastructure needs and realised infrastructure delivery, largely due to a lack of government funding and a failure to fill the gap with available private finance. This growing infrastructure gap, which has been amplified by the COVID-19 pandemic, is expected to reach USD 10.6 trillion by 2040 within the G20 countries and USD 15.0 trillion worldwide.¹

The first recommendation in this paper, "Improve access to affordable and suitable sources of financing for infrastructure", is aimed at narrowing this infrastructure gap by looking at both the supply side of finance, from the perspective of the financiers and investors, and the demand side, from the perspective of the project sponsors and stakeholders, as well as the links between the two.

B20 policy papers from previous years have made strong recommendations on how to close these gaps. This year, we want to build upon previous B20 recommendations, with additional perspectives from, and about, developing countries, against the backdrop of the Indonesian G20 Presidency and the upcoming Indian and Brazilian Presidencies. This is particularly important as not only do developing countries represent more than 80% of the population of the G20 countries, but the levels of human development and infrastructure quality and availability in developing countries significantly lag behind the results seen in developed countries. For instance, the average HDI and GCI infrastructure scores of the developing countries within the G20 are respectively 20%² and 22%³ lower than those of the developed countries within the G20.

¹ Global Infrastructure Hub, "Forecasting infrastructure investment needs and gaps", 2021. <https://outlook.gihub.org/>

² United Nations Development Programme, "Human Development Reports", 2022.

³ World Economic Forum, "Global Competitiveness Report", 2020.

However, it is not enough to simply narrow or even close the infrastructure gap. To forge an inclusive and sustainable future for a liveable planet, it is necessary to develop infrastructure that is not only financially and commercially viable, but that also facilitates decarbonisation and the climate transition towards net zero. This is the basis for the second recommendation, “Drive collaboration between countries to accelerate a just transition towards a net-zero world”.

With the Glasgow Climate Pact having been established at the 26th Conference of the Parties (COP26) summit last year, this Task Force builds upon the agreements reached by proposing policy recommendations that support businesses’ and countries’ achievement of their climate goals whilst also ensuring that the substantial benefits of a green economy transition are shared widely and support those who might otherwise lose economically. In other words, this Task Force also supports the realisation of a “just transition”. For this just transition to happen, developed countries must honour their commitments to make available the climate finance funds to help support developing countries.

The third recommendation, “Accelerate the development and adoption of digital and smart infrastructure” addresses two different aspects of “digital infrastructure”. The first relates to the provision of infrastructure that forms the basis for inclusive access to a range of goods and services, including financial services and social services. The second relates to “smart infrastructure” or “InfraTech” i.e. technology that improves the development, delivery, and ongoing operation of infrastructure. To close the infrastructure gap, the development and operation of infrastructure must be as efficient and cost-effective as possible and must deliver greater benefits to promote equality across the whole of society faster and at lower cost.

Finally, the fourth recommendation, “Improve global financial services regulation to achieve better balance between growth, productivity, and stability” broadens the scope of our paper to financial regulation beyond infrastructure. It is of extreme importance that financial services regulatory frameworks strike the right balance between promoting inclusive and equitable economic growth, improving productivity, and maintaining financial stability, and do not suppress certain outcomes in the pursuit of others.

The conflict in Ukraine, as well as those in other countries around the world, are beyond the scope of this Task Force, but have already worsened the infrastructure gap and the climate and food crises, particularly affecting poorer countries globally. Such conflicts make our proposed policy actions even more urgent.

Our Task Force Members are representative of many private sector companies that passionately believe the private sector is key to solving the world’s infrastructure challenges. This paper sets out the actions required of Governments in the G20 to enable the private sector to address these challenges.

Sincerely,

Dr. Ridha D. M. Wirakusumah

Chair of B20 Finance and Infrastructure Task Force

CEO of Indonesia Investment Authority (INA)

FOREWORDS BY THE TASK FORCE CO-CHAIRS

CO-CHAIRS

FOREWORDS



Ben Way

Group Head, Macquarie
Asset Management

Global collaboration is vital if we are to deliver infrastructure at the speed and scale required to facilitate the transition to net zero. The challenge is making financing for these initiatives sustainable and long-term in all parts of the world. The Task Force recommendations aim to provide practical solutions to meet this challenge.



Bill Winters

Group Chief Executive,
Standard Chartered

Most of the private financing needs for infrastructure, sustainable development and the fight against climate change sit in emerging markets. Under the leadership of Indonesia's Presidency of the G20/B20, the Finance and Infrastructure Task Force has developed actionable policy recommendations. It is critical that governments implement these recommendations to ensure that emerging markets are set up for sustainable development, funded through blended finance transactions, carbon markets and other mechanisms.



Hu Xiaolian

Chairman, Export-
Import Bank of China

In addressing the surging severe and complex challenges in global development, our Task Force focuses on promoting sustainable, green, and smart infrastructure development to help developed and developing countries recover together and recover stronger. I firmly believe that this goal can only be achieved through closer cooperation within the G20.

CO-CHAIRS



John Denton

Secretary General,
International Chamber
of Commerce

FOREWORDS

The world will not be able to curb climate change, minimise inequality and build sustainable infrastructure without the full involvement of the private sector and the finance industry. Our recommendations show how G20 governments can work with business to create the economic and regulatory conditions that will enable the world to meet these vital goals. We look forward to working with the G20 to make that happen.



Marc-André Blanchard

Executive Vice-
President and Head
of CDPQ Global
and Global Head of
Sustainability

There is an urgent need for a quantum increase in infrastructure investment in emerging and developing economies to recover from the effects of the pandemic, lay the foundations for sustainable and equitable growth, and tackle the climate challenge. The Task Force's work is important because it provides clear recommendations and policy actions for closing the huge infrastructure gap that currently exists in these economies and helping meet the above goals.



Mark E. Tucker

Group Chairman, HSBC

I am delighted to have been a Co-Chair of the Indonesia B20 Finance and Infrastructure Task Force. The focus this year has been on mobilising infrastructure investment at scale: critical to a more equitable post-pandemic global recovery and to supporting the Net Zero transition. We have identified impactful recommendations in this policy paper, with the potential to unlock new progress in the G20 agenda as the B20 approaches its tenth anniversary.

CO-CHAIRS

FOREWORDS

**Vladimir Primak**

Investment Director,
Russian Direct
Investment Fund

Bridging an infrastructure finance gap is a heavy lifting exercise, which must be carried out with caution and care, mindful of environmental impacts and through a "just transition". In the post-pandemic world, reinstating the damaged economic and transportation links comes to the fore. Without any doubt, such an ambitious goal demands a high degree of cooperation and the joint efforts of the G20 countries is one great example. We are thankful to all members of the Finance and Infrastructure Task Force for the work done and hope that it will lead to an improvement in global welfare.

TASK FORCE COORDINATION GROUP

DEPUTY CHAIR

POLICY MANAGER

**Arief Budiman**

Deputy Chair
Deputy Chief Executive
Officer Indonesia
Investment Authority
(INA)

**Radju Munusamy**

Policy Manager
Partner at PwC
Indonesia Advisory

Knowledge Partner

Network Partners



SUMMARY OF POLICY RECOMMENDATIONS

Recommendation 1 – Improve access to affordable and suitable sources of financing for infrastructure

This Recommendation promotes efforts to narrow the infrastructure gap, especially in developing countries, by supporting the development of pipelines of well-prepared, investment-ready, gender-responsive projects, and scaling up the channelling of affordable and suitable financing for these projects through better and more efficient cooperation and coordination among different stakeholders.

Policy Action 1.1: Improve public sector support to mobilise commercial finance for infrastructure projects

The G20, along with Multilateral Development Banks (MDBs), Development Finance Institutions (DFIs), and other relevant institutions should work towards significantly scaling up private sector finance mobilisation for infrastructure projects through the implementation of blended finance structures, the scaling up of facilities to mitigate foreign exchange risk in developing countries, and ensuring that financial institutions can take full advantage of MDB risk mitigation tools through appropriate risk-weighting benefits. MDBs must make the mobilisation of private finance a greater strategic priority, and their shareholders must support this priority by allowing greater risk tolerance in MDB balance sheets, aligning MDB internal incentives, and by putting policies in place to ensure that MDBs do not crowd-out the private sector or undermine each other's efforts to crowd-in private finance.

Policy Action 1.2: Implement public sector policies to improve infrastructure project viability

G20 countries need to develop pipelines of investment-ready projects that are properly prepared in line with G20 principles, and gender and socially inclusive growth. The risk-return equations of their planned infrastructure projects also need to be attractive to commercial investors. Generally, the developed countries do this well, while developing countries are less able to do this and need more support from MDBs. G20 countries, with the support of MDBs and DFIs, must also mitigate investment barriers, especially in developing countries, to improve countries' investment climates. These barriers include unclear or commercially unattractive revenue and risk-sharing terms, currency risk, the lack of robust, transparent, and defensible procurement processes, gender disparity issues, and robust contractual frameworks and document structures, the lack of enforceability of contracts, and regulatory risk.

These issues have been discussed for a long time and yet the infrastructure gap continues to widen. The technical solutions are well understood but the issues are not prioritised. It has also been understood for a long time that poor project preparation and a weak investment climate are two of the causes of the gap. Governments must understand that assistance and money from donors and development institutions will only be effective if they leverage this assistance to improve the enabling environment and project processes for socially, economically, and environmentally sustainable infrastructure. Therefore, there needs to be new commitment from G20 member countries to take action in this area, and their progress must be independently verified.

Recommendation 2 – Drive collaboration between countries to accelerate a just transition towards a net-zero world

This Recommendation promotes efforts to achieve the Paris Agreement goal to avoid dangerous climate change by limiting global warming to well below 2°C and pursuing efforts to limit it to 1.5°C through the acceleration of the development of green infrastructure, the scaling up of the pool of funds available for green infrastructure, and the improvement of the investment climate for decarbonisation projects, while ensuring that the climate transition is “just” by supporting those who stand to lose economically from decarbonisation policies and ensuring gender and socially equal access to decent jobs and other opportunities. The policy actions in this Recommendation are complementary to, and rely on, implementation of the policy actions and policy sub-actions in Recommendation 1.

Policy Action 2.1: Implement policies to increase the pool of funds for green infrastructure

G20 countries should strive towards a common environmental, social, and governance (ESG) taxonomy, with gender and social inclusion as cross-cutting considerations, or set of standards that addresses the needs of investors and businesses across jurisdictions at different levels of economic and social development. As progress towards a common set of standards will take considerable effort and time, international coordination should first focus on promoting the “interoperability” of different regulatory frameworks. This would contribute to an environment where taxonomies can differ across jurisdictions yet remain consistent. G20 countries should implement policies to support investment in green infrastructure, by building institutional capacity within domestic banks, by granting capital relief⁴ for green infrastructure lending, by making capital requirements less restrictive, by implementing grant schemes and fiscal incentives, and by introducing long-term investment platforms for green infrastructure.

Policy Action 2.2: Improve the investment climate for decarbonisation projects

In order to support a just climate transition, and as part of addressing the needs of developing countries, developed countries should also support the development of green infrastructure in developing countries through gender-responsive technology transfer and investments. They should also uphold their commitment, “in the context of meaningful mitigation actions and transparency on implementation, to a goal of mobilising jointly USD 100 billion per year by 2020 to address the needs of developing countries”, as declared in 2009 at the fifteenth Conference of the Parties of the United Nations Framework Convention on Climate Change (COP15).

G20 governments should make progress towards enabling the incorporation of voluntary carbon credits (that meet specific eligibility criteria) as part of compliance markets. A phased approach to the interoperability of carbon markets could enable developing countries to receive a higher price for their carbon credits in order to help fund the just transition, whilst avoiding the penalisation of essential industries in these countries that have not yet managed to decarbonise. In addition, MDBs and other DFIs should support governments in building their regulatory capacity for carbon markets and should also support the development of carbon funds.

⁴ <https://www.pwc.co.uk/financial-services/assets/pdf/capital-relief-transactions.pdf>

Policy Action 2.3: Improve public sector support to accelerate the development of viable green infrastructure projects

G20 governments should support a continued focus on improving the pipeline of investment-ready green projects, and the Policy Actions and sub-actions developed as part of Recommendation 1 should prioritise green infrastructure projects that promote a fair and inclusive transition to low-emission economies, mainstream gender considerations, and advance climate resilient growth. G20 governments should define clear long-term climate and sustainable infrastructure targets and the role of infrastructure development in achieving these targets, provide incentives to encourage the development of green infrastructure, and encourage the “greening” of traditional infrastructure projects.

Recommendation 3 – Accelerate the development and adoption of digital and smart infrastructure

While there is a separate Task Force on Digitalisation, this Recommendation focuses on digital infrastructure and the digitalisation of infrastructure by promoting efforts to accelerate the development of digital infrastructure in order to improve digital and financial inclusion, and to advance the role of digitalisation in infrastructure development. Improving socially equitable access to the internet, especially in developing countries, will create wide-ranging opportunities for the population in education, remote work, trade, and socialising. Adopting digitalisation in infrastructure development will enhance the value for money of infrastructure projects, and encouraging women’s participation in the design of public interfacing technologies will improve the sustainability and resilience of infrastructure investments, thus facilitating the delivery of better social, economic, and environmental outcomes.

Policy Action 3.1: Implement policies to accelerate the provision of and achieve comprehensive access to digital infrastructure to drive sustainable and inclusive development

Socially equitable digital access is a high priority given that the ownership and use of digital technologies provides avenues and opportunities for so many other social and economic activities. Digital infrastructure is a direct enabler of productivity, so equal access is critical for levelling the field for competitiveness and supporting inclusive economic growth. G20 governments can offer incentives or support (such as availability payments or viability gap funding) or de-risk projects by taking responsibility for demand, construction, and/or approval risks to increase and accelerate digital infrastructure development where universal coverage is not otherwise commercially feasible, as well as incentivising the private sector by developing policy frameworks regarding payments for network and infrastructure usage that appropriately balance socio-economic impact with return on investment for operators.

Policy Action 3.2: Promote the adoption of digitalisation in infrastructure development

G20 governments should embed digitalisation within their infrastructure planning to ensure that all infrastructure development is digitally enabled, gender-responsive, and takes advantage of InfraTech (the integration of material, machine, and digital technologies across the infrastructure life cycle). G20 governments should continue to build on the efforts of the Global Infrastructure Hub (GIH) to facilitate cross-border cooperation on the exchange of technical and technological knowledge and experience, and adopt the GIH’s “G20 Blueprint for scaling up InfraTech financing and development”.

Recommendation 4 – Improve global financial services regulation to achieve better balance between growth, productivity, and stability

This Recommendation seeks to ensure that financial services regulation does not unnecessarily impede the investment in infrastructure projects or the achievement of a better balance between inclusive economic growth, firms' productivity, and financial stability.

Policy Action 4.1: Reduce investment barriers for infrastructure by improving the financial services regulatory environment

It is essential that the G20 ask the Financial Stability Board (FSB), the Basel Committee on Banking Supervision (BCBS), the International Association of Insurance Supervisors (IAIS), the Organisation for Economic Cooperation and Development (OECD), and the International Accounting Standards Board (IASB) to review the regulatory treatment of infrastructure finance for banks, insurers, and other financial institutions to ensure that they are not unnecessarily penalised for supporting sustainable infrastructure investing and long-term financing. G20 governments should minimise restrictions on the international financing of infrastructure projects, ensure that there is a stable and objective financial regulatory framework for infrastructure investment, and encourage the funding of retirement and pension systems to provide a source of funds for infrastructure.

Policy Action 4.2: Ensure financial services regulatory frameworks strike the right balance between promoting economic growth, improving productivity, and maintaining financial stability

In light of the challenging economic conditions globally, it is vital that the economic impact of the Basel 3.1 prudential reforms for banks is robustly assessed, and that a more realistic and achievable deadline is agreed. As the impact of COVID-19 on credit markets highlighted vulnerabilities in the non-bank financial institution (NBFI) sector, the G20 should call on the FSB and other international standard setters to not only continue their current focus on NBFIs, but to more broadly consider the impact of regulatory initiatives aimed at the banking sector that may have the unintended effect of driving systemic risk into less intensively regulated parts of the sector. The G20 should improve financial regulatory frameworks in order to effectively balance financial stability concerns with support for green and transition financing, and that integrates gender-based factors in investment and lending processes.

STOCKTAKE ON PREVIOUS B20 FINANCE AND INFRASTRUCTURE POLICY PAPERS AND CONTEXT FOR 2022

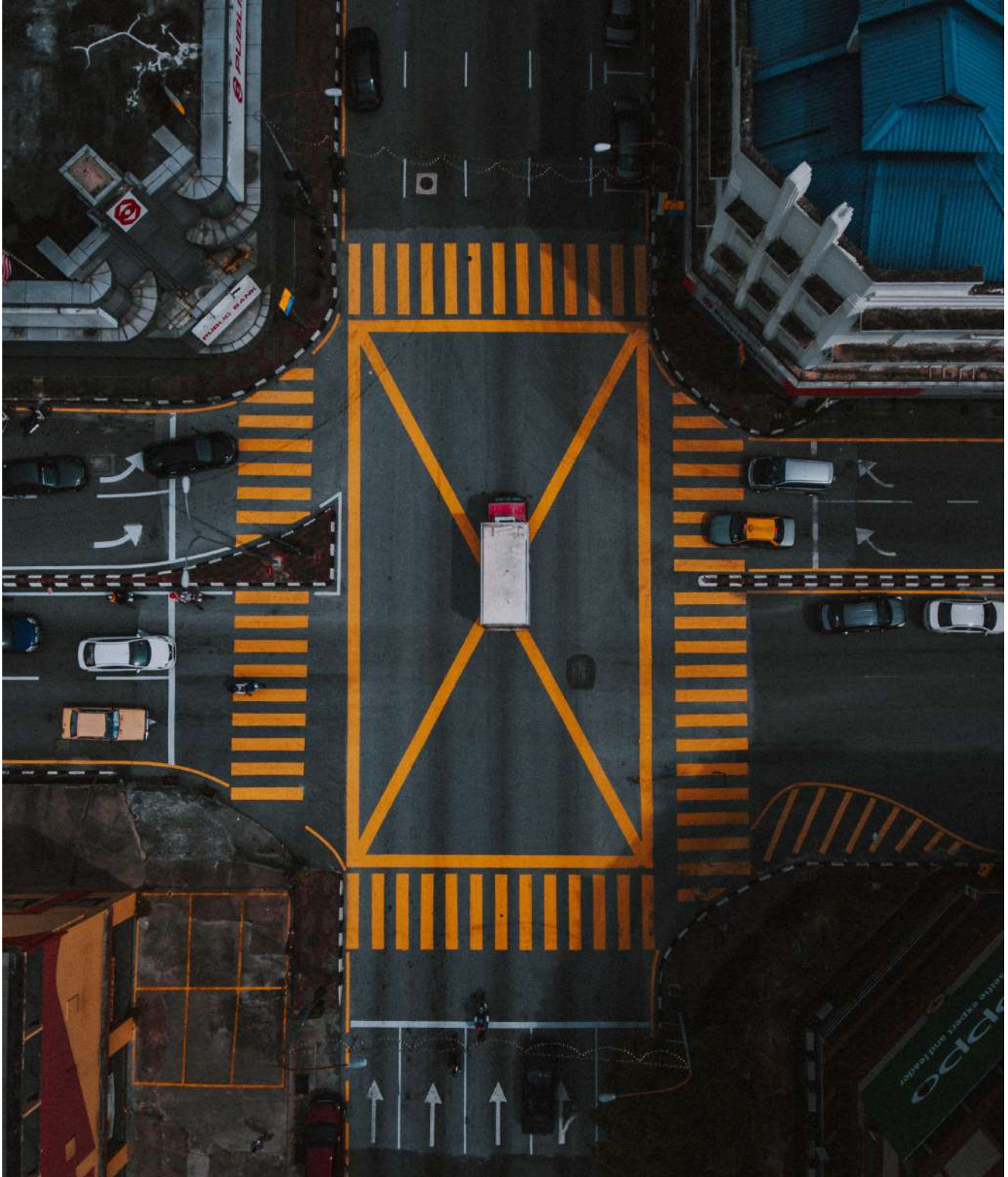
Every year, it is important for each B20 Task Force to conduct a stocktake on the previous years' Task Force recommendations, to analyse recurring topics, and how topics have evolved from cycle to cycle, and to examine the adoption of the B20 recommendations within the relevant G20 Ministerial Communiqués as well as the G20 Leaders' Declarations.

Within the Finance and Infrastructure Task Force, closing the infrastructure gap has been a consistent priority each year, although with different focuses on the means through which this can be achieved. This year, the Task Force is making scaling up blended finance a priority as a means to help close the infrastructure gap. Blended finance was mentioned in passing in the 2017 report, but it has not featured in the policy recommendations of previous B20 Finance and Infrastructure Task Forces. Blended finance is widely recognised as a potentially effective way to improve the risk–return balance of transactions and help mobilise private sector funding, but it has not yet been implemented at a scale significant enough to reduce the infrastructure gap. The public sector must play a bigger role in the mobilisation of private finance. Developed country governments need to incentivise their institutions to be less risk-averse while balancing prudential incentives, and emerging markets need to implement the reforms necessary to attract finance. One of our main objectives this year is to promote recommendations that accelerate and facilitate more blended finance deals for infrastructure projects, especially in developing countries where such infrastructure investment is needed most.

MDBs are integral to facilitating socially inclusive infrastructure development, especially in developing countries, and their role is discussed every year. This year, this topic continues to be a key component of the policy recommendations. An issue that was mentioned briefly in B20 Germany 2017 was MDB incentives for crowding in private investment in infrastructure. A GIH report to the G20 Deputy Finance Ministers and Deputy Central Bank Governors on this topic was developed in 2016. Within this year's Task Force, this has been identified as a topic that requires more change and progress. Without change, blended finance will have difficulty scaling.

With the backdrop of Indonesia holding the G20 2022 Presidency, and the upcoming G20 2023 and 2024 Presidencies being held by India and Brazil, we have this year taken the opportunity to also focus on the developing countries within the G20, and how the developed and developing countries can and must collaborate to achieve mutually beneficial results for the world. One of the key issues from the COP26 in 2021 was the fact that the pledge made by developed countries in the COP16 Accord in 2010 to mobilise “jointly USD 100 billion per year by 2020 to address the needs of developing countries” had not been met. Recommendation 2 of this policy paper focuses on collaboration between countries to accelerate a just transition towards a net-zero world – primarily, collaboration between developed and developing countries.

Some topics, such as infrastructure project pipeline and development, regulatory framework assessment, and the importance of digital infrastructure are consistent themes within the B20 Finance and Infrastructure Task Force every year, as they are widely recognised as key issues that have not been resolved, and continue to evolve. In this year's policy paper, we have continued to highlight these themes, as the rate of progress of developing a pipeline of investment-ready infrastructure projects must accelerate if the infrastructure gap is to be closed. In addition, the pandemic has highlighted growing economic inequalities and the need for more digital infrastructure that is equitably distributed in order to achieve universal digital access, inclusive growth, and to provide a foundation for access to health and education services. Moreover, with the approaching deadline for the implementation of Basel 3.1, the Task Force continues to advocate for recommendations to ensure that these reforms do not act as unnecessary constraints on liquidity, lending for infrastructure, or ultimately, inclusive economic growth.



RECOMMENDATION 1

Improve access to affordable and suitable sources of financing for infrastructure

POLICY ACTIONS

Policy Actions 1.1 – Improve public sector support to mobilise commercial finance for infrastructure projects

Policy Actions 1.2 – Implement public sector policies to improve infrastructure project viability

MONITORING KEY PERFORMANCE INDICATOR (KPI)

OWNER: G20 COUNTRIES

Annual Mobilisation of Private Finance in Middle- and Low-Income Countries

Source: Multilateral Development Banks and Development Finance Institutions

Baseline
USD 63.6 billion
(2019)

Target
USD 100.0 billion
(2024)

Annual Blended Finance Flows

Source: Convergence Blended Finance

Baseline
USD 9.0 billion
(Average 2015–2020)

Target
USD 20.0 billion
(2024)

SDG IMPACT



Policy Actions 1.1 and 1.2 have been formulated to increase commercial finance for infrastructure in general. They will help to improve gender equality (SDG 5), increase global economic growth (SDG 8), foster the development of sustainable and resilient infrastructure (SDG 9), reduce inequalities within/amongst countries (SDG 10), enable infrastructure that makes cities and communities more sustainable (SDG 11), and increase cooperation and financing flows between countries (SDG 17).

G20 INDONESIA PRIORITY IMPACT



Recommendation 1 will help to support the achievement of the G20 priority issues of **Global Health Architecture** and **Sustainable Energy Transition**.

Policy Actions 1.1 and 1.2 address both of these principles as the infrastructure projects that will be on the receiving end of financing, the projects that will benefit from improved viability and the projects that will benefit from reduced investment barriers include both healthcare and sustainable/green infrastructure projects.

GENERAL CONTEXT

There is a strong financing market (both equity and debt) in most developed countries. In most developing countries, many lenders will lend only in hard currency, which results in the insufficient availability of local currency finance. Moreover, the foreign exchange (FX) markets are not sufficiently developed to permit proper hedging,⁵ which could help to bridge this gap.

One of the key reasons for the lack of affordable financing for infrastructure projects in developing countries is the **higher all-in cost of borrowing in local currency** (e.g. due to limited local capital markets, higher margins, lower gearing expectations, shorter tenors and requirements for sponsor support).⁶

The **cost of equity is also higher** due to perceptions of project and country/political risks, lower gearing expectations, and the fact that many long-term infrastructure investors are limited to OECD countries, leading to a **lack of competition** in developing countries' equity markets for infrastructure.⁷ The objective of Policy Action 1.1 is to help projects that have been prepared well to obtain access to affordable finance.

Risk-return aspects are the most critical. However, in many developing countries there are currently **too few investment-ready projects and many projects are not properly prepared**, partly due to inadequate public sector expertise. The lack of finance may not be a binding constraint in these cases (but it would be if more projects were available). Investors would be more willing to invest in non-OECD countries **if the risk-return nexus was more favourable and the investment climate better** (in regard to issues such as regulatory frameworks, rule of law, gender issues, international arbitration, transparent procurement, and governance, etc.).⁸ This is the objective of Policy Action 1.2.

These issues have been discussed for a long time and yet the infrastructure gap continues to widen. It has been understood for a long time that poor project preparation and a weak investment climate holding back investors are two causes of the gap. The solutions are well understood but the issue is not prioritised. Governments must understand that assistance and money from donors and development institutions will not be effective if their infrastructure projects are not well prepared. Therefore, there needs to be new commitment from G20 member countries to take action in this area and independent verification of their progress.

Green infrastructure projects are increasing in volume and expected to comprise the majority of total infrastructure projects in the future. **However, the returns from green projects are often even lower** than others (or not attractive at all because of the risks). The main problem is that the externalities, such as environmental or social benefits, are not captured in the cashflows available

5 European Commission, OECD, EDFI, Convergence, TCX, "The Need to Reduce FX Risk in Development Countries by Scaling Blended Finance Solutions", 2017

6 Cambridge Economic Policy Associates Ltd., "Mobilising Finance for Infrastructure – A Study for the Department for International Development", 2015.

7 OECD, "Infrastructure versus other investments in the global economy and stagnation hypotheses: What do company data tell us?", 2015.

8 Benchmarking Infrastructure Development 2020: Assessing Regulatory Quality to Prepare, Procure, and Manage PPPs and Traditional Public Investment in Infrastructure Projects (English). Washington, D.C. : World Bank Group.

to the investor.⁹ These issues are considered in Recommendation 2. Although different standards, guidelines, and principles from different countries and organisations have different definitions/meanings of what qualifies as “green” infrastructure, in this paper, “green” infrastructure can be considered as infrastructure that promotes a transition to low-emission economies and that advances climate resilient growth as well as climate mitigation, adaptation and biodiversity (e.g. renewable energy, grid connections to low-carbon electricity generation, water collection, treatment, and supply, wastewater treatment, waste-to-energy, and mass-transit transportation projects), and the International Labour Organization’s (ILO) Decent Work Agenda.¹⁰

A number of MDBs and International Development Agencies (IDAs) are already making material progress on these issues **but need to do a lot more and do so more expeditiously, shifting their focus away from lending to governments (many of which can borrow in the market) towards private capital mobilisation, including blended finance. They also need to coordinate better with each other** on their efforts and best practices in private sector mobilisation. Absent coordination, an MDB’s activities can undermine the long-standing catalysation efforts of other MDBs, for example, by offering to provide traditional sovereign loans in circumstances where this supplants private investment. Governments and MDBs also need to **work together to develop and improve the liquidity of local currency financing markets.**

Previous Finance and Infrastructure Task Forces have also addressed the issue of access to capital for micro, small, and medium enterprises (MSMEs). In 2022, this issue is addressed as part of the Future of Work and Education Task Force’s Policy Action 1.1: Actively enable entrepreneurship, business growth and job creation, targeting small-to-medium enterprises (SMEs). This policy action provides recommendations to incentivise entrepreneurship, support the growth and capacity development of SMEs, and reduce the barriers that hinder socially equitable business growth and productivity. To avoid duplication, the scope of this paper does not include MSME finance.

⁹ The World Bank, “Green Infrastructure Finance: Framework Report”, 2020.

¹⁰ <https://www.ilo.org/global/topics/decent-work/lang--en/index.htm>

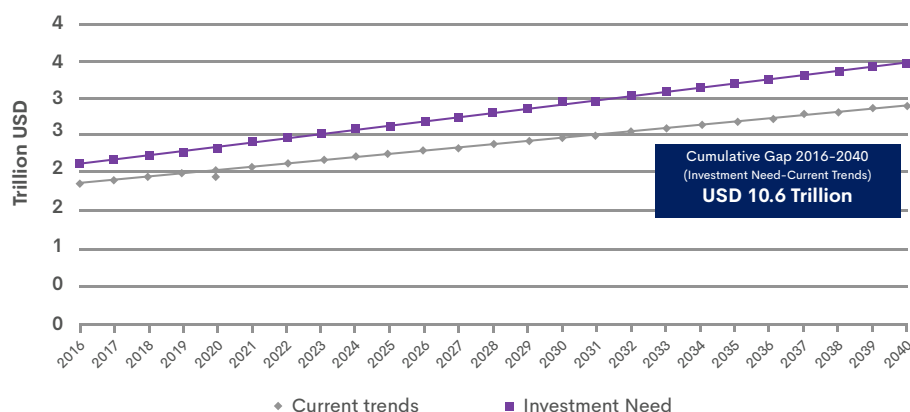


POLICY ACTION 1.1: IMPROVE PUBLIC SECTOR SUPPORT TO MOBILISE COMMERCIAL FINANCE FOR INFRASTRUCTURE PROJECTS

CONTEXT

The gap between global infrastructure needs and realised infrastructure development – the “infrastructure gap” – continues to grow and is projected to reach USD 10.6 trillion for the G20 countries by 2040.¹¹ Public funds are limited and are especially constrained due to the COVID-19 pandemic. More than ever, private sector capital, which is available in much greater volume than public finance, is required to finance infrastructure projects and help narrow the infrastructure gap.

Figure 1 – G20 Countries Projected Infrastructure Gap (2016-2040)¹²

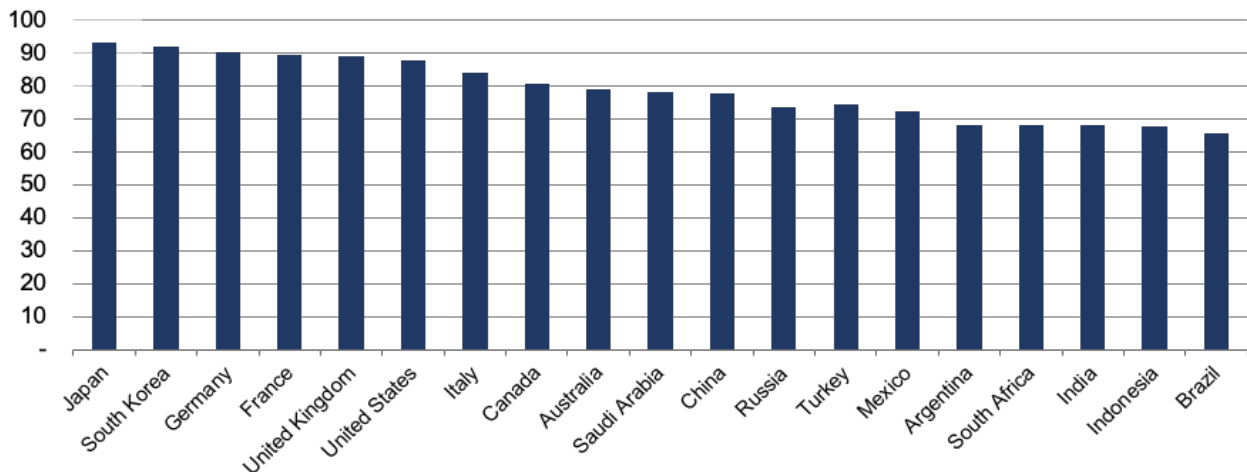


A gap exists not only between infrastructure needs and realised infrastructure development, but also **between developed countries and developing countries** in terms of the **availability and quality of infrastructure**, as well as in terms of the **ability and capacity to develop, and obtain private financing** for, infrastructure projects.

11 Projected values based on trends from data until 2015 and assuming a world GDP growth rate of 2.6%. Data excludes the European Union.

12 Global Infrastructure Hub, 2021. Forecasting infrastructure investment needs and gaps. <https://outlook.gihub.org/>

Figure 2 – Global Competitiveness Index, Infrastructure Pillar Score (2019)¹³



Infrastructure investments by the private sector are not taking place at the scale desired because the balance between **risk and return for investors is often sub-optimal**. Many infrastructure projects intended for private financing do not offer an attractive risk-return profile for private investors and would not be feasible if financed on purely commercial terms. To balance the risk-return profile appropriately, it is necessary to ensure that project risks are allocated to the party best able to appraise, manage, and ameliorate each risk in an appropriate way so that the returns are commensurate with the risks. A meaningful level of return for equity (especially in long-term investment cases) is critical to unlock significant sources of financing.

Figure 3 – Blended finance information

Introduction

“Blended finance” is a structuring approach that allows financing organisations with different objectives to invest or lend alongside each other while achieving their own objectives (whether financial return, gender and other dimensions of social impact, or a combination of both).¹⁴ It entails **the strategic use of catalytic capital from public or philanthropic sources to increase private sector investment** for development impact.¹⁵

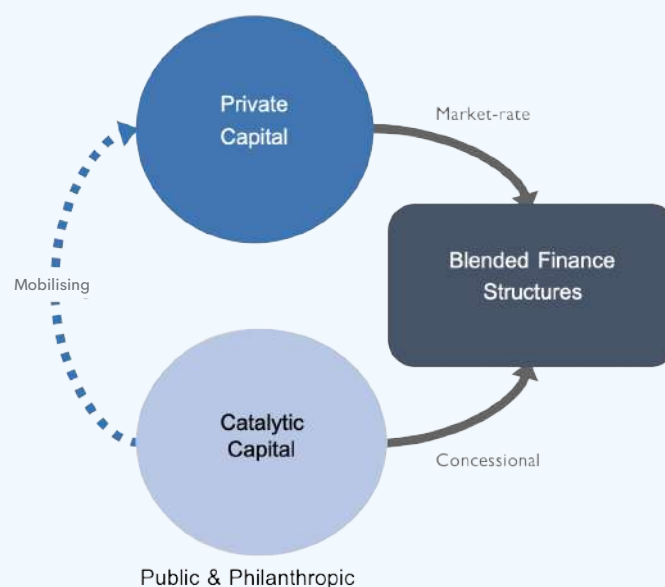
As shown in Figure 1, the amount of investment needed to close the infrastructure gap is massive – a **significant scale-up of private sector investment** can and should play a crucial role in helping to close this gap, particularly for developing countries.

Currently there are numerous barriers that are impeding private sector investment from flowing to developing countries, as mentioned in Policy Action 1.2 of this paper, with a significant barrier being that **returns are often not commensurate with the high level of risk (real or perceived)**. Blended finance aims to create **acceptable risk-return profiles**, which will in turn mobilise private sector investment to these otherwise less commercially feasible development projects.

¹³ World Economic Forum, “Global Competitiveness Report”, 2020.

¹⁴ The State of Blended Finance, Convergence. 2021.

¹⁵ This definition of blended finance is used by Convergence and does not include “public on public” mobilisation. Throughout this policy paper, the term blended finance refers to this definition.



Source: *The State of Blended Finance, Convergence (2021)*

Key Characteristics

There are three key characteristics of blended finance transactions, namely:

1. **Leverage** – The blended finance intervention mobilises private sector capital to come into the transaction.
2. **Impact** – The activity being financed contributes to developmental impact; however, not all parties need to have development intent.
3. **Return** – The transaction is expected to achieve a positive financial return overall, which can range from a below-market return for public and/or philanthropic investors to a market return for private sector investors in the transaction.

Blended finance is a structuring approach, not an investment approach, instrument, or end solution. There are four main blended finance archetypes, which include:

1. Concessional Capital

- Public/philanthropic investors provide funds on below-market terms to lower the overall cost of capital or to provide protective layers to private investors.
- Examples of concessional products include loans with below-market interest rates and/or longer tenors than typically available in the market, or subordinated debt tranches.
- Typical providers of concessional capital include the International Finance Corporation (IFC), the Asian Development Bank, and the Inter-American Development Bank (IADB)

2. Guarantee/Insurance

- Public or philanthropic investors provide credit enhancement through guarantees or insurance on below-market terms.
- Examples of concessional products include political risk guarantees or off-taker risk insurance from public or philanthropic funders.
- Typical parties include guarantors such as GuarantCo, Multilateral Investment Guarantee Agency (MIGA), and the United States Agency for International Development (USAID).

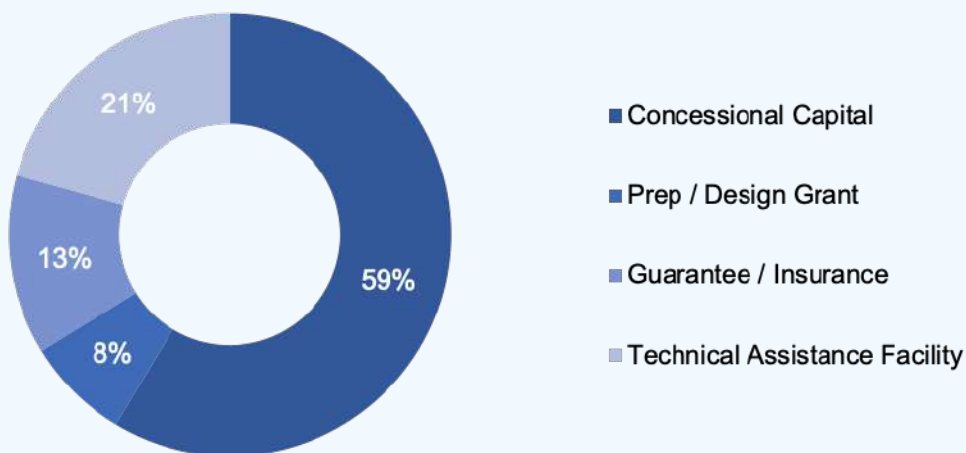
3. Technical Assistance Facility

- The transaction is associated with a grant-funded technical assistance facility that can be utilised pre- or post-investment.
- Examples of concessional products include financing capacity-building post-investment, and/or funding for a project's transaction costs (e.g. legal structuring fees).
- Typical parties include MDBs and development agencies such as IFC and USAID.

4. Prep/Design Grant

- Proof of concepts, transaction structuring, and/or a feasibility study is funded via a grant (including project preparation and design-stage grants).
- Examples of concessional products include project development facilities that are funded through grants.
- Typical parties include foundations and multi-donor funds including The Rockefeller Foundation and the Africa Enterprise Challenge Fund.

Four Main Blended Finance Archetypes in 2020



Total transactions closed (2020): 54

Source: The State of Blended Finance, Convergence (2021)

Over the period from 2010 to 2021 (up to September), global aggregate blended finance flows have totalled approximately \$110 billion, with annual capital flows averaging over \$9 billion since 2015. The blended finance market has experienced a steady annual deal count over this period, averaging 55 closed transactions per year. The preliminary transactions count for blended deals launched in the first half of 2021 is 18.

Blended Finance Deal Trends

2010 – September 2021

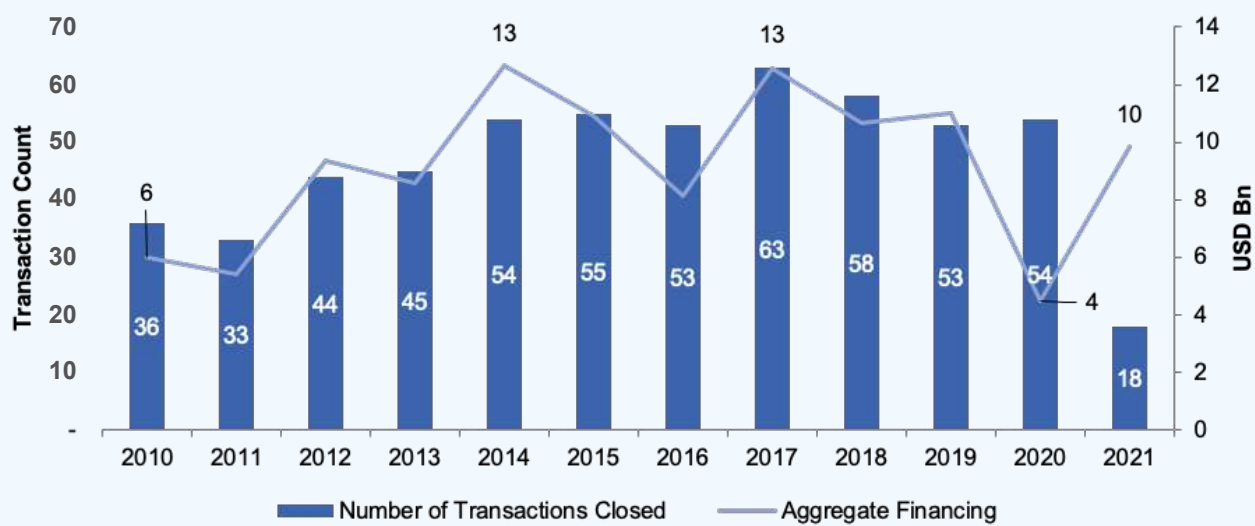
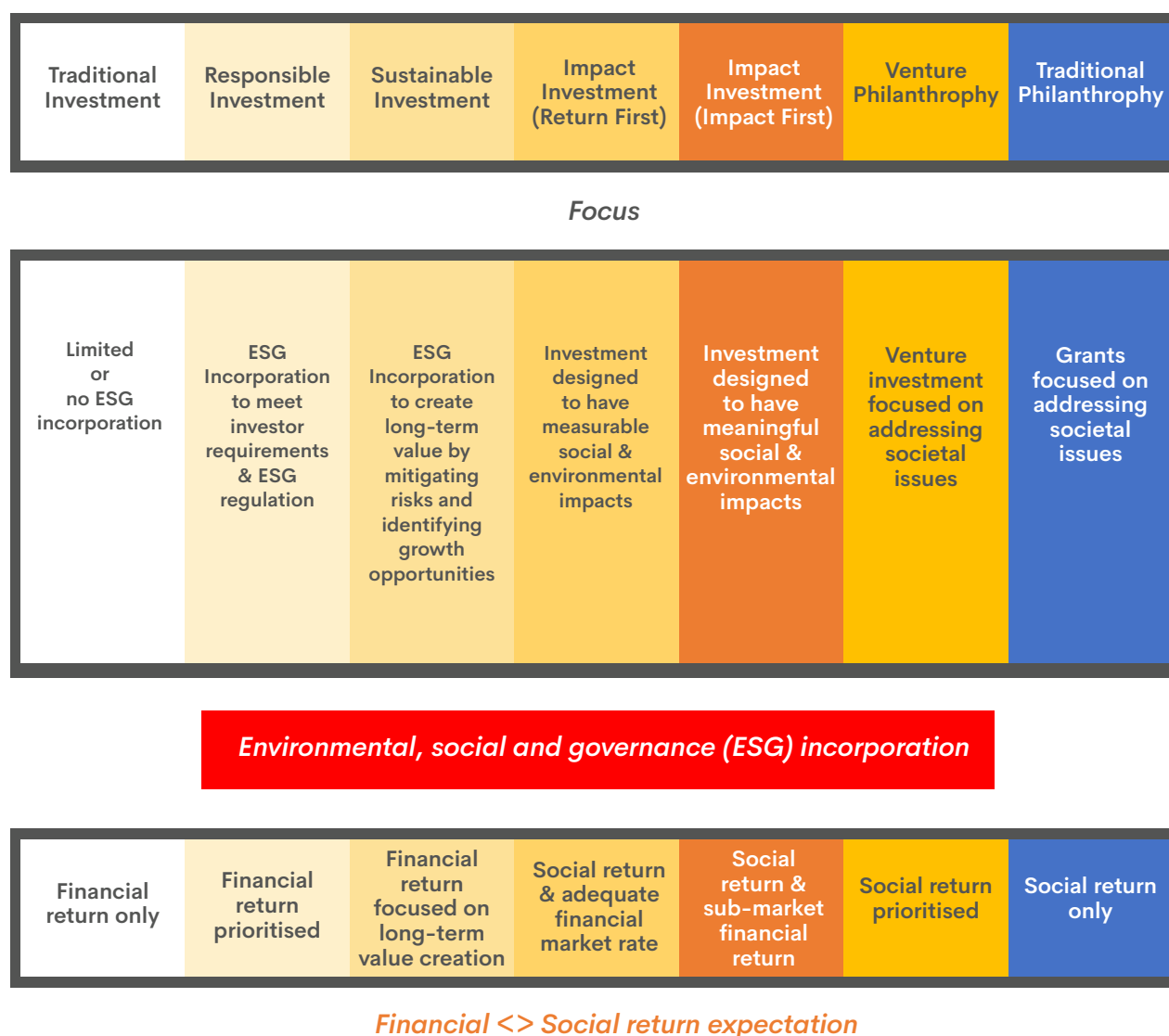
*Source: The State of Blended Finance, Convergence (2021)*

Figure 4 – Spectrum and Focus of Different Investor Groups¹⁶

Blended finance is widely recognised as a potentially effective way to improve the risk-return profile of transactions and help mobilise private sector funding. It can do this by mitigating specific investment risks and helping to rebalance the risk-reward profiles of private investment in projects by using limited pools of public or concessional funds. **Blended finance** can also be a solution to lowering the all-in cost of financing for green infrastructure projects.¹⁷ In addition, blended finance has demonstrated the potential to mobilise additional sources of finance for SDG5 regarding gender equality.¹⁸

Effective blended finance structures benefit from strategic risk analysis, which leads to risk reallocation to match investment appetites with the risks of the projects. In developing countries especially, the successful implementation of blended finance structures requires **close and early collaboration between multiple stakeholders** (governments, MDBs, private sector investors including institutional investors, financial institutions, asset managers, etc.); such collaboration will improve the investment climate and attractiveness of projects.

¹⁶ OECD, 2019. PwC Analysis.

¹⁷ Issues specific to green infrastructure projects are addressed in Policy Action 2.3

¹⁸ Convergence, "Data Brief: Blended Finance and Gender Equality", March 2019

In some cases, due to regulatory reasons, it is difficult for municipal or sovereign borrowers to blend their own finance (e.g. to accept a loan and a grant separately) even though the overall effective terms will be concessional, because the separate components may not individually meet regulatory or value-for-money requirements. Finance providers need to work with beneficiaries to ensure that blended finance instruments comply with local regulations and support regulatory change where it may be needed in order to accommodate the use of blended finance.

Blended finance is currently **underdeveloped and in need of being scaled up significantly. To achieve scale, issues such as the awareness and usage of de-risking instruments like guarantees (especially regarding foreign exchange risk as noted below) and first-loss provisions¹⁹ as well as concessional capital and reporting need to be addressed.**

MDBs can, and already do, play a role in structuring and implementing blended finance. MDBs and development finance institutions (DFIs) represent a consistent and prominent source of funding for blended finance transactions, having participated in more than 70% of deals each year since 2015. However, blended finance flows have only averaged approximately USD 9 billion per year over the past five years.²⁰

Data captured by Convergence²¹ demonstrates that concessional capital commitments provided by DFIs to blended finance transactions have remained constant over the past five years, averaging \$1.6 billion per year. MDBs and DFIs have provided an average of USD 4 billion in commercial financing to blended finance transactions annually. Looking at these two patterns together – namely, that i) DFIs source concessional funds from donor-funded pools under their administration and ii) DFIs prefer commercial participation in blended structures – the data suggests that some MDBs and DFIs largely use concessional funding to reduce their own risk and not to mobilise third-party commercial partners. To further drive the mobilisation of private (and particularly institutional) finance, MDBs should take the following actions:

1. **Make the mobilisation of private sector capital a higher strategic priority.** MDBs should engage with investors on a radically larger scale. It is understood that one of the roles of MDBs is to compete in the private finance market, and there is a benefit from the fact that they offer competitive finance, as it can help to stimulate the market. However, MDBs need to ensure that this has a net effect of crowding in, not displacing, private finance and investment, and the focus should shift more to crowding in the private sector. MDB shareholders should target KPIs that serve this end.
2. **Increase the promotion of risk-mitigation instruments and facilities and other blended finance interventions.** The availability and take-up of risk-guarantee products, especially with regard to FX and regulatory risks, is currently very limited and the products that are available are limited in scope, often perceived to be expensive, and entail time-consuming underwriting processes.
3. **Further enhance their capital adequacy and lending capacity.** This may include more efficient and dynamic management of their balance sheets, increased swapping of country exposures

¹⁹ A form of credit enhancement whereby an investor agrees to bear first losses in an investment in order to catalyse the participation of co-investors that would not have otherwise entered the deal.

²⁰ Convergence, "The State of Blended Finance", 2021.

²¹ Ibid.

with each other to scale-up specific interventions that would otherwise be constrained by a single MDB's country exposure limits, or increasing the disposal of some de-risked (primarily construction-phase risks) assets to private sector investors – which would free their balance sheets to make space for instruments they can leverage to mobilise private capital – as well as new lending and investment.

It should be acknowledged, however, that if MDBs participate more in blended finance, it will be a lot more labour-intensive and time-intensive than direct lending. **MDBs' shareholders will need to acknowledge the fact that there will be additional costs** (e.g. staffing costs), which may require additional capital and backing from shareholders.

Besides MDBs, governments, national development agencies, and state-owned enterprises have a tendency to crowd out private investors.²² All of them need to **shift their focus to crowding-in and incentivising commercial capital**, allowing themselves to be measured by the extent to which they achieve this. Not only would this increase the pool of available capital significantly, but it would also improve the quality of projects by making more effective use of the limited pool of high-quality commercial transaction experience.

In 2016, the GIH, a not-for-profit organisation established by the G20 in 2014 as a knowledge-sharing hub to advance the delivery of sustainable, resilient, and inclusive infrastructure, prepared a report to G20 Deputy Finance Ministers and Deputy Central Bank Governors on "MDB Internal Incentives for Crowding-in Private Investment in Infrastructure".²³ This report set out analysis, findings, and recommendations on the measurement of crowding in private investment in infrastructure and MDB incentivisation. Many of the findings and recommendations established in this report are still valid today, but have yet to be implemented. Some of the key findings and recommendations from this report are as follows:

- **Finding 5:** There are human resource impediments to achieving the crowding-in of private sector finance. In MDBs with broad mandates, the current range of corporate goals and incentives do not appear to be fostering large enough pools of staff with relevant backgrounds, skills, and interest to utilise the tools available to crowd-in private finance.
- **Finding 6:** Important upstream catalysation efforts will be enhanced if MDB leadership actively discourages the 'poaching' of business, i.e. situations where detailed efforts to identify and structure arrangements to crowd-in private finance are undercut by less complicated and quicker offerings by another MDB using traditional sovereign lending.
- **Recommendation 4.8:** G20 members should encourage their representatives on the Boards of Directors of each MDB to:
 - achieve a balance between the attention given to the MDB's 'own account' lending and that given to the crowding-in of private investment;
 - prevent the undermining of long-standing catalysation efforts of other MDBs, including offering to provide a traditional sovereign loan in circumstances where this adversely affects an existing effort to crowd-in private investment; and

²² MDPI, "Financial Additionality of Multilateral Development Banks in Private Participation in Infrastructure Projects", 2021.
²³ <https://www.gihub.org/resources/publications/mdb-internal-incentives-for-crowding-in-private-investment-in-infrastructure/>

- support collaborative initiatives amongst the MDBs to attract greater private investment in infrastructure, especially in respect of public-private partnership (PPP) project preparation efforts.

The global development community – comprising the United Nations, G7, G20, OECD countries, Official Development Assistance (ODA) donors, International Financial Institutions, MDBs and DFIs – estimate that developing countries need around USD 4 trillion per annum to achieve the Sustainable Development Goals (SDGs).²⁴ However, the UN estimates actual investment to be around USD 1.4 trillion, leaving a USD 2.5 trillion SDG investment gap annually. In addition, the best available estimates are that official development finance mobilises only around USD 30 billion of private finance annually.

In 2021, the Global Investors for Sustainable Development (GISD) Alliance developed a paper on “Increasing private finance mobilization: Recommendations for development banks and the global development community”. The report makes eight recommendations for increasing private finance flows to help achieve the SDGs:

1. “The global development community should design and communicate a strategy that prioritizes and allocates budgets for private finance mobilization towards the SDGs in appropriate areas in all developing countries.
2. Shareholders should modernize the governance and business model of MDBs and DFIs to ensure private finance mobilization and financial additionality are top transparent performance indicators.
3. The global development community should support blended finance vehicles that will mobilise private finance at scale (and in alignment with the SDGs).
4. The global development community should allocate scarce catalytic and/or concessional funding to mobilization / blended finance proposals with the highest sustainable development impact.
5. The global development community should promote harmonization of mobilization and blended finance structures while ensuring flexibility to adapt to different contexts.
6. The global development community should align investment assets derived from mobilization and blended finance to sustainability-related products that are of interest to private investors.
7. The global development community should increase investor access to investment assets derived by blended finance and development finance.
8. The global development community should make their track record data available to enable informed private finance investment decisions.”

24 GISD Alliance, “Increasing private finance mobilization: Recommendations for development banks and the global development community”, 2021

Another barrier to financial institutions participating in blended finance structures alongside MDBs and other institutions is the inability of financial institutions to fully realise the risk-weighting benefits of such institutions' risk-mitigation tools, especially at scale. For example, an export credit agency in a G20 country recently proposed a new guarantee scheme for sustainable finance with the explicit goal of delivering a risk-weighting benefit to banks to support the scaling up of sustainable finance. The guarantee was broad in scope. However, the guarantee would pay out only after the liquidation of the client's other assets through a bankruptcy process. As a consequence, this guarantee would not achieve any risk-weighting benefit for banks in most G20 countries. This goes to show there is a need for close engagement with prudential regulators and finance ministries to ensure that sustainable finance policies take account of existing financial regulation on the one hand, and, on the other hand, that financial regulation is able to be responsive and maintain risk sensitivity to new credit enhancement innovations from sovereigns, MDBs and other stakeholders hoping to scale up sustainable finance.

POLICY SUB-ACTIONS

Multilateral development banks and blended finance

The G20 should ask **MDBs to report to it at least annually** on the balance of disbursed direct infrastructure financing compared to both the level of commercial financing mobilised or supported and the latest estimates of total infrastructure financing needs. The G20 Infrastructure Working Group (IWG) and Sustainable Finance Working Group (SFWG) should work together to conduct a full review to understand where the gaps are, how these can be financed and filled, and whether new or existing institutions are needed.

The G20 should ask MDBs to report on how their policies, actions, and incentives are supporting the goal of increasing the leverage of MDB balance sheets to scale up private finance for infrastructure.²⁵

The G20 should instruct the GIH to deliver a progress report on their 2016 report on MDB internal incentives for crowding-in private investment in infrastructure, with new findings and recommendations, and a focus on the influence of shareholders on MDB efforts to crowd-in private investment in infrastructure.

DFIs and MDBs are critical for supporting blended finance transactions, but the time it takes for these institutions to approve transactions remains a barrier. Dealing with the private sector requires **MDBs to become faster and nimbler**. This should be emphasised by the G20.

G20 governments (as MDB shareholders) should increase the capital available for MDBs, and encourage more efficient allocation of existing capital e.g. to cover contingent facilities, as well as setting certain goals for MDBs in the development of infrastructure (e.g. in financing green energy projects or transport projects for improving cooperation between countries).

The G20 should ask the World Bank Group (WBG) to propose a roadmap to the G20 on setting up a joint (cross-MDB) FX conversion facility taking the project risk on USD FX convertibility in an

²⁵ MDBs and DFIs have agreed upon implementing a set of enhanced blended concessional finance principles – see “DFI Working Group on Blended Concessional Finance for Private Sector Projects”, 2017

agreed, and increasing, proportion of infrastructure deals in developing countries by 2025. This roadmap should be developed and delivered to the G20 Infrastructure Working Group by the 2023 WBG Annual Meetings. The aim of the facility would be to stimulate the commercial long-term FX market, such that in due course, the facility would no longer be required for currencies where the market has developed.

G20 leaders should commit to working with MDB shareholders globally to **support greater risk tolerance in MDB balance sheets** to allow additional leverage, and support the additional operating costs associated with providing guarantees. In this regard, we support and refer to the results of the Independent Review of MDBs' Capital Adequacy Frameworks commissioned by the G20 Finance Ministers and Central Bank Governors in July 2021, which we have detailed in Figure 5.

G20 Finance Ministers and Central Bank Governors should **build on the efforts of Convergence**²⁶ to support collaboration on risk mitigation for blended finance. Such an initiative should bring together DFIs, MDBs, philanthropists and others.

In order for MDBs to switch focus to higher risk (compared to sovereign lending) blended finance products, MDBs' strategic approach to risk management needs to be modified and reinforced by related incentive structures to encourage and promote acceptance of measured risk-taking. This could include classifying the risks that blended finance may address and the mitigation instruments that could be adopted, along with naming key parties and their responsibilities, and setting clear targets that prioritise the number of transactions and the amount of leverage that can be achieved within the transactions.

Through the implementation of the relevant sub-actions recommended in this paper, MDB shareholders should aim for MDBs to reduce the proportion of their exposure to governments (through sovereign lending) compared to blended finance projects by an agreed maximum proportion by 2025.

Blended finance funds from MDBs have attracted around USD 1 in private capital for USD 0.95 of unfunded guarantees, which is too low. MDBs need to deploy more concessional capital into blended finance transactions to mobilise the private sector. MDBs also need to unlock higher scaling factors. Notwithstanding MDB blended finance operations which aim to attract private financing in more challenging markets in developing countries, there should be greater ambition to increase the scale of crowding-in as has been done by the European Fund for Strategic Investments and InvestEU that aim to leverage 10-15 times private capital for every Euro of EU budget and guarantees.

G20 Finance Ministers and Central Bank Governors should set up a task force **comprising the FSB, the BCBS, MDBs, financial institutions, and other entities**²⁷ to develop recommendations to address the barriers to private sector involvement in blended finance, including the inability of financial institutions to fully realise the risk-weighting benefits of MDB risk-mitigation tools, especially at scale. The task force should aim to deliver a preliminary report by the 2023 Spring Meetings of the International Monetary Fund (IMF) and the WBG.

²⁶ Convergence Blended Finance

²⁷ For example, the Global Alliance of Investors for Development ("GISD").

MDBs and governments should scale up first-loss capital investment guarantee facilities to help mitigate risk for investors, especially in greenfield projects, and develop instruments for hedging macroeconomic risks (e.g. significant changes in national currency exchange rate, inflation, etc.) in order to attract foreign investments at suitable rates. To protect their funds, MDBs should scale their use of technical assistance and de-risking products, rather than focusing on direct lending / government loans, and report transparently on this.

The G20 should encourage the scaling up by MDBs and DFIs of sustainability-linked financing products, thus further enriching the portfolio of sustainable finance tools available for their public and private sector clients, with sustainability-linked loans tied to the sustainability performance of the borrower.

The G20 should encourage MDBs to share their knowledge and data on the pipeline of infrastructure projects in order to enable more private sector players to participate in projects. MDBs should also share the business case for and tools to integrate gender equality objectives.

National government initiatives and cooperation

To encourage international financing, G20 governments should **increase the availability of (longer-tenor) infrastructure-related financing products** from their export credit agencies such as direct project financing, credit insurance and guarantees.

G20 governments could establish priority status for the infrastructure sector (especially green infrastructure), which would allow local banks to provide longer term, low-cost loans with limited recourse, to attract foreign investors by opening up new financing avenues such as Infrastructure Investment Trust (InvIT)²⁸-like structures with tax benefits. An example of this is the Macquarie Korea Infrastructure Fund, established in 2002 under the Act on Public Private Partnerships in Infrastructure.²⁹

G20 governments, with the support of the GIH, should exchange information and knowledge regarding their instruments for attracting long-term private financing for infrastructure projects and on how they split risks between private and public parties in order to raise long-term private financing to achieve project objectives. In addition, to support effective information and knowledge sharing, G20 governments should actively participate in MDB assessments of institutional capacity and regulatory readiness.

²⁸ InvITs are pooled investment vehicles / business trusts registered with the market regulator that own, operate, and manage operational infrastructure assets.

²⁹ <https://www.mkif.com/en/about-mkif.html>

Figure 5 – Policy Action 1.1 case studies and existing initiatives

1. In March 2022, the Boards of Governors of **the Inter-American Development Bank (IDB) and IDB Invest** approved a roadmap³⁰ for a series of institutional reforms for the IDB and mandated a proposal for a capital increase for IDB Invest, the IDB's private-sector arm. The new business model envisioned for IDB Invest, or IDB Invest 2.0, will allow it to scale up work with investors and companies throughout Latin America and the Caribbean. IDB Invest's innovative, new approach will focus on originating more impactful projects, de-risking private-sector investment, and using new financial and technical tools to help crowd-in investment. The new business model goes hand-in-hand with the mandate for a capital increase proposal for IDB Invest.
2. **The Global Investors for Sustainable Development (GISD) Alliance**³¹ seeks to deliver concrete solutions to scale-up long-term finance and investment in sustainable development. The Alliance consists of 30 leaders of major financial institutions and corporations spanning all the regions of the world. The GISD Alliance can provide innovative applications of blended finance. The GISD is creating a Sustainable Infrastructure Investor Platform (SIIP) to be managed by an independent asset manager. This structure would allow investors to have debt exposure to blended finance projects across MDBs and geographies.

Figure 6 – Summary and Key Takeaways from the Independent Review of MDBs' Capital Adequacy Frameworks

In 2021, the G20 created an independent panel to evaluate whether multilateral development bank (MDB) shareholder capital is being used efficiently, whether their capital adequacy policies are still fit-for-purpose to face current global challenges, and to understand whether MDBs can lend more without jeopardising their long-term financial integrity. This was in response to a growing sense among policymakers that MDBs may need reforms if they are to play a more meaningful role in addressing the current confluence of global crises such as climate change and food security, the economic recovery from the pandemic, and the achievement of the SDGs.

According to a 2020 policy briefing published by UK thinktank ODI,³² more efficient capital use could allow the scaling up of MDB lending capacity by as much as "\$750 billion (160% above current levels) while maintaining a AAA rating, or as much as \$1.3 trillion (nearly triple current levels) if they are willing to risk a rating downgrade to AA+."

30 IDB and IDB Invest Boards Mandate Historic Reforms, IDB Invest Capital Increase Proposal, 2022 (iadb.org)

31 Overview of the GISD Alliance – <https://www.gisdalliance.org/>

32 <https://odi.org/en/publications/all-hands-on-deck-how-to-scale-up-multilateral-financing-to-face-the-covid-19-crisis/>

The panel's Independent Review of MDBs' Capital Adequacy Frameworks report was published in July 2022. The report, "Boosting MDBs' investing capacity",³³ sets out a package of recommendations that, taken together, aim to help MDBs pursue increased development investment and impact as well as sound financial management while mitigating the associated risks. The Panel identified five areas to maximise the impact of MDB capital:

1. **Adopt a more efficient management of MDB capital and risk**, including by further reflecting on the approach to defining risk tolerance.
2. **Give appropriate recognition to callable capital.**³⁴ Callable capital is a powerful instrument expressing the commitment of shareholders to stand behind MDBs. MDBs should incorporate its financial benefits in MDB capital adequacy assessments, as is already the practice in some MDBs and in credit rating agency methodologies.
3. **Expand uses of financial innovations** by adopting a more strategic, cooperative, and proactive approach to innovations that can improve the use of existing capital and free additional financing.
4. **Enhance dialogue with credit rating agencies** to improve mutual understanding.
5. **Create an enabling environment for reform through greater transparency and information.** More accessible and comparable data and analysis, as well as regular capital reviews, will support all the stakeholders in their assessment of MDB strength and demystify their financial model.

These actions would allow MDBs to substantially increase available funding, while protecting the MDBs' AAA credit ratings that underpin their business models, through clear communication from shareholders and more dynamic risk management.

The findings appear to have been welcomed by most MDB shareholders.³⁵ A joint statement from the African Development Bank (AfDB), ADB, the Asian Infrastructure Investment Bank (AIIB), the European Bank for Reconstruction and Development (EBRD), the European Investment Bank (EIB), IADB, the Islamic Development Bank (IsDB), the New Development Bank (NDB) and the World Bank says: "We thank the Panel for its work on this report. We will consider its recommendations carefully as appropriate including those that have already been implemented by some MDBs. As highlighted in the report, there are complex interactions among the recommendations with potential trade-offs and risks that would need to be assessed according to the capital structure, mandates, and shareholding of each MDB, which vary across institutions. We look forward to discussing it among MDBs."

33 <https://g20.org/wp-content/uploads/2022/07/CAF-Review-Report.pdf>

34 As of 2020, the MDBs included in the report had around \$1.2 trillion of callable capital.

35 <https://www.uxolo.com/articles/7129/MDB-capital-adequacy-report-A-mixed-reception>

One of the credit rating agencies, Fitch, has issued a statement of caution: “Potential changes to how multilateral development banks (MDBs) assess their own capital adequacy frameworks, such as the greater use of callable capital or risk-transfer schemes, could be negative for MDB ratings if they were to lead to increased leverage or risk-taking as measured by our key ratios under current criteria.

Table 1 – Case Studies of Blended Finance Infrastructure Platforms and Deals

Country, Project: Indonesia – SDG Indonesia One – Green Finance Facility³⁶

Project status: Loan Approved (2022)

Financing:

- Loans worth USD 150 million from ADB to finance green infrastructure projects.
- Phase 1 Technical Assistance grants from:
 - o Australian Department of Foreign Affairs and Trade: USD 1.2 million
 - o Government of Luxembourg Financial Sector Development Partnership Special Fund: USD 0.4 million

Key takeaways:

- The SDG Indonesia One Platform is an integrated platform that combines public and private funds through a blended finance scheme designed to support infrastructure developments which are oriented towards achieving SDGs in Indonesia. The platform provides four pillars to donors and investors alike: Development Facilities, De-Risking Facilities, Financing Facilities, and an Equity Fund.
- ADB’s 20-year financial intermediation loan of \$150 million to Indonesia will be re-lent to PT SMI for financing green and SDG-impacting subprojects.
- ADB funds will be used by PT SMI to partially finance up to 10 projects worth \$423 million, at an average of 35% per subproject. This approximates a 3 times catalytic impact to mobilise private capital into subprojects.
- In addition to these loans, ADB has approved technical assistance to help strengthen PT SMI’s ability to operate the facility and expand PT SMI’s services to support other borrowers and catalyse private funding.

Country, Project: Canada – Réseau Express Métropolitain (REM)³⁷

Project status: Under construction (2018 – 2024)

³⁶ <https://www.adb.org/sites/default/files/publication/806411/sdg-indonesia-one.pdf>

³⁷ Canada case study: CDPQ, Canada Infrastructure Bank

Financing:

- Canada Infrastructure Bank: CAD 1.28 billion loan in the form of a 15-year senior secured loan at a rate starting at 1% escalating to 3% over the term of the loan;
- Caisse de dépôt et placement du Québec (CDPQ) Infra: CAD 2.95 billion in equity
- Government of Québec: CAD 1.28 billion in equity;
- Hydro-Québec: CAD 295 million for the electrification of transport;
- Autorité régionale de transport métropolitain (ARTM): CAD 512 million payment to replace future revenues that CDPQ Infra would have received for the land-value capture.

Key takeaways:

- After the blended finance participation of the Canada Infrastructure Bank, returns on equity will be at 3.7% for the Government of Québec and 8-9% for CDPQ Infra.
- The investors will benefit from a 50-year secondary land-value capture.
- The province's investment takes a portion of the REM's return but CDPQ Infra (the equity investor) holds all the risk.

Country, Project: Georgia – Tbilisi Bus³⁸

Project status: Operational (since 2020)

Financing:

- EBRD: EUR 107 million made up of two sovereign loans of EUR 27 million and EUR 80 million;
- Eastern Europe Energy Efficiency and Environment Partnership (E5P): EUR 7 million capital grant.

Key takeaways:

- The project is under the EBRD Green City Framework.
- The project established transparent contractual arrangements for municipal service provision through the preparation and signing of a Public Service Contract.

Country, Project: South Korea – Incheon Grand Bridge PPP³⁹

Project status: Operational (since 2009)

Financing:

- AMEC: KRW 38 billion in equity;

38 Georgia case study: Global Infrastructure Hub

39 South Korea case study: Infrastructure Journal Global

- Macquarie: USD 67.5 million in equity, KRW 188 billion 19-year senior loan, KRW 89.4 billion 21-year subordinated loan;
- Kookmin Bank, Industrial Bank of Korea: USD 25 billion in equity, KRW 150 billion 19-year senior loan, KRW 32.7 billion 21-year subordinated loan;
- Incheon Metropolitan City: KRW 10 billion in equity;
- Kyobo Life Insurance, Samsung Life Insurance, Korea Life Insurance: KRW 30 billion senior loan.

Key takeaways:

- This was the first PPP project in the country to be led by a foreign investor (AMEC). It led the project as a pure developer.
- It benefited from a capital grant and a minimum revenue guarantee (MRG) from the Korean Government. If the actual traffic revenue is less than 80% of the forecast amount at the end of each year, the government will provide a cash subsidy to the project company. If the project company is not allowed to increase the toll tariff, the government will provide a subsidy to put the company in the position it would have been in had it escalated the toll tariff.

Country, Project: Türkiye – Elazığ Hospital PPP⁴⁰

Project status: Operational (since 2018)

Financing:

- EBRD: EUR 89 million subordinated unfunded liquidity facilities to support construction and operation phases;
- ELZ Finance S.A.: EUR 288 million euro-denominated senior secured bond;
- International Finance Corporation (IFC): EUR 80 million bond offered on a parallel basis in an unenhanced and unrated tranche;
- Multilateral Investment Guarantee Agency (MIGA): 20-year political risk guarantee in support of the investment-grade portion of the bond (EUR 208 million) and the equity investment.

Key takeaways:

- The EBRD, together with MIGA, provided a joint credit enhancement scheme to enable the issuance of the first greenfield infrastructure project bond in Türkiye.
- The EBRD demonstrated new ways of financing by promoting the participation of untapped investor classes (international and local institutional investors, international strategic investors) in the sector, thereby enabling the diversification of funding sources and providing depth to the financing possibilities.

- The EBRD promoted the introduction of non-conventional funding solutions to finance infrastructure projects in the bank's region, in particular debt capital market financing.
- The bond was arranged and coordinated by HSBC and is the first example of a greenfield project bond in Türkiye.

Country, Project: Thailand – Solar Photovoltaics (PV) Farm⁴¹

Project status: Operational (since 2013)

Financing:

- IFC: USD 8 million of commercial funds;
- Clean Technology Fund: USD 4 million of concessional finance;
- Kasikorn Bank, Bank of Ayudhya, Thanachart Bank: USD 18 million loan.

Key takeaways:

- Once IFC committed its support for the blended finance, local lenders agreed to co-lend and enabled the project to reach financial close and eventually go beyond its initial target (original capacity of 204 MW to over 250 MW).
 - This was one of the earliest solar farm projects in Thailand. It paved the way for private investment in the clean energy sector in subsequent years.
-

Country, Project: Indonesia – Joint Crediting Mechanism for 3x2 MW Bayang Nyalo Minihydro Project

Project status: Financing Agreement Signed (2021)

Financing:

- ~USD 14.4 million of senior loan and equity financing from PT SMI, Hasnur Group and Syres Group

Key takeaways:

- In collaboration with the Ministry of Environment of Japan (under the SDG Indonesia One Blended Finance Platform), the project utilised the Joint Crediting Mechanism (JCM) subsidy. The JCM is a project-based bilateral offset crediting mechanism initiated by the Government of Japan to facilitate the diffusion of low-carbon technologies.
 - The project owner benefited from discounted prices of machinery and equipment manufactured by Japan. As a result of these subsidies, carbon credits were issued and obtained by the Government of Japan to achieve Japan's emission reduction targets
-

Country, Project: Rwanda – Kigali Bulk Water Supply PPP⁴²

Project status: Operational (since 2021)

Financing:

- Emerging Africa Infrastructure Fund (EAIF): USD 19 million senior debt, USD 2.7 million junior debt;
- African Development Bank: USD 19 million junior debt;
- Private Infrastructure Development Group's (PIDG's) Technical Assistance Facility: USD 6.25 million grant to cover upfront capital costs and to avoid an increase in water tariffs as a result of the project;
- Metito: USD 11 million in equity.

Key takeaways:

- The Rwandan Government received technical assistance from DevCo (a facility managed by the IFC and funded by PIDG) covering the legal, financial, technical and environmental feasibility assessments of the project.
- The currency risk, which arose due to the loans and equity being denominated in hard currency (USD) and the project revenues being denominated in the local currency (RWF), caused significant delays to the project. Some of this risk was addressed through the minimisation of project costs and the maximisation of efficiencies with the decision to separate the distribution infrastructure from the plant under a distinct concessional loan.
- On top of the contribution of wells, a water treatment plant, and two pumping stations, the project initially included the transmission and distribution infrastructure necessary to maximise the impact of the project - three reservoirs, distribution pipelines, and a pumping station. However, it was subsequently agreed that greater efficiency could be achieved by allocating that infrastructure to the municipal utility, Water and Sanitation Corporation (WASAC), under a separate arrangement with funding from the Government of Rwanda and the African Development Bank. This enabled each of the water production and distribution projects to independently find the most suitable financing solutions and maximise their impact on operational efficiency and benefits to end users, and to reduce the overall cost of the project from USD 79 million to USD 61 million.

Table 2 – Other case studies of infrastructure financing deals

Country, Project: Angola – Luanda Bitá Water Supply⁴³

Project Background: The Government of Angola developed a project in the capital city of Luanda for the construction of water production, purification, transmission, storage, and distribution facilities, which comprised a water treatment plant, a transmission system, water storage facilities, distribution centres and the installation of new networks and metered connections.

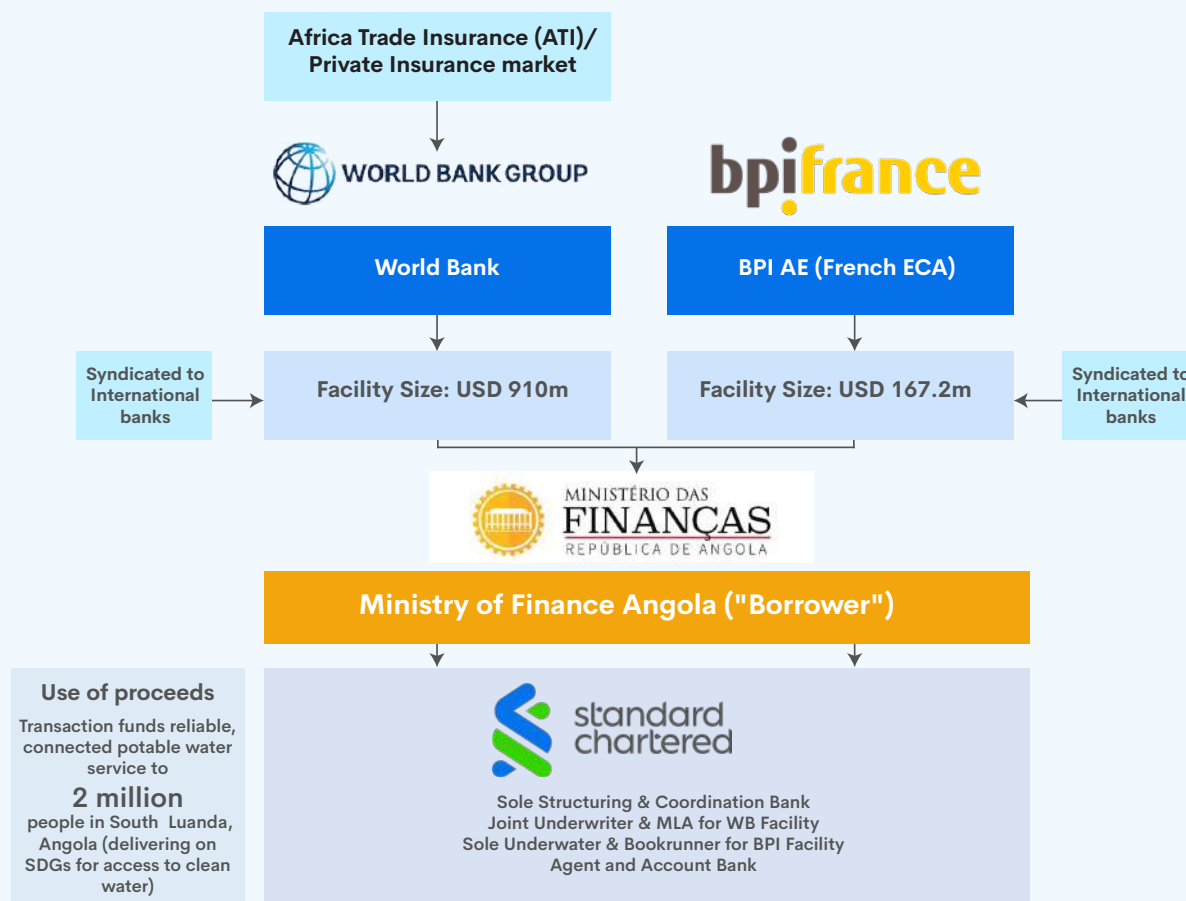
Deal Structure:

The total financing of USD 1.1 billion for the project was structured through two separate facilities:

- i. **USD 910 million, IBRD (International Bank for Reconstruction and Development) Guaranteed facility** with Standard Chartered Bank acting as Sole Co-ordinator & Structuring bank, Joint Underwriter and Joint Initial Mandated Lead Arranger, BNP Paribas as Joint Underwriter and Joint Initial Mandated Lead Arranger and Crédit Agricole Corporate and Investment Bank as Joint Initial Mandated Lead Arranger. Société Générale and Credit Suisse acted as Mandated Lead Arranger. **In addition to IBRD (the lending arm of the World Bank Group), this loan is also guaranteed by the African Trade Insurance Agency. The loan sets a global record as the biggest World Bank guaranteed financing;** and
- ii. **USD 167 million, BpiFrance Assurance Export guaranteed facility** with Standard Chartered Bank acting as structuring & co-ordinating bank, book runner and mandated lead arranger. Santander and Helaba Bank came in as mandated lead arrangers into this facility. The facility will be used for financing design-build contracts awarded to Suez International and Saint Gobain PAM with assistance from the French Export Credit Agency (ECA) i.e. BpiFrance Assurance Export.

43 <https://www.sc.com/en/feature/usd-1bn-financing-project-water-infrastructure-angola/>

Luanda Bitá Water Supply Guarantee Project



Country, Project: Türkiye – 200 km High-Speed Railway

Project Background: Türkiye's Ministry of Treasury and Finance initiated the construction of a 200 km high-speed railway that will connect the cities of Bandırma and Osmaniye in the industrial north-west of the country, which will integrate far-flung areas into the wider economy, increase the flow of goods and trade between key industrial cities and improve mobility for workers in the region.

Deal Structure:

EUR 1.24 billion financing was obtained by bringing together three ECAs –Eksport Kredit Fonden (EKF, the Danish ECA), Exportkreditnämnden (EKN, the Swedish ECA) and the Swedish Export Credit Corporation (SEK). The fourth partner in the transaction is Kalyon, a Turkish engineering, procurement, and construction contractor. This transaction marks the first Green ECA-supported financing for Türkiye's Ministry of Treasury and Finance.

Standard Chartered Bank developed the financing structure and, as the Green Loan Coordinator, helped the Ministry of Treasury and Finance to confirm that the project met internationally recognised environmental standards including Green Loan Principles, the Equator Principles, and Standard Chartered's Green and Sustainable Product Framework.

Country, Project: Vietnam – 257MW Phu Yen Solar Power Plant

Project Background: The government of Vietnam is seeking to transform the country's energy supply and power infrastructure. Under a master power development plan, the country has outlined a roadmap for a transition from fossil fuels to renewables, and an upgrade of the national grid to aid the safe and efficient distribution of electricity. A significant part of this plan is the 257MW Phu Yen Solar Power Plant Project. Located in Hoa Hoi, Phu Yen Province, it is the largest operating solar plant in Vietnam, and one of the largest in Southeast Asia. The project is expected to help reduce 123,000 tonnes of carbon dioxide emissions per annum.

Deal Structure:

The total amount of project financing was USD 186 million. ADB provided direct financing under an A-loan facility, with Standard Chartered (and other regional commercial lenders) participating in the ADB B-loan facility. To mitigate residual risks under the Power Purchase Agreement, an appropriate risk allocation structure was implemented between the parties. Standard Chartered is the only international lender involved, offering debt structuring expertise and long-term interest rate hedging through its onshore operations in Vietnam.

The deal is Asia's first green B loan certified by the Climate Bonds Initiative. This deal has set a precedent for the successful funding of renewable energy projects in the region. Projects that may have struggled to attract capital under more traditional financing structures are now more likely to progress, further increasing renewables capacity in a region still heavily reliant on coal to produce electricity. The financing structure paves the way for further development of the green energy sector in Asia, with Standard Chartered already working with B.Grimm Power on a follow-up deal using the same structure.

Country, Project: Indonesia – Satellite of the Republic of Indonesia (SATRIA) PPP

Project Background: Initiated by the Ministry of Communication and Information Technology in Indonesia, the project aims to create a full Ka-band SATRIA satellite

that will carry more than 150 gigabits per second over the full Indonesian territory when launched in 2023 by SpaceX. This project is listed as a National Strategic Project (through a PPP scheme) and is key to Indonesia's broadband connectivity due to vast geographical distribution of thousands of islands with many communities having no access to the internet.

Deal Structure:

The **USD 540 million multi-tranche project financing** was composed of a Bpifrance covered facility funded by HSBC, Santander and Korea Development Bank, and an uncovered commercial facility that is funded by Asian Infrastructure Investment Bank and Korea Development Bank. This financing structure was led by HSBC, with Thales Alenia Space as the manufacturer of the satellite.

As the ECA Coordinating Bank, HSBC managed the BPI approval process for its first project finance deal in the PPP space in Indonesia and structured a bespoke FX risk mitigation strategy involving risk sharing by the Government of Indonesia and a Foreign Exchange Reserve Account, in order to mitigate FX risk arising from local currency exposure from the availability payments.

Country, Project: Japan – Aichi Prefecture Toll Road PPP Concessions

Project Background: In 2015, the Aichi Prefectural Road Public Corporation (APRPC) was seeking a bidder for the concession to operate eight toll roads in the Aichi prefecture. In 2016, the APRPC selected the winning consortium for the concession to operate eight toll roads, spanning the Chita peninsula over a total length of 72.5 km.

Deal Structure:

The concession rights, which were priced at USD 1.31 bn, were successfully bid for, and financed by a consortium consisting of Maeda Corporation (50%), Mori Trust (30%), Daiwa Lease (10%), Daiwa House Industry (2%) and Central Nippon Expressway Company (8%). The initial down payment of the concession rights was financed through extended loans on a project finance basis to the concessionaire.

The consortium was led by Maeda Corporation with Macquarie Capital acting as the financial adviser to the consortium. After the announcement of the winning bid, the asset was then structured into five separate concessions with a weighted average concession term of 28 years, becoming the first ever toll road privatisation in Japan.

The risks of the toll road operations themselves were managed through a specific set of rules determined in the PPP agreement. Revenues, which were considered a key risk, were

shared between both the public and private sectors – revenue increases or decreases of up to plus or minus 6% of the toll revenue assumed in advance by the public corporation go to the concessionaire, and the portion exceeding plus or minus 6% belong to APRPC (or are borne by the public corporation in the case of revenue decreases).

Country, Project: Philippines – Manila Light Rail Transit (LRT-1) PPP for Route Modernisation and Extension

Project Background: The Philippines Government mounted an ambitious PPP programme to attract private sector participation in the financing, development, operations, and management of Metro Manila's mass light rail transit (M/LRT) system. The Light Rail Manila Consortium (LRMC), which comprised local and international companies such as Metro Pacific Light Rail (MPLRC), Ayala Corp's AC Infrastructure Holding Corporation (AC Infra) and the Macquarie Group, won the bid for a 32-year concession to build and operate the Manila LRT-1 Cavite Extension Project. The proposed extension will stretch the existing 20.7 km LRT Line 1 to 32.4 km and is designed to integrate seamlessly into the existing system.

Deal Structure:

The estimated investment for the 32-year concession project is **USD 1.36 billion**, of which USD 533 million will be funded by the Philippines Government through Official Development Assistance (ODA) from the Japan International Cooperation Agency (JICA) under the Capacity Enhancement of Mass Transit Systems in Metro Manila Project. The ODA will be utilised for complementary projects such as the construction of a satellite depot, rolling stock design and procurement, and the expansion of an existing depot. The remaining USD 831.9 million will be raised through private sector investments.

For this project, Macquarie acted as the project and financial adviser to Light Rail Manila Corporation and subsequently enabled the sponsors to effectively take over operating assets.



POLICY ACTION 1.2: IMPLEMENT PUBLIC SECTOR POLICIES TO IMPROVE INFRASTRUCTURE PROJECT VIABILITY

CONTEXT

General infrastructure project viability

There is a **tremendous need for the development of more infrastructure projects, but there are insufficient investment-ready projects** to fill the infrastructure gap.⁴⁴ In some cases, there may be infrastructure financing available, but project creation is lagging behind investors' demand.

In order to attract sufficient finance, countries need to develop **pipelines of properly prepared, consistently structured, and effectively sequenced infrastructure projects**, and present the pipelines in a way that enables investors to understand governments' level of commitment and prioritisation. **A robust pipeline of deals is crucial for the private sector** and gives greater confidence to developers and investors to allocate resources to a country or sector. One-off transactions with bespoke, one-off commercial structures are usually less attractive to bidders because of the limited chance of success. In addition, one-off opportunities may not justify the cost of private investors' due diligence or their entering of a new jurisdiction. However, in many countries, there is a lack of transparency, coordination, and continuity in developing and managing the infrastructure projects pipeline.

From the perspective of long-term investors, it is essential that infrastructure projects **offer attractive returns relative to risks and credible long-term cash flows** that take into consideration the long-term nature of such investors' strategies. The role of governments is key: the policy and regulatory aspects of projects need to remain stable throughout the investment term – governments should not change the rules of the game during the game.

⁴⁴ ODI, "Private infrastructure financing in developing countries", 2018.

Investment barriers that inhibit infrastructure project development and implementation, and ways in which they can be mitigated, include:

1. **Unclear or commercially unattractive revenue and risk allocation:** it is critical as part of project preparation that **investors have confidence** in the revenue the project can produce (subject to reasonable commercial risks that they can manage) and knowledge of how their investment position will be regulated and sustained.
2. **Currency risk** is a key issue for international institutions to consider when investing in infrastructure projects, especially with the absence of long-term swaps between many currencies, which means that currency risk cannot be hedged properly. Even where hedging is available (for example, through funds such as TCX⁴⁵), it can be seen as expensive. **Investors and lenders require long-term hedging products, or some guarantee schemes**, to mitigate such risks. Governments can also improve access to finance by accepting infrastructure project obligations denominated in foreign currency (as they often do when issuing bonds).

In addition, **the availability of hard currency** is a challenge for developing countries in general due to underdeveloped foreign exchange markets. In such countries, the lack of long-term hedging products means that projects cannot access foreign currency finance and may be limited by relatively illiquid local financing markets. This may require a proactive policy of developing local foreign exchange markets.

3. **Lack of robust, transparent, and defensible procurement processes:** if procurement is not well managed, large-scale reputable investors will be less inclined to participate.
4. **Lack of robust contractual frameworks and document structures:** there is a need for a consistent and comprehensive contractual framework and document structure that governs the risk allocation of infrastructure projects throughout the project life. This framework **should be applied to all projects in a country or sector consistently** and developed over time, taking account of lessons learned. In addition, the terms of the agreement and the responsibilities of each party should be based on international best practice and be sufficiently clear for private investors to be able to analyse the risk exposure.
5. **Lack of enforceability of contracts:** when there is a dispute, host countries often prefer to rely on their own legal system for the settlement of disputes. However, **international investors may prefer to use international arbitration to provide them with long-term safety and confidence** in the contract because rule of law, judicial independence and objectivity, and contract enforceability remain critical challenges in many countries.
6. **Regulatory risks:** economic and technical regulations in developing countries are often not independent of government, leading to concerns that decisions may be subject to political pressures or biased towards the government, e.g. a tendency to keep tariffs low or impose other unexpected burdens on investors. Such cases can be addressed with a strong contractual framework in the absence of an independent regulator.

7. **Social risks:** where a project involves land acquisition or has impacts on neighbours or other stakeholders, local opposition to the project may be difficult for foreign investors to evaluate or manage. Support from the government is therefore required and governments should follow international best practice in managing such risks, for example as set out in The Equator Principles.⁴⁶ In addition, there are still no standard definitions of ESG – with diverse views particularly in the ‘social’ area. Social risks include the role ESG plays in credit ratings, the lack of choice of ESG indices, challenges for disadvantaged users who are unable to access or utilise infrastructure, harm from construction and other safeguarding issues. Data is improving, and knowledge of how governments and businesses involved in the financing and delivery of infrastructure can meaningfully integrate gender and social inclusion risk across all steps of the infrastructure project life cycle. Conceptual work on ESG needs to go beyond credit risk (such as the relationship of ESG issues with liquidity and other market risks) and towards mainstreaming gender and social inclusion in a comprehensive and standardised way to leverage equal and equitable participation in infrastructure design, job opportunities, innovation processes and other opportunities of investment ready projects.

Focus on healthcare infrastructure

The COVID-19 pandemic created unique circumstances highlighting the **role of health financing and infrastructure capacity**, and directly impacted national and global economic development. Investments in health are investments in national economic development. Independent of the pandemic’s effects, historic failures to address the burden of disease and the costs of illness on individuals, families, communities, and population-level productivity are now apparent. In short, the importance of health financing pre-dates the COVID-19 pandemic, with latent, significant unaddressed gaps and opportunities for innovative financing solutions.

Furthermore, brick-and-mortar investments in health infrastructure will fail to have an impact on population health without commensurate **investments in operational aspects including human resources, logistics, medical products and treatments, and infrastructure-related requirements**.

Best-practice sharing helps member countries learn from one another to deliver better health outcomes and better handle the pandemic within their borders.

⁴⁶ The Equator Principles are intended to serve as a common baseline and risk management framework for financial institutions to identify, assess and manage environmental and social risks when financing Projects. <https://equator-principles.com/>

POLICY SUB-ACTIONS

Multilateral development banks and institutions

The G20 should ask the **GIH, Global Infrastructure Facility, and MDBs to more proactively endorse and disseminate the SOURCE platform as a helpful template to improve project development and procurement consistency for improved project viability.**

The G20 should ask the **G20 IWG, with support from MDBs and DFIs, to more proactively share the lessons learned from MDBs' and DFIs' post-implementation reviews of projects conducted by their independent evaluation departments** to help stakeholders better understand best and poor practices and lessons learned for other jurisdictions to learn from (e.g. as part of capacity building activities). This would help create a feedback loop and sharing of intelligence on what does and does not work, especially with respect to risk transfer, investment readiness and financing, including blending options.

The G20 should ask **MDBs to increase the technical assistance** (perhaps measured by a specific volume or value) given **to developing countries** to develop national robust procurement processes templates.

Governments could present to MDBs their infrastructure project pipelines, ideally integrated within the SOURCE platform, which could be further shared with private sector investors. The projects should compete for MDBs' and private investors' capital or other support, thus helping to funnel capital into the best-structured projects, as well as motivating countries to improve their investment climate and processes. The methodology for evaluating and selecting the projects must be **transparent**. This could be done through the G20 Project Pipeline⁴⁷ tool, but action is required to enhance the quality of the projects in the pipeline in order to improve the utility of the tool, generate peer competition, and identify which jurisdictions might require development assistance to make progress.

SOURCE

SOURCE⁴⁸ is a multilateral project preparation platform led and funded by the MDBs, coordinated by the Sustainable Infrastructure Foundation (SIF). The goal of SOURCE is to support the development of well-prepared projects to bridge the infrastructure gap and governments' digitalisation agendas. SOURCE provides a comprehensive map of all the aspects to consider in the preparation of sustainable infrastructure covering governance, technical, economic, legal, financial, environmental, and social issues. It uses sector-specific templates covering all the stages of the project cycle, spanning from project definition to operation and maintenance as well as allowing the definition of specific targets to fulfil the SDGs and Paris Agreement.⁴⁹ SOURCE also provides standardised project preparation templates that have been developed in close collaboration with the private sector and are in line with various international standards and recognised knowledge products (e.g. G20 Quality Infrastructure Investment (QII) principles).

⁴⁷ <https://pipeline.gihub.org/>

⁴⁸ <https://public.sif-source.org/source/>

⁴⁹ <https://unfccc.int/process-and-meetings/the-paris-agreement/the-paris-agreement>

The G20 should ask the **WBG and the GIH to randomly audit projects submitted on the G20 Global Infrastructure Project Pipeline tool prior to their publication** to ensure the quality of preparation in light of core principles (e.g. G20 Principles for the Infrastructure Project Preparation Phase).

The G20 should ask **MDBs to look at developing and implementing mechanisms that would allow for greater interaction** between public institutions and the private sector regarding infrastructure project pipelines to drive market-driven innovation and solutions, including Country Platforms.⁵⁰

The G20 should ask the IWG to develop and agree on a G20 Infrastructure Action Plan of specific, prioritised, timed actions at global and national levels and report progress on a quarterly basis.

G20 governments should review the progress and enhance the effectiveness of the GIH's role in the international exchange of knowledge on infrastructure projects regarding (i) policies and strategies regarding infrastructure project development, (ii) project planning and preparation, (iii) project procurement, and (iv) concession frameworks. The GIH should switch focus and become a more involved, hands-on project management office (PMO) in support of the IWG, rather than (as now) a more passive knowledge hub. The G20 should allocate resources to support this effort, with support from WBG and MDBs.

National government initiatives and cooperation

G20 governments should commit to preparing their infrastructure projects in accordance with the G20 Principles for the Infrastructure Project Preparation Phase⁵¹ as endorsed by the G20 leaders in 2018,⁵² and make greater use of MDB tools, such as SOURCE, in order to strengthen the capacity of their project developers and to develop more investment-ready infrastructure projects.

G20 governments should adopt international arbitration for commercial and investment agreements and agile dispute regulation to mitigate risks and increase investors' confidence.

G20 governments should aim to improve their private infrastructure investment enabling environment, as well as the procurement processes, which will improve their rankings in MDB assessments of regulatory frameworks and investment climates such as the ADB's PPP Monitor,⁵³ the World Bank's Benchmarking Infrastructure Development,⁵⁴ and the IADB and Economist Impact's Infrascopes index.⁵⁵

G20 governments should take steps to develop their local FX markets such as the establishment of a conducive regulatory environment, market rules and governance,⁵⁶ and market infrastructure in order to encourage more active market participants and drive market efficiency.

50 G20 Reference Framework for Effective Country Platforms

51 <https://cdn.gihub.org/umbraco/media/2570/g20-principles-for-the-project-prep-phase.pdf>

52 <https://public.sif-source.org/sif-source-news/source-option-g20-principles-infrastructure-project-preparation/>

53 <https://www.adb.org/publications/series/public-private-partnership-monitor>

54 <https://bpp.worldbank.org/>

55 <https://infrascopes.eiu.com/>

56 OECD (2014), The Governance of Regulators, OECD Best Practice Principles for Regulatory Policy, OECD Publishing, Paris

G20 countries could devise and share model legislation regulating infrastructure investments, based on internationally recognised best practices.

G20 governments should focus on developing robust, transparent, long-term infrastructure plans to allow investors to understand each country's needs in infrastructure and potentially propose their projects to the government. This will also help investors to better plan for their involvement in the future development of infrastructure in the respective country.

Governments in regions with high levels of cross-border collaboration and similar types of projects (e.g. airports, metros) could join forces to agree a common set of procurement guidelines and coordinated tender sequencing to facilitate cooperation instead of competition for private sector resources (which often cannot manage multiple simultaneous bids). Within this cooperation, countries should retain national authority and responsibility to respect the sovereignty of each country. For example, within the Association of Southeast Asian Nations (ASEAN), this could be effective, as good inter-governmental cooperation is already in place and could drive greater interest and participation by the requisite project developers, equity investors, and lenders as a result. The G20 could ask MDBs to facilitate this cross-border collaboration.

G20 governments should enable access to low-cost debt finance (through the opening of overseas bond markets for domestic companies).

G20 governments should introduce and develop long-term investment platforms for infrastructure (e.g. infrastructure investment trusts or InvITs).

Project-specific facilities

G20 governments should make projects investment-ready and de-risk projects using mechanisms that have been proven to be successful, such as the following:

1. Governments can undertake land acquisition and manage right of way (ROW) and social risks such as local opposition to projects.
2. Governments can offer availability-based payments (where the government takes responsibility for demand risk and project revenues are based on the infrastructure being made available to users) or minimum demand schemes (where governments underwrite minimum demand on the project, which means if demand is lower than the underwritten demand, the government will pay for the difference) to make projects more attractive for investors whilst reducing the risk premium charged by investors (which ultimately has to be passed on to users or the government).
3. In the termination clause in infrastructure concession agreements, governments should be clear about the calculation of the terminal value that will be payable to investors due to causes such as political decisions and other factors outside investors' control.

G20 governments should create and scale up facilities to develop and finance the earliest stages of infrastructure project development. Currently, it is the financial institutions that compete to invest in projects, as the supply of properly prepared projects with well-structured risk allocation is far lower than the amount of capital that is seeking to finance such projects.

G20 governments could also consider **accepting FX risks** in infrastructure projects (as they do with sovereign borrowing) in cases where this would increase the pool of investors and lenders available to finance their projects.

Figure 7 – Policy Action 1.2 existing initiatives

1. The **FAST-Infra**⁵⁷ initiative aims to close the trillion-dollar sustainable infrastructure investment gap, with urgency, by transforming sustainable infrastructure into a mainstream, liquid asset class. The FAST-Infra Technology Platform seeks to address this massive gap. It is bringing together some of the world's best technology companies and experts in project finance to create a platform that can enable better, fairer, and faster project development, transparent project financing, and efficient risk management. The platform will support the development of well-prepared projects and investor matching, and will eventually seek to facilitate the securitisation of infrastructure loans. Current participants and those providing guidance include IBM, the Sustainable Infrastructure Foundation-SOURCE (SIF-SOURCE), Scale, the European Primary Placement Facility (EPPF), Infraclear, Liquidnet, Refinitiv, Hitachi, Standard Chartered, and HSBC.

FAST-Infra is also working on four market mechanisms that have the potential to further mobilise private capital, namely:

- i. **FAST-Infra Platform:** This is an infrastructure data platform with centralised tools. It is attached to a project finance loan exchange / marketplace.
- ii. **Global Revenue Guarantee (GREG):** This guarantees timely payments from the off-taker (temporarily) through a mix of private and public finance.
- iii. **Open-sourced Managed Co-Lending Portfolio Programme (OMCPP):** This is a modified and open version of the IFC's managed co-lending portfolio programme (MCP).
- iv. **Sustainable Infrastructure Warehousing Financing Facility (SIWFF):** This is a syndication structure allowing for participation from a wide range of new development banks in emerging markets.

2. The **Global Infrastructure Facility**⁵⁸ (GIF) is a 2014 G20 initiative that provides funding and technical assistance to client governments through its ten MDB partners to build pipelines of investment-ready, sustainable infrastructure aimed at mobilising private capital at scale. Through its validated business model, the GIF has supported 125

⁵⁷ <https://www.climatepolicyinitiative.org/wp-content/uploads/2020/12/FAST-Infra-Overview-Nov-2020.pdf>
⁵⁸ Overview of the GIF – <https://www.globalinfrafacility.org/>

infrastructure programmes and projects across 57 emerging markets and developing economies. 16 GIF-supported projects have reached commercial and/or financial close and have mobilised US\$6.5 billion in private capital. As a global collaboration platform, the GIF also enables collective action among a wide range of partners including donors, development finance institutions and national governments that makes use of inputs from domestic and international private sector investors and financiers. Such collaboration is facilitated to leverage both resources and knowledge to identify market-driven solutions to sustainable infrastructure financing challenges. The GIF also works closely with its private sector partners on flagship initiatives to promote consistent sustainability standards in the market and the establishment of best practices for the integration of climate and gender considerations across the infrastructure lifecycle, as well as the establishment of frameworks on recommended public-private partnership (PPP) contract clauses to promote infrastructure as an asset class.

3. **The Global Infrastructure Programme⁵⁹** (GIF) was a GBP 16 million programme funded by the UK Foreign, Commonwealth & Development Office (FCDO) and implemented by the UK Infrastructure and Projects Authority (IPA) International team. IPA International worked with countries such as Indonesia, Colombia, Brazil, Peru, South Africa, and Mexico, adapting and deploying world-leading technologies, setting up large scale training programmes for government officials, and, in the case of Colombia and Indonesia, helping fund demonstrator projects to showcase these new approaches. Two of the project preparation methodologies central to the programme were the 5 Case Model (5CM) and the Project Development Routemap. The 5CM is a business case development tool widely used across central, devolved and local governments in the UK and in other countries worldwide. It provides a framework for thinking and developing the case for projects, including in the infrastructure sector. The G20 Principles for the Infrastructure Project Preparation Phase⁶⁰ were developed based on the 5CM.

Through the GIF's training programmes, delivered by programme partners PwC and Steer Colombia, 1360 people across 15 countries were trained in either or both of the 5CM and PDR methodologies.

Table 3 – Project Pipeline Platforms

No.	Country/Institution	Platform	Link
1	Global Infrastructure Hub	Global Infrastructure Project Pipeline	https://pipeline.gihub.org/
2	Australia – New Zealand	Australia and New Zealand Infrastructure Pipeline	https://infrastructurepipeline.org/
3	India	India Investment Grid – National Infrastructure Pipeline	https://indiainvestmentgrid.gov.in/national-infrastructure-pipeline

⁵⁹ <https://ipa.blog.gov.uk/2021/06/15/ipa-international-and-the-global-infrastructure-programme-improving-infrastructure-project-preparation-worldwide/>

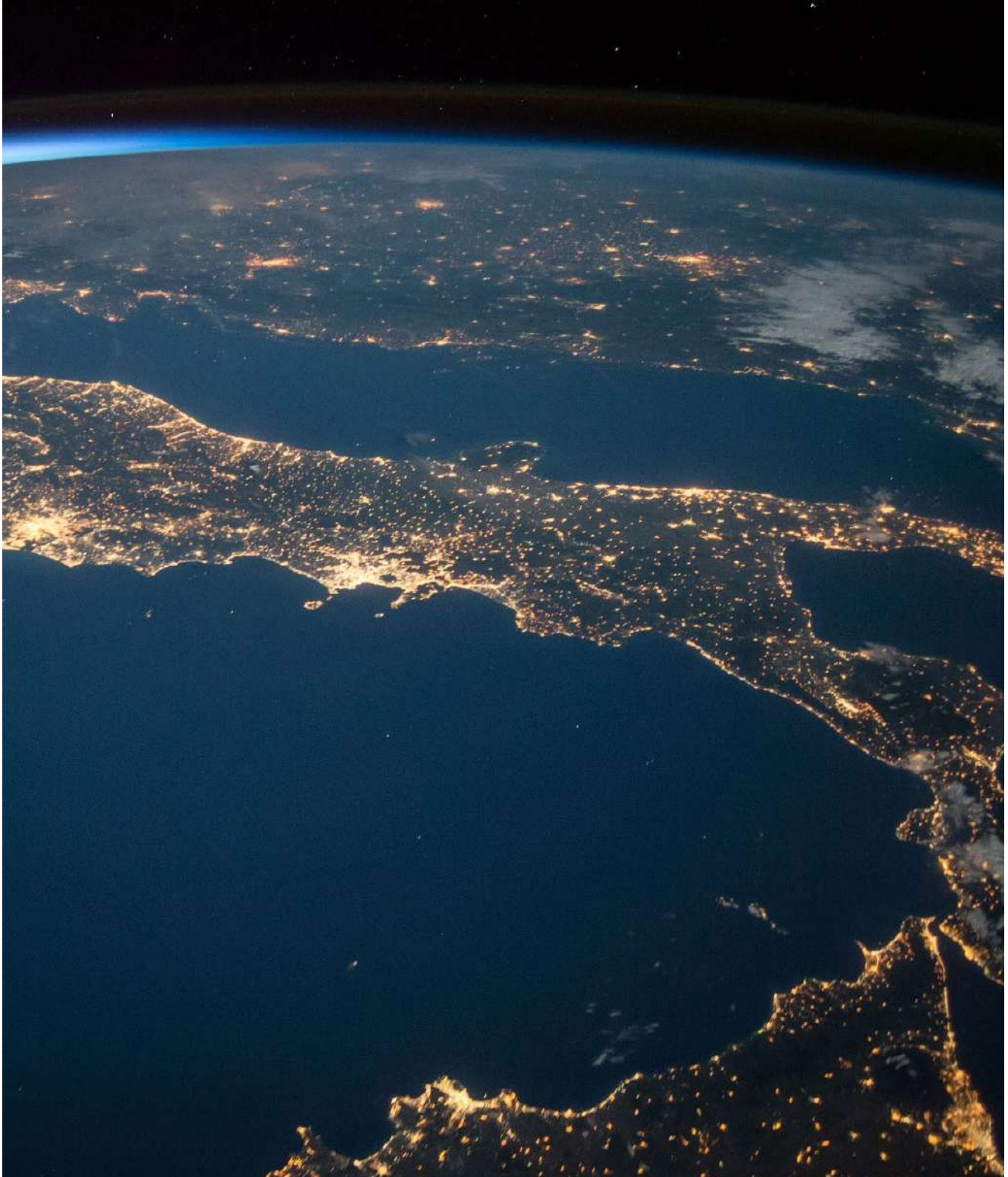
⁶⁰ <https://public.sif-source.org/sif-source-news/source-option-g20-principles-infrastructure-project-preparation/>

Figure 8 – Case Studies of Foreign Exchange Risk Mitigation Strategies for Infrastructure Projects⁶¹

1. **Nam Theun 2 Hydroelectric Project (Laos)** — With a project cost of USD 1.58 billion, this is the largest ever privately financed hydropower scheme. It involved the provision of 995MW of generating capacity and electrical energy to the Electricity Generating Authority of Thailand (EGAT). Currency risk was mitigated in this project by structuring the currency profile of the financing to match that of the project costs (pre-completion of the project) and the revenues (post-completion of the project). This also provided a natural hedge against the tariff structure, which required half of the underlying long-term debt structure to be denominated in Thai baht, and the other half in US dollars.
2. **Jegurupadu Independent Power Producers Project (India)** – In India, as in other developing countries, most projects (especially in power generation) that are financed with foreign currency debt feature a license or contract under which energy prices are adjusted in accordance with a foreign exchange index. Such an arrangement was implemented in the Jegurupadu Independent Power Producers Project, which has a portion of the tariff calculation in US dollars. The USD portion of the tariff represents a reduction in the private party's exposure to FX risk, which is, therefore, passed on to the consumers. The termination payment under the project was also indexed to US dollars. Lenders and sponsors were willing to take this risk because they verified that the Government of India, as the guarantor, had satisfactory foreign exchange reserves and that the government's management of such reserves was solid enough to protect and guarantee the transaction in the case of default.
3. **Gautrain Rapid Rail Link PPP (South Africa)** – FX risk especially posed a material risk to the project considering that approximately 25% of the costs for the development phase were denominated in foreign currency. For this reason, to offer some FX risk mitigation, the project adopted a multi-currency approach. During the development phase, payments by the government were partially indexed in foreign currency – other than for the portion of the private party's costs for which local content was required. For such purposes, in the financial modelling for the project, costs denominated in foreign currency were converted by the granting authority into local currency at a spot rate in 2006. FX rates were then fixed until 2011. The National Treasury acted as a currency swap counterparty to the Gauteng province, eliminating the additional cost for currency hedging. During the operational phase, however, FX risk was allocated to the project sponsors.
4. **Santiago-Valparaíso-Viña Del Mar toll road project (Chile)** – The project consists of the construction, operation and maintenance of a total of 141.36 km of roads including four tunnels, 16 bridges, 22 interchanges and 14 crossings and an additional 19.6 km of rural service streets, with a concession term of 25 years. It benefited from an FX risk allocation mechanism, by means of which the Granting Authority would compensate the concessionaire for the effects of local currency devaluation in excess of 10% on its foreign indebtedness.

61 Global Infrastructure Hub, "Foreign Exchange Risk Mitigation Strategies", 2021.

5. **Mexico** – In 2017, the Mexican Foreign Exchange Commission established a programme that implemented a new foreign exchange market mechanism of non-deliverable forward (NDF) auctions settled in Mexican Pesos. Such a mechanism aimed to maintain the proper functioning of the local exchange market, while supplying market participants with another foreign exchange hedging instrument to mitigate exposure to FX risk.



RECOMMENDATION 2

Drive collaboration between countries to accelerate a just transition towards a net-zero world

POLICY ACTIONS

Policy Actions 2.1 – Implement policies to increase the pool of funds for green infrastructure

Policy Actions 2.2 – Improve the investment climate for decarbonisation projects

Policy Actions 2.3 – Improve public sector support to accelerate the development of viable green infrastructure projects

MONITORING KEY PERFORMANCE INDICATOR (KPI)

OWNER: G20 COUNTRIES

Global % of renewables in total energy supply⁶²

Source: International Energy Agency (IEA)

Baseline

12%
(2020)

Target

30%
(2030)

Global % of CO2 emissions covered by carbon pricing mechanisms

Source: World Bank Carbon Pricing Dashboard

Baseline

23%
(2022)

Target

48%
(2030)

SDG IMPACT



Policy Actions 2.1, 2.2 and 2.3 have been formulated to increase the amount of funding available for green infrastructure projects, support the market for decarbonisation projects, and improve the quality of green infrastructure projects. In this way, Policy Actions 2.1, 2.2, and 2.3 will help to increase access to clean energy (SDG 7), promote sustainable economic growth (SDG 8), foster the development of sustainable and resilient infrastructure (SDG 9), reduce inequalities amongst countries to achieve a “just transition” (SDG 10), enable infrastructure that makes cities and communities more sustainable (SDG 11), combat climate change (SDG 13), and increase financing flows between countries, in particular for green infrastructure (SDG 17).

G20 INDONESIA PRIORITY IMPACT



Recommendation 2 will help to support the achievement of the G20 priority issue of Sustainable Energy Transition.

Policy Actions 2.1, 2.2, and 2.3 all address this principle, as all these policy actions aim to accelerate and promote a just transition towards a net-zero world.

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Includes solar, wind, hydro, modern solid, liquid and gaseous bioenergy, and other renewables



POLICY ACTION 2.1: IMPLEMENT POLICIES TO INCREASE THE POOL OF FUNDS FOR GREEN INFRASTRUCTURE

CONTEXT

The discussion on this policy action and many of the policy sub-actions recommended here are complementary to, and build on, the policy actions and policy sub-actions in Recommendation 1, which relates to infrastructure projects more generally.

Barriers to infrastructure investment and the movement of savings and investments between countries must be addressed if the climate transition is to be financed at scale, and if countries are to receive the financing that they need to meet their climate transition commitments.

A key difference between general and green infrastructure projects is that green infrastructure may require longer concessions or other support to generate an acceptable return, if due credit is not provided to the greater economic benefits generated by green projects compared to general infrastructure. In addition, green infrastructure projects **may be more complex in revenue structure** due to the incorporation of externalities (e.g. through carbon pricing) or the use of performance-based lending.⁶³

Decarbonisation through the phasing out of fossil-fuel plants earlier than their original end-of-life **can be achieved through blended finance** interventions. Commercial debt capital from infrastructure investors and lenders with a green or ESG focus (where gender and social inclusion can be a cross-cutting consideration) can be blended with concessional capital with lower yield requirements, to provide competitive debt re-financing to allow the coal plants to be shut down ahead of schedule, whilst still ensuring that the expected returns of investors and financiers are met.

63 The World Bank, "Green Infrastructure Finance: Framework Report", 2020.

Barriers to the flow of funds for green projects may include⁶⁴ the following:

1. ESG investors and lenders⁶⁵ have inherently stronger governance frameworks and transparency requirements than many traditional investors, making it more difficult for projects to meet those requirements.
2. Climate risk policies are imposed on financial services multinationals in developed countries, which unintentionally closes off the provision of transition finance in developing countries.
3. There is a lack of coherence between different ESG taxonomies and reporting standards, which impedes the scaling up of sustainable finance. There is also no common approach to globally applicable ESG standards that is acceptable to all developed and developing countries.

ESG factors play a growing role in lending and investment decisions, and green infrastructure must be considered within this wider context, if only because there are often trade-offs to be made between different ESG-related objectives. As businesses look to implement ESG factors, the practical implementation of ESG policies and strategies is frequently hampered by the activities of different national and international bodies and their different interpretations of ESG. Currently, ESG is a self-regulated landscape with a variety of legal (laws, directives, regulations, bylaws, etc.), corporate and other softer law requirements (recommendations, methodologies, declarations, etc.) at all levels. The current state of play creates a burden for national and international businesses; they need to adapt to different standards.

The IFRS Foundation's new International Sustainability Standards Board (ISSB) is working to consolidate the globally recognised standards into a single set of global sustainability reporting standards.⁶⁶ G20 countries should use these as the global baseline for sustainability reporting and apply them within a reasonable timeframe. The application of these standards must allow for differences between developed and developing countries and commit to the principle of common but differentiated responsibilities.

There are several obstacles that may hinder such initiatives, although there are some emerging solutions that could catalyse progress. Among them are the following:

1. The growth and mainstreaming of ESG is promising and evolving regulatory frameworks and international principles are beginning to form a more solid foundation. Nevertheless, much more needs to be done in regard to ESG practices to support market efficiency and integrity. A reliance solely on finance to deliver better environmental, social, and governance outcomes is problematic if investors do not have the tools and information to price related risks and direct investments accordingly. Advancing robust independent assurance requirements for ESG-related disclosures and information will promote integrity and trust in markets.

⁶⁴ Hafner, S.; James, O.; Jones, A. A Scoping Review of Barriers to Investment in Climate Change Solutions. Sustainability 2019, 11, 3201. <https://doi.org/10.3390/su11113201>

⁶⁵ Green infrastructure would be classified within the Environmental focus of ESG

⁶⁶ ISSB, "[Draft] IFRS S1 General Requirements for Disclosure of Sustainability-related Financial Information" and "[Draft] IFRS S2 Climate-related Disclosures", 2022.

2. Different countries have different levels of economic and sustainability development, and legal and regulatory frameworks that hinder the adoption of a common approach. ESG solutions (or more specifically, green solutions) are capital-intensive and most developing countries either do not have the necessary capital or do not have strong credit ratings to finance green activities using debt instruments. In addition, most developing countries lack the capability and necessary infrastructure to directly transition to adopting the most modern green technologies available. Developed countries generally have better technological, project planning and development capabilities, and a better ability to raise capital and attract investment for infrastructure projects. The Paris Agreement set the goal of “holding the increase in the global average temperature to well below 2°C above pre-industrial levels and pursuing efforts to limit the temperature increase to 1.5°C above pre-industrial levels”. For the world to achieve this, it is essential for developed countries to provide financial and technological support for developing countries’ efforts to address climate change whilst also achieving sustainable development. These commitments should also provide a source of growth for the developed countries.
3. Measuring ESG performance in consistent and comparable ways for investors and other stakeholders has been difficult because of the thousands of possible metrics and disclosures and the myriad of differing information requests from stakeholders. To help address this issue, the Measuring Stakeholder Capitalism⁶⁷ project was launched in August 2019, at the request of the World Economic Forum’s International Business Council of CEOs, to help catalyse progress towards a globally aligned solution for sustainability reporting. It was instrumental in bringing three global standard setters and frameworks together to form the IFRS Foundation’s new ISSB and it has identified a set of existing road-tested metrics (derived from voluntary standard setters such as the Global Reporting Initiative (GRI) and Sustainability Accounting Standards Board (SASB) on universal priority topics that are being used as a building block for the emerging global standards. These Stakeholder Capitalism Metrics⁶⁸ are enabling companies to get ready for global baseline standards from the ISSB (which will take time), while encouraging them to immediately and voluntarily improve the quality and comparability of their sustainability reporting for investors and other stakeholders.
4. Financial institutions have concerns about possible claims from investors concerning non-financial information. Such information sometimes relies on estimations or assumptions that are subject to higher uncertainty than those for financial indicators. Various ESG metrics are measured differently by different organisations and used or interpreted differently by stakeholders. A common, globally aligned approach is needed not just in terms of standards and methodologies with well-defined disclosures, terms and metrics used for ESG disclosures, but also concerning assurance over such sustainability information that can inform auditors and investors of the specific criteria needed to conduct an independent review and audit that would be internationally recognised. The International Audit and Assurance Standards Board (IAASB) has published ISAE 3000 (Revised).⁶⁹ This is the most globally accepted standard for non-financial assurance engagements, including ESG information, and is the logical foundation for driving evolution and consistency in sustainability assurance engagements.

⁶⁷ Measuring Stakeholder Capitalism – <https://www.weforum.org/stakeholdercapitalism>

⁶⁸ Measuring Stakeholder Capitalism: Towards Common Metrics and Consistent Reporting of Sustainable Value Creation

⁶⁹ <https://www.iaasb.org/publications/international-standard-assurance-engagements-isae-3000-revised-assurance-engagements-other-audits-or-0>

5. Different countries have different approaches to the classification of certain sectors as “green”. For example, nuclear energy in some countries is seen as “non-green” while in others it is “green”. Some geographies have been harmonising their taxonomies but there are still multiple taxonomies across jurisdictions with different objectives that focus on different components of ESG.

G20 economies should strive toward a common taxonomy to classify sustainable products and services, including infrastructure projects, or, failing this, a common set of higher-level standards that address the needs of international investors and businesses across jurisdictions at different levels of economic and social development. This taxonomy should incorporate international standards that support the promotion of gender equality and women’s empowerment, for example the Gender Equality Seal for Private Enterprises (GES).⁷⁰ This would greatly help to unlock a larger pool of sustainable finance as an effective tool to accelerate the green transition, especially in emerging markets.

Harmonisation and interoperability are key enablers of international finance globally. **Comparable and interoperable taxonomies** can help to reduce transaction costs by reducing the unnecessary duplication of verifications, reducing market segmentation, increasing market confidence, and helping to facilitate cross-border capital flows.

There are still some challenges regarding IFRS 9 for the accounting of the long-term financing used in green infrastructure projects. Green loans (or ‘sustainability-linked loans’) are debt instruments where the interest rate is linked to certain ESG metrics. For example, these measures might relate to compliance with emissions standards, energy efficiency metrics, or a combination of different green measures.

In order to avoid the complexity of fair value accounting, IFRS 9 requires the contractual cash flows of a financial asset (e.g. an investment in green loan) to be solely made up of payments for (1) principal and (2) interest that are consistent with a basic lending arrangement. This requirement is often referred to as the “solely payment of principal and interest”, or SPPI test. A loan might pass the SPPI test where the variation in the interest rate reflects only a change in the instrument’s credit risk.

Many sustainability-linked features that are designed to incentivise the borrower to exercise good sustainability practices may potentially fail IFRS 9’s SPPI test. This is because it is not entirely clear whether IFRS 9 considers the variations in the interest rate to reflect changes in the borrower’s performance relative to the green measures to be a change that is commensurate with the change in the credit risk of that loan. There is insufficient guidance in IFRS 9 for this matter at the moment.

If an investment in a green loan fails IFRS 9’s SPPI test, the investor will have to account for the investment at fair value through profit or loss (FVTPL), as opposed to measurement at amortised cost or fair value through other comprehensive income (equity). An investment measured at FVTPL on a lender’s balance sheet is subject to the volatility of the market price risks of that loan.

Therefore, we recommend any changes in the regulatory environment as discussed in Policy Action 4.1 need to specifically address the needs of green infrastructure projects. This topic is also a key focus of the International Accounting Standards Board’s Post-Implementation Review (PIR) of IFRS 9 that started in 2021.

⁷⁰ <https://www.genderequalityseal.org/>

POLICY SUB-ACTIONS

Multilateral standard-setting and taxonomy

G20 economies should strive towards a harmonised ESG taxonomy and common set of reporting standards that address the needs of investors and businesses across jurisdictions at different levels of economic and social development.

The ESG performance of enterprises will become an increasingly important factor influencing financing and investors' decisions. However, there are still not enough companies actively implementing ESG strategies and practices. For example, there are still not enough companies actively publishing ESG reports. It is recommended to further increase the publicity and promotion of ESG concepts by, for example, strengthening knowledge sharing, holding more forums, and increasing the promotion of ESG strategies and practices to unlisted companies.

We welcome the launch of the International Sustainability Standards Board as a step towards international regulatory coherence and coordination. However these discussions take considerable effort and time. In this regard, we recommend that international coordination should first focus on promoting the "interoperability" of different regulatory frameworks. For instance, in regard to taxonomies, interoperability could include standardisation by defining key metrics but still allow for regional and temporal variation in threshold levels (with regard to the contribution criteria included in taxonomies e.g. maximum emissions for an activity). This would contribute to a common understanding and provide a means for taxonomies to differ across jurisdictions yet remain consistent. Disclosure standards are another key area for interoperability given that high-quality, globally comparable information is key for investors. Interoperability could be achieved by developing a global baseline standard, enabling a meaningful comparison of sustainability disclosures across sectors and regions, while allowing jurisdictions to add to that global standard to suit local market specificities. This would provide capital markets with high-quality corporate-level information and contribute to the fight against "greenwashing" (i.e. falsely or excessively promoting a company, product, project, or practice as being environmentally friendly).

The dialogue on the standardisation of sustainability reporting should be as inclusive as possible and include state representatives and professional, business, expert, and academic communities. G20 governments should support the ISSB's efforts to establish sustainability-related disclosure standards. All relevant stakeholders need to reach a compromise on the common understanding of the ESG landscape. A similarly inclusive dialogue will benefit the related standardisation of the assurance of ESG reporting.

Sustainability reporting standards should take into account countries' circumstances and level of economic development, and be sector specific. While the ISSB's standards are intended to provide a global baseline for sustainability reporting that includes sector-specific requirements, national governments can build on that to further elaborate and contextualise ESG reporting based on the market conditions within their own countries.⁷¹

71 IFAC, "Enhancing Corporate Reporting: Sustainability Building Blocks", 2021

The G20 should continue the alignment of ESG criteria and practices with the work on transforming infrastructure into an asset class,⁷² promoting the introduction of ESG criteria and practices in the implementation of infrastructure projects. This may have a favourable impact on insurance, guarantees, and hedging.

G20 governments should consider recognising the cross-border format of both national Renewable Energy Certificates and international Renewable Energy Certificates (I-REC Certificates), which would allow the use of certificates outside the territory where the clean electricity was generated.

The G20 should support the adoption of IFRS Sustainability Disclosure Standards, starting with the new general disclosure and climate standards due to be finalised in late 2022.

Government-to-government collaboration

We support G20 Country Platforms⁷³ and the efforts of the G7 in working towards new Just Energy Transition Partnerships (JETPs) as vehicles to support developing countries make the transition to net-zero.

Government-to-government collaboration between developed and developing countries, as well as between developing countries, is key to pushing green investments. Mechanisms may include:⁷⁴

1. Carbon credits in exchange for viability gap funding (VGF).
2. Environmental performance-based lending and investment.
3. Low-cost (concessional) funding/blended finance, including VGF, for green projects.
4. Programmes such as the JCM⁷⁵ subsidy to develop renewable projects. The JCM is a project-based bilateral offset crediting mechanism initiated by the Government of Japan to facilitate the diffusion of low-carbon technologies. The JCM is a system for Japan to cooperate with developing countries to reduce greenhouse gas emissions. The result of the reduction is considered a contribution by both the partner countries and Japan.
5. Project planning and preparation assistance and capacity building.

G20 governments should promote efforts to conduct joint research and development (R&D) and implement pilot projects in the field of electricity generation e.g. in the production of "green hydrogen" and its chemical compounds.

⁷² https://www.oecd.org/g20/roadmap_to_infrastructure_as_an_asset_class_argentina_presidency_1_0.pdf

⁷³ Country Platforms, as defined in the G20 Reference Framework, are voluntary country-level mechanisms set by governments and designed to foster collaboration among development partners, based on a shared strategic vision and priorities. JETP is the term used for such frameworks by the G7.

⁷⁴ The World Bank, "Green Infrastructure Finance: Framework Report", 2020.

⁷⁵ [Overview of the Joint Credit Mechanism in Japan](https://www.mofa.go.jp/oc/eng/press/2020/01/20200120_01.html) (mofa.go.jp)

National government initiatives

G20 governments should **incentivise banks**, including Syariah banks and other financial institutions, to **maximise their green-financing books** through changes in capital requirements, grant schemes, fiscal incentives, consistent reporting requirements and taxonomies, all of which should be preceded by “green-the-banks” programmes, to build institutional capacity within the banks. Central banks could grant capital relief for green infrastructure project loans so that banks are incentivised to allocate capital to such projects (thus internalising climate change risk within the regulatory system). A good example of a successful taxonomy is the publication of EU Regulation 2020/873 (CRR Quick Fix) in the Official Journal of the European Union on 26 June 2020, which amends Regulations (EU) No 575/2013 (CRR) and (EU) 2019/876 (CRR2) in response to the COVID-19 pandemic. From 27 June 2020, qualifying European and UK banks are permitted under CRR2 Article 501a to apply an adjustment to own funds requirements, by a factor of 0.75 for credit risk for exposures to entities that operate or finance physical structures or facilities, systems and networks that provide or support essential public services, in addition to contributing to environmental objective(s) as well as other criteria. Similar but broader regulatory changes by central banks and banking regulation authorities would be a good way to encourage more bank capital to flow into sustainable infrastructure projects. This may be preferred to carbon taxes on conventional assets, especially in developing economies recovering from COVID-19, as capital relief is a “carrot” rather than a “stick”.

Figure 9 – Policy Action 2.1 case studies and existing initiatives

1. **ADB** is working with regional and international partners to design and pilot the **Energy Transition Mechanism (ETM)**.⁷⁶ ETM is a scalable initiative developed in partnership with developing member countries that will leverage a market-based approach to accelerate the transition from fossil fuels to clean energy. It is envisioned that public and private investors – governments, multilateral banks, private sector investors, philanthropies, and long-term investors – will finance an ETM fund or transaction vehicle that can retire or repurpose coal power assets earlier than their current scheduled retirement. In parallel, resources from the ETM fund and other sources will be mobilised to support renewable energy plants and enabling infrastructure such as grids and energy storage to provide clean energy. The precise structure of the ETM and corresponding transactions will be determined by regional and local needs and conditions. ETM is being piloted in Indonesia and Philippines but is expected to have wide applicability in countries that have a high reliance on coal.
2. The **FAST-Infra Sustainable Infrastructure Label (SI Label)**⁷⁷ is a globally applicable label for projects demonstrating significant positive sustainability performance, underpinned by ESG/climate resilience standards, governance, and reporting rules. It is designed to enable developers and operators to show the positive impact of an infrastructure asset and attract investors seeking assets that positively contribute to sustainable outcomes. The SI Label is designed to enable transformation of sustainable infrastructure into a mainstream, liquid asset class.

⁷⁶ Overview of the ETM of ADB – <https://www.adb.org/what-we-do/energy-transition-mechanism-etm>
⁷⁷ <https://www.climatepolicyinitiative.org/fast-infra-sustainable-infrastructure-label/>

3. **Glasgow Financial Alliance for Net Zero (GFANZ)**⁷⁸ – This group is made up of financial institutions that control trillions of US Dollars and are committed to accelerating the transition to a net-zero economy. This group will aim to mobilise the financing needed to achieve the 1.5°C Paris Agreement goal.
4. **The Climate Finance Leadership Initiative (CFLI)**⁷⁹ was created in January 2019 at the request of the UN Secretary-General to increase private sector investment in clean energy and climate solutions in emerging markets. In line with the Paris Agreement, the CFLI works to boost private sector investment in strategies, projects, and industries that lower carbon emissions to reduce the urgent health and economic risks posed by climate change.

CFLI Country Pilots are multi-year efforts that align public and private resources around a narrow set of high-priority, sector-specific opportunities in emerging market countries, with the aim of creating lasting access to rapidly growing offshore pools of sustainable capital. Each Country Pilot convenes domestic and international financial institutions in collaboration with the national government and the multilateral community to strengthen the local policy-enabling environment and mobilise capital into bankable sustainable infrastructure opportunities.

5. The **Green Climate Fund (GCF)**⁸⁰ is a fund established within the framework of the United Nations Framework Convention on Climate Change (UNFCCC) as an operating entity of the Financial Mechanism to assist developing countries in adaptation and mitigation practices to counter climate change. The GCF employs a four-pronged approach:
 - Transformational planning and programming: by promoting integrated strategies, planning and policymaking to maximise the co-benefits between mitigation, adaptation and sustainable development.
 - Catalysing climate innovation: by investing in new technologies, business models, and practices to establish a proof of concept.
 - De-risking investment to mobilise finance at scale: by using scarce public resources to improve the risk-reward profile of low emission climate resilient investment and crowd-in private finance, notably for adaptation, nature-based solutions, least developed countries (LDCs) and small island developing states (SIDS).
 - Mainstreaming climate risks and opportunities into investment decision-making to align finance with sustainable development: by promoting methodologies, standards and practices that foster new norms and values.

78 GFANZ, "The Glasgow Financial Alliance for Net Zero: Our progress and plan towards a net-zero global economy", 2021.
 79 <https://www.bloomberg.com/cfli>
 80 <https://www.greenclimate.fund/about>

6. The **International Platform on Sustainable Finance (IPSF)**,⁸¹ which was jointly launched by several economies including China and the EU, released the Common Ground Taxonomy (CGT) for Climate Change Mitigation at its annual event held on the sidelines of the UN COP 26 in Glasgow. Based on a comprehensive and detailed comparison of China's Green Bond Endorsed Project Catalogue and the EU Taxonomy Climate Delegated Act, the working group produced the CGT. The current CGT covers economic activities in six areas: energy, manufacturing, construction, transportation, solid waste management, and forestry. **On 13 December 2021, the world's first green bond based on the CGT, a US\$500 million three-year floating rate green bond, was successfully issued by China Construction Bank Macau Branch.**
7. **InvITs in India**⁸² – In 2014, the Securities and Exchange Board of India (SEBI) introduced InvITs as a way for infrastructure developers to divest operational projects and reduce their leverage. InvITs provided **developers and the government with an opportunity to monetise their assets by pooling multiple projects in a single entity, thereby releasing capital for further deployment in new projects.** The Indian InvIT market has supported the formation of 15 InvITs to date in critical infrastructure sectors (roads, power transmission, gas transmission, and telecom towers) amounting to an aggregate initial offer value of over INR700 billion (USD 9.59 billion). The Reserve Bank of India has relaxed the Indian foreign investment and exchange control regulations to permit foreign investors to invest in units of InvITs. In addition, it created favourable tax regimes where InvITs were exempted from dividend distribution tax (subject to certain conditions). Overall, the trusts have succeeded in augmenting the government's revenues and raising increased financing for infrastructure projects.

Figure 10 – Case studies of coal phase-out projects⁸³

1. **Coal phase-out in Ontario, Canada** – The elimination of coal-fired electricity was a shared effort by the provincial government, Ontario Power Generation, and the Independent Electricity System Operator, the Crown corporation responsible for operating the electricity market and directing the operation of the bulk electrical system in Ontario. The province adopted a phased approach with capacity reduced in stages between 2003 and 2014 to maintain system reliability and operational efficiency. Several gas-fired power plants were built to replace most of the coal capacity that was being retired. There was substantial investment in new non-hydro renewables, mainly wind and solar power. The provincial government passed on the cost of the phase-out to customers as a charge on the bill while transmission upgrades were included in regulated transmission rates. There was an additional charge on customers during the transition to compensate Ontario Power Generation for the above-market costs of operating the larger coal plants as output from the plants was curtailed.

⁸¹ [Overview of IPSF](#)

⁸² PwC India, "India's new real estate and infrastructure trusts: The way forward", 2016.

⁸³ International Energy Agency, "Phasing Out Unabated Coal", 2021.

Output by Generation Technology in Ontario, 2003 and 2014

Energy Source	% of Total Generation - 2003	% of Total Generation - 2014
Nuclear	42%	60%
Gas	11%	9%
Hydro	23%	24%
Coal	25%	0%
Non-hydro Renewables	0%	7%

2. **Coal phase-out in the United Kingdom** – In the United Kingdom, coal generation's share of electricity output fell from 65% in 1990 to 34% in 2005, 23% in 2015 and 2% in 2020. The complete phase-out of coal is expected by 1 October 2024. Several policies introduced after 2006 constrained the outlook for coal well before the government announced in 2015 its intention to phase out unabated coal. These policies included the introduction of a carbon price floor in 2013, the Renewables Obligation, and the Emissions Performance Standard, along with the Climate Change Act, carbon budgets and EU pollution control regulations. As a result, the economics of coal-fired power deteriorated significantly. Falling gas prices, cheaper renewables and higher carbon taxes combined to leave coal generators facing increasing losses.
3. **Coal phase-out in Germany** – Coal phase-out in Germany is part of the Energiewende, a major government policy shift from nuclear power and fossil fuels to renewables. Coal-fired power accounts for just over a quarter of Germany's electricity output. In 2019, the coal-fired generation fleet accounted for around 28% of total emissions and more than 75% of emissions from the power sector. In 2020, the Act to Reduce and End Coal-Powered Energy and Amend Other Laws (Coal Phase-Out Act) was implemented, which aims to gradually reduce coal-fired power and end its use by 2038 at the latest. The Coal Phase-Out Act stipulates that no new coal power plants will be built in Germany. It treats hard coal and large lignite power plants differently. Mechanisms for the early retirement of power plants before 2030 have also been introduced to compensate companies for the potential losses they may face.

An auction mechanism was adopted for both hard coal and small lignite-fired power plants. A shutdown premium was awarded by means of a competitive tender process: the coal plant operators receive a "hard coal premium" for the capacity they take offline. On the other hand, to compensate lignite power plant companies, EUR 4.35 billion will be awarded to plants to compensate them for their earlier investments and to close down the plants.

4. **Beijing Energy's Wind Power Project in Kangbao County** – Beijing Energy's wind power project in Kangbao County is an energy-saving and renewable energy project supported by a special loan on-lent to China Eximbank by the Ministry of Finance of China under its sovereign-level loan agreement with the NDB. The project is a milestone as it is **the first of its kind to be funded by a special loan from the NDB with China Eximbank as the implementation agency**. The project, with an installed capacity of 450MW, is an iconic project of the Zhangjiakou-Beijing Renewable Energy-Powered Clean Heating Demonstration. The implementation of the project was a measure taken by China to fulfil its commitment to high-quality sustainability for the 2022 Beijing Winter Olympics and Winter Paralympics. After completion, the power plant helped all Olympic venues to achieve 100% green operation for the first time in the history of the Olympic Games. The project was connected to the power grid in December 2021. At full capacity, the annual power generation of the plant will be about 1.04 billion kWh, which can save 320,000 tons of standard coal and reduce carbon dioxide emissions by 850,000 tons per year. In addition, it can save a large amount of the water used by traditional power plants, thus reducing water pollution.



POLICY ACTION 2.2: IMPROVE THE INVESTMENT CLIMATE FOR DECARBONISATION PROJECTS

CONTEXT

The factors identified in Policy Action 1.2 (e.g. project preparation and sequencing, revenue and risk sharing terms, procurement processes) also apply to this policy action as a foundation, as they generally apply to all infrastructure projects regardless of sector.

Engage the business community to help develop a global interoperable carbon market to support rapid system-wide decarbonisation

Supporting progress towards a global carbon market, in which national or regional compliance and voluntary carbon markets **are all interoperable**, is an ambitious goal that **would create an important stream of finance** for developing countries for decarbonisation projects.

Carbon markets are generally categorised as either compliance or voluntary (but can be combined within one market). **The compliance markets are regulated by governments** and the rules in these markets **bind companies in certain sectors** to reduce their emissions or emissions intensity and issue tradable allowances that are purchased by companies when their actual level of emissions exceed their allowances, thus creating a financial penalty for all excess emissions. The European Union Emissions Trading System⁸⁴ (EU ETS) and the China ETS⁸⁵ are two examples of compliance markets.⁸⁶

Voluntary carbon markets consist of (mostly private) entities purchasing carbon credits for the purpose of complying with voluntary mitigation commitments. They largely consist of credits issued under independent crediting standards, though some entities also purchase those issued under

⁸⁴ [Overview of EU ETS](#)

⁸⁵ [Overview of China ETS](#)

⁸⁶ The Kyoto Protocol's Clean Development Mechanism (CDM) and Joint Implementation (JI) mechanisms, both examples of a baseline-and-credit model, are also technically compliance mechanisms, as they operate under global international rules.

international or domestic crediting mechanisms.⁸⁷ Examples of independent crediting standards include the Gold Standard for the Global Goals⁸⁸ and the Verified Carbon Standard.⁸⁹

Organisations and individuals buy **carbon credits** to offset their own emissions and those within their value chain.⁹⁰ **These credits serve to remunerate other organisations for carbon reduction activities and thus transfer large amounts of funds for the development of nature-based or technology-based projects** that avoid carbon emissions or remove carbon from the atmosphere.

These projects may also have secondary benefits. For instance, they may **support biodiversity**. Many of the most impactful projects are located in emerging markets and reduce deforestation⁹¹ or support reforestation. Increasingly, the **voluntary markets provide funding for new technologies** such as green hydrogen, direct air capture and carbon capture and storage, which need to be scaled up significantly. In addition, where women are engaging in and benefiting from carbon mitigation projects, voluntary carbon markets can also advance gender equality and women's empowerment.

The development of voluntary carbon markets can **help expedite the development of compliance markets** through linkages and adoption of common, high-quality standards and a transparent and predictable regulatory framework.

Linking local compliance markets in different countries by allowing the use of international voluntary carbon credits would be a significant step towards developing a global carbon market. There is currently a lack of convergence toward a single global carbon price for different reasons within the compliance and voluntary markets:

1. Within the compliance market, carbon prices are constrained by the regulatory setup of the national/subnational arrangements. For example, in the EU ETS Phase 4, market participants are not able to use offsets from outside the EU and therefore they are trading within a tight quota, driving prices up.
2. Within the voluntary markets, carbon prices are determined by the quality of the offsets, driven in part by the standards and by market forces (relative demand vs. supply). Some types of carbon credits are viewed more favourably (because of the type and/or standard of the credit) and are also relatively scarcer in supply. With offset projects of similar profiles and standards, there is more scope for convergence across geographies and typically there is less variation in the prices.

If countries move towards interoperability, e.g. if certain types of voluntary carbon credits can be used to fulfil obligations in the compliance market, it is likely there will be some convergence in the prices of eligible voluntary carbon credits and the relevant compliance market. However, compliance markets which do allow voluntary credits tend to set a limit on eligibility to avoid the price falling excessively.

87 The World Bank. 2022. "State and Trends of Carbon Pricing 2022" (May), World Bank, Washington, DC

88 <https://www.goldstandard.org/>

89 <https://verra.org/project/vcs-program/>

90 These voluntary carbon credits do not replace the need for businesses to remove and reduce their own emissions – according to the Science Based Targets initiative (SBTi), an annual 4.2% emissions reduction is required for 1.5°C-aligned science-based targets (Science Based Targets Initiative Annual Progress Report, 2021).

91 CO₂ from tropical deforestation now makes up less than 10 percent of global warming pollution. This percentage has gone down in recent decades, partly due to some success in reducing deforestation, but also because greenhouse gases from burning fossil fuels—by far the principal cause of climate change—have continued to increase. – Union of Concerned Scientists, "Tropical Deforestation and Global Warming", 2021.

Acknowledge differences between developed and developing countries in energy transition

It is important to look at the mobilisation of capital from the perspective of a “just transition”. The proposal for a just transition seeks to ensure that **those who stand to lose economically from decarbonisation are supported** – be they countries, regions, industries, communities, workers, or consumers. In addition, a just transition seeks to ensure that the substantial benefits of a green economy transition are shared widely. A green economy is not guaranteed to benefit men and women equally, and therefore a just transition will also require diagnosing gender issues in investment climate reform and designing practical solutions.

Governments should develop transition strategies to align the types of assistance needed to help developing countries reduce their reliance on and phase out fossil fuels (e.g. through technology transfer, knowledge sharing, and investment). It is important to include the perspectives of minority groups and civil society for a just climate transition. To truly leave no one behind, a solutions-oriented approach should be adopted, where accountability, citizens’ participation and transparency are maintained at all levels, with special attention for marginalised and vulnerable groups, as well as for geographical imbalances.⁹²

Impact assessments should assess differentiated impacts on gender and on the most vulnerable groups in society, on enterprises and other stakeholders, based on gender-responsive data disaggregated by income, sex, age, race, ethnicity, migratory status, statelessness, disability, education level, profession, and geographic location, across different types of regions or territories, with special attention given to developing countries.⁹³

Emission levels are growing rapidly in most developing countries. This increases the urgency for developing countries to receive support to move towards their emissions targets. Collaboration between countries in sharing information and supporting infrastructure projects is a crucial step in helping developing countries progress on a path to low-carbon growth.

Many developed countries’ economies are **more resilient to the impact of transition** and are not as dependent on fossil fuels as many developing countries. The **G20 developing countries’ CO₂ emissions per capita** (an average of 4.76 tonnes per capita in 2020) **are currently significantly lower than those of the G20 developed countries** (an average of 10.39 tonnes per capita in 2020).⁹⁴ However, as the developing countries’ **economies, incomes, and energy consumption levels continue to grow**, the biggest opportunities for energy transition projects will be in these countries.

However, in many cases, **developing countries lack the technology, capabilities, and capital** to develop green infrastructure projects and **make the transition**. Whilst developed countries can support developing countries by sharing knowledge, expertise, and investing in suitable projects in developing countries, developing countries must guarantee transparency and strong government support to oversee the process. Other factors also play a role in influencing each country’s ability to influence the speed and scale of the energy transition, e.g. the current state of energy security, the

92 “Europe moving towards a sustainable future”, Contribution of the Multi-Stakeholder Platform on the implementation of the Sustainable Goals in the EU, Reflection Paper, October 2018

93 Ibid.

94 Our World in Data, 2021.

country's fiscal condition and investment climate, and the dependence of livelihoods on traditional carbon and energy-intensive sectors.

The combined effect of **high dependency on fossil fuels** and **low economic resilience** will inhibit progress when persuading some developing countries to take action. Each country should therefore be **treated individually** and the shift to low-carbon economies for developing countries should be gradual: **realistic targets and milestones should be set by each country individually, customised to their socio-economic and developmental situation and their net-zero pathway; the use of cleaner fossil fuels such as gas** for the interim period should be permitted, and **blended finance instruments** from international banks and institutions should be made available.

The financing of new transition technologies and clean technologies that show a clear pathway to zero emissions should be scaled up significantly. Partial emission-reduction solutions are still in their early stages or amount to pilot schemes and need public support for commercialisation at scale (e.g. in the case of ammonia co-firing). In addition to renewables, existing facilities for energy transition should be upgraded as well as access to affordable technology for carbon capture and storage.

It should be acknowledged that many developed countries already have a sophisticated institutional framework that can support the energy transition and the development of renewable energy projects, while many developing countries still need to develop relevant mechanisms.⁹⁵ All countries, however, should make progress towards reducing lock-in effects due to investments into fossil fuel technologies and should evaluate a potential leapfrog to renewables. Governments should consider avoiding long-term contractual obligations that guarantee oil, gas, and coal companies' production as such obligations would slow the energy transition.

It is important that transition strategies do not have the effect of **further widening the infrastructure gap between developed and developing countries**. Pushing net zero too fast may increase the cost of infrastructure and production. Actions must be mindful of climate change, **finding the right balance between carbon reduction goals and negative externalities** such as impacts on jobs, growth, and economic development.

POLICY SUB-ACTIONS

Carbon markets

G20 governments should **make progress towards enabling the incorporation of voluntary carbon credits as part of compliance markets**. That is, companies should be able to also count carbon credits (that are internationally recognised as credible and verifiable) bought on private markets towards their legally required carbon emissions targets. A phased approach to the interoperability of carbon markets could enable developing countries to receive a higher price for their carbon credits in order to help fund the just transition, whilst avoiding the penalisation of essential industries in these countries that have not yet managed to decarbonise.

⁹⁵ Blohm M. An Enabling Framework to Support the Sustainable Energy Transition at the National Level. Sustainability. 2021; 13(7):3834. <https://doi.org/10.3390/su13073834>

G20 governments should make progress towards **stipulating that carbon credits should meet certain eligibility criteria to be internationally recognised as high quality. One set of standards are the Core Carbon Principles (CCPs) of the Integrity Council for Voluntary Carbon Markets (IC-VCM).**⁹⁶ These are minimum global standards that have been established to ensure that carbon credits can be classified as legitimate and high quality. The CCPs and Assessment Framework will be issued in Q4 2022, following a public consultation held from July to September.

The G20 should recognise the value of the work of IC-VCM in developing and promoting new threshold standards for high-quality carbon credits. The G20 should look into options on evaluating the appropriateness of the CCPs following their issuance, and develop mechanisms for coordination. Clarifying the classification and treatment of high quality carbon credits in relevant accounting and regulatory frameworks will help build interest in this asset class among investors and improve market liquidity.

G20 governments should make progress towards **implementing Article 6 of the Paris Agreement (agreed at COP26) in local and international legislation.** Article 6 of the Paris Agreement allows countries to voluntarily cooperate with each other to achieve emission reduction targets set out in their NDCs. This means that, under Article 6, a country (or countries) will be able to transfer carbon credits earned from the reduction of GHG emissions to help one or more other countries meet climate targets.⁹⁷

The G20 should commission a strategy for the achievement of an inter-operable carbon market, including strategies to mitigate the adverse impacts such as differential pricing for different trading flows.

MDBs and other DFIs should support governments in building their regulatory capacity for carbon markets, and accelerate the deployment of specific funds and mechanisms for green infrastructure investments, including providing guarantees for and insuring carbon offset projects. This includes the regulatory capacity to provide incentives for inclusive business models and to ensure women participate as actors in the new green economy through upskilling, job readiness training, provision of new technologies and other gender-smart solutions to help overcome systemic gender disparities in the green labour market and reduce gaps in incomes and livelihoods.

Taxonomy and standards

G20 governments should work together to **implement consistent definitions for “carbon neutral” and “net zero”** so that infrastructure investors and developers can determine the appropriate use of carbon credits to meet their decarbonisation targets. Building a common definition of “what is green” i.e. a global green taxonomy, will help to avoid “greenwashing”. These definitions should be consistent with the definitions set out by the United Nations Intergovernmental Panel on Climate Change (IPCC) in its special report⁹⁸ on the impacts of global warming of 1.5°C above pre-industrial

⁹⁶ <https://icvcm.org/the-core-carbon-principles/>

⁹⁷ <https://www.worldbank.org/en/news/feature/2022/05/17/what-you-need-to-know-about-article-6-of-the-paris-agreement>

⁹⁸ https://www.ipcc.ch/site/assets/uploads/sites/2/2019/06/SR15_Full_Report_High_Res.pdf

levels and related global GHG emission pathways, but should also respect the relevant objectives determined by individual countries. They should also integrate gender issues to support equitable benefits to jobs and opportunities in the transition.

G20 governments should support the ISSB's efforts to provide a global baseline for climate-related reporting by bringing together and optimising various initiatives, standards, and frameworks.

The G20 should agree to appoint an organisation to take the lead on knowledge-sharing, which should entail the publishing of a clear map of the available frameworks, tools and methodologies that are widely recognised and that therefore should be followed by various stakeholders. This should include knowledge products that share information about the role of women's knowledge and activities in tackling the threats of climate change and measurements that quantify, verify and report on women's empowerment impacts in the private carbon offset market,

National government initiatives

Governments should implement measures to promote green finance, such as:

1. Mechanisms to channel domestic savings into domestic green infrastructure investment opportunities. For example, the retail issuance of sovereign green bonds could mobilise retail investors. Retail involvement could also lead to greater demand for pension scheme solutions that incorporate green infrastructure considerations.⁹⁹
2. Creating robust regulatory environments that can enable a healthy market for retirement savings and pension products to establish a source of long-term investment that can greatly contribute to funding green infrastructure.
3. Setting minimum quotas for purchases of energy from green-energy-generating companies, as well as the categorisation of gas and nuclear power as green.

Just transition

The developed G20 countries should take action to uphold their commitment to "in the context of meaningful mitigation actions and transparency on implementation, to a goal of mobilising jointly USD 100 billion per year by 2020 to address the needs of developing countries", as stated within the COP16 Accord, which was agreed at the 2010 United Nations Climate Change Conference (COP16).

This target, according to the 2020 Report of the UN Secretary-General's Independent Expert Group on Climate Finance,¹⁰⁰ has not been reached. In order to support the climate transition in developing countries, and as part of addressing the needs of developing countries, developed countries should also support the development of green infrastructure in developing countries through technology transfer and investments in developing countries. This will help to ensure that developing countries

⁹⁹ Accelerating Green Finance: A report to Government by the Green Finance Taskforce (2018)
¹⁰⁰ https://www.un.org/sites/un2.un.org/files/2020/12/100_billion_climate_finance_report.pdf

can more easily make the climate transition, instead of, for example, continuing to develop fossil fuel power plants in the short term and delaying the transition to renewable sources of energy.

G20 governments should provide policies, guidelines and incentives within a well-defined transition roadmap and milestones in each transition period. For example, adopting a phased approach with stepped increases in carbon taxes to gradually increase the incentives to de-carbonise whilst allowing space for the carbon tax payers and others affected to plan for and manage the financial and other impacts. Such roadmaps and milestones should recognise women as leaders, entrepreneurs, employees, customers and community members in the drive for solutions to advance net-zero targets.

G20 governments should renew, and if possible, strengthen, their commitment to reducing their support for the use of fossil fuels. They should cease, de-prioritise, or significantly reduce the development of fossil-fuel infrastructure projects to reduce their distorting impacts and free up funds for the energy transition and measures to ensure that the transition is just.

Other policy sub-actions

The G20 should develop an action plan to promote biodiversity and nature restoration, which should include an examination of the distorting impact of government interventions in the agriculture, forestry, and fisheries sectors.

The G20 should drive international standards to create new nature-based asset classes. Such asset classes might include, for example, projects that create carbon credits via the consumption of carbon (such as forest farms).

G20 governments should encourage owners of digital infrastructure to source power directly from renewable energy companies through the development of open access / behind the meter / group captive models and by encouraging other efforts to reduce the use of fossil fuels.

G20 governments should introduce certifications for sustainable value chains, both in public and private sectors.

Figure 11 – Policy Action 2.2 case studies and existing initiatives

1. **The World Economic Forum's Principles for Financing a Just and Urgent Energy Transition**¹⁰¹ (JUET): This document sets out **principles for a just transition** that include policy actions that encourage the necessary energy transition in emerging economies while at the same time protecting the livelihoods of people affected by the transition. While these are high-level principles, they offer a roadmap for policy development.
2. **Sustainable Markets Initiative**:¹⁰² The UK's Sustainable Markets Initiative was launched by His Royal Highness the Prince of Wales at the Annual World Economic Forum Meeting in 2020. The initiative is a mission to kickstart bold and imaginative action across the next decade and aims to lead and accelerate the world's transition to a sustainable future by engaging and challenging public, private and philanthropic sectors to bring economic value in harmony with social and environmental sustainability. To achieve this mission, there needs to be a new economic model grounded upon three major market transformations:
 - i. A dramatic shift in corporate business models;
 - ii. An aligned, incentivised and mobilised financial system; and
 - iii. An enabling environment that attracts investment and incentivises action.
3. **Just Energy Transition Partnership**: At COP26 in November 2021, the governments of South Africa, France, Germany, the United Kingdom and the United States of America, along with the European Union, announced a new ambitious, long-term Just Energy Transition Partnership to support South Africa's decarbonisation efforts.¹⁰³ The Partnership aims to accelerate the decarbonisation of South Africa's economy, with a focus on the electricity system, to help it achieve the ambitious goals set out in its updated Nationally Determined Contribution emissions goals. It will mobilise an initial commitment of \$8.5 billion for the first phase of financing, through various mechanisms including grants, concessional loans and investments and risk-sharing instruments, which will entail the mobilisation of the private sector. The Partnership is expected to prevent up to 1-1.5 gigatonnes of emissions over the next 20 years and support South Africa to move away from coal and to accelerate its transition to a low emission, climate resilient economy.
4. **The Impact Task Force (ITF)**¹⁰⁴ was created in 2021 with the support of the UK government, under its presidency of the G7. It was created to promote impact-driven economies and societies. It enshrines the aims and actions of the G7, notably around reinvigorating global economies following the pandemic, securing future prosperity, and protecting our planet. The ITF report "Time to Deliver: Mobilising private capital at scale for people and planet" presents the case for urgent action, provides actionable recommendations and sets out a clear pathway as to how private capital can be mobilised at scale in support of key global sustainable development targets. The report's findings are aimed at a wide set of stakeholders, including Heads of State and Government, financial institutions, asset owners and businesses. It foresees two workstreams:

101 World Economic Forum, "Principles for Financing a Just and Urgent Energy Transition", 2021.

102 Overview of the Sustainable Markets Initiative (weforum.org)

103 https://ec.europa.eu/commission/presscorner/detail/en/IP_21_5768

104 <https://www.impact-taskforce.com/>

- i. “Transparency, Integrity and Harmonisation for Impact”, addressing the issues of impact transparency, global harmonisation of standards, and mechanisms to ensure integrity of data, analysis and governance;
 - ii. “Instruments and Policies for Financing the SDGs and a Just Transition”, concentrated on mechanisms to align investment vehicles across asset classes in support of the transition to an equitable and sustainable future.
5. The **Climate Finance Accelerator (CFA)**¹⁰⁵ is a GBP 10 million technical assistance programme funded by International Climate Finance (ICF), through the UK government’s Department for Business, Energy, and Industrial Strategy (BEIS). The CFA has been specifically designed to support the development of investable low carbon pipelines through project initiation and development phases. It does this by working with projects and businesses that are seeking finance, and supplying them with a mix of group, thematic and one-to-one capacity building leading up to exposure of the projects to a range of finance providers in an intensive workshop setting. As well as providing support to projects, the CFA aims to help finance providers in local and international markets to better appreciate the pipelines available to them, especially in sectors that they are unfamiliar with. The programme also makes recommendations to policymakers in partner countries based on the barriers identified by project proponents and financiers during the CFA’s hands-on project development process.

Between 2017 and 2020, the UK Government funded pilot activities in Colombia, Mexico and Nigeria to test the CFA approach. These pilots confirmed the demand for the CFA and informed the decision to scale up the concept. The full programme, started in 2020, continues to operate in Colombia, Mexico, and Nigeria, and has added South Africa, Turkey and Peru as new countries. The programme is being delivered by in-country local delivery partners, part of an alliance led by PwC, with support from Ricardo, and independent experts.

105 <https://www.gov.uk/government/publications/climate-finance-accelerator/climate-finance-accelerator>



POLICY ACTION 2.3: IMPROVE PUBLIC SECTOR SUPPORT TO ACCELERATE THE DEVELOPMENT OF VIABLE GREEN INFRASTRUCTURE PROJECTS

CONTEXT

Well-developed local financial markets with experience in sustainable infrastructure can expedite investors looking to support local companies, projects, and developers. Experience in sustainability may often be lacking, and therefore capacity building and knowledge sharing for financial markets may be beneficial.

Some green infrastructure projects (e.g. carbon capture and storage, hydrogen projects) may be larger or more complex than general infrastructure projects in a given country and therefore require greater expertise or funding than is readily available in the local market.

The challenges addressed in Policy Actions 1.2 and 4.1 would generally support the provision of finance for green projects, and therefore all the sub-actions mentioned therein are likely to have a green dimension that should be specifically considered. For example, the innovative nature of many green projects (e.g. electric-vehicle charging or hydrogen-fueled projects) may be more complex to prepare and may suffer from greater regulatory barriers, and may therefore benefit from specific support for project preparation and regulatory reform.

POLICY SUB-ACTIONS

The sub-actions listed in Policy Actions 1.2 and 4.1 should prioritise green projects to ensure a focus on more complex projects and to avoid a tendency to focus on lower-risk and easier-to-deliver traditional infrastructure.

G20 governments should support a continued focus on improving the pipeline of investment-

ready green projects. For example, following the example of the Indian government,¹⁰⁶ other governments should provide clear guidance on the list of green infrastructure projects it plans to develop and the operational assets it plans to divest over the next three to five years to release capital for new projects.

To provide investors with certainty and a clear roadmap when planning for a long-term commitment to a market, **G20 governments should define clear long-term climate and sustainable infrastructure targets, backed by multi-level, integrated system planning across sectors.** It is critical to effectively articulate national climate transition plans to investors.

G20 governments should incorporate climate risk management into medium-term and long-term development planning to assess the potential impact of climate risk.

G20 governments should provide tax breaks and other incentives to encourage the development of green infrastructure projects (including reviewing whether general taxes such as value-added tax (VAT) have a disincentive effect if they do not specifically consider green infrastructure). For example:

- In India, the 80-IA tax scheme¹⁰⁷ provides a ten-year tax holiday for certain infrastructure projects including renewable energy. In addition, the provision of carefully developed accelerated depreciation schemes can stimulate the development of projects in targeted sectors.
- In 2019, the Government of India developed the Faster Adoption and Manufacturing of Electric Vehicles Phase II (FAME II) subsidy to promote the manufacture and use of electric vehicles in India. USD 1.3 billion was allocated to lower the upfront cost of electric vehicles for consumers. In addition, the Government of India introduced production-linked incentive schemes in 2020 to stimulate domestic development and encourage innovation within various industries such as those related to solar photovoltaics (PV) modules and electric and hybrid mobility.

G20 governments should encourage “greening” of traditional infrastructure projects where possible, e.g. through the use of renewable energy, sustainable water management and other best practices. This is especially important for digital infrastructure such as data centres where the environmental cost of not doing so is high. In addition, G20 governments should support other decarbonisation initiatives outside of the electricity sector, e.g. the pursuit of energy efficiency,¹⁰⁸ the recovery of energy from the combustion of municipal solid waste,¹⁰⁹ and the implementation of strategies to improve the infrastructure for electric vehicles (e.g. regulation of public charge points).¹¹⁰

G20 governments should provide clear examples of projects that can be categorised as green within **standardised green taxonomies**, especially those that have been developed with a gender-lens to ensure women benefit equally from the transition.

G20 governments should ensure that there is a suitable regulatory framework for the development of green infrastructure projects (e.g. an attractive feed-in tariff regime for renewable energy projects).

106 The National Infrastructure Pipeline (NIP) is an initiative by the Indian government that aims to improve project preparation and attract investments into infrastructure. It is a project discovery portal, where project owners can promote their projects and investors can search for opportunities and connect with each other.

107 Details of the 80-IA tax scheme in India ([incometaxindia.gov.in](https://www.incometaxindia.gov.in))

108 <https://www.energy.gov/eere/state-and-local-energy-efficiency-action-network-see-action>

109 <https://www.epa.gov/smm/energy-recovery-combustion-municipal-solid-waste-msw>

110 HM Government, Department for Transport, “Taking charge: the electric vehicle infrastructure strategy”, 2022



RECOMMENDATION 3

Accelerate the development and adoption of digital and smart infrastructure

POLICY ACTIONS

Policy Actions 3.1 – Implement policies to accelerate the provision of and achieve comprehensive access to digital infrastructure to drive sustainable and inclusive development

Policy Actions 3.2 – Promote the adoption of digitalisation in infrastructure development

MONITORING KPI

OWNER: G20 COUNTRIES

% of individuals worldwide using the internet – developing countries	Baseline	Target
<i>Source: International Telecommunication Union (ITU)</i>	53.3% (2020)	65.0% (2024)

Number of countries having policies/strategies fostering telecommunication/ICT-centric innovation	Baseline	Target
<i>Source: International Telecommunication Union (ITU)</i>	93 (2021)	193 (2023)

SDG IMPACT



Policy Actions 3.1 and 3.2 have been formulated to increase digital infrastructure development and the use of digitalisation in infrastructure. In this way, Policy Actions 3.1 and 3.2 will help to improve gender equality (SDG 5), promote more inclusive economic growth (SDG 8), foster inclusive and sustainable infrastructure growth and digital innovations (SDG 9), reduce inequalities amongst countries to ensure every aspect of society is on the path towards digitalisation (SDG 10), and promote the development of smart, sustainable future cities (SDG 11).

G20 INDONESIA PRIORITY IMPACT



Recommendation 3 will help to support the achievement of the G20 priority issue of Digital Transformation.

Policy Actions 3.1 and 3.2 address this principle, as both policy actions aim to accelerate the adoption, leveraging of, and access to digitalisation.



POLICY ACTION 3.1: IMPLEMENT POLICIES TO ACCELERATE THE PROVISION OF AND ACHIEVE COMPREHENSIVE ACCESS TO DIGITAL INFRASTRUCTURE TO DRIVE SUSTAINABLE AND INCLUSIVE DEVELOPMENT

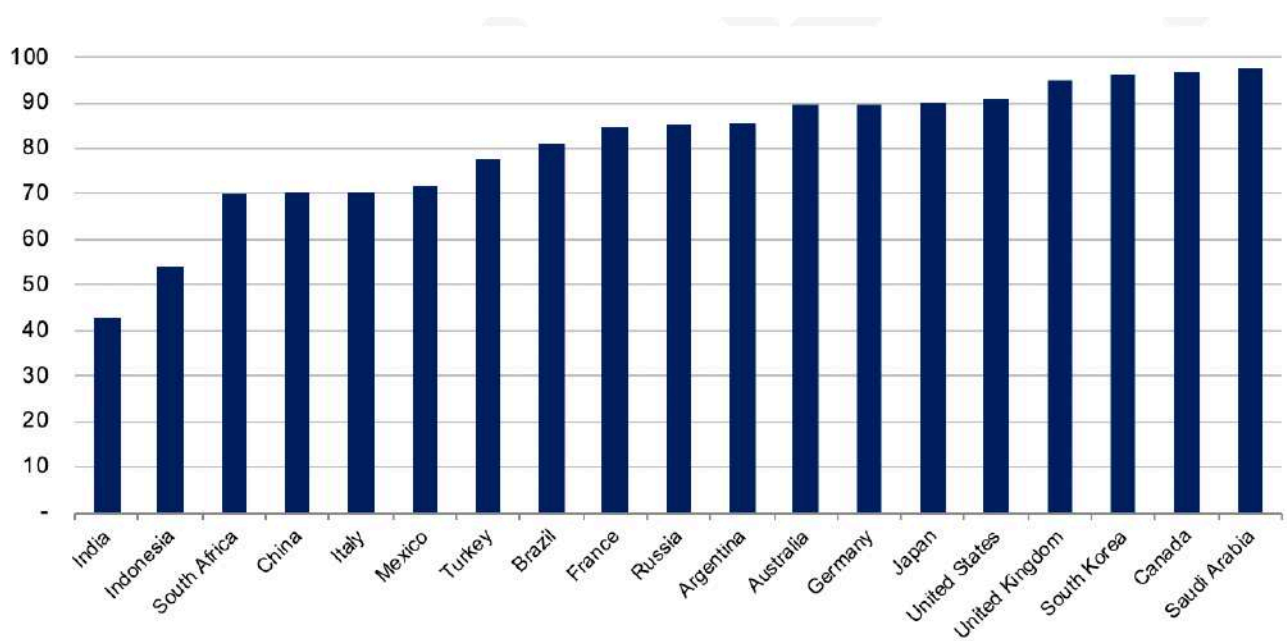
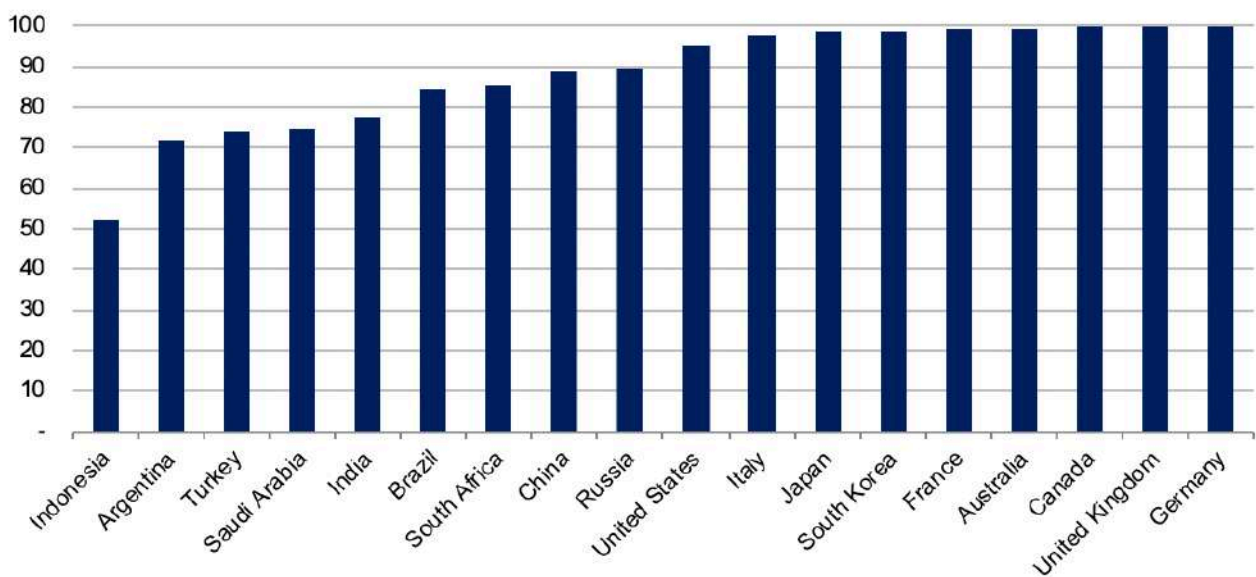
CONTEXT

Improving access to the internet, especially in developing countries, **will create wide-ranging opportunities for the population** in education, remote work, trade, and socialising. In addition, closing the digital gender gap is a high priority to ensure women and girls receive equal access to the social and economic benefits of the technological revolution, including digital infrastructure. Equal access requires equitable connectivity and technological skills, as well as addressing gendered risks in the digital environment and opportunities for employment in science, technology, engineering, and mathematics (STEM) industries, including leadership roles.

Digital infrastructure has a direct association with productivity gains, which translate into competitiveness and economic growth. In developing countries, an increase of 10% in mobile broadband penetration enables an increase of 1.5% in GDP.¹¹¹

The economic impact of socially unequal digital connectivity in developing countries and poorer regions was highlighted during the pandemic. Most societal functions such as work and education moved online but not every segment of the population had the resources to be able to transition. Reliable connectivity is also crucial for successful digitalisation especially in countries with large, underdeveloped areas and a lack of basic infrastructure.

111 International Telecommunication Union, "The economic impact of broadband and digitization through the COVID-19 pandemic", 2021.

Figure 12 – Digital Inclusion: % of Population with Internet Access (2020)¹¹²Figure 13 – Financial Inclusion Index: % With Account Ownership at a Financial Institution or Mobile-Money-Service Provider (2021)¹¹³

112 The World Bank, latest available data

113 The World Bank, latest available data

In particular, enabling enhanced, safer, and more affordable access to the internet and digital tools can provide opportunities for women to earn additional income, increase employment opportunities, and access knowledge and digital government services. Greater inclusion of women in the economy can result in significant benefits, including increased GDP growth and greater resilience and stability in the financial system, which has been particularly critical in the pandemic and its aftermath.¹¹⁴

In addition, governments can use a widely accessible digital network to help to increase financial literacy and thus achieve increased participation by citizens in financial services (i.e. financial inclusion). This supports a well-regulated, resilient financial market that can, in turn, invest more in the local economy.

Broadband and internet penetration is generally lower in developing countries than in developed countries because broadband networks are generally developed by internet service providers, which are driven or constrained by financial viability, not by the social benefit of the number of people connected.

Countries need fast and reliable connectivity to drive GDP growth. It is important to **analyse all technologies** (such as high-orbit satellites, low-orbit satellites, radio links, and terrestrial and wired forms of connectivity) **on an equal footing** (in reference to matters such as costs, capacity, bandwidth, and latency) **in order to decide which options are best suited to each specific project and its needs.**

A prerequisite for digital development is adequate regulation: governments should transform and adapt their existing regulatory setups to adapt to new technologies and provide a level playing field for investors, while protecting users' fundamental rights. Governments need to provide a digital ecosystem, which should include robust regulatory frameworks and digital infrastructure and which should be conducive to digital innovation more generally.

Important areas of focus for G20 governments include:

1. **5G:** As operators upgrade their 4G mobile networks to 5G, **they are opening the way to a vast array of new mobile applications ranging from autonomous vehicles and smart factories to rural broadband.** However, the higher frequency and shorter range of some 5G network deployments means that, compared to 4G, **it requires about five to ten times the density of nodes or towers.** Mobile operators are likely to target their first wave of network upgrades on their existing towers (macrocells), but in the future they expect to deploy 5G "small cells" on existing street infrastructure such as streetlights, bus shelters and traffic lights.

The economics of such deployments are likely to be most attractive under a carrier-neutral or shared infrastructure mode, which would create an **opportunity for real assets players to provide the required space and power, and potentially also antennas.** 5G will also create opportunities for private industrial 5G networks (for example on industrial campuses, transportation hubs and digital health networks), stimulating **further need for non-traditional network investment and partnerships.**

¹¹⁴ According to the International Finance Corporation report "Mainstreaming Gender and Targeting Women in Inclusive Insurance: Perspectives and Emerging Lessons" (2017), greater inclusion of women in the economy could increase GDP by between 2% and 3.5%.

2. **Data centres:** These are vital enablers of digital services and there are two trends playing out. One is towards very **large ‘hyperscale’ data centres**, which are used by large Big Tech enterprises. These are **attracting strong investment from sovereign wealth, real estate and infrastructure funds**.

Data centres use significant amounts of energy, not only to power the servers and IT equipment, but also for air conditioning, redundant power, lighting, building operations, etc. A data centre for a medium-sized bank, for example, typically needs about 250 to 500 kilowatts of electricity. The increasing demand for computing power also means that these data centres need more power as they add more computing resources. Increases in power requirements due to increased “volume of work” are offset by increases in power efficiency for the computing hardware. At the data centre level, efficiency of energy use is measured in power usage effectiveness (PUE).¹¹⁵ Newer data centres typically have higher efficiency (lower PUE) but retrofitting old data centres to achieve lower PUEs can be costly. The move to hyperscale data centres significantly improves overall energy efficiency, as this replaces multiple inefficient data centres with fewer, more efficient, large-scale data centres. In addition, large-scale adoption of cloud computing is expected to result in energy savings due to the consolidation of computing resources from individual data centres to the cloud provider’s data centres, which are run more efficiently at a higher utilisation rate.

The other growth area is the development of **edge data centres**. These are smaller facilities located close to the customers they serve, especially users requiring high capacity and low ‘latency’ (the time taken to deal with a request). The market and use cases for edge data centres are relatively nascent. The timing and size of demand is somewhat uncertain, implying a degree of risk (however, when demand does materialise, edge data centres are likely to represent a significant growth opportunity). **The development of edge data centres may be required to serve populations in rural areas.**

3. **Smart cities:** The development of smart cities – cities enabled, powered by, and integrated with digital technologies and infrastructure – has the potential to be one of the major achievements of societies worldwide in the 21st century. Today, governments, businesses and residents are making ever greater use of technology to achieve their goals. However, **development and delivery are often slow and ineffective** due to challenges in areas such as **data management and security, collaboration with vendors, existing technological capabilities and regulatory frameworks. Development and delivery are also hampered by privacy concerns, a lack of confidence amongst citizens, and a lack of human and financial resources.** Blueprints of smart cities should be ESG-centred, maximising the available public resources as well as leveraging public-private partnerships, and be designed based on impact metrics and long-term sustainability. In addition, technologies within the smart cities should be focused both on geographic and performance (i.e. cloud) scalability, and linked to standardisation and interoperability among different stack/vertical solutions in order to avoid a “silo” approach.

¹¹⁵ Power usage effectiveness (PUE) is a metric used to determine the energy efficiency of a data center. PUE is determined by dividing the total amount of power entering a data center by the power used to run the IT equipment within it. PUE is expressed as a ratio, with overall efficiency improving as the quotient decreases toward 1.

In some cases, especially in developing countries, **businesses currently have an over-reliance on dedicated data servers**. Consequently, there is weak demand for shared infrastructure. This both pushes up the cost of data access and results in lower levels of investment in shared digital infrastructure that would otherwise give greater access to digitalised economies.

Public sector demand for data is a significant share of each country's demand. This can be aggregated and the consolidated demand can be used to provide anchor demand for digital infrastructure, thus **driving the initial investments in such digital infrastructure**.

Public sector use of digital services can also **drive transparency, efficiency, and performance in government services**; thus e-government should be encouraged throughout all levels of government.

Digital identity schemes have great potential to integrate data and build services based on the integration of data such as digital payments. These schemes can also help **drive financial inclusion and drive down unbanked rates**. The Aadhar card in India is one example of a national digital ID scheme.¹¹⁶

POLICY SUB-ACTIONS

As recommended within the B20 Digitalisation Task Force's Policy Action 2.3, the G20 should enable cross-border data flows with trust on the premise of respecting the domestic legal frameworks of each country and in compliance with data protection rules.

As recommended within the B20 Digitalisation Task Force's Policy Action 2.3, strong legal, regulatory, and governance structures – along with the consent of data subjects and security and access controls to prevent data theft and regulate authorised use – must be in place to ensure that data transfers and other interoperability measures do not infringe on individual rights with regard to privacy and do not unduly put personal data at risk of theft or misuse.

G20 governments can offer **incentives or support** (such as availability payments or viability gap funding) or de-risk projects by taking responsibility for demand, construction, and/or approval risks to increase and accelerate digital infrastructure development where universal coverage is not otherwise commercially feasible. These incentives need to be appropriate for the type of technology that is being deployed and in accordance with a universal access strategy. Blanket incentives have not worked in many OECD countries, and in some cases have increased digital gaps. For instance, 5G has been deployed primarily in cities while it is now understood that it would have been more beneficial to prioritise rural areas.

G20 governments should develop policy frameworks regarding payments for the usage of network operators' investments in connectivity and digital infrastructures. These frameworks should seek to optimise the socio-economic impact for the country in question whilst also permitting a reasonable return on investment possible for operators.

As recommended within the B20 Digitalisation Task Force's Policy Action 2.3, the G20 should promote the usage of the cloud within public and private entities. G20 governments should **take the lead**

116 Overview of the Aadhaar Card of India

in establishing government cloud infrastructure platforms (through designing an appropriate strategy) to enable the delivery of digital government services. This should be accomplished via collaboration and partnership among government departments, IT service providers and other third-party entities.

G20 governments could use big data, working with social scientists, to understand their citizens' needs and to better plan and deliver people-centred and socially inclusive government initiatives and services, including infrastructure.

The G20 should ask MDBs to support governments in developing and implementing digital identity schemes to bolster financial inclusion. Such schemes can increase the level of access amongst citizens to digital payments and should be delivered in accordance with rights to privacy and individual choice.

G20 governments should consider satellite mobile connectivity as well as fixed fibre opportunities to create a framework that connects both rural and urban communities. In particular, governments need to provide clear regulatory frameworks for the allocation of spectrums and the provision of right of way, and work in partnership with the private sector to ensure faster deployment of affordably priced digital infrastructure.

Figure 14 – Policy Action 3.1 case studies and existing initiatives

1. In February 2020, China launched a **new campaign to offset the economic slowdown and boost sustainable growth**.¹¹⁷ The focus of the “**New Infrastructure**” campaign is the **digital economy and innovation**. Specifically, it focuses on matters such as 5G networks, big data centres, the Internet of Things (IoT), blockchain technology, industrial automation, inter-city transit systems, high-voltage energy transmission, smart transportation and electric vehicle charging stations. The aim is to **upgrade China’s existing key infrastructure and further boost the data economy**. With the accelerated construction of 5G networks, China will become the largest 5G market in the world. The direct economic output arising from 5G between 2020 and 2025 is expected to reach CNY 10.6 trillion, and the indirect economic output will reach CNY 24.8 trillion. This will also create opportunities for companies specialising in telecommunication, digital technologies, data analytics and integration, smart cities, autonomous driving, energy efficiency and smart manufacturing.
2. Established in June 2019, the **G20 Global Smart Cities Alliance on Technology Governance**¹¹⁸ (the Alliance) unites municipal, regional and national governments, private-sector partners and city residents around a shared set of principles for the responsible and ethical use of smart city technologies. The Alliance establishes and advances global policy norms to help accelerate best practices, mitigate potential risks, and foster greater openness and public trust. The World Economic Forum serves as secretariat for the Alliance.

Through the Alliance, global experts from government, private-sector partners and civil society are compiling and analysing policies from around the world to identify model policies for successful, ethical smart cities. Policies were prioritised on the basis of two main conditions:

- i. that they are established as good practice based on considerable experience in leading cities from multiple geographies;
- ii. that they are foundational to building smart cities, and not prescriptive of the technologies, applications, or outcomes.

¹¹⁷ PwC China, “Going digital during COVID-19 and beyond”, 2020.

¹¹⁸ <https://globalsmartcitiesalliance.org/>



POLICY ACTION 3.2: PROMOTE THE ADOPTION OF DIGITALISATION IN INFRASTRUCTURE DEVELOPMENT

CONTEXT

InfraTech can be described as the integration of material, machine, and digital technologies across the infrastructure life cycle. At its broadest definition, InfraTech can include **any technology that impacts the development, delivery, and ongoing operation of infrastructure.**¹¹⁹

Investment to set up the framework for such infrastructure will help future-proof countries against events such as the COVID-19 pandemic and will not only enhance the value for money of infrastructure projects, but will also promote sustainable and resilient infrastructure investments that will facilitate the delivery of better social, economic, and environmental outcomes.

The initiatives discussed in Policy Action 3.1 regarding connectivity and data are relevant to the development and adoption of InfraTech. A strong foundation of digital connectivity and data centres is needed to support InfraTech adoption and development.

Some examples of InfraTech use cases include:

1. **Connectivity and communication:** Vehicle-to-vehicle (V2V) connectivity can minimise traffic accidents and their associated costs, as well as optimising traffic flows and reducing congestion.
2. **Analytics and computation:** Real-time collection and analysis of data can enable more targeted responses to disasters as well as the prediction of future conditions to support more resilient infrastructure.

119 G20 Infrastructure Working Group, "G20 Riyadh InfraTech Agenda", 2020.

3. **Cloud and data storage:** Digital metering and data collection can allow utilities operators to comply with regulations with built-in cybersecurity measures (encryption, data protocols, etc.).
4. **Devices and automation:** Construction processes can utilise automated pre-fabrication to deliver infrastructure faster while reducing costs.
5. **Platforms and interfaces:** Last-mile decentralised water systems use a combination of water-supply kiosks, metering, and payment platforms to deliver inclusive water access to remote communities. In addition, such systems can support energy access to remote communities.
6. **Materials, energy, and construction:** On-demand 3D printing products use advanced materials for rapid responses to the maintenance requirements of critical infrastructure.

Some of the **barriers preventing greater InfraTech adoption** are:¹²⁰

1. Industries and governments have not made clear commitments to adopt digital applications in infrastructure.
2. There are limited common approaches for data collection, formats, governance, or purposes.
3. There exist few incentives for the adoption of innovative digital use cases in infrastructure, for both greenfield projects and replacements of existing assets, and there is a culture that is risk averse and averse to change.
4. The private sector may be unclear where to invest limited R&D funds, with fear of there being no adoption or payback, and as such the private sector may not be innovating as much as it could.
5. There are education barriers in the infrastructure workforce at all levels; such workers may understand neither the benefits of digital applications nor how to use them.
6. Retrofitting brownfield assets with digital applications is often overlooked as it is widely expected that the political system will invest in greenfield assets, and also due to inertia.
7. There is a concern that digitising physical assets may lead to extra risk.
8. There are data restrictions and data localisation.

120 Global Infrastructure Hub "What is InfraTech and why is it important?", 2020

POLICY SUB-ACTIONS

G20 governments should enshrine digital policies within their infrastructure planning to ensure that all infrastructure development is digitally enabled and digitally delivered.

G20 governments should make greater use of existing tools such as the multilateral platform SOURCE to enable a systemic transition to the digitalisation of infrastructure project preparation and data collection as part of advancing the work related to the QII principles.

G20 governments should consider innovative output-based remuneration models based on parameters that are relevant to a particular efficiency benefit related to the digitalisation of the assets they procure.

G20 governments should engage with relevant national stakeholders (in collaboration with the GIH) to reduce barriers related to digitalisation in infrastructure development, highlighting procedures and actions that help to manage risks.

G20 governments should continue to build on the GIH's efforts to facilitate cross-border cooperation on the exchange of technical and technological knowledge and experience between infrastructure project stakeholders and technology owners for the implementation of major infrastructure projects.

The Task Force endorses the recommendations of the **G20 Riyadh InfraTech Agenda**, including the following:¹²¹

- Governments should **update their procurement processes to realise economic efficiencies**. The use of new technology can deliver cost savings on project delivery and maintenance costs. Reforming internal government procurement processes is essential to achieving these potential savings.
- Governments should **prioritise interventions that enhance the mobilisation of private capital and promote innovative financial solutions**. InfraTech can benefit investors by improving the returns of existing projects and creating new investment opportunities.
- Governments should **foster an innovation ecosystem** for existing and early-stage technologies. The development of a broad innovation ecosystem will help realise positive spillover effects within infrastructure sectors.
- Governments should **foster domestic InfraTech** industries that create jobs, new sources of growth, and dynamism in the economy.
- Governments should **enhance cooperation in R&D among global public, private, and academic stakeholders** to promote innovation in key technologies.
- Governments should **share global best practices, lessons, data, and use cases**, particularly those related to responses to the health and economic crises arising from

¹²¹ G20 Infrastructure Working Group, "G20 Riyadh InfraTech Agenda", 2020.

COVID-19. Supporting developing economies in the use of Infratech can help improve resilience and accelerate growth, particularly in countries where access to essential services is limited.

- Governments should **implement national policies** aimed at spurring InfraTech R&D to support the **scaling up of key technologies across the asset life cycle**.

The Task Force endorses the GIH's "G20 Blueprint for scaling up InfraTech financing and development",¹²² which is a prioritised and actionable list of opportunities for the G20, supported by a compendium of case studies. The Blueprint identifies the gaps in knowledge and capacity for investing in InfraTech and highlights the focus areas that require the G20's attention in the future.

122 <https://www.gihub.org/news/call-for-case-studies-examples-of-scaling-up-infratech-financing-and-development/>



RECOMMENDATION 4

Improve global financial services regulation to achieve better balance between growth, productivity, and stability

POLICY ACTIONS

Policy Actions 4.1 – Reduce investment barriers for infrastructure by improving the financial services regulatory environment

Policy Actions 4.2 – Ensure financial services regulatory frameworks strike the right balance between promoting economic growth, improving productivity, and maintaining financial stability

MONITORING KPI

OWNER: G20 COUNTRIES

Yearly cost for financial institutions of regulatory fragmentation

Source: International Federation of Accountants (IFAC) and OECD

Baseline
USD 780 billion
(2018)

Target
USD 700 billion
(2024)

SDG IMPACT



Policy Action 4.1 has been formulated to make sustainable and resilient infrastructure more easily achievable and affordable (SDG 9), reduce policy inconsistencies within/amongst countries (SDG 10), and improve cross-border regulatory coherence (SDG 17).

Policy Action 4.2 has been formulated to help balance economic growth and financial stability. It will help to foster globally inclusive economic growth (SDG 8), reduce financial inequalities between countries (SDG 10), and increase cooperation between countries to improve international regulatory coherence on financial regulations (SDG 17).

G20 INDONESIA PRIORITY IMPACT





POLICY ACTION 4.1: REDUCE INVESTMENT BARRIERS FOR INFRASTRUCTURE BY IMPROVING THE FINANCIAL SERVICES REGULATORY ENVIRONMENT

CONTEXT

Infrastructure finance and long-term investment in general have **risk characteristics that are different to those of shorter-term corporate finance, investment, and trade finance**. These can and should be recognised in different prudential requirements for financial institutions, leading to appropriately lower capital requirements and costs for the borrower in the case of lower risk. The relevant financial regulations (those regulating financial institutions, as well as cross-border and cross-policy regulatory inconsistencies) need to be examined in order to improve the efficiency and productivity of finance flows.

With the **increasing fragmentation of national financial** regulatory regimes, capital flows can be constrained, particularly between developed and developing countries. This constraint affects all forms of development finance, including infrastructure and any other project or programme that would benefit from foreign capital investment and lending, but the need to finance the green transition should encourage reflection on the balance between this and other policy interests.

Mobilising more capital flow to sustainable projects in emerging markets will require more attractive risk-return ratios. Regulators can support this by providing **measured incentives within the regulatory framework**, in particular to ensure the appropriate balance between ensuring the safety and soundness of the financial system, and the mobilisation of private finance for infrastructure investments, particularly in emerging markets.

A **robust and transparent regulatory environment** is fundamental to supporting active investment by financial service providers in infrastructure. Some measures can unduly limit such investment, such as unjustified localisation requirements on foreign firms regarding ownership, reinsurance, data,

and outsourcing. Governments should strive to promote regulatory best practices and governance to avoid economically damaging measures and commit to engagement with stakeholders.

Governments need to simplify processes and reduce regulatory and administrative burdens on firms.¹²³ This is particularly important to promote long-term investments, including infrastructure financing.

The **post-crisis Basel framework**¹²⁴ for bank capital has significantly increased capital requirements (for example by an average factor of three for renewable energy), which **reduces the capacity of banks to fund infrastructure projects**, increases the cost of finance, and may make otherwise good projects unattractive.

It is well understood by the FSB that Basel 3 **has impacted banks' ability to lend for long tenors**.¹²⁵ In some instances, this was an intended consequence of post-crisis financial regulations. However, it is important that this limitation is appropriately calibrated for the types of risks involved for infrastructure. For instance, when MDBs provide banks with credit enhancements or other risk mitigation tools (see Policy Action 1.1), the regulatory framework should recognise these tools in the determination of how much capital banks must hold against these loans. Economic capital drives the pricing of the loan, so a prudential framework that is not sufficiently risk sensitive will undermine the efficient use of public funds for risk mitigation, inhibiting the use of risk mitigation tools by MDBs to promote private finance.

The FSB undertook a review of the impact of the post-crisis reforms on infrastructure investment in 2018¹²⁶ but this was a backwards-looking review. The impacts are now better understood and the world's need for massive infrastructure investment to support the climate transition is now also better understood.

The implementation of Basel 3.1 is still due for January 2023 despite the fact that the EU and UK have already stated they will not meet the deadline and the USA seems unlikely to. A **more reasonable implementation date** should be agreed internationally to reduce costs from different timelines.

Given that infrastructure financing requires long-term investments and long-term credit, the framework in the International Financial Reporting Standard (IFRS) 9 currently reduces the capacity of banks to fund infrastructure projects by increasing capital requirements to cover the additional required provisions in the case of a perceived deterioration in credit quality, proportional to the expected loss over the remaining life of the projects. This is separate from the direct impact of the Basel framework's capital requirements.

A typical infrastructure project will go through various economic phases and business cycles throughout its life. The expected credit loss model of IFRS 9 will generally lead lenders to provide for loan loss provision faster, and in greater values, as soon as credit quality is perceived to have deteriorated in the early stages of the project, even though a recovery may well be expected in the future. Many lenders are finding this requirement to be restrictive because it leads to the premature recognition of credit losses.

¹²³ <https://www.oecd.org/gov/regulatory-policy/administrative-simplification.htm>

¹²⁴ Overview of the Basel Framework – https://www.bis.org/basel_framework/

¹²⁵ Evaluation of the effects of financial regulatory reforms on infrastructure finance (fsb.org) – <https://www.fsb.org/wp-content/uploads/P201118-1.pdf>

¹²⁶ FSB, "Evaluation of the effects of financial regulatory reforms on infrastructure finance", 2018

Insurers invest in equities for the capital gain, which typically can account for about 60% of total returns, as well as the dividends. Some companies use the IFRS 9 accounting option known as Fair Value through Other Comprehensive Income (FVOCI) because it was designed to allow long-term investors to avoid temporary volatility in equity markets that would cause artificial volatility in their reported profits. However, under current IFRS 9 rules, **insurers who use FVOCI are not allowed to include capital gains in their profit and loss reporting**. This can lead to an understatement of the true long-term profits and **therefore make equity investment appear unattractive or inappropriate** (in contrast, the independent market values of such assets would be based on the discounted value of all future cashflows, including a terminal value).

Allowing the realised capital gains on equity investments that are currently recorded as part of other comprehensive income to be recorded in profits for accounting purposes (this is known as “recycling”)¹²⁷ will encourage more long-term investment (including reinvestment) in long-term assets such as infrastructure. IFRS 9 is currently undergoing a post-implementation review and European insurers strongly support this change. This issue is recognised by a number of policymakers. For example, Japanese accounting standards allow capital gains on equity investments to be recorded as profits upon sale¹²⁸ and the European Commission has written to the International Accounting Standards Board (IASB) requesting that they consider allowing this as part of their IFRS 9 review.¹²⁹

Insurance companies are also subject to stringent capital requirements while also being some of the largest long-term investors. They are able to provide long-term capital without giving rise to systemic risk implications as they don’t engage in maturity transformation¹³⁰ and insurers’ investments are typically supported by long-term predictable portfolios of liabilities and stable capital inflow (i.e. premium income). It is vital that solvency requirements take into account insurers’ real investment risks, which typically comprise the long-term risk of under-performance, and not exposure to market asset price volatility. If solvency rules are not appropriately designed and calibrated for insurers, unnecessary barriers will be created that will limit their capacity to make investments in infrastructure, sustainable investments, and other long-term investments. In Europe, this is a major focus of the Solvency II review.¹³¹

POLICY SUB-ACTIONS

Multilateral institutions

The G20 should ask the FSB, in partnership with standard-setting bodies such as the IMF, WBG and OECD, to consider **how bank balance sheet and financial-market fragmentation** could impact the delivery of transition finance to developing countries.

¹²⁷ The term “recycling” in this accounting context has a different meaning from asset recycling.

¹²⁸ Accounting Standards Board of Japan (ASBJ) response to the Request for Information – Post-Implementation Review: IFRS 9 Financial Instruments Classification and Measurement (2022). https://www.asb.or.jp/en/wp-content/uploads/20220127_e.pdf

¹²⁹ Insurance Europe – comments on FSB evaluation of effects of financial regulatory reforms on infrastructure finance (position paper ECO-LTI-18-032).

¹³⁰ Maturity transformation refers to the practice of obtaining short-term funds to invest in longer-term assets. In the case of banks, which engage in maturity transformation, assets and liabilities are not matched, and the average duration of most banks’ assets is generally longer than the average duration of their liabilities.

¹³¹ [Solvency II](https://ec.europa.eu/solvency) (ec.europa.eu)

The G20 could consider proposals for a sustainable finance factor that would enable risk-weighted assets discounts on capital treatment for qualifying transactions in order to support sustainable finance growth. However, there will need to be global regulatory alignment on this aspect to avoid fragmenting the market. Regulators will need to take care that any capital requirements to cover climate related financial risks (e.g. related to the financing of fossil fuels) do not lead to significant unintended consequences, such as an adverse impact on financial stability and/or the transition to a net-zero economy. For example, if such measures are not well designed, they may inhibit banks from participating in the financing of early retirement of coal power plants and/ or force early exits from existing structures without consideration of whether such exits will actually lead to a reduction in emissions.

It is essential that the G20 ask the FSB, BCBS, the IAIS, the OECD, and the IASB to **review the regulatory treatment of infrastructure finance** for banks, insurers, and other financial institutions and the impact of the post-Global Financial Crisis regulatory capital and liquidity rules on infrastructure investment in emerging markets. This is to ensure that institutions are not unnecessarily penalised in supporting **sustainable infrastructure investing and long-term financing**. Additional granularity and flexibility may be required to recognise the benefit of the innovative forms of the risk transfers that may be necessary for MDBs to support the attraction of private capital for the infrastructure investment that the sustainable transition requires. The IAIS should ensure this is a consideration once decisions on insurance capital standards (ICSs) are made post-monitoring.

On the **capital framework**, this review should consider the merits of including the EU's targeted capital relief for qualifying infrastructure projects (as contained within Article 501(a) of the EU Capital Requirements Regulation) within the Basel standards, and assess how to extend the relief on risk-weighted assets to a wider pool of sustainable infrastructure projects given the pressures faced by emerging markets. Such capital relief could also be extended to include the uncovered part of an infrastructure investment when co-financing with governments or multilateral development banks.

On the **liquidity framework**, the review should assess the impact of the Net Stable Funding Ratio on the ability to provide long-tenor infrastructure investments, and consider whether targeted relief – as above with the capital framework – is warranted for projects that qualify as sustainable infrastructure. In the short term, we encourage central banks to accord such loans 'liquidity status' which would see them included as eligible collateral for central bank discount windows and/or asset purchasing programmes. This would free up banks' balance sheets and allow greater deployment to sustainable infrastructure projects.

National government initiatives

G20 governments should minimise restrictions on the international financing of infrastructure projects e.g. by avoiding restrictions on the foreign ownership of companies and land, simplifying regulation on international financial transactions, and setting tax regimes that stimulate foreign capital to invest.

Recognising that infrastructure projects are long-term investments, G20 governments should **create long-term and transparent regulation for infrastructure sectors** (e.g. long-term tariff regimes, tax regimes etc.) **and minimise regulatory risk** on the compensation payable to the private parties in order to support the case for the differential treatment of long-term debt and equity by financial services regulators.

G20 governments should ensure that there is a stable and objective regulatory framework for infrastructure investment and operations. Such a framework should delineate well-defined roles and responsibilities for various government departments and streamline and improve the ease of doing business procedures through mechanisms such as single window approval and shorter/defined time periods for approvals for infrastructure projects.

G20 governments should establish and maintain a regulatory and social environment that encourages self-funded retirement products for retirement longevity and morbidity. The funding of retirement and pension systems has already been shown to provide a valuable source of investment funds for infrastructure (for example, Australia's superannuation system,¹³² the 401(k) in the United States, and funded pension systems in Singapore, Hong Kong, and Malaysia). It is key for policymakers to ensure that insurance companies are able to offer long-term, collective pension products. These products can help citizens, especially women who are overwhelmingly disadvantaged by the greater likeliness of moving in and out of paid work to care for family members and from earning less and working in casual or part-time roles and the informal sector. Addressing the large gender pension gap is a complex undertaking that requires a transformational shift in paid work to accommodate the dual demands of work and home life including ensuring the availability of childcare services and the introduction of flexible working conditions.

132 PwC Australia, "Investing in Infrastructure: International Best Legal Practice in Project and Construction Agreements", 2017



POLICY ACTION 4.2: ENSURE FINANCIAL SERVICES REGULATORY FRAMEWORKS STRIKE THE RIGHT BALANCE BETWEEN PROMOTING ECONOMIC GROWTH, IMPROVING PRODUCTIVITY, AND MAINTAINING FINANCIAL STABILITY

CONTEXT

The post-financial crisis reforms to the banking prudential framework have now been in place for a number of years. A further wave of prudential reforms for banks (known as Basel 3.1) was agreed by the BCBS in 2017 and was due to be implemented on 1 January 2023. It has become clear that the majority of G20 jurisdictions will not meet the 2023 deadline. In light of the challenging economic conditions globally, it is vital that the economic impact of these reforms is robustly assessed. The financial services ecosystem has also changed considerably since the reforms were first proposed, not least due to the COVID-19 pandemic, and is currently being impacted by a range of adverse economic shocks.

Both the EU and UK are aiming for a deadline of 2025 and other jurisdictions are yet to indicate when they will implement the standards. A fragmented approach to implementation will increase the costs to industry and the G20 should call on the BCBS to agree a more realistic deadline that all jurisdictions can aim for.

A key component of the Basel framework is the useability of capital and liquidity buffers. The framework was designed to allow banks to dip into capital and liquidity buffers to support the economy during a downturn. However, as shown during the economic shock caused by COVID-19, this does not occur in practice. The consequence of this is that buffers act as a severe constraint on liquidity.

One of the consequences of the significant strengthening of banking regulation and the de-risking of the banking sector has been the significant increase in the role that non-bank financial intermediaries play in core financial markets. As acknowledged by the FSB, "The impact of COVID-19 on credit

markets highlighted vulnerabilities in the NBFIs sector related to liquidity mismatches, leverage and interconnectedness, and investor behaviour”.¹³³ The G20 should call on the FSB and other international standard setters to not only continue their current focus on NBFIs, but to more broadly consider the impact of regulatory initiatives aimed at the banking sector that may drive systemic risk into less intensively regulated parts of the sector. The current BCBS focus on the prudential treatment of crypto assets is one example of this. With the regulatory focus on NBFIs, lessons need to be learned from the issues regarding banking regulation discussed above to ensure that the NBFIs sector is not constrained by an unjustified burden of regulation.

In addition, further reforms to the intensive prudential requirements for insurers are expected in a number of jurisdictions and at the international level through the International Capital Standards (ICS) to continue to take account of market developments.

As recognised by the FSB and other bodies, the potential impact of un- or under-regulated non-banks on market functioning and financial stability has grown considerably since the financial crisis, and it is vital that the regulatory framework keep up with market developments.

Making cross-border payments less costly and more efficient would bring significant economic benefits across the globe. Following the Saudi Arabian Presidency of the G20, the FSB in partnership with IOSCO produced a roadmap to enhance cross-border payments. Continuing to drive this agenda is of great importance.

From a business perspective it is critical that governments are coordinated on ESG taxonomy, and that the resulting policies and requirements are set and implemented consistently, both from cross-border and cross-policy perspectives, in order to avoid unintended consequences such as excessive regulatory burdens on firms, or arbitrage opportunities.

Consistent policy implementation plays an essential role in mitigating any unintended consequences of policies and regulations. A new dialogue system should formalise the current ad-hoc approach to consultation and discussion, and seek to address upfront any possible unintended consequences from conflicting regulations. Similar to what the B20 suggested regarding financial regulation following the 2008 crisis, for ESG purposes it would be appropriate to introduce and adopt an international principles-based implementation process for regulation, possibly based on a Multi-Party Implementation Agreements (MPIA) model for regulatory cooperation. This also provides opportunities for cross-border consultation and mutual recognition of objectives.

ESG factors should no longer be perceived only as risk factors for the financial system, but rather as indicators of more sustainable – and therefore safer – credit, which can therefore attract a more favourable prudential treatment of exposures related to assets or activities associated substantially with environmental and/or social objectives (in the context of the calculation of capital requirements). Sustainable corporations provide better risk-adjusted returns; moreover, sustainability-linked emissions attract a cheaper cost of capital.

¹³³ <https://www.fsb.org/work-of-the-fsb/financial-innovation-and-structural-change/non-bank-financial-intermediation/>

Finally, the G20 should recognise that only an integrated approach in which efforts from businesses and governments are coordinated can offer an adequate response to the global challenges the world faces in these unprecedented times. Isolated national initiatives, protectionist programmes or layers of uncoordinated rules are likely to fail, intensifying risks and regulatory arbitrage opportunities.

Continuity across G20 Presidencies is critical in ensuring adequate review of the progress made and ensuring forward momentum. The B20 work with the Business at OECD (BIAC) over the last few years has helped pave the way for action by G20 leaders and has strengthened a holistic view. Such a view is best represented by the Sustainable Growth Triangle, which aims to assess policies across three pillars: economic growth, financial stability, and productivity, with the goal of generating sustainable and inclusive growth. Such harmonisation is achieved by integrating:

1. Strategic growth activities, owned by governments and the business community alike, that should have a longer-term strategic vision; and
2. The consistent implementation of such policies, as the failure of consistent implementation generates a cumulative burden on the ultimate receiver.

POLICY SUB-ACTIONS

The G20 should hold the BCBS accountable for undertaking a further impact assessment of the Basel 3.1 reforms to ensure the economic costs are properly understood prior to implementation. This assessment should evaluate the impact of the reforms on not only the financial institutions, but also on the ultimate users of the services being regulated.

The G20 should hold the BCBS accountable for agreeing a more realistic deadline for the implementation of Basel 3.1 that all jurisdictions can aim to achieve.

The G20 should hold the BCBS accountable for expediting work assessing the issue of the useability of capital and liquidity buffers, potentially as part of a broader review of the Basel 3.1 requirements.

The G20 should call on the FSB and other international standard setters to not only continue their current focus on NBFIs, but to more broadly consider the impact of regulatory initiatives aimed at the banking sector that may drive systemic risk into less intensively regulated parts of the sector.

The G20 should reinforce the need for global regulatory bodies and industry to deliver on previous G20 commitments on cross-border payments.

G20 countries should manually update their national reform roadmaps and determine how they relate to the 19 building blocks on cross-border payments that have been formulated by the Committee on Payments and Market Infrastructures (CPMI).

There has been a growing body of evidence over the last 12+ months that climate-change-related risks are not a significant source of financial instability in the near term. The G20 should consider improving financial regulatory frameworks to address climate-related financial stability concerns

effectively ("greening finance") while supporting green and transition financing ("financing green") especially in developing countries. There is also scope for clearer mainstreaming of gender considerations, which intersect with green finance and policies.

The G20 should strengthen its collaboration with other policy-making bodies, financial institutions, the wider business sector, and other entities, such as the GISD Alliance and the Global Impact Investing Networks (GIIN) Gender Lens Investing Initiative (GLII),¹³⁴ tapping into their ongoing research and work in this area.

134 <https://thegiin.org/gender-lens-investing-initiative/>

ANNEX

ACRONYMS

ADB	Asian Development Bank
AfDB	African Development Bank
AIIB	Asian Infrastructure Investment Bank
ANIA	Italian Insurers Association
ARTM	Autorité régionale de transport métropolitain
ASEAN	Association of Southeast Asian Nations
B20	The Business Twenty
BCBS	Basel Committee on Banking Supervision
BDI	Federation of German Industries
Big Tech	Largest and most dominant information technology companies
BKMIJK	Badan Kebijakan Moneter dan Jasa Keuangan
BNP	Banque Nationale de Paris
CAD	Canadian Dollar
CCPs	Core Carbon Principles
CDM	Clean Development Mechanism
CDP	Carbon Disclosure Project
CDPQ	Caisse de dépôt et placement du Québec
CEO	Chief Executive Officer
CFO	Chief Financial Officer
The CGT	The Common Ground Taxonomy–Climate Change Mitigation
CIC	China Investment Corporation
CICA	Confederation of International Contractors' Associations
CNY	Chinese Yuan
CO ₂	Carbon dioxide
COP26	26th Conference of the Parties
COVID-19	Coronavirus Disease 2019
CPMI	Committee on Payments and Market Infrastructures
CRRC	China Railway Rolling Stock Corporation
DBS	Development Bank of Singapore
DFI	Development Finance Institution
DMC	Developing Member Country
EAIF	Emerging Africa Infrastructure Fund
E5P	Eastern Europe Energy Efficiency and Environment Partnership
EBRD	European Bank for Reconstruction and Development
EGAT	Electricity Generating Authority of Thailand
EPPF	European Primary Placement Facility
ESG	Environmental, Social, and Governance
ETM	Energy Transition Mechanism
ETS	Emissions Trade System

EU	European Union
EUR	Euro
EY	Ernst & Young
FAME II	Faster Adoption and Manufacturing of Electric Vehicles Phase II
FAST-Infra	Finance to Accelerate the Sustainable Transition-Infrastructure
FSB	Financial Stability Board
FVOCI	Fair Value Through Other Operating Income
FX	Foreign exchange
G20	The Group of Twenty
GCI	Global Competitiveness Index
GDP	Gross domestic product
GFANZ	Glasgow Financial Alliance for Net Zero
GHG	Greenhouse gas
GIF	Global Infrastructure Facility
GIH	Global Infrastructure Hub
GISD	The Global Investors for Sustainable Development
GREG	Global Revenue Guarantee
GRI	Global Reporting Initiative
HDI	Human Development Index
HIC	Hassana Investment Company
HSBC	Hongkong and Shanghai Banking Corporation
I-REC	International Renewable Energy Certificate
IADB	Inter-American Development Bank
IAIS	International Association of Insurance Supervisors
IASB	International Accounting Standards Board
IBK	Industrial Bank of Korea
IBM	International Business Machines
IC-VCM	The Integrity Council for Voluntary Carbon Markets
ICBC	Industrial and Commercial Bank of China
ICC	International Chamber of Commerce
ICMIF	International Cooperative and Mutual Insurance Federation
ICS	Insurance Capital Standard
ID	Identification
IDA	International Development Agency
IDB	Inter-American Development Bank
IESO	Independent Electricity System Operator
IFAC	International Federation of Accountants
IFC	International Finance Corporation
IFRS	International Financial Reporting Standards
I.I.B.F	Investissements & Intermédiation En Banque Et Financements
IIF	Institute of International Finance
IMF	International Monetary Fund
InfraTech	Technology that improves the development, delivery, and ongoing operation of infrastructure
INKINDO	Ikatan Nasional Konsultan Indonesia
INR	Indian Rupee

InvIT	Infrastructure Investment Trust
IOSCO	International Organisation of Securities Commissions
IPCC	Intergovernmental Panel on Climate Change
IPSF	International Platform on Sustainable Finance
IsDB	Islamic Development Bank
ISSB	International Sustainability Standards Board
IT	Information technology
IWG	G20 Infrastructure Working Group
JCM	Joint Crediting Mechanism
JI	Joint Implementation
JUET	Just and Urgent Energy Transition
KPI	Key Performance Indicator
KRW	South Korean Won
L&T	Larsen & Toubro
MCP	Managed co-lending portfolio programme
MDB	Multilateral Development Bank
MEDEF	Mouvement des Entreprises de France
MIGA	Multilateral Investment Guarantee Agency
MRG	Minimum revenue guarantee
MSME	Micro, small, and medium enterprises
MW	Megawatt
NBFI	Non-Bank Financial Institution
NDB	New Development Bank
NDF	Non-deliverable forward
OECD	Organisation for Economic Cooperation and Development
OMCP	Open-sourced Managed Co-Lending Portfolio Programme
PIDG	Private Infrastructure Development Group
PJB	Pembangkitan Jawa-Bali
PJSC	Public Joint Stock Company
PLI	Production-linked incentive
PPP	Public-private partnership
PT	Perseroan Terbatas
PV	Photovoltaics
R&D	Research and development
RDIF	Russian Direct Investment Fund
REM	Réseau Express Métropolitain
ROW	Right of way
RWF	Rwandan Franc
SAS	Société par Actions Simplifiée
SASB	Sustainability Accounting Standards Board
SBTi	Science Based Targets initiative
SDG	Sustainable Development Goal
SEBI	Securities and Exchange Board of India
SIF-SOURCE	Sustainable Infrastructure Foundation-SOURCE
SIIP	Sustainable Infrastructure Investor Platform
SIWFF	Sustainable Infrastructure Warehousing Financing Facility

SME	Small-to-medium enterprise
SPPI	Solely payment of principal and interest
SPV	Special purpose vehicle
TF	Task Force
UK	United Kingdom
UN	United Nations
UNDP	United Nations Development Programme
UNIDO	United Nations Industrial Development Organisation
US	United States
USAID	United States Agency for International Development
USD	United States Dollar
VEB.RF	Vnesheconombank
VTB	Vneshtorgbank
WASAC	Water and Sanitation Corporation
WBG	World Bank Group
WSBI	World Savings Bank Institute
WWF	World Wildlife Fund

List of Impacted SDG Targets

SDG Target	Description
5. Gender Equality	Recommendations 1 and 3 help to improve gender equality by promoting blended finance, which holds strong potential to increase the scale and impact of projects that empower women and girls, and digital infrastructure, which can provide opportunities for women to earn additional income, increase employment opportunities, and access knowledge and digital government services.
7. Affordable and Clean Energy	Recommendations 1 and 2 help to increase access to clean energy as the pool of funds for green infrastructure can be increased, the investment climate for decarbonisation projects enhanced, and the viability of green infrastructure projects improved.
8. Decent Work and Economic Growth	<p>Recommendation 1 helps to increase global economic growth as commercial finance towards infrastructure in general increases.</p> <p>Recommendation 2 promotes sustainable economic growth as the pool of funds for green infrastructure can be increased, the investment climate for decarbonisation projects enhanced, and the viability of green infrastructure projects improved.</p> <p>Recommendation 3 promotes a more inclusive economic growth as the provision of and access to digital infrastructure is increased and the use of digitalisation in infrastructure development is advocated.</p> <p>Recommendation 4 helps foster globally inclusive economic growth through financial regulatory frameworks that strike the right balance between promoting economic growth, improving productivity, and maintaining financial stability.</p>

SDG Target	Description
9. Industry, Innovation, and Infrastructure	<p>Recommendation 1 fosters the development of sustainable and resilient infrastructure as commercial finance for infrastructure in general (including sustainable infrastructure) can be increased.</p> <p>Recommendation 2 fosters the development of sustainable and resilient infrastructure as the pool of funds for green infrastructure can be increased, the investment climate for decarbonisation projects enhanced, and the viability of green infrastructure projects improved.</p> <p>Recommendation 3 fosters inclusive and sustainable infrastructure growth and digital innovations as the provision of and access to digital infrastructure is increased and the use of digitalisation in infrastructure development is advocated.</p> <p>Recommendation 4 helps make sustainable and resilient infrastructure more easily achievable and affordable by reducing investment barriers for infrastructure (including sustainable infrastructure) through improvement of the financial services regulatory environment.</p>
10. Reduced Inequalities	<p>Recommendation 1 helps reduce inequalities within/amongst countries as commercial finance for infrastructure in general can be made available for all.</p> <p>Recommendation 2 helps reduce inequalities amongst countries to achieve a "just transition" as the pool of funds for green infrastructure can be prioritised for developing countries, the investment climate for all decarbonisation projects enhanced, and the viability of green infrastructure projects (especially in developing countries) improved.</p> <p>Recommendation 3 helps reduce inequalities amongst countries to ensure every aspect of society is on the path towards digitalisation as the provision of and access to digital infrastructure is increased and the use of digitalisation in infrastructure development is advocated.</p> <p>Recommendation 4 helps reduce policy inconsistencies within/amongst countries through the improvement of the global financial services regulatory environment.</p>
11. Sustainable Cities and Communities	<p>Recommendation 1 enables infrastructure that makes cities and communities more sustainable as more commercial finance can be made available for sustainable infrastructure.</p> <p>Recommendation 2 enables infrastructure that makes cities and communities more sustainable as the amount of funding available for green infrastructure projects is increased, the market for decarbonisation projects is supported, and the quality of green infrastructure projects is improved.</p> <p>Recommendation 3 promotes the development of smart, sustainable future cities as the provision of and access to digital infrastructure is increased and the use of digitalisation in infrastructure development is advocated.</p>
13. Climate Action	<p>Recommendation 2 helps combat climate change, as the amount of funding available for green infrastructure projects is increased, the market for decarbonisation projects is supported, and the quality of green infrastructure projects is improved.</p>

SDG Target	Description
17. Partnerships for the Goals	<p>Recommendation 1 helps increase cooperation and financing flows between countries as commercial finance for infrastructure from and towards all countries can be increased.</p> <p>Recommendation 2 helps increase financing flows between countries (in particular for green infrastructure), as the amount of funding available for green infrastructure projects is increased, the market for decarbonisation projects is supported, and the quality of green infrastructure projects is improved.</p> <p>Recommendation 4 helps increase cooperation amongst countries to ensure international regulatory coherence on financial regulations, through improvement of the financial services regulatory environment.</p>

Schedule of Task Force Exchanges

#	Date	Event	Location	Theme
1	24 Feb, 2022	TF Videoconference 1	Virtual	Review of 1 st Draft Policy Paper
2	24 Mar, 2022	TF Videoconference 2	Virtual	Review of 2 nd Draft Policy Paper
3	28 Apr, 2022	TF Videoconference 3	Virtual	Review of 3 rd Draft Policy Paper
4	2 Jun, 2022	TF Videoconference 4	Virtual	Review of 4 th Draft Policy Paper
5	30 Jun, 2022	TF Videoconference 5	Virtual	Review of final version of Policy Paper
6	13 – 14 Nov, 2022	B20 Summit	Hybrid; Bali, Indonesia	Publication of TF Policy Paper

Distribution of Members

Country	of Members
Indonesia	27
Argentina	2
Australia	1
Austria	1
Belgium	3
Canada	3
China	10
France	11
Germany	3
India	3
Italy	9

Country	of Members
Japan	2
Poland	1
Russia	7
Saudi Arabia	3
Singapore	2
South Africa	1
South Korea	1
Spain	2
Switzerland	1
Türkiye	1
United Arab Emirates	1
United Kingdom	6
United States	13

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Deputy Chair			
Arief Budiman	Indonesia Investment Authority	Indonesia	
Policy Manager			
Radju Munusamy	PwC	Indonesia	
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Bill Winters	Standard Chartered	United Kingdom	Rino Donosepoetro
John Denton	International Chamber of Commerce	France	Damien Bruckard
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	Robert van Zwieten	PwC
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