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INFRASTRUCTURE
WORKING GROUP



**G20/GI Hub Framework on How to Best Leverage
Private Sector Participation to Scale Up
Sustainable Infrastructure Investment**
October 2022

Sustainable infrastructure and G20 Infrastructure Working Group (IWG) priorities

Sustainable infrastructure investment is key to sustainable economic growth, recovery post-COVID, and to meeting Paris Agreement targets, Nationally Determined Contributions (NDCs) and national Sustainable Development Goals (SDGs) as evidenced by a study showing that public investment¹ is more effective than other types of public spending in increasing economic output. Furthermore, a recent study² stated that infrastructure is responsible for 79% of total greenhouse gas emissions and 88% of adaptation costs.

Emerging economies have fewer resources to finance sustainable infrastructure and will be most affected if climate targets aren't met. A 2021 study showed that a move towards clean energy investments could result in global GDP being 4% higher in 2030 than it would be otherwise³. In contrast, the world could lose around 10% of GDP by mid-century if the Paris Agreement targets are not met⁴. For emerging economies, these losses could be as high as 25% of GDP.⁵

There is clear evidence to support scaling up sustainable infrastructure investment globally, however there are significant challenges to its implementation. One major challenge is the sustainable infrastructure investment gap which, by some estimates, could be as high as USD3 trillion in annual investments needed by 2050.⁶ Closing the gap could require more than three times the current level of investment into clean energy,⁷ with 70% of the spending required in emerging markets and developing economies (EMDEs).⁸

In this context, private sector participation in scaling up sustainable infrastructure investment is more important now than ever before. This *G20 / GI Hub Framework on How to Best Leverage Private Sector Participation to Scale Up Sustainable Infrastructure Investment* (Framework) is the flagship priority under the Indonesian G20 Presidency's 2022 IWG Work Program. This priority continues and complements previous IWG initiatives, including the *Roadmap to Infrastructure as an Asset Class*, the

¹ GI Hub, 2020. *Report on Infrastructure for Recovery post-COVID*

² UNOPS, 2021. *Infrastructure for Climate Action*. Available at: <https://www.unep.org/resources/report/infrastructure-climate-action>

³ This is based on a joint analysis between the International Energy Agency (IEA) and the International Monetary Fund (IMF) which saw total annual energy investment surge to USD 5 trillion by 2030, adding an extra 0.4 percentage points a year to annual global GDP growth. Source: IEA, 2021. *Net Zero by 2050: A Roadmap for the Global Energy Sector*. Available at: <https://www.iea.org/reports/net-zero-by-2050>

⁴ Jaeger, J. et al, 2021. *5 Things to Know About the IEA's Roadmap to Net Zero by 2050*. World Resources Institute (WRI). Available at: <https://www.wri.org/insights/5-things-know-about-ieas-roadmap-net-zero-2050>

⁵ Estimated GDP losses if a temperature rise of 2.6°C was achieved as opposed to the Paris Agreement target of well below 2°C. Source: Swiss Re Institute, 2021. *The economics of climate change*. Available at: <https://www.swissre.com/institute/research/topics-and-risk-dialogues/climate-and-natural-catastrophe-risk/expertise-publication-economics-of-climate-change.html>

⁶ World Bank Global Infrastructure Facility, 2022. *Global Stocktake on Leveraging Private Sector Participation for Sustainable Infrastructure Investment*.

⁷ IEA, 2021. *Net Zero by 2050: A Roadmap for the Global Energy Sector*. Available at: <https://www.iea.org/reports/net-zero-by-2050>

⁸ IEA, 2021. *World Energy Outlook 2021*. Available at: <https://www.iea.org/reports/world-energy-outlook-2021/executive-summary>. *Emerging market and developed economies includes both G20 and non-G20 economies that are not designated as advanced economies by this report.*

Quality Infrastructure Investment Principles, the contributions to the *G20 Action Plan - Supporting the Global Economy Through the COVID-19 Pandemic*, as well as the *G20 Report on the Collaboration with Institutional Investors & Asset Managers on Infrastructure* (2020). Beyond the IWG work program, this Framework also aligns with the *G20 Sustainable Finance Roadmap* (2021)⁹.

Framework actions for scaling up private investment in sustainable infrastructure

Purpose of the Framework

The role of this Framework is one of enablement, by identifying and prioritising a list of **voluntary, non-binding, non-prescriptive, multi-year actions** which can help inspire and inform collaboration between the public and private sector that can lead to scaling up private investment in sustainable infrastructure. It builds on extensive consultation with key stakeholders, in particular the 2021 and 2022 G20 Infrastructure Investors' Dialogue.

The Framework does not recommend new standards for sustainable infrastructure investment or new targets related to climate change and is meant to be complementary to existing efforts globally. It recognises that the United Nations Framework Convention on Climate Change (UNFCCC) is the primary avenue for the negotiation for climate targets in particular.

Prioritisation process

This Framework was developed through a member-led process that initially identified more than 390 recommendations from the literature. These were then distilled into eight voluntary, non-binding, non-prescriptive, multi-year actions through stakeholder engagement. This process involved:

- Extensive literature review of 32 references published by 20 entities (including G20 groups such as the IWG and Sustainable Finance Working Group (SFWG)), international organisations (IOs), multilateral development banks (MDBs), private sector coalitions and investors with coverage across advanced economies and EMDEs
- Extensive stakeholder engagement with IWG members, the Secretariat of the SFWG, IOs and MDBs, and in close collaboration with the World Bank/Global Infrastructure Facility (GIF) and the Organisation for Economic Co-operation and Development (OECD).

⁹ Priority 1 aligns with the SFWG's roadmap, translated into the infrastructure context. The distinction between IWG and SFWG work relates to the unique attributes of infrastructure finance (distinguishable from corporate finance, which is the focus of SFWG) such as investment into projects that provide a public good/service, the involvement of government in project preparation/delivery, and the long-term nature of infrastructure finance.

- Discussion with over 20 senior representatives from the private sector through the January 2022 *IWG Seminar on Scaling Up Sustainable Infrastructure Investment* and the July 2022 *G20 Infrastructure Investors' Dialogue*.
- A prioritisation survey (sent to IWG members and the private sector) which gathered input from more than half of the G20 member economies. 40% of survey responses came from the private sector and 30% of survey responses were from stakeholders in emerging economies.
- Bilateral consultations held with private sector coalitions, investors, and data providers from advanced and emerging economies, including a roundtable on sustainable infrastructure environmental, social and governance (ESG) definitions, taxonomies, and indicators held by the GI Hub in April 2022.

Creating an actionable Framework

This Framework recognises there is no one-size-fits-all solution, nor do all the actions have to be implemented through the IWG work plan. Actions can be adopted in a pragmatic way, reflecting and responding to evolving market factors, and specific national circumstances.

The actions contained in this Framework comprise two types:

1. actions involving a continuation of existing initiatives. These actions are indicated using a **blue tag**.
2. actions involving the development of new and innovative initiatives. These actions are indicated using a **yellow tag**.

This Framework preserves all members' ability to act and engage with the most appropriate initiatives and partners based on specific national circumstances. This Framework also integrates flexibility to engage with IOs and MDBs on scope, in the context of their specific mandates.

Progress updates

For the Framework to enable knowledge sharing among members and partners and, to ensure that it remains relevant and actionable now and into the future, an appropriate reporting mechanism would be developed and agreed with IWG members to provide periodic updates on these actions. The periodic updates would provide a light-touch, factual summary of progress or a brief overview of innovative approaches.

The periodic updates will be populated through voluntary input from partners and G20 members and made available to the group through report(s). A "dashboard" enabling file-sharing could also be implemented if deemed suitable by the group. Finally, the Framework's Technical Working Group

(TWG)¹⁰ could also be used as a forum to present progress, provide input, share knowledge and discuss new initiatives, noting that the formal review process would still remain with the IWG meetings.

Four pillars and eight actions of the Framework

The prioritisation process, as outlined above, identified four pillars and eight actions which comprise the Framework. A description of each action is provided below, to give a flavour for what could be delivered and achieved over the next few years.

PILLAR 1: Long-term national infrastructure priorities and targets

The private sector is increasingly interested in aligning their infrastructure investments with the Paris Agreement targets and SDG objectives⁶. Investors therefore need clear national infrastructure plans to understand how governments intend to achieve those goals. Such plans would reduce market uncertainty and help to limit the risk of stranded assets. While countries are also increasingly incorporating sustainability factors in their long-term infrastructure plans, these considerations are not necessarily directly linked to Nationally Determined Contributions (NDCs), or the core sustainability objectives outlined in the Sustainable Development Goals (SDGs)¹¹. Finally, a GI Hub research paper confirmed that transition pathways for infrastructure are complex to develop, especially in emerging countries: only 28% of G20 infrastructure plans and strategies currently estimate investment levels required to achieve those long-term targets¹².

DESCRIPTION	STAKEHOLDERS	TIMEFRAMES
<p>Action 1.1 The G20 encourages international financial institutions (IFIs), including MDBs and development financial institutions (DFIs), as well as networks and initiatives as appropriate, to support governments - including through capacity building - in the development of long-term infrastructure strategic plans and policies (including goals and priorities) that achieve their NDCs and national SDG targets.</p>		
	<p>Besides voluntary reporting of updated plans or innovative approaches, the scope could also include the collection and analysis of data and insights from G20 long-term infrastructure strategic</p>	<p>The collection and analysis of data could be delivered as a collaboration between the GI Hub, other IOs¹³, MDBs, and G20 governments who could contribute</p>
		<p>This could be delivered in 2023, with further updates to take place in 2024 and beyond.</p>

¹⁰ The GI Hub created a Technical Working Group (TWG) for the Framework, comprised of IWG members (who attended on a voluntary basis), IOs, MDBs, private investor networks, and representatives from the SFWG secretariat with a good balance of representation between advanced economies and EMDEs. The TWG met three times to discuss technical input on the structure and content of the draft Framework. The outcomes from the TWG meetings were non-binding and the formal review of the Framework remained through the G20 IWG process.

¹¹ World Bank (GIF), 2022. *Stocktake of Approaches that Leverage Private Sector Investment in Sustainable Infrastructure* (draft version as of 22 August 2022).

¹² GI Hub, 2022. *Infrastructure Transition Pathways*. Submitted to the G20 IWG in June 2022.

¹³ IOs here refer to international organisations and G20 partners, including the GI Hub, OECD, IMF, World Bank and ICP members.

DESCRIPTION	STAKEHOLDERS	TIMEFRAMES
plans, building on the GI Hub's G20 deliverable on <i>Infrastructure Transition Pathways</i> .	strategies, goals, plans and case studies on a voluntary basis.	Periodic updates could include trends and insights derived from this work.
Action 1.2 The G20 encourages IOs and MDBs, through their existing initiatives, to gather and share data on infrastructure investment trends, performance, and gaps specific to countries and sectors.		
<p>The action will leverage existing reporting mechanisms and collaborations to report back on infrastructure investments trends, performance and gaps.</p> <p>This would build on the GI Hub's <i>InfraTracker</i> 2021 and 2022, the work on infrastructure definitions by the OECD's Working Party on National Accounts, and also reports such as the MDB joint report on <i>Mobilization of Private Finance</i>.</p>	<p>The GI Hub could collaborate with data providers, IOs, MDBs, and G20 governments interested to voluntarily contribute data on investment trends, performance and gaps.</p>	<p>This report could be delivered in 2023, with further updates to take place in 2024 and beyond.</p> <p>Periodic updates could include trends and insights derived from this work.</p>
Action 1.3 The G20 encourages relevant IOs to identify effective approaches and mechanisms that enable the inclusion of resilience, social and governance (including just transitions) dimensions into investment decisions.		
<p>Scope could include a scan of innovative or effective approaches and mechanisms for integrating these factors into investment decisions.</p> <p>This builds on the OECD's <i>Report on Advancing the environment and data for sustainable infrastructure financing</i> and the World Bank/GIF's <i>Stocktake of Approaches that Leverage Private</i></p>	<p>The GI Hub, World Bank/GIF and the OECD could collaborate with other MDBs, ESG ratings providers, networks, initiatives, and investors, to voluntarily provide case studies.</p> <p>The Coalition for Climate Resilient Investment (CCRI) and the Coalition for Disaster Resilient Infrastructure (CDRI) have also</p>	<p>This could be delivered in 2024.</p> <p>Periodic updates could include key trends and insights derived from this work.</p>

DESCRIPTION	STAKEHOLDERS	TIMEFRAMES
<i>Sector Investment in Sustainable Infrastructure (Stocktake)</i> ¹¹	expressed interest in providing input.	

PILLAR 2: Definitions and data for sustainable infrastructure

There is no one-size-fits-all definition for sustainable infrastructure and a multitude of definitions and data disclosure standards continue to emerge (developed by the public and private sector) for sustainable infrastructure assets. Investors are finding that this fragmentation can lead to more complex project preparation and reporting requirements, making projects potentially harder to finance, especially in EMDEs. However, not having clarity on physical and transition risks may have greater negative impacts by potentially stranding assets¹¹. Investors would benefit from better comparability and interoperability between existing definitions and data disclosure standards. This supports a deep and liquid asset class for sustainable infrastructure in both emerging and developed economies, helping to achieve economic development goals as well as sustainability goals, and minimises green washing.

DESCRIPTION	STAKEHOLDERS	TIMEFRAMES
<p>Action 2.1 The G20 encourages MDBs, NDBs, G20 governments, infrastructure asset rating providers, IOs, networks, initiatives, and investors that intend to develop their own sustainable infrastructure definitions and data disclosure standards for real assets to voluntarily work collaboratively towards, where appropriate and subject to country circumstances, the comparability and interoperability with other global standards¹⁴.</p> <p>This action does not intend to develop any new standards or indicators and focuses on real assets, which complement similar efforts by the G20 SFWG on corporate ESG and climate disclosure standards and taxonomies.</p>		
Being a new initiative, next steps could include convening key market players from developed and emerging economies to understand opportunities for better comparability and interoperability	While existing real-asset data providers and MDBs have shown interest in supporting further work on the topic, further engagement is needed	This could require a progressive approach to implementation. Stakeholder engagement could commence in 2023.

¹⁴ Examples of existing global standards for sustainable infrastructure is provided by the OECD's *Report on Advancing the environment and data for sustainable infrastructure financing* and the World Bank/GIF's *Stocktake of Approaches that Leverage Private Sector Investment in Sustainable Infrastructure*. Both were submitted to the IWG in 2022.

DESCRIPTION	STAKEHOLDERS	TIMEFRAMES
between definitions and data disclosure standards for real assets. Efforts to drive such an initiative at a global level should aim at reducing the additional reporting burdens, especially for EMDEs.	to identify knowledge partners. This would include a collaboration between the IWG and the SFWG.	Periodic updates could include progress on collaborations or new initiatives created related to this action.
<p>Action 2.2 The G20 encourages infrastructure data platforms to allow the interoperability of sustainable infrastructure project data for the benefit of investors by: a) reducing the cost of customisation for project documents and finance terms, b) sharing ESG performance data, and c) sharing aggregated performance metrics publicly and supporting the development of tradeable asset classes.</p>		
<p>Project-level data platforms are increasingly incorporating sustainable factors and new platforms are emerging. The data available on those platforms can however be difficult to access or compare. Information asymmetries need to be addressed especially for EMDEs.</p> <p>Being a new initiative, next steps could include convening key market players from developed and emerging economies to understand the opportunities.</p>	<p>Further engagement is needed to identify knowledge partners. This could include IOs, MDBs, NDBs, ESG ratings providers and investors.</p>	<p>Stakeholder engagement could commence in 2024, following on from Action 2.1.</p> <p>Periodic updates could include progress on collaborations or new initiatives created related to this action.</p>

PILLAR 3: Enabling environment for implementation

Governments have key roles to play in reducing legal, regulatory and policy barriers and implementing incentives and policies to create enabling environments for infrastructure financing. Capacity to prepare projects and availability of risk-mitigation mechanisms are also critical to building a pipeline of bankable sustainable infrastructure projects closer to investment grade. However, despite the many efforts to address this challenge over the years, significant gaps still exist in the enabling environment for private investment, especially for emerging markets. The 2021 and 2022 *G20 Infrastructure Investors' Dialogue* reiterated the importance of addressing those challenges. Improved regulatory frameworks, transparency, project preparation facilities and de-risking mechanisms are needed to enable access to long-term financing instruments and greater depth of local financial and capital markets.

DESCRIPTION	STAKEHOLDERS	TIMEFRAMES
<p>Action 3.1 The G20 supports the establishment of a collaborative forum including regulators, global standard-setters, and the banking and insurance sectors to discuss the supervisory and regulatory treatment of infrastructure as an asset class and its climate-related risks.</p>		
<p>Scope includes a forum to explore challenges and opportunities for specific supervisory and regulatory treatment of infrastructure as an asset class. Key findings from the forum could be presented at an IWG meeting.</p> <p>This would build on recommendations from the 2019 <i>Report of the G20 Eminent Persons Group (EPG) on Global Financial Governance</i>. It would also leverage the data and engagement carried out by the GI Hub on this topic over the past two years.</p>	<p>The GI Hub is already leading an initiative through an internal work stream.</p> <p>GI Hub could collaborate with partners like FSB, BCBS, IAS, OECD, MDBs, and D20-LTIC who could voluntarily contribute input to the forum.</p>	<p>A forum could take place in 2023, and key findings could be presented at an IWG meeting.</p> <p>Periodic updates could include a brief summary of outcomes, data insights and other key findings related to this action.</p>
<p>Action 3.2 Building on existing work, the G20 encourages IOs, MDBs, NDBs, DFIs, domestic financial institutions and sub-national entities (cities and innovation sandboxes) to voluntarily share analysis of the impact of public policy levers on sustainable infrastructure market signals in order to raise awareness of effective practice and innovation.</p>		
<p>This initiative will build on the work of MDBs, NDBs and governments in developed and emerging economies to share effective policy approaches and the impact of these mechanisms on mobilising private capital.</p> <p>This builds on relevant and existing work as indicated in Action 16 of the <i>G20 Sustainable Finance Roadmap</i>, World Bank/GIF's <i>Stocktake of Approaches that Leverage Private Sector Investment in Sustainable Infrastructure</i> and the OECD's</p>	<p>Further engagement is needed to identify knowledge partners. This could include IOs and MDBs such as the OECD and the World Bank/GIF who are already working on this topic.</p> <p>This type of engagement could be done in collaboration with SFWG.</p>	<p>Engagement could commence in 2024-2025.</p> <p>Periodic updates could include a brief summary of key findings and/or initiatives resulting from stakeholder engagement.</p>

DESCRIPTION	STAKEHOLDERS	TIMEFRAMES
<i>Report on Advancing the Environment and Data for Sustainable Infrastructure Financing.</i>		
<p>Action 3.3 The G20 encourages its members and the donor community to consider providing additional funding, resources and support for infrastructure project preparation, including for Project Preparation Facilities (PPFs) and other similar initiatives aimed at increasing the number and size of bankable sustainable infrastructure projects at the global, national, and subnational levels.</p>		
<p>The objective is not to track contributions to PPFs or other supporting mechanisms. However, in order to inform the IWG of trends in this space, the scope could include reporting on the number and size of PPFs. This will also include voluntary sharing of innovative approaches to project preparation and/or case studies on PPFs.</p> <p>This builds on relevant and existing work as indicated in the World Bank/GIF's <i>Stocktake of Approaches that Leverage Private Sector Investment in Sustainable</i> and GI Hub's Infrastructure Monitor.</p>	<p>GI Hub could collaborate with MDBs and NDBs, including World Bank/GIF, project preparation platforms and infrastructure project databases, who could share data and information voluntarily.</p>	<p>An update to global data on PPFs could occur in 2023 (this is following an initial survey carried out in 2021 by the GI Hub)</p> <p>Progress reporting could include data insights from this work.</p>

PILLAR 4: Financial and technological innovation

The last decade has seen significant innovation in both technology and finance. Infrastructure technology (InfraTech) was the second highest infrastructure transition pathway¹⁵ observed in G20 governments' long-term infrastructure strategies and plans. Furthermore, blended finance solutions, asset recycling, the pooling of smaller projects under a securitised program, and the use of local currency financing, can help to de-risk investment opportunities¹¹ and attract private capital to sustainable infrastructure projects and provide financial returns to investors. Investors would benefit

¹⁵ "Infrastructure transition pathways" are categories of long-term investments as observed by the GI Hub in its 2022 report to the IWG called *Infrastructure Transition Pathways*. Submitted to the G20 IWG in June 2022.

from the scaling up of both technological and financial innovations that make infrastructure planning and delivery less costly, more efficient, and more sustainable.

DESCRIPTION	STAKEHOLDERS	TIMEFRAMES
<p>Action 4.1 The G20 encourages efforts by MDBs, donors, and investors to build capacity, especially in EMDEs, for financial innovation to enable the replication of successful models to unlock private investment into sustainable infrastructure. To support those efforts the G20 would collaborate with partners and develop guidelines to scale-up de-risking, blended finance instruments and effective partnership models involving the private sector.</p>		
<p>Scope includes the development of guidelines derived from case studies of effective replicable approaches to de-risking, blended finance, and partnership models, complemented by knowledge sharing through webinars (or other appropriate mechanism).</p> <p>This builds on the GI Hub's 2021 <i>Compendium of Innovative Funding and Financing Green and Circular Infrastructure</i>, the 2022 <i>New Deals</i> webinar series delivered by the IFC and the GI Hub, and the World Bank/GIF's <i>Stocktake of Approaches that Leverage Private Sector Investment in Sustainable Infrastructure</i>.</p>	<p>The GI Hub, IFC and World Bank/GIF could collaborate with other IOs, MDBs, NDBs, G20 governments and investor networks (like the D20-LTIC) who would contribute case studies voluntarily.</p>	<p>Webinars could take place in 2023, and guidelines could be developed in 2024.</p> <p>Periodic updates could include key findings derived from this work.</p>
<p>Action 4.2 The G20 supports the strengthening of a global InfraTech ecosystem to build capacity for technological innovation, accelerate knowledge and data sharing of effective approaches to scaling up InfraTech investment - including how to enhance impact, efficiency, governance, and reduce upfront costs linked to sustainability.</p>		
<p>A global InfraTech ecosystem will be established and grown to facilitate knowledge transfer, test innovative approaches and catalyse opportunities</p>	<p>The GI Hub, Asian Infrastructure Investment Bank (AIIB) and the World Bank/GIF are already leading initiatives through</p>	<p>Dissemination of the Blueprint could take place in late 2022 / early 2023.</p>

DESCRIPTION	STAKEHOLDERS	TIMEFRAMES
<p>for investment. This could include data gathering on InfraTech, sharing knowledge workshops, facilitating connections, and providing thought leadership to drive change.</p> <p>This builds on the 2020 <i>G20 InfraTech Agenda</i>, the 2022 <i>G20 Blueprint on Scaling Up InfraTech Financing and Development</i>, and a World Bank/GIF InfraTech toolkit on the practical integration of InfraTech and digital solutions in infrastructure project preparation.</p>	<p>separate work streams. The GI Hub, AIIB and World Bank/GIF could collaborate with other MDBs, NDBs, IOs, G20 governments and private sector partners, who would contribute input voluntarily.</p>	<p>Global needs assessment and knowledge sharing (for example, the InfraChallenge innovation competition) could take place in 2023.</p> <p>Progress updates could include key findings derived from this work.</p>