

Task Force 3: Future of the Global Economy



Scaling-up Financing for Infrastructure in Developing Countries: What Can the G7 Do

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Abstract

Since the Monterrey Consensus in 2002 and the Addis Ababa Agenda for Action in 2015, the global financing landscape has significantly changed (Traoré et al. 2023). New financing instruments and new players have emerged. Many governments and multilateral bodies have invested significantly in building public-private partnerships (PPP) frameworks. Still, many developing countries continue to face multiples challenges in accessing finance for ensuring sustainable development, as shown for example by persistent gaps in infrastructure financing

and the low contribution of private investment to infrastructure projects. New global initiatives and ambitious targets have been launched to scale-up financing for infrastructure development. Relevant examples include the MDBs reform agenda, the SDRs rechanneling mechanisms, the commitments of the G7 PGII, or the G20 Principles for Blended Finance. The Italian G7 presidency can strategically leverage year 2024, which is the Bretton Woods 80th anniversary, to shape a conversation on how these ambitious promises can be delivered. Drawing on recent OECD and global development think tanks reports, this policy brief highlights why governments and development partners haven't been able to get the necessary financing for development at scale and intended speed, after decades of significantly investing in building public-private partnership frameworks. It then elaborates some recommendations on the specific role the G7 could play for scaling-up financing for infrastructure in developing countries.

Introduction: Overview of the infrastructure financing gap in developing countries

Closing infrastructure gaps is one of the most powerful lever for accelerating progress towards the SDGs in developing countries. Infrastructure either directly or indirectly influence all 17 SDGs, including 121 of the 169 targets (72 per cent) (Thacker et al. 2019). Investing in quality infrastructure can yield substantial economic and social benefits. For example, investment in climate-resilient infrastructure in the developing world can generate economy-wide returns of 4 US dollars for every one invested (Hallegatte et al. 2019). Also, investing in renewable energy and energy efficiency can generate five times more jobs per million US dollars invested than spending on fossil fuels (UNEP 2022).

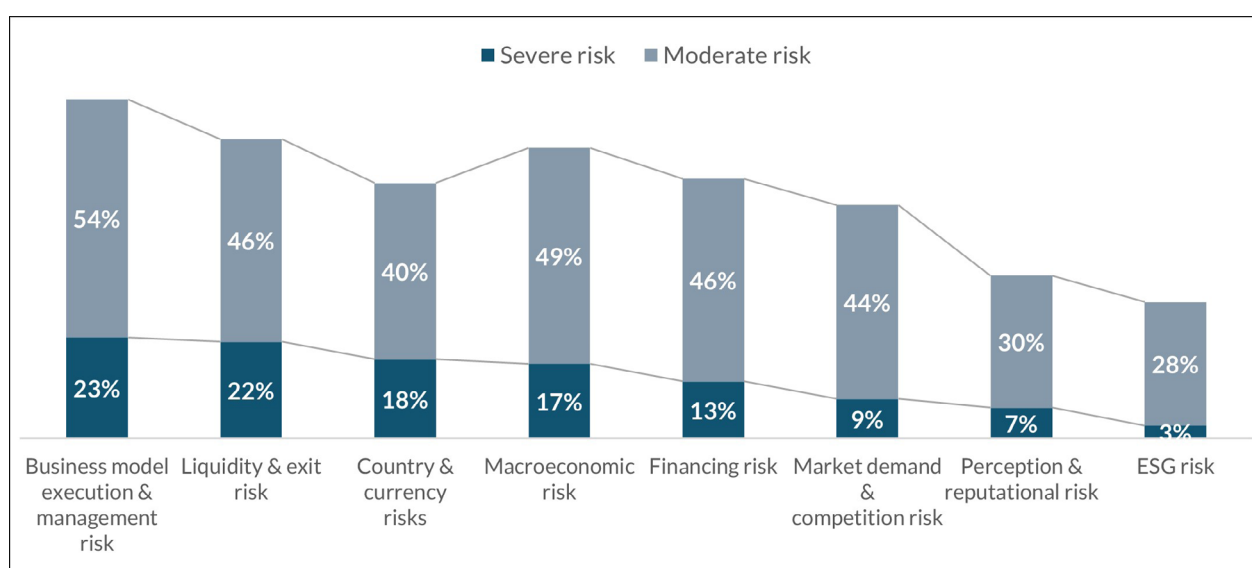
Yet, the financing gap for infrastructure projects remains very substantial, notably in developing countries. In 2017, the OECD estimated that approximately 95 trillion US dollars in public and private investments would be needed in energy, transport, water and telecommunications at a global level to sustain growth between 2016 and 2030 (OECD 2017; GI Hub 2021). Infrastructure needs are especially pressing in sub-Saharan Africa. The baseline scenario infrastructure financing needs for sub-Saharan Africa are estimated to reach 9.2 per cent of the region's GDP (7.2 per cent for capital investments and another 2 per cent for maintenance). This compares to 7.5 per cent in South Asia, 7.2 per cent in the Middle East and North Africa, 6.5 per cent in East Asia and Pacific, and 4.5 per cent in Latin America and the Caribbean (Rozenberg and Fay 2019). About 70 per cent of the 3.5 trillion US dollars of investment required for the global energy transition will need to take place in developing countries (IEA and IRENA 2017).

So, what makes infrastructure special and its financing difficult?

The challenge

Challenge 1: Global capital fund managers and institutional investors continue to perceive infrastructure investment as a high-risk environment. According to the GIIN 2020 Annual Impact Investor Survey (Hand et al. 2020), the main drivers of risks perception are linked to the lack of the necessary information at project level. The largest share of investors (77 per cent) stated project level risks as a generator of severe or moderate risk facing their portfolios (Figure 1). Project-level risks include both the probability of poor selection and poor execution of the project, and the probability of the project not being completed on schedule. This is amplified by the absence of publicly available track record information on recent projects and on local ecosystems’ strengths and weaknesses. New investors frequently rely on experienced intermediaries’ ratings to compensate for information shortages, creating competitive disadvantages for smaller investors that are unable to afford such services. Gathering data, finding experts in the field, and ensuring the reliability of information represent significant barriers to investment, while costs of monitoring deals can be high (Eyraud et al. 2021: 41).

Figure 1. Contributors of risk to impact investment portfolios (% of global respondents indicating severe or moderate risk)



Source: Adapted from Hand et al. 2020: 61.

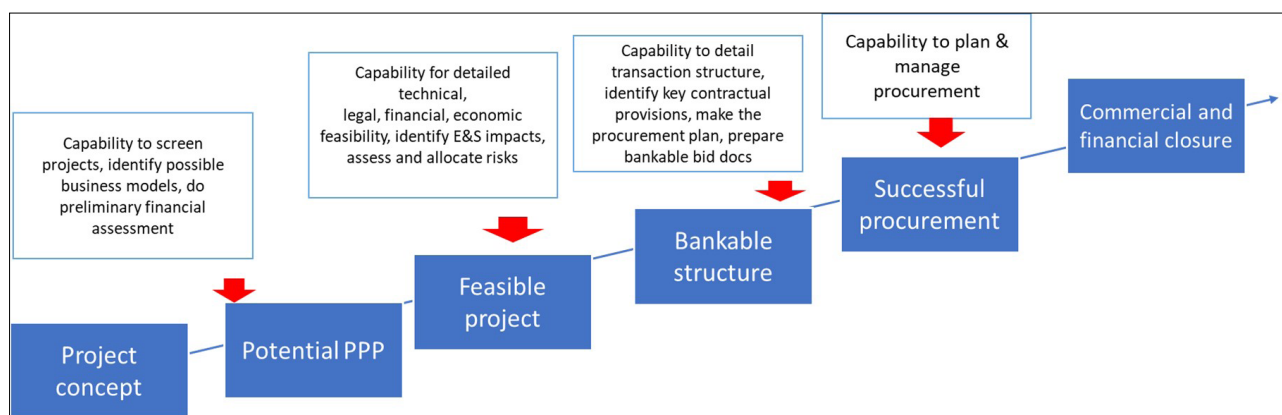
Generally speaking, three characteristics make infrastructure financial returns for private investors quite challenging to predict over time and project-level risks quite complex to manage (Ehlers 2014): the great number of possible risks at the initial phase, the time profile of cash flows, and the difficulties to divesting (illiquidity of the asset).

- First, the initial phase of an infrastructure project is subject to a great number of long-term and complex risks that challenge investors over time (WEF 2016; OECD 2023); from macroeconomic volatility to sectoral policy uncertainties and project-specific risks such as

- cost overruns, unexcepted delays, increased maintenance costs or premature deterioration due to weather conditions, or political inferences, etc.
- Second, infrastructure investments generate cash flows only after many years and financial returns are quite difficult to predict, given the long time period between the project development and full operation.
 - Third, investors have a limited ability to monetise the investment at the desired time (illiquidity of the asset). Compared to other investment opportunities, financial participation in infrastructure assets is more difficult to cash out.

Challenge 2: BBringing more projects to bankability requires greater capacities in government to undertake feasibility studies and project structuring. About 80 per cent of infrastructure projects in Africa fail at the feasibility and planning stage (Lakmeharan et al. 2020). In addition, a significant share of public spending on infrastructure is lost due to inefficiencies throughout the various stages of the project development cycle (Schwartz et al. 2023). Infrastructure projects involve a large number of parties. Often, this requires complex legal arrangements to ensure proper distribution of payoffs and risk-sharing to align the incentives of the very high number of parties involved in the project.

Figure 2. What is needed to bring a PPP project to market?



Source: AfDB 2020b: 4.

Most African countries (33 out of 54) already have dedicated PPP laws and implementation units in place. However, the limited capacity in structuring PPPs projects and in using the right contractual arrangements and financial tools to bring them to the market represent major challenges to increase the level of PPP investments¹ (AfDB 2020a: 6) (Figure 2). In terms of value, PPP projects in Sub-Saharan Africa were only about 5 per cent of the global PPP investment between 1999 and 2019. Five countries – South Africa, Morocco, Nigeria, Egypt and Ghana –

¹ Typically, governments in countries with nascent PPP markets have no experience in managing the transaction stage of PPPs.

accounted for more than half of all PPPs concluded in Africa over the same period.

Private finance mobilisation through the multilateral system faces similar issues. Between 2012-2017, the least developed countries (LDCs) received only 6 per cent of the private finance mobilised by official development finance for developing countries, while middle-income countries received 70 per cent (Convergence Blended Finance 2021).

Challenge 3: Many high-impact projects for development goals may not necessarily generate enough risk-adjusted financial returns compared to other investments opportunities for investors. Even though the direct cash-flows from infrastructure projects may not cover the direct costs, the indirect externalities can still be hugely beneficial for the economy as a whole. To unlock the potential of private investment for such type of infrastructure, projects owners will increasingly need to integrate some impact indicators on environmental, social and economic resilience dimensions beyond the traditional metrics for “financial returns”. For instance, impact investors are likely to commit capital that may not have the level of required financial returns, but nevertheless offer significant social and/or environmental benefits (AfDB 2020a).

However, numbers of environmental, social, and governance (ESG) frameworks and ratings methodologies currently being offered are not always readable and consistent. Such multiplication, and even great divergence of ESG ratings (Berg et al. 2022) might generate unintended discouragement for potential investors in developing countries where projects are already long due to limited resources and capacities. For instance, projects owners in many developing countries do not have sufficient capacities and resources to produce detailed information and indicators on too many ESG frameworks that might be required for the same project.

The role of the G7

The concept of “blended finance” was launched in 2015 as one of the approaches to financing the Sustainable Development Goals (SDGs) at the UN Third International Conference on Financing for Development in Addis Ababa, Ethiopia (See 2023). The paradigm proposes to use donors’ money to catalyse private finance for impactful development projects (see in box 1). Between 2014 and end-2023, blended finance has mobilised nearly 213 billion US dollars for sustainable development in developing countries, according to data from Convergence,² a global network for blended finance.

The condition for success of blended finance tools replays on their ability to crowd-in additional financial resources. The use of risk mitigation instruments such as guarantees can contribute to lowering the perception of risks by institutional investors. However, development finance

² Convergence: *Blended finance*. <https://www.convergence.finance/blended-finance#market-size>.

providers need to put more efforts on other financing instruments to crowd in capital from local or international institutional investors at scale (OECD 2021).

In 2022, G7 leaders launched the Partnership for Global Infrastructure and Investment (PGII) as a shared G7 commitment to advance public and private investments in sustainable, inclusive, resilient and quality infrastructure. Through this partnership, the G7 aims to mobilize up to 600 billion US dollars by 2027 to narrow the infrastructure investment gap in partner countries (G7 2022). PGII is also platform for dialogue and joint action with key actors and stakeholders, in particular multilateral development banks (MDBs), development finance institutions (DFIs) and private investors, to better align efforts and consolidate a pipeline of bankable projects to narrow the infrastructure gap in developing countries.

In 2024, during the Italian Presidency, G7 members are advancing the PGII agenda with a special focus on Africa and its sustainable investment needs. In this context – which coincides also with the Bretton Woods 80th anniversary – the G7 can strategically leverage the PGII framework to support existing initiatives dedicated to risk mitigation and co-financing for scaling-up infrastructure investment in developing countries.

Against this background, this paper puts forward three policy priorities:

Proposal 1: Tackling information gaps on project pipelines. To scale-up financing for infrastructure in developing countries, the paradigm of “de-risking” should pay more attention to produce more publicly available information on recent bankable projects and related success factors, so that all potential investors can more easily get sound evidence to assess the typical risks along the project development cycle. A lack of publicly available track records information on recent projects and local ecosystems’ strengths and weaknesses can add to project-related risk premium.

In fact, once the upfront costs for risk mitigation are borne (African Union Commission and OECD 2023), virtuous cycles can unfold between recognition by other market actors, operational expertise, government relations, economies of scale and innovation. For example, for infrastructure projects that get financing, the African continent boasts the world’s lowest cumulative default rates (at only 1.1 per cent, compared to average of 4.5 per cent worldwide, or 11.2 per cent in Eastern Europe) between 1983 and 2021 as shown in the Global Infrastructure Hub 2023 Infrastructure Monitor report (GI Hub 2023). Hence, putting in place effective de-risking³ strategies both at sectoral and project level is key to crowd-in potential investors and scale up the pipelines of bankable projects. In general, the concept of de-risking encompasses policy, regulatory, financial and technology dimensions (Choi et al. 2022).

³ De-risking means reallocating, sharing or reducing the existing or potential risks associated with an investment (Choi et al. 2022).

Against this backdrop, the OECD Development Centre, the African Center for Economic Transformation (ACET) and the African Union Development Agency (AUDA-NEPAD) have designed a multi-year programme on “Accelerating and Scaling-up Quality Infrastructure Investment in Africa” to support African governments and local infrastructure ecosystems perform better in quality infrastructure projects preparation and implementation in the framework of the AU PIDA. This work will feed the joint OECD/African Union Africa Virtual Investment Platform (AfVIP).

Proposal 2: Elaborate a mutually recognised “blueprint” to enhance the adoption of a broader concept of a project’s economy-wide returns and related metrics. For blended finance to work at scale, infrastructure projects owners will increasingly need to integrate some impact indicators on environmental, social and economic resilience dimensions beyond the traditional metrics for “financial returns”. International principles, such as the G20 Principles for Quality Infrastructure Investment, and new international quality standards frameworks, such as the Blue Dot Network, the FAST-Infra Sustainable Infrastructure label, and the AU PIDA Quality label, are a steppingstone in the right direction. An OECD survey in 2021 showed that 92 per cent of leading private investors believed a trusted certification framework can increase infrastructure investments in emerging and developing economies (OECD 2022: 17). However, certain level of mutual recognition and interoperability of the different frameworks is needed to avoid fragmentation and make them manageable for recipient countries and for investors.

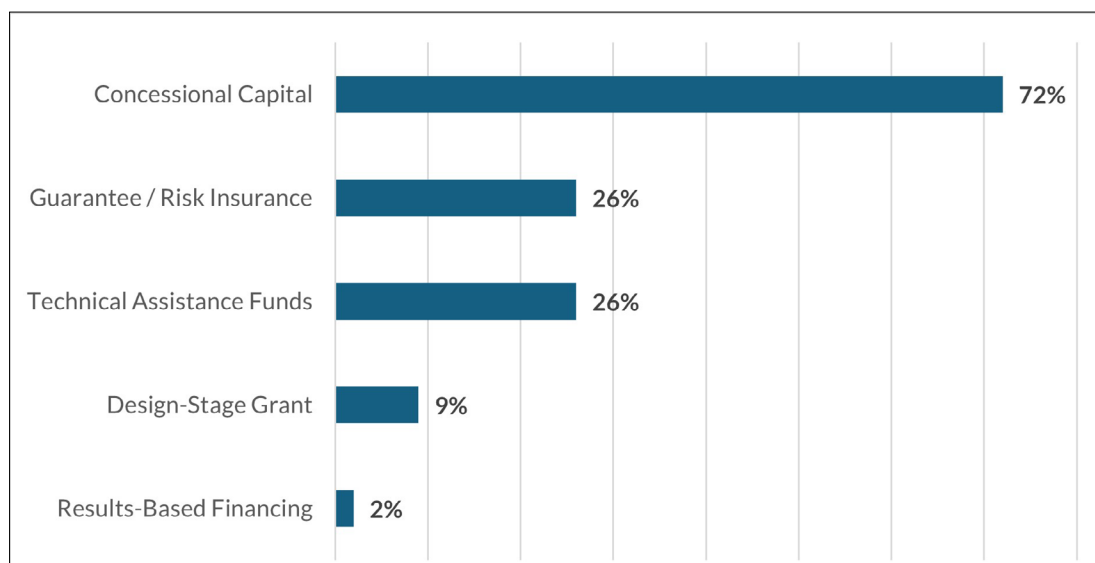
Proposal 3: Provide financial support to clearly identified high-impact projects, including guarantees, but also design-stage grants and result-based finance to improve project preparation and reduce project failure risks.

Guarantees are the most straightforward financial product to implement and have a number of benefits for additional resource mobilisation. They do not require an immediate outflow of funds by donors, and they are particularly useful for optimising budgets while allowing guarantors to leverage their balance sheets more efficiently. In addition, guarantees have proven to be the most effective instrument for mobilising private finance, and they are easy to recalibrate to the specific risk-returns profiles of each type of investor.⁴ The amount of private finance mobilised by guarantees has increased steadily from 8 billion US dollars in 2012 to over 18 billion US dollars in 2018, equivalent to an annualised growth rate of 14 per cent (Garbacz et al. 2021: 26).

However, in addition to guarantees, design-stage funding is much needed in most developing countries (Figure 3). Design-stage funding supports the project’s early-stage preparation, by funding activities such as (i) feasibility studies (e.g., to assess the investability or bankability of a transaction) or (ii) proof of concept (e.g., to complete design and structuring activities to launch a transaction) (Bery 2019).

⁴ See for example some stylised facts on the risk/return profiles of blended finance actors in the OECD (2020).

Figure 3. Blending trends by type of instrument (as a percentage (%) of blended finance transactions)

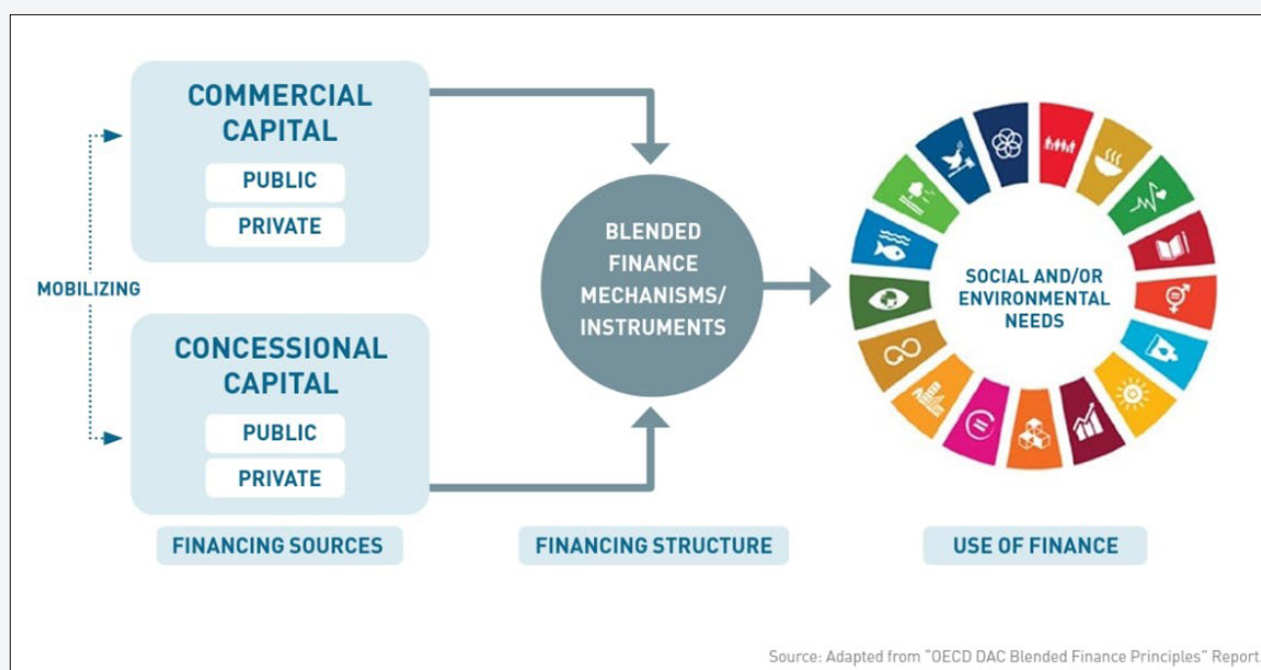


Source: Convergence: *Blended finance* [accessed April 2024]. <https://www.convergence.finance/blended-finance>.

Box 1. Examples of blending instruments

Blending uses international grants or other concessional resources to enhance the returns and/or reduce the risks of private projects:

Figure 4. The concept of blended finance



Direct grants. Grants are provided by the donor either directly to the project or to the lender to allow for better financing conditions. Grants can be conditional and performance-based; for instance, the donor agrees to pay off the debt of the project upon successful achievement of predetermined performance indicators.

Guarantees. Guarantees cover a portion of private loan or bond repayments. They are provided by donors to lenders to cover commercial or non-commercial risks (for example, expropriation, currency transfer restriction and inconvertibility, war, and civil disturbance, etc.). For instance, some guarantee products enhance the terms of commercial debt by covering the payment of principal and/or interest up to a predetermined amount. This improves the conditions of and access to financing for the project.

Credit tranching and bundling. Project financing instruments may be sliced into tranches to match the different appetite for risk of different financial investors. Donors can invest in the highest risk tranche of the project shielding other investors from a predefined amount of financial losses (“first-loss provisions”). Furthermore, multiple projects can be re-bundled into a portfolio that aims at mitigating risk for financial investors with a lower risk appetite, such as pension funds.

Risk capital. Donors can make equity investments in high-risk projects. This creates incentives for other investors, because equity is the riskiest part of the balance sheet.

FX hedging mechanisms. These schemes provide cost-effective solutions in countries that have no widespread hedging mechanisms. For instance, when local investors borrow in foreign currency and use the cash generated by the project (in local currency) to repay the foreign exchange loan, the currency risk can be reduced or even eliminated through hedging instruments that swap the foreign exchange debt obligations into local currency obligations.

Technical assistance. Donor-financed capacity development can strengthen project preparation and implementation, reducing future risks.

Source: Eyraud et al. 2021: 82.

Recommendations to the G7

How the G7 and international cooperation can help?

Recommendation 1: Recognise some international quality standards and certification schemes as interoperable. The G7 could and should play a role in encouraging participation of impact investors in impactful infrastructure projects by recognising a greater number of quality standards worldwide, including regional initiatives. Depending on the regional specific context, the quality dimensions that delivers high value for money may be slightly different. In that perspective, it would be powerful if G7 members could recognise the value-added of regional initiatives such as the African Union’s continental Programme for infrastructure development in Africa (PIDA) that have developed a number of quality requirements that deliver high value

for Africa's development. For instance, the PIDA has as quality label (PQL) certifying that the awarded projects meet excellent standards in project preparation and demonstrate strong commitment to sustainability and quality standards. PIDA projects assessment criteria include for example (i) job creation; (ii) high impact on regional integration; (iii) social inclusiveness, youth and gender mainstreaming; (iv) climate resilience; (v) project technical viability and readiness for private sector investment (African Union. 2020). Based on these criteria, African member states have approved a list of 69 priority projects for 2021-2030.⁵

Recommendation 2: Establish a 'G7 PGII project preparation facility' to team-up with existing project preparation initiatives and scale-up support for clearly identified high-impact projects through design-stage grants, guarantees and capacity-building initiatives. The G7 countries could leverage a fraction of their special drawing rights (SDRs) at the IMF as guarantee and design-stage grants to mobilise additional resources for a list of priority projects at regional and country levels in developing countries (Traoré et al. 2023). Such contributions can take the form of a 'G7 PGII Feasibility study fund' or 'G7 PGII project preparation facility' for a specific list of high-impact infrastructure projects clearly identified by recipient countries and regional organisations' priority action plans. Alternatively, G7 contributions can support transformative cross-border or country-level PPP project through dedicated regional facilities such as the Africa50 Infrastructure Fund, the Africa finance corporation, the ASEAN infrastructure fund, or the Asian Infrastructure Investment Bank. Given the scarcity of resources for project preparation, G7 efforts should help catalyse and scale-up resources, go hand in hand with existing project preparation facilities. Coordination with G20 efforts and regional development banks in this area is important to create synergies and increase available resource and impact.

Recommendation 3: Provide direct concessional capital investment for a list of transformative projects. This includes efforts for aggregating multiple projects – e.g. through portfolio investment mechanisms – to help achieve the needed investment ticket sizes. In the case of Africa, priority can be given to the 69 priority projects listed in the PIDA 2021-2030 implementation plan. This can deliver concrete results in a relatively short period of time, as the PIDA projects portfolio investment needs is about 161 billion US dollars in total. And each of these projects enjoys strong national and/or regional-level commitment from public institutions.

The G7's support can be channelled through the Service Delivery Mechanism (SDM) of the African Union Development Agency (AUDA-NEPAD) and the related Infrastructure Project Preparation Facility (NEPAD-IPPF) hosted by the African Development Bank. The SDM is an infrastructure project preparation instrument established in 2014 by the African Union within AUDA-NEPAD to address early-stage project preparation challenges – such as the lack of capacity and financial resources for early-stage project preparation at the national and regional level - and to accelerate the implementation of PIDA priority projects. The SDM has also a "5 % Agenda" campaign that

⁵ See PIDA PAP 2 list of 69 approved projects: <https://pp2.au-pida.org/?p=32139>.

aims to mobilise 5 per cent of African private financial assets for African infrastructure projects development, up from its low base of approximately of 1.5 per cent (AUDA-NEPAD 2018; OECD/ACET 2020).

References

AfDB. 2020a. *Designing the African Development Bank's PPP framework*. https://www.afdb.org/sites/default/files/2020/09/15/afdb_ppp_framework_whitepaper.pdf

AfDB. 2020b. *Presentation: Designing the African Development Bank's PPP Framework Session 2*. https://www.afdb.org/sites/default/files/2020/09/15/ppp_framework_session_2.pdf

African Union. 2020. *The integrated corridor approach – “A holistic infrastructure planning framework to establish PIDA-PAP 2”*. <https://pp2.au-pida.org/wp-content/uploads/2020/04/English-Analytical-Report-Integrated-Corridor-Approach-and-Selection-Criteria.pdf>

African Union Commission and OECD. 2023. *Africa's development dynamics 2023: Investing in sustainable development*. Paris: OECD Publishing. <https://doi.org/10.1787/3269532b-en>

AUDA-NEPAD. 2018. *5% Agenda for an African infrastructure guarantee scheme*. <https://nepad.org/node/11376>

Berg, Florian, Kölbl, Julian F., and Rigobon, Roberto. 2022. Aggregate confusion: The divergence of ESG ratings. *Review of Finance* 26(6): 1315-1344. <https://doi.org/10.1093/rof/rfac033>

Bery, Ayesha. 2019. What is design funding & what does it look like in practice? *Convergence Blog* 10 December. <https://www.convergence.finance/news/4AbNtNMW3WmkSh3dlEcbC7/view>

Choi, Esther Sekyoung, Zhou, Lihuan, and Laxton, Valerie. 2022. How to de-risk low-carbon investments. *WRI Insights* 22 July. <https://www.wri.org/node/102273>

Convergence Blended Finance. 2021. *The state of blended finance 2021*. <https://www.convergence.finance/resource/the-state-of-blended-finance-2021/view>

Ehlers, Torsten. 2014. Understanding the challenges for infrastructure finance. *BIS Working Papers* 454. <https://www.bis.org/publ/work454.htm>

Eyraud, Luc, et al. 2021. Private finance for development: Wishful thinking or thinking out of the box? *IMF Departmental Paper Series* 11. <https://www.elibrary.imf.org/view/journals/087/2021/011/087.2021.issue-011-en.xml>

G7. 2022. *G7 Leaders' Communiqué*, Elmau. <https://reliefweb.int/node/3861139>

Garbacz, Weronika, Vilalta, David, and Moller, Lasse. 2021. The role of guarantees in blended finance. *OECD Development Co-operation Working Papers* 97. <https://doi.org/10.1787/730e1498-en>

GI Hub-Global Infrastructure Hub. 2021. *Infrastructure Monitor 2021*. <https://www.gihub.org/resources/publications/infrastructure-monitor-2021-report>

GI Hub. 2023. *Infrastructure Monitor 2023*. <https://www.gihub.org/infrastructuremonitor>

Hallegatte, Stephane, Rentschler, Jun and Rozenberg, Julie. 2019. *Lifelines: The resilient infrastructure opportunity*. Washington: World Bank. <https://hdl.handle.net/10986/31805>

Hand, Dean, et al. 2020. *2020 Annual impact investor survey*. New York: Global Impact Investing Network. <https://thegiin.org/research/publication/impinv-survey-2020>

IEA-International Energy Agency and IRENA. 2017. *Perspectives for the energy transition: Investment needs for a low-carbon energy system*. <https://www.iea.org/reports/investment-needs-for-a-low-carbon-energy-system>

Lakmeeharan, Kannan, et al. 2020. *Solving Africa's infrastructure paradox*. McKinsey & Co. <https://www.mckinsey.com/~media/McKinsey/Industries/Capital%20Projects%20and%20Infrastructure/Our%20Insights/Solving%20Africas%20infrastructure%20paradox/Solving-Africas-infrastructure-paradox.pdf>

OECD. 2017. *Investing in climate, investing in growth*. Paris: OECD Publishing. <https://doi.org/10.1787/9789264273528-en>

OECD. 2020. *OECD DAC Blended finance principle 4 guidance: Focus on effective partnering for blended finance*. https://www.oecd.org/dac/financing-sustainable-development/blended-finance-principles/principle-4/Principle_4_Guidance_Note_and_Background.pdf

OECD. 2021. *Mobilising institutional investors for financing sustainable development in developing countries: Emerging evidence of opportunities and challenges*. Paris: OECD Publishing. <https://www.oecd.org/dac/financing-sustainable-development/development-finance-standards/mobilising-institutional-investors-financing-sustainable-development.htm>

OECD. 2022. *The Blue Dot Network: A proposal for a global certification framework for quality infrastructure investment*. Paris: OECD Publishing. <https://www.oecd.org/corporate/Towards-a-global-certification-framework-for-quality-infrastructure-investment.htm>

OECD. 2023. *Improving the landscape for sustainable infrastructure financing*. Paris: OECD Publishing. <https://doi.org/10.1787/bc2757cd-en>

OECD/ACET. 2020. *Quality infrastructure in 21st century Africa: Prioritising, accelerating and scaling up in the context of PIDA (2021-30)*. https://acetforafrica.org/?smd_process_download=1&download_id=15010

Rozenberg, Julie, and Fay, Marianne. 2019. *Beyond the gap: How countries can afford the infrastructure they need while protecting the planet*. Washington: World Bank. <https://hdl.handle.net/10986/31291>

Schwartz, Gerd, et al., eds. 2020. *Well spent: How strong infrastructure governance can end waste in public investment*. Washington: IMF. <https://doi.org/10.5089/9781513511818.071>

See, Gabrielle. 2023. Explainer: Why has blended finance not lived up to its promise? *Decoding Sustainable Finance* 13 September. <https://www.eco-business.com/news/explainer-why-has-blended-finance-not-lived-up-to-its-promise>

Thacker, Scott et al. 2019. Infrastructure for sustainable development. *Nature Sustainability* 2(4): 324-331. <https://doi.org/10.1038/s41893-019-0256-8>

Traoré, Bakary, Da Costa, Rita, Muzawazi, Daphine. 2023. Rethinking international cooperation and partnerships for improved development impact and self-sustainability in Africa. *T20 Policy Briefs*. <https://t20ind.org/?p=3651>

UNEP-United Nations Environment Programme. 2022. *International good practice principles for sustainable infrastructure: Integrated, systems-level approaches for policymakers*. 2nd ed. Nairobi: UNEP. <https://wedocs.unep.org/20.500.11822/39811>

WEF-World Economic Forum. 2016. *Risk mitigation instruments in infrastructure: Gap assessment*. <https://www.weforum.org/publications/risk-mitigation-instruments-in-infrastructure-gap-assessment>

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