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G20 Initiatives in Infrastructure Investment & Finance: Progress & Shortfalls

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Abstract: The historical account of deliberations on infrastructure reveals that G20 Presidencies have time again recognized infrastructure as a key driver of economic prosperity. Starting from Cannes declaration in 2011 adopting a High- Level Panel (HLP) recommendations to scale up and diversify sources of financing for infrastructure and the MDBs Action Plan to address bottlenecks, to 'Road map to Infrastructure as an Asset Class' and G20 principles for Quality Infrastructure Investment' in the recent G20 Presidencies, several initiatives have been taken to push the agenda of infrastructure investment and development. Further, data gaps and the need for building a sound database for infrastructure investment have also been discussed in G20 Presidencies. However, private investment in infrastructure has remained stagnant and lower than it was 10 years ago. The decadal experience shows that country-wise data gaps need priority attention to track infrastructure development and investment in developing countries, especially African and Low-income countries. The LCBMs are underdeveloped and asset- based financing and blended financing are yet to pick up the pace and contribute in a significant way towards bridging infrastructure investment gaps. There is a need for putting in place a review mechanism to address bottlenecks and facilitate progress on several initiatives taken under G20 forum in the interest of developing countries, especially the LDCs. There is still a lot of ground to be covered, but more in terms of action- oriented plans including capacity building, risk assessment and mitigation techniques, creation of platforms facilitating identification of projects and investors, development of LCBMs, embedding ESG criteria in project formulation.

Issues that Influenced Inception of G20

Before we discuss how much infrastructure investment and finance has progressed since the formation of G20, we need to delve into the genesis of G20 that determines its agenda and priorities. The major industrial

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countries had formed their groupings such as G5 or subsequently G7 to address most global economic problems among themselves during the 1970s, 1980s and early 1990s. However, the Asian financial crisis that started with Thailand in mid-1997, intensified and spread in the next two years to other important Asian economies, Russia and Latin America. It had become increasingly difficult for the G7 countries to effectively deal with the global issues as their weight in the global economy had declined due to the rapid growth of emerging economies (G20, 2008). The global economy was also becoming more integrated with increasing cross-border trade facilitated by the General Agreement on Tariffs and Trade, now the World Trade Organization (WTO). The liberalisation of domestic capital markets and the opening of capital accounts in many emerging economies were also contributing to the rapid growth of cross-border capital flows. The increasing interdependence of countries consequent to the expansion of cross-border trade and capital flows, and the rise in the exposure of countries to economic and financial shocks emanating elsewhere, underscored the importance of broadening the scope of international economic and financial co-operation.

The G7 Finance Ministers and Central Bank Governors on 25 September 1999, proposed "to broaden the dialogue on key economic and financial policy issues among systemically significant economies and promote co-operation to achieve stable and sustainable world economic growth that benefits all." The announcement at the first meeting of the G20 Ministers and Central Bank Governors that took place on 15-16 December 1999 marked the official birth of the Group of Twenty countries (the G20), comprising G7 countries (Canada, France, Germany, Italy, Japan, the UK, the US), the EU, the Russian Federation, Argentina, Australia, Brazil, China, India, Indonesia, the Republic of Korea, Mexico, Saudi Arabia, South Africa, Turkey (G20, 2008). The G20 meetings continued at the level of Finance Ministers and Central Bank Governors (FM & CBG). The G20 brings together systemically important advanced and emerging economies that represent roughly 85 per cent of global GDP and two-thirds of the world's population.

The Asian financial crisis of 1997 was the trigger for enhancing the G7 forum to G20 covering systemically important emerging economies, thus, setting a natural bias in focusing on financial stability and sustainable world growth. The range of topics discussed over the next decade, however, shows that G20 reflected on diverse issues impacting the global economy, including terrorist financing, development and aid, energy and resource security, and morefrom time to time (G20, 2008). Infrastructure investment as such did not receive any attention at the G20 deliberations during these years.

Post-2008 Developments: Trans-Atlantic Crisis

The world was again hit by a trans Atlantic crisis in 2008. This made it imperative for the G20 countries to raise the issues at the highest political level for better global crisis co-ordination. As a result, the meetings of G20 FMs & CBGs were raised to the level of Heads of State and Government. The first G20 Summit of Heads of State and Government under the Brazil Presidency was held in 2008. In the wake of the 2008 financial crisis, the G20 resolved to impose stricter controls on hedge funds and rating agencies. Institutional reforms included expanding the Financial Stability Forum (FSF), later renamed Financial Stability Board (FSB) to make it an effective supervisory and watchdog body for the global financial system. The Leaders' declaration focused on tackling the global financial crisis (G20 Summit declaration, November 2008).

G20 Summit under UK Presidency in 2009 continued to focus on financial stability and reforming the global architecture to meet the needs of the 21st century. It called for stricter regulations for 'too-big-to-fail' banks, measures to build capital , and stand-still provisions on trade distorting export promotion measures (G20 Summit declaration, September 2009). In the Seoul summit of 2010 under the Korean Presidency, the Leaders emphasized on implementing a range of structural reforms to boost global demand, foster job creation, and increase the potential for growth. They reiterated the need to strengthen multilateral cooperation to promote external sustainability and pursue the full range of policies conducive to reducing excessive imbalances and maintaining current account imbalances at sustainable levels (G20 Summit declaration, November 2010). The Summit adopted 'Seoul Development Consensus for Shared Growth' and called for prompt implementation of 'Multi-Year Action Plan'. For the first time, the G20 adopted a comprehensive set of actions in nine main areas to remove the obstacles to strong, inclusive and sustainable growth in developing countries: infrastructure, human resource development, trade, private investment and job creation, food security, growth with resilience, financial inclusion, domestic resource mobilisation and knowledge sharing. It is seen that the subsequent G20 Presidencies have shifted focus more towards long-term growth and sustainable development issues (G20, 2015; EPRS, 2015).

Cannes Summit 2011-Infrastructure Receives Focused Attention

The FM & CBG of G20 at their meeting in Paris in October 2011 welcomed the Multilateral Development Banks' (MDBs) Infrastructure Action Plan and the High Level Panel (HLP) recommendations for promoting enabling environment, diversifying sources of funding and identifying exemplary infrastructure investment projects (G20 FM & CBG Communique, October 2011). The FM & CBG called on the MDBs to pursue the implementation of transformational regional infrastructure projects following the criteria set by the HLP and to prioritize project preparation financing. The Cannes Summit under French Presidency in 2011 for the first time explicitly emphasized on the criticality of investment in infrastructure to accelerate growth, achieving millennium development goals and sustainable development. The Leaders' declaration adopted at Cannes Summit called for investing in infrastructure in developing countries, especially in Low- Income Countries (LICs) and supported efforts to improve capacities and facilitate the mobilization of resources for infrastructure projects initiated by public and private sectors (G20 Summit declaration, November 2011). The Summit welcomed both the HLP's report and the MDB Action Plan and specifically supported the following:

- development of local capacities to improve supply and quality of projects and make them bankable and enhance knowledge sharing on skills for employment in low income countries;
- High- Level Panel (HLP) fellowship programmeme and MDBs' efforts to develop and strengthen regional public-private partnerships practitioner's networks;
- increase quality of information available to investors, through the establishment of online regional marketplace platforms to better link project sponsors and financiers;
- prioritize project preparation financing, and the MDBs to dedicate a greater share of their funds to preparation facilities that can operate on a revolving basis;
- contribute to building an enabling environment for private and public infrastructure financing, especially for regional projects and
- improve access to funding, notably through the strengthening of local intermediaries and financial markets, and more effective use of MDBs' capital, including through the use of credit enhancement and guarantee instruments.

The Cannes Summit marks the beginning of a new approach to looking at development goals by recognizing the importance of infrastructure development as a vital ingredient for achieving higher and sustainable growth in developing countries and LICs in particular. It laid down the framework for the identification of inter-related aspects of infrastructure development starting from the identification of projects, development of local capacities to improving supply and quality of projects, establishing of online platforms for linking project sponsors with financiers and providing quality information, imparting skills for project preparation, creating a conducive environment for private and public infrastructure financing, and strengthening local financial markets. The G20 leaders also stressed the importance of follow-up action to track progress in these areas and provide updates.

Focus on Development of LCBMs & Project Preparation Facilities

Since the 2011 Cannes Summit, there has been continuity in the infrastructure agenda in the subsequent G20 Summits, which included deliberations on ways and means of raising resources for infrastructure investment. The Mexican Presidency during 2012 focused on three priority areas viz. food security, infrastructure and inclusive green growth. In the Los Cabos Summit of 2012, the Leaders recognized that investment in infrastructure is critical for sustained economic growth, poverty reduction, and job creation (G20 Summit declaration, June 2012). The declaration further stated that public financing of infrastructure development projects in developing countries remains essential, which should be complemented by private sector investment. The Summit encouraged MDBs to continue progress under the Action Plan and welcomed the Development Working Group (DWG) Report in perceiving the risks posed, as well as the opportunities offered by long-term infrastructure investment in low- income countries. The Report also laid down 'Best Practices for Urban Mass Transport Infrastructure Projects in Medium and Large Cities in Developing Countries'. The FM & CBG meeting held in November 2012, recognized the importance of raising resources domestically and the need to develop the local currency market. The FM & CBG noted the progress report prepared by World Bank and other International Organizations' (IOs) on the implementation of the G20 action plan to support the development of Local Currency Bond Markets (LCBMs) and called for full implementation of the action plan in 2013 to ensure abroad ownership of the diagnostic tool among potential users (G20 FM & CBG Communique, November 2012). The FM & CBG acknowledged the importance of long- term financing, particularly for infrastructure investment, and asked the World Bank, IMF, OECD, FSB, UN and relevant IOs to undertake further diagnostic work to assess factors affecting long-term investment financing (LTIF).

The G20 Russian Presidency in 2013 continued to focus on the need for mobilising long-term finances and for the development of the local currency capital market. The Leaders' Summit at St Petersburg in 2013 reiterated that well- developed LCBMs play an important role in improving the resilience of the domestic economy and financial systems. In this regard, the Leaders welcomed the work of the IMF, WB, EBRD, OECD and other IOs to implement the G20 Action Plan on the Development of LCBMs, including through the creation of a Diagnostic Framework on LCBM and urged the countries and concerned organisations to consider the use of the Diagnostic Framework in identifying and setting reform and capacity building priorities in support of LCBM development (G20 Summit declaration, September 2013). The FM & CBG reaffirmed the importance of long-term financing for investment to boost growth, create jobs and facilitate development and endorsed the work plan on private sector investment flows (G20 FM & CBG Communique, October 2013). They took note of the work underway in the World Bank Group (WBG) and Regional Development Banks (RDBs) to mobilize and catalyze additional financing for infrastructure investment.

Achieving Additional 2 Per Cent Increase in G20 GDP: Global Infrastructure Initiative

The G20 under Australian Presidency in 2014 set an ambitious goal of achieving additional 2per centper cent increase in G20's GDP by 2018. Towards this end, the Leaders called for increasing global investment, trade and infrastructure to support development, create jobs and promote inclusive growth. The FM & CBG deliberations held in September 2014 covered various facets of infrastructure development like quality infrastructure investment, developing knowledge sharing platforms, addressing data gaps, and improving the investment climate for private-public investment (FM & CBG Communique, September 2014). The Leaders' declaration recognized that tackling global investment and infrastructure shortfalls is crucial to lifting growth, job creation and productivity (G20 Summit declaration, November 2014). The G20 Leaders endorsed the Global Infrastructure Initiative, a multi-year work programmeme to lift quality public and private infrastructure investment. The Summit also called for addressing data gaps and improving information on project pipelines to help match investors with projects. The Leaders also committed to work to facilitate long-term financing from institutional investors and to encourage market sources of finance and encouraged MDBs and national development banks (NDBs) to optimise the use of their balance sheets to provide additional lending. G20 Australian Presidency can thus be considered setting new milestones in taking initiatives for infrastructure development, which translated into action oriented decision to establish a Global Infrastructure Hub (GIH). The GIH was mandated to contribute to developing a knowledge-sharing platform and network between governments, the private sector, development banks and other international organisations and foster collaboration among these groups to improve the functioning and financing of infrastructure markets. Another important initiative was taken by the WBG by launching Global Infrastructure Facility (GIF) to strengthen infrastructure and attract more private sector investment in developing countries.

UN Resolution on Addis Ababa Action Agenda (AAAA): G20 Action

Under the G20 Turkey Presidency in 2015, there was recognition that even after seven years of trans-Atlantic crisis, the global economic growth was uneven and continued to fall short of expectations. The Summit Leaders reiterated their commitment to achieving G20 GDP by an additional 2 per cent by 2018 as announced atBrisbane Summit in the preceding year. Continuing the agenda on infrastructure development, the FM & CBG meeting held in September 2015 acknowledged the consolidation of best practices in public private partnership (PPP) models, which can address commonly-encountered challenges and welcomed the WBG PPP guidelines and the OECD/WBG PPP Project Checklist which provide guidance on international best practices for preparation and implementation of PPPs (FM & CBG Communique, September 2015). The FM & CBG also endorsed the business plan of the GIH, which would address data gaps, lower barriers to investment and move engagement with the private sector. The G20 Summit Leaders called for providing a strong impetus to boost investment, particularly through private sector participation and emphasized on improving investment preparation, prioritization and execution processes (G20 Summit declaration, November 2015). The Summit called for continued work to improve the investment ecosystem, promote long-term financing, foster institutional investors' involvement, support the development of alternative capital market instruments and encourage MDBs to mobilize their resources, optimize their balance sheets, and catalyze private sector funding.

The year 2015 is also considered a crucial year for sustainable development, as it was marked by the UN resolution in July in that year on "Addis Ababa Action Agenda (AAAA) on Financing for Development", that sets a transformative, universal and ambitious framework for global development efforts (UN Resolution on AAAA, July 2015). G20 Leaders expressed their strong commitment to implementing the AAAA to support 2030 Agenda for sustainable development and committed to develop an action plan to further align G20 work towards achieving the 2030 Sustainable Development Goals (SDGs).

Emphasis on Quality Infrastructure Investment & Risk Assessment

G20 under China Presidency in 2016 focused on the industry by adopting the 'G20 New Industrial Revolution (NIR) Action Plan' to seize opportunities in manufacturing and related services. In this context, the G20 Summit emphasised new industrial infrastructure to support industrialization (G20 Summit declaration, September 2016). The FM & CBG meeting held earlier in July 2016 reaffirmed the commitment to promote investment in infrastructure in terms of both quantity and quality to support the common growth objectives and the 2030 Agenda for Sustainable Development (FM & CBG Communique, July 2016). The FM & CBG had noted that MDBs have a unique role in supporting infrastructure investment and called upon them to take joint actions to support infrastructure investment as well as catalyze private investment. In this regard, the FM & CBG welcomed the commitments made in the "Joint Declaration of Aspirations on Actions to Support Infrastructure Investment" by 11 MDBs which included their announcements of quantitative ambitions for high-quality infrastructure projects within their respective institutional mandates and strengthen project pipelines, strengthen the enabling environment for infrastructure investment in developing countries, as well as catalyze private resources. They welcomed the MDB response to the 'G20 MDB Balance Sheet Optimization Action Plan' and launched the Global Infrastructure Connectivity Alliance to enhance the synergy and co-operation among various infrastructure connectivity programmemes in a holistic way. The FM & CBG also endorsed the 'G20/OECD Guidance Note on Diversification of Financial Instruments for Infrastructure and SMEs' and the 'PPP Risk Allocation Matrices' completed by the GIH to help developing countries better assess infrastructure risks.

Focus on Private Capital and Roadmap to Infrastructure as Asset Class

During the German G20 Presidency in 2017, the FM & CBG meeting held in March 2017 noted that the global economic recovery was progressing, but the pace of growth was still weak and downside risks for the global economy remained. They reiterated their determination to use all policy tools to achieve the goal of strong, sustainable, balanced and inclusive growth. The focus seemed to be more on strengthening the international financial architecture and sustainable financing. The FM & CBGs urged MDBs to complete their reports on the implementation of the MDBs' Balance Sheet Optimisation Action Plan, the MDBs' Joint Declaration of Aspirations on Actions to support Infrastructure Investment and an update on the Global Infrastructure Connectivity Alliance by the time of the Leaders Summit in July 2017 (G20 FM & CBG Communique, March 2017). Following FM & CBG deliberations, G20 Summit leaders focused on international economic and financial cooperation to further strengthen growth and safeguard against downside risks. The Summit endorsed the Hamburg Action Plan which set out the G20's strategy for achieving strong, sustainable, balanced and inclusive growth (G20 Summit declaration, July 2017). The Hamburg Action Plan included new policy actions to tackle challenges, focusing on initiatives that foster inclusive growth, enhance resilience and further efforts to implement structural reforms (G20 Hamburg Action Plan, July 2017).

The G20 Argentina Presidency in 2018 focused on the future of work, infrastructure for development, and a gender mainstreaming strategy across the G20 agenda. The FM & CBG welcomed progress on the 'Roadmap to Infrastructure as an Asset Class' and to further boost infrastructure investment, they endorsed the 'G20 Principles for the Infrastructure Project Preparation Phase' which would help deliver a pipeline of well-prepared and bankable projects that are attractive to private investors by improving assessments of project rationale, options appraisal, commercial viability, long-term affordability, and deliverability (FM & CBG Communique, July 2018). They suggested that the Private Sector Advisory Group would continue informing the work on the key challenges in attracting private investment to infrastructure. They agreed to extend the mandate of the Global Infrastructure Hub to 2022. While welcoming the MDB Infrastructure Cooperation Platform under the Infrastructure Working Group (IWG), they indicated that advice be provided to improve MDB project preparation, standardisation of guarantees and credit enhancement tools, and data availability. The FM & CBG called on the IWG to study the feasibility of new mechanisms to create portfolios of infrastructure assets, including brownfield infrastructure projects, that can attract institutional investors. The Summit leaders reiterated that the global economic growth was strong, but increasingly less synchronized between countries. The infrastructure is a key driver of economic prosperity, sustainable development and inclusive growth. To address the persistent infrastructure financing gap, G20 leaders reaffirmed their commitment to attract more private capital and towards this, they endorsed the 'Roadmap to Infrastructure as an Asset Class and the G20 Principles for the Infrastructure Project Preparation Phase'(G20 Summit declaration, December 2018). They affirmed taking actions to achieve greater contractual standardization, address data gaps and improve risk mitigation instruments.

Quality Infrastructure Investment & Infrastructure Maintenance

The G20 under Saudi Arabia Presidency in 2020 had to grapple with the COVID-19 pandemic and its unprecedented impact in terms of lives lost, livelihoods and economies affected. The Leaders determined to support all developing and least developed countries, and the specific challenges in Africa and Small Island Developing States (SIDS). The FM & CBG in their virtual meet in October 2020 expressed commitment to implementing the Debt Service Suspension Initiative (DSSI), allowing DSSI-eligible countries to suspend official bilateral debt service payments through end-2020 and review extension as required (FM & CBG Communique, October 2020). Despite pre-occupation with addressing the COVID pandemic situation, the Leaders recognised the importance of infrastructure as a driver of growth and prosperity. They endorsed the 'G20 Riyadh InfraTech Agenda', which promotes the use of technology in infrastructure, with the aim of improving investment decisions, enhancing value for money, and promoting quality infrastructure investments for the delivery of better social, economic and environmental outcomes (G20 Summit declaration, November 2020). In line with the G20 Roadmap for Infrastructure as an Asset Class, the Summit welcomed the 'G20/ OECD Report on Collaboration with Institutional Investors and Asset Managers on Infrastructure Investment', which reflected investors' view on issues and challenges affecting private investment in infrastructure and presented policy options to address them.

The G20 Italy Presidency in 2021 continued its focus on the COVID-19 related global health and economic challenges as the pandemic situation continued through the year 2021. The FM & CBG expressed the need for the continuation of DSSI and further assistance to LDCs (FM & CBG Communique, October 2021). The G20 Summit reiterated the concerns arising out of the continued COVID pandemic which hindered progress towards the 2030 Agenda for Sustainable Development (G20 Summit declaration, October 2021). The Summit also recognized the critical role of quality infrastructure investments in the recovery phase. It was acknowledged that resilient, properly funded, well maintained and optimally managed systems are essential to preserve infrastructure assets over their life-cycles, minimising loss and disruption, and securing the provision of safe, reliable and high-quality infrastructure services. To this end, the G20 Summit endorsed the 'G20 Policy Agenda on Infrastructure Maintenance'. In line with the G20 Roadmap for Infrastructure as an Asset Class, and building on the G20 Infrastructure Investors Dialogue, G20 leaders committed to develop further the collaboration between the public and private investors to mobilise private capital and to advance the work related to the G20 'Principles for Quality Infrastructure Investment'. The Summit leaders agreed to extend the Global Infrastructure Hub mandate until the end of 2024.

The recently concluded G20 Indonesia Presidency 2022 reiterated the importance of revitalizing infrastructure investment in a sustainable, inclusive, accessible, and affordable way. The Summit leaders endorsed the voluntary and non-binding 'G20/GI Hub Framework on How to Best Leverage Private Sector Participation to Scale-up Sustainable Infrastructure Investment' which will consider country circumstances, and which will complement investment from other sources, including public investment and finance provided by MDBs (G20 Summit declaration, November 2022). The Summit further endorsed the 'G20-OECD Policy Toolkit on Mobilizing Funding and Financing for Inclusive and Quality Infrastructure Investment in Regions and Cities' and the InfraTracker 2.0 which will enable both the public and private sectors towards transformative infrastructure investment post-COVID. The Leaders also endorsed the 'G20 Compendium of Case Studies on Digital Infrastructure Finance: Issues, Practices and Innovations' and 'Quality Infrastructure Investment (QII) Indicators'.

The foregoing historical account of deliberations on infrastructure reveals that G20 Presidencies have time again recognized infrastructure as a key driver of economic prosperity. Starting from the Cannes Summit declaration in 2011 adopting a High-Level Panel (HLP) recommendations to scale-up and diversify sources of financing for infrastructure and the MDBs Action Plan to address bottlenecks, to 'Roadmap to Infrastructure as an Asset Class' and G20 principles for Quality Infrastructure Investment' in the recent G20 Presidencies, several initiatives have been taken to push the agenda of infrastructure investment and development (summary highlights in box 1 below and details of Presidency-wise focus and initiatives on infrastructure development are given at Annexure 1). However, attempts to find concrete ways to mobilize more private capital are yet to yield desired results (also see Julia Tops, 2022). Despite continued efforts by G20 during various Presidencies, there exists a huge gap in financing and investment in infrastructure development. We discuss below the gaps as seen in four main areas of infrastructure investment, development of LCBMs, blended finance and quality infrastructure.

Progress in Infrastructure Investment

It is well-recognized that inadequate infrastructure acts as a serious bottleneck to economic development. In a virtual meeting of FM & CBGs of G20, the Indian Finance Minister emphasised the need for bridging the infrastructure funding gap and developing innovative financing mechanisms for an inclusive growth in the sector (Economic Times, April 2022). Before the COVID crisis, the OECD estimated that between 2016 and 2030, approximately USD95 trillion in public and private investments would be needed at global level in energy, transport, water and telecommunications infrastructure to sustain growth (OECD, 2017). This equals approximately USD 6.3 trillion per annum, without taking into account the additional climate or social infrastructure needs associated with commitments to achieve the SDGs and the Paris Agreement (OECD, 2021).

Mobilising private capital is key to closing the infrastructure financing gap and has become even more critical as the COVID pandemic has further limited the investment capacity of governments. For the past seven years, private investment in infrastructure has

Box 1: Some Major Initiatives taken by G20

- Commissioned a High Level Panel (HLP) to identify measures to scale-up and diversify sources of financing for infrastructure.
- MDBs developed a joint action plan (MDB Action Plan) to address bottlenecks.
- MDBs' report on addressing Misperception of Risk and Return in Low Income Countries.
- IMF, the WB Group, OECD and other IOs progress report on 'G20 Action Plan on the Development of LCBMs', including the creation of a 'Diagnostic Framework on LCBM'
- WB, IDB & ADB reports on 'Assessment of Project Preparation Facilities (PPFs)' for Infrastructure in Africa
- 'Global Infrastructure Initiative', a multi-year work programme to lift quality of public and private infrastructure investment.
- Established a Global Infrastructure Hub (GIH) to develop a knowledge-sharing platform and network between governments, the private sector, development banks and other international organisations.
- WB Group launched Global Infrastructure Facility (GIF) to strengthen infrastructure and attract more private sector investment in developing countries.
- WB Group PPP Guidelines and OECD/WB Group PPP Project Checklist to provide guidance on international best practices for preparation and implementation of PPPs.
- Launched the Global Infrastructure Connectivity Alliance to enhance the synergy and cooperation among various infrastructure connectivity programmemes.
- G20/OECD 'Guidance Note on Diversification of Financial Instruments for Infrastructure and SMEs'
- Annotated Public-Private Partnership (PPP) Risk Allocation Matrices completed by the GIH to help developing countries better assess infrastructure risks.

Source: Author compilation based on G20 declarations.

remained stagnant and lower than it was 10 years ago. The USD 156 billion invested in infrastructure projects by private investors in 2020 represents 0.2 per cent of global GDP, far short of the estimated 5 per cent of global GDP that is required to close the infrastructure gap. It is also much smaller in comparison to the USD 3.2 trillion in infrastructure stimulus announced by G20 governments (GI Hub, 2021). The WB report on private participation in infrastructure (PPI) investment puts PPI investment at USD 76 billion in low- and middle-income countries in 2021, representing 0.26 per cent of their GDP. Although this was an increase of over the USD 51 billion in 2020, it was still 12 per cent lower than the previous five-year average (WB, 2021).

The historical analysis of trends in private participation in infrastructure sectors like transport and energy reveals stark disparities, highly fluctuating and declining private investments across geographical regions and income-groupings of countries. Further, data gaps both over time and across groups of countries restrict any meaningful analysis (Table 1). The data gaps and the need for building a sound database for infrastructure investment have been discussed in G20 Presidencies. The decadal experience shows that country-wise data gaps galore and need priority attention to track infrastructure development and investment in developing countries, especially the African and Low-income countries. Nevertheless, some findings based on WB data reveal that there is generally a declining trend in private investment in transport and energy, especially in South Asia and Lower middle- income countries (Table 2).

The historical data from 2000 onwards, which are available for select regional and income groupings, further corroborate this trend (see Figures in Annexure 2). Although data is not available for the African region and Low income countries, the trends may not be different or could be worse-off for these groups of countries given the overall global uncertainties in infrastructure investment flows and debt overburden in these regions.

Table 1: Private Participation in Investments : Data Availability from the year 2000 onwards

Country-groupings	Gross fixed capital formation, private sector (per cent of GDP)	Public private partnerships investment in transport	Investment in transport with private participation	Public private partnerships investment in energy	Investment in energy with private participation
By Geographic Regions					
Sub-Saharan Africa	n.a.	n.a.	n.a.	n.a	n.a
Middle East & North Africa	n.a.	n.a.	n.a.	n.a	n.a
South Asia	Limited period	Limited period	Available	Available	Available
East Asia & Pacific	Available	Discontinuous	n.a.	Available	n.a
Latin America & Caribbean	n.a.	Discontinuous	Discontinuous	Discontinuous	Available
North America	Recent years n.a.	n.a.	n.a.	n.a	n.a
Europe & Central Asia	n.a.	n.a.	n.a.	n.a	n.a
By Income Groupings					
Low income (LICs)	n.a.	n.a.	n.a.	n.a	n.a
Lower middle income (LMICs)	n.a.	Discontinuous	Limited & Discontinuous	Available	Available
Middle income (MICs)	n.a.	Discontinuous	Discontinuous	Available	Available
Upper middle income (UMICs)	Available	Available	Discontinuous	Available	Available
High income (HICs)	n.a.	n.a.	n.a.	n.a	n.a

Source : Based on WB, World Development Indicators Data Base.

Table 2 : Private Investment in Transport

Country-groupings	Investment in transport with private participation (USD billion)			Investment in energy with private participation (USD billion)		
By Geographic Regions	2000	2010	2020	2000	2010	2021
Sub-Saharan Africa	n.a	n.a	n.a	n.a	n.a	n.a
Middle East & North Africa	n.a	n.a	n.a	n.a	n.a	n.a
South Asia	0.10	17.17	2.72	1.99	35.50	1.87
East Asia & Pacific	n.a	n.a	n.a	n.a	n.a	n.a
Latin America & Caribbean	4.49	7.46	2.36	14.00	16.02	4.24
North America	n.a	n.a	n.a	n.a	n.a	n.a
Europe & Central Asia	n.a	n.a	n.a	n.a	n.a	n.a
By Income Groupings	2000	2011	2021	2001	2010	2021
Low income (LICs)	n.a	n.a	n.a	n.a	n.a	n.a
Lower middle income (LMICs)	n.a	n.a	17.51	3.93	47.52	12.26
Middle income (MICs)	8.09	36.55	42.37	17.23	76.72	20.66
Upper middle income (UMICs)	7.00	17.66	24.86	13.30	29.20	8.40
High income (HICs)	n.a	n.a	n.a	n.a	n.a	n.a

Source: WB, World Development Indicators Database.

Another set of data by WB based on number of projects and investment commitments reveals that private participation in infrastructure (PPI) investment in low and middle income countries in

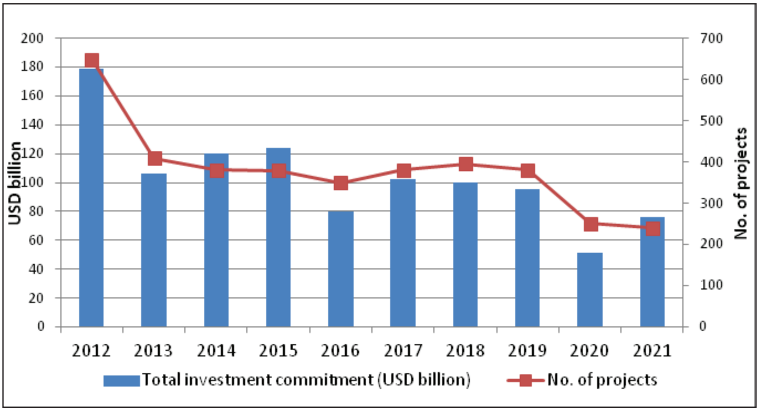
2021 accounted for USD 76.2 billion across 240 projects (WB, 2021). Although this is an increase over the 2020 investment of USD 51.0 billion across 251 projects, start of COVID pandemic, the 2021 commitments were lower than the earlier years and significantly less compared to investment commitment of USD 179 billion way back in 2012 (Figure 1).

The trends in investments in IDA countries (14 IDA countries) reveal that after an increase from USD 2.5 billion in 2018 to USD 8.5 billion in 2019, it declined in the subsequent years to reach a low of USD 3.6 billion in 2021 (Figure 2). IDA countries' share in global investments decreased from 12 per cent in 2020 to 4.7 per cent in 2021. It may be noted that committed investment in 2021 at USD 3.6 billion is 4 times lower than it was in 2012 at USD 14.5 billion.

The tracking of infrastructure development indicators is equally important to gauge the impact of initiatives taken over the years through G20 Presidencies. However, data gaps in indicators like road network development, logistics network to move cargo efficiently, corporates adopting ESG criteria, etc make tracking infrastructure progress difficult. The impact of ESG factors on the financial performance of infrastructure assets is not possible to track due to the lack of data (GIH, 2022). From the WB database, we could collate data on renewable energy production (excluding hydel power), but data are available only upto 2015 for most countries and regions. The trends from the year 2000 indicate that renewable energy production per person has not increased significantly for African, South Asian and Latin American regions (Figures 3 & 4). The income-wise groupings of the countries show that but for High- income countries (HICs), the growth in respect of other income groups has not been commendable. These patterns make a case for focused efforts in boosting investments in resilient and sustainable infrastructure projects such as green energy, quality roads, bridges, logistics and ports.

As discussed earlier, the shortfall in infrastructure investment has been addressed during deliberations in G20 Presidencies. It was suggested that the governments can complement by increasing public investment in infrastructure by raising more revenues, reorienting spending, and

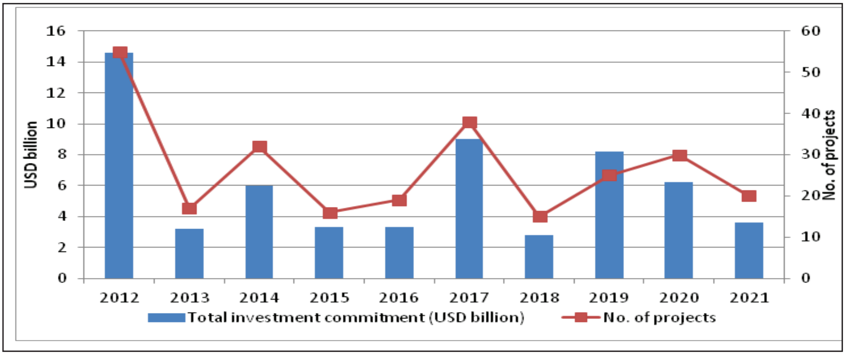
Figure 1 : Private Participation in Infrastructure Projects : Low & Middle Income Countries (2012-2021)



Source: WB, Private Participation in Infrastructure, Annual Report 2021.

borrowing prudently, as well as adopting innovative approaches such as 'land value capture' (T20 Japan-Sawada, 2019). It was also emphasized that there was a need to increase private financing of infrastructure investments, particularly public–private partnerships (PPP). It was recognised that the success of the approach depended on governments identifying suitable projects and engaging qualified private partners and instituting the right process. The WB survey suggests that appropriate and

Figure 2 : Private Participation in Infrastructure Projects : IDA Countries (2012-2021)

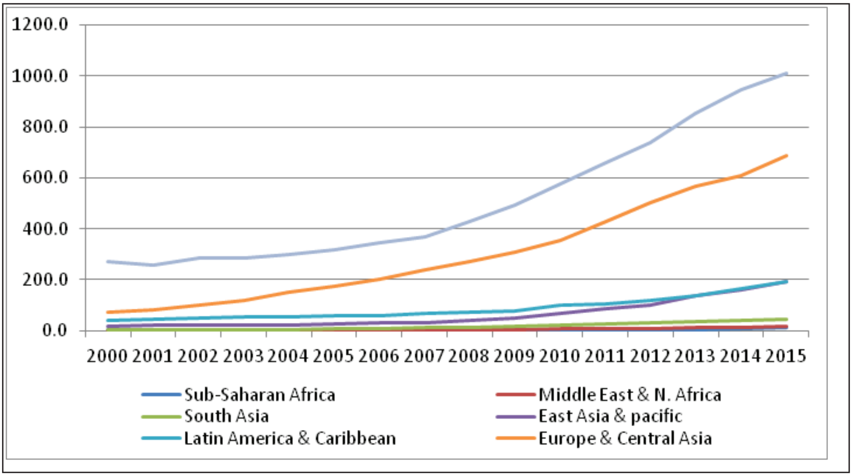


Source: WB, Private Participation in Infrastructure, Annual Report 2021.

effective regulatory frameworks are crucial for ensuring that investments in infrastructure are done strategically and efficiently (WB, 2020). There is also a need for building a country-wise central repository in regard to pipeline of projects in infrastructure, green projects, and other critical areas, with feasibility studies and risk assessment reports to facilitate private interest in these projects. Some of the issues that hamper investors' confidence in low & middle- income countries are as under:

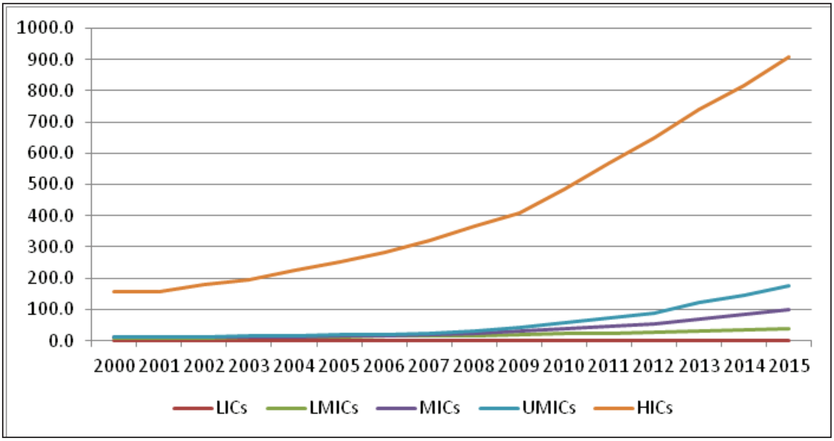
1. political risks causing uncertainties in policies;
2. lack of adequate mechanisms to mitigate financial risks;
3. implementation or execution risks associated with projects due to regulatory constraints, land acquisition issues and poor contracts;
4. deficiencies in contract enforcement measures;
5. inadequate capacities and skills to identify project opportunities, evaluate projects, prepare feasibility studies; and
6. lack of resources or avenues to raise required funds due to underdeveloped local currency markets.

Figure 3: Region-wise : Electricity Production from Renewable Sources, exclu Hydro-electric (kWh/person)



Source: Based on WB, World Development Indicators DataBase.

Figure 4: Income-wise : Electricity Production from Renewable Sources, exclu Hydro-electric (kWh/person)



Source: Based on WB, World Development Indicators DataBase.

Local Currency Bond Markets

In most developing countries, financial system is dominated by banks and financial institutions, where the financial requirements of corporates are largely met. Thus, it is observed that domestic bond markets or local currency bond markets (LCBM) in developing countries are generally small or not well-developed. The well-developed corporate debt market and the presence of long-term financing institutions would greatly facilitate the deepening of financial markets in developing countries. The importance of the relationship between the development of financial markets and economic growth is well recognized. However, the underdeveloped domestic debt market, the costs associated with raising debt, the requirement of compliance with regulatory disclosures, and rating hinder many corporates from tapping the domestic debt market.

Financial investors, particularly institutional investors, have been looked to as a potential source of financing for ‘gap sectors’. However, investment by institutional investors in gap sectors remains limited in developing countries. Institutional investors have increasingly resorted to investment in alternative asset classes such as private equity, hedge funds, venture capital, real estate, and commodities, indicating a growing allocation to less liquid and longer-term instruments. There is a need to promote institutional investors, especially long-term investment funds (LTIFs) like pension funds and insurance companies, to be able to invest in long-term infrastructure projects.

The large gaps in infrastructure financing, manufacturing, energy, climate financing can be addressed effectively by encouraging greater private participation in investment. Private participation requires conducive policies, proper risk assessment project costs and returns, and clear sources of funding. With the infrastructure investment gaps being huge, the efforts of private investors need to be complemented by the active involvement of local governments by identifying whole-of-life funding sources that can ensure infrastructure will be well operated and maintained so that it can improve access to finance (OECD, 2021).

It is, therefore, desirable that priority should be given to promoting local currency bond markets (LCBMs) and long-term investment funds (LTIFs). As mentioned earlier, since the Cannes summit in 2011, where the G20 LCBM Action Plan was endorsed, development of LCBM has been emphasized in the subsequent G20 Presidencies as well. However, constraints on both the demand and the supply side continue to affect fund-raising capacities of corporates in developing countries. Given the critical need to raise resources to fund infrastructure investment, the governments in developing economies would have to take pro-active measures to develop LCBM, as market forces so far have failed to create vibrant LCBMs. Some of the areas that call for positive intervention by governments and institutions are :

1. encourage and enable institutional investors such as pension funds and insurance companies to invest in corporate bond markets;
2. enhance investor base to reach retail investors and other institutions which are otherwise constrained by regulatory investment norms;
3. create an effective market- making mechanism so as to increase the liquidity of the bonds;

4. strengthen credit rating agencies (CRAs), standards of accounting, auditing and disclosures, institutional infrastructure, prevalence of an environment for enforcement of contracts;
5. corporate issuers would need to improve upon their governance, transparency and credibility;
6. efficient legal systems to facilitate quick resolution of disputes;
7. ESG profiling of corporates so as to attract FII flows; and
8. small and medium-sized companies to be enabled to issue bonds by utilizing tools such as securitization and credit guarantees.

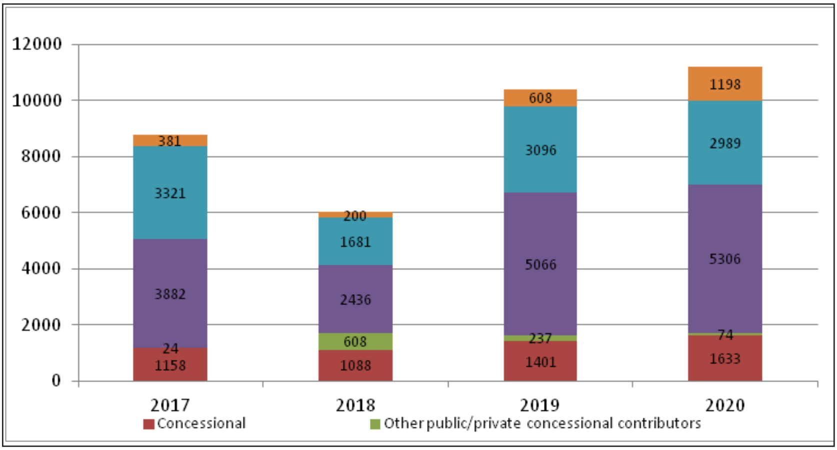
Blended Finance

The 'DFI Working Group on Blended Concessional Finance for Private Sector Projects' defines blended finance as "combining concessional finance from donors or third parties alongside DFIs' normal own-account finance and/or commercial finance from other investors, to develop private sector markets, address the SDGs, and mobilize private resources" (IFC-DFI Working Group, 2017). Since 2016 blended concessional finance for private sector projects is used as one of the important tools to implement the Addis Ababa Action Agenda (AAAA) for financing SDGs. The total value of financed projects amounted to USD 15 billion over 2014-2016 through various blended finance solutions. A review of quantum of finance mobilised under the blended finance route over the past few years reveals that the total amount of financed projects increased from USD 8.8 billion in 2017 to USD 11.2 billion by the end of 2020 (Figure 5). This is meagre compared to the huge gaps in SDG financing. Further, the major contribution in financing has come from DFIs (from USD 3.3 billion in 2017 to USD 5.3 billion in 2020), while concessional funding increased from USD 1.1 billion in 2017 to USD 1.6 billion in 2020. The private sector funding has dwindled during the period, from USD 3.3 billion in 2017 to USD 3.0 billion in 2020. In terms of concessional finance deployed, the finance/ banking sector showed the highest volume in terms of DFI funds leveraged (USD 4.8 billion) in 2020, followed by infrastructure (USD 3.1 billion).

The slow progress in blended finance will act as a hindrance to any major achievement of SDGs by 2030. It may be noted that the pre-COVID-19 annual SDG financing gap was estimated at USD 2.5 trillion (USD 500 billion in LICs and USD 2 trillion in other developing countries). Post-COVID-19, the annual SDG financing gap is predicted to further increase by USD 1.7 trillion in developing countries due to global economic uncertainty (OECD, 2021). The T20 Indonesia policy brief on blended finance for SDGs suggests that for timely and better outcomes, finance needs to be complemented by technology transfer and capacity-building, which together may be termed as 'blended resources'. It is proposed to set up a 'G20-backed Blended Finance Fund-of-Funds and Holistic Resource Platform' to enable the greater contribution of blended finance towards addressing the SDG financing gap in LICs/ LDCs (T20 Indonesia-Peter & Nair, August 2022).

Infrastructure investment requirements are huge and blended finance as a new mechanism to bridge the gaps is yet to pick up pace and size. The data on blended finance reveals that the objective of catalyzing private investment through this method has not yet taken off.

Figure 5: Progress in Blended Finance (USD million)



Source: IFC-DFI Working Group, 2021.

G20 Focus on Quality Infrastructure

The G20 Summit held in Brisbane in 2014 during Australian Presidency for the first time shifted emphasis to quality infrastructure. The quality aspect of infrastructure continued to be the subject of deliberation in the subsequent G20 Summits and we find references to this extant consistently in the subsequent G20 Presidencies. The Japan Presidency 2019 adopted 'G20 Principles of Quality Infrastructure Investment', which enumerate six principles: Principle 1: Maximising the positive impact of infrastructure to achieve sustainable growth and development; Principle 2: Raising economic efficiency in view of life-cycle cost; Principle 3: Integrating environmental considerations in infrastructure investments; Principle 4: Building resilience against natural disasters and other risks; Principle 5: Integrating social considerations in infrastructure investments, and Principle 6: Strengthening infrastructure governance.

It may be noted that these principles are voluntary, non-binding reflecting G20's common strategic direction and aspiration for quality infrastructure investment. 'G20 Principles for the Infrastructure Project Preparation Phase' adopted earlier at G20 Argentina Presidency 2018, complement the 'G20 Principles of Quality Infrastructure' by helping deliver a pipeline of well-prepared and bankable projects that are attractive to private investors by improving assessments of project rationale, options appraisal, commercial viability, long-term affordability and deliverability. There is an untapped opportunity to increase private investment in infrastructure by improving project preparation capabilities. The lack of a bankable and investment-ready pipeline of infrastructure projects is often considered one of the major bottlenecks in attracting private capital to infrastructure. Enabling an investment-ready pipeline has consistently been featured as a top priority of G20 Presidencies. The bankability of an infrastructure project is mostly determined at the project preparation stage, and in most developing countries, especially low-income countries (LICs), there is a need to improve project preparation capability. The MDBs and IOs have been making efforts to improve project preparation capabilities through the lenses of Project Preparation

Facilities (PPFs), which play an important role in developing bankable and investment-ready projects, providing both technical support and funding. Africa, the region with one of the lowest infrastructure project preparation scores in the GI Hub InfraCompass, has the highest number of active PPFs (GIH, 2020). More than half of all PPFs are mandated to support the energy, transport, and water sectors, and 80 per cent of these support project preparation in the energy sector. ESG factors are embedded criteria for infrastructure investors, and preliminary evidence shows sustainable investments perform better. ESG factors are important for private investors to manage risk and return and are particularly important for infrastructure investment, given that infrastructure requires a significant up-front investment in long-term assets (GIH, 2020).

The G20 FM & CBG meeting in Venice in July 2021 during the Italian G20 Presidency added infrastructure maintenance to the quality infrastructure dimension by endorsing 'G20 Policy Agenda on Infrastructure Maintenance' as a priority area for 2021. It was recognized that infrastructure maintenance can boost prosperity. As brought out by the WBG's report 'Well Maintained: Economic Benefits from more Reliable and Resilient Infrastructure', good and timely infrastructure maintenance boosts prosperity, enabling growth and well-being of people, firms, and economic systems (WB, May 2021). Estimating the direct costs imposed to firms in low- and middle-income countries, the WB study reveals that sales losses due to power outages amounted to USD 82 billion a year; disruptions to the water supply infrastructure cost USD 6 billion annually; and reduced utilization rates of transportation due to disrupted infrastructure cause a loss of USD 107 billion a year. In addition, there are indirect coping costs, loss of competitiveness, and reduced capacity to attract investments.

The quality infrastructure investment (QII) agenda is taken forward by the G20 Indonesian Presidency by preparing a compendium of QII indicators capturing each of the G20 principles of QII. The QII indicators matrix is intended to be a list of metrics that countries could choose from so that countries can document the alignment of their investments with

Box 2 : Areas Requiring Focused Action

Policy	**Preparedness**
• Identify bottlenecks in policies to create conducive environment for infrastructure investment • Promote policies to encourage private participation (PPP models) • Devise mechanisms to address policy uncertainties • Address execution risks arising out of regulatory constraints	• Strengthen institutional framework to ensure contract enforcement • Develop local capacities to prepare feasibility reports, assess risks and identify bankable projects • Create information platforms giving details of bankable projects & potential investors • Improving data base on infrastructure indicators for better monitoring
MDBs/Blended Finance/Private Investment	**Sustainable Infrastructure projects**
• Enhance MDBs capacity to increase lending for infrastructure projects • Blended finance to be focused aimed at catalyzing private investment • Scope for asset monetization to raise finance • Development of LCBMs in developing countries • Local governments/ NDBs to be active players in critical infrastructure projects (identification of projects, conducive policy & risk mitigation, roping in private investors, support in fund raising activity)	• Imparting skills on quality aspects of infrastructure investments taking into account life-cycle costs and ESG criteria while identifying projects preparing project feasibility studies • Resilient infrastructure projects to take care of natural disasters and other risks • Training aimed at increased use of G20 principles of quality infrastructure investment

Source: Author’s assessment.

QII principles as appropriate. The stakeholders can select the indicators that best capture the project's intended objectives (G20 Indonesia, IWG, July 2022). In the context of emphasis assigned by G20 on quality infrastructure and its maintenance, it is important that there is a review of the progress in the implementation of these principles and guidelines in the developing countries that lag behind in these areas. There seems to be inadequate information and awareness in regard to progress in moving towards better quality and resilient infrastructure.

Conclusion

The G20 has undoubtedly contributed a great deal in catalyzing the cause of infrastructure development by deliberating virtually all aspects of infrastructure development, be it an investment, finance, developing local currency bond markets (LCBMs), quality, capacity building, identifying project pipeline, risk assessment and mitigation. The Presidencies have also endorsed the principles and guidelines developed by WB, ADB, OECD & other IOs to address issues relating to project preparation and evaluation, risk assessment, PPP guidelines and checklists. Global Infrastructure Hub (GIH) was set up to develop a knowledge-sharing platform and network between governments, the private sector, development banks and other international organizations. However, there exists a huge gap in financing and investment in infrastructure development despite these initiatives by G20. Private investment in infrastructure has remained stagnant and lower than it was 10 years ago. Private investment in infrastructure projects represents 0.2 per cent of global GDP, far short of the estimated 5 per cent of global GDP that is required to close the infrastructure gap. The LCBMs are underdeveloped and asset-based financing and blended financing are yet to pick up the pace and contribute in a significant way towards bridging infrastructure investment gaps.

There is a need for putting in place a review mechanism to address bottlenecks and facilitate progress on several initiatives taken under the G20 forum in the interest of developing countries, especially the LDCs. Thus, as can be seen, there is still a lot of ground to be covered, but more in terms of action oriented plans including capacity building, risk assessment and mitigation techniques, creation of platforms facilitating identification of projects and investors, development of LCBMs, embedding ESG criteria in project formulation.

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Annexure 1

Evolution of Infrastructure Issues in G20 Deliberations

G20-France 2011	• First time reference to Infrastructure investment in the context of achieving Millennium Development Goals and sustainable development. • Commissioned a High Level Panel (HLP) to identify measures to scale-up and diversify sources of financing for infrastructure and requested the MDBs to develop a joint action plan to address bottlenecks. • HLP report and the MDB Action Plan welcomed. HLP criteria to identify bankable projects and to prioritize project preparation financing.
G20-Mexico 2012	• Reviewed progress made under the Multi-Year Action Plan, MDBs' Action Plan and the HLP on Infrastructure. • Welcomed the MDBs' report on addressing Misperception of Risk and Return in Low Income Countries. • WB & IOs progress report on implementation of the G20 action plan to support the development of LCBMs.
G20-Russia 2013	• Reiterated that well developed LCBMs play an important role in improving resilience of domestic economy and financial systems. • Welcomed the work of the IMF, the WB Group, OECD and other IOs to implement the 'G20 Action Plan on the Development of LCBMs', including 'Diagnostic Framework on LCBM'. • Noted the completion of the 'Assessment of Project Preparation Facilities (PPFs)' for Infrastructure in Africa; a public-private partnerships (PPP) sourcebook by the World Bank, IDB and ADB, and progress in implementing the recommendations of the HLP on Infrastructure.

Annexure 1 continued....

Annexure 1 continued....

G20-Australia 2014	• Endorsed the 'Global Infrastructure Initiative', a multi-year work programmeme to lift quality of public and private infrastructure investment. • To address data gaps and information on project pipelines, to help match investors with projects. • G20 to continue to work with MDBs and encourage national development banks (NDBs) to optimise use of their balance sheets to provide additional lending. • Establish a Global Infrastructure Hub (GIH) which will contribute to developing a knowledge-sharing platform and network between governments, the private sector, development banks and other international organisations. To strengthen infrastructure and attract more private sector investment in developing countries, welcomed launch of WB Group's Global Infrastructure Facility (GIF).
G20-Turkey 2015	• Welcomed the WB Group PPP Guidelines and the OECD/WB Group PPP Project Checklist which provide guidance on international best practices for preparation and implementation of PPPs. • Considered alternative financing structures, including asset-based financing, securitization. • To continue work to improve the investment ecosystem, promote long-term financing, foster institutional investors' involvement, support development of alternative capital market instruments, encourage MDBs to mobilize resources and optimize their balance sheets, and catalyze private sector funding.

Annexure 1 continued....

G20-China 2016	• Welcomed the commitments made in the "Joint Declaration of Aspirations on Actions to Support Infrastructure Investment" by 11 MDBs which includes ambitions for high-quality infrastructure projects, strengthen project pipelines, collaborate further among existing and new MDBs, strengthen the enabling environment for infrastructure investment in developing countries, as well as catalyze private resources. • Stressed the importance of quality infrastructure investment, which aims to ensure economic efficiency in view of life-cycle cost, safety, resilience against natural disaster, job creation, capacity building, and transfer of expertise and know-how. • Launched the Global Infrastructure Connectivity Alliance to enhance the synergy and cooperation among various infrastructure connectivity programmes in a holistic way. • Endorsed the G20/OECD 'Guidance Note on Diversification of Financial Instruments for Infrastructure and SMEs'. • Welcomed the Annotated Public-Private Partnership (PPP) Risk Allocation Matrices completed by the GIH to help developing countries better assess infrastructure risks.
G20-Germany 2017	• Called upon MDBs to finalise Joint Principles and develop 'Ambitions on Crowding-in Private Finance'. • To finalise Joint MDBs' reports on the implementation of the MDBs Balance Sheet Optimisation Action Plan, and the MDBs' Joint Declaration of Aspirations on Actions to support Infrastructure Investment and to update on the Global Infrastructure Connectivity Alliance.

Annexure 1 continued....

G20-Argentina 2018	• To address the persistent infrastructure financing gap, G20 reaffirmed commitment to attract more private capital to infrastructure investment. Endorsed the 'Roadmap to Infrastructure as an Asset Class and the G20 Principles' for the Infrastructure Project Preparation Phase to facilitate more private investment. • To take actions to achieve greater contractual standardization, address data gaps and improve risk mitigation instruments. • Welcomed MDB Infrastructure Cooperation Platform, which will report to the Infrastructure Working Group (IWG), and advice be provided to improve MDB project preparation, standardisation of guarantees, contracts, credit enhancement tools, risk mitigation instruments and data availability. • Called upon the IWG to study the feasibility of new mechanisms to create portfolios of infrastructure assets, including brownfield infrastructure projects, that can be purchased by institutional investors.
G20-Japan 2019	• Endorsed 'G20 Principles for Quality Infrastructure Investment' emphasizing that quality infrastructure is an essential part of the G20's ongoing efforts to close the infrastructure gap, in accordance with the Roadmap to Infrastructure as an Asset Class. • Stressed the importance of maximizing the positive impact of infrastructure to achieve sustainable growth and development.
G20-Saudi Arabia 2020	• Infrastructure is a driver of growth and prosperity and is critical to promoting economic recovery and resilience. Endorsed the 'G20 Riyadh InfraTech Agenda' which promotes the use of technology in infrastructure. • Welcomed the G20/OECD Report on 'Collaboration with Institutional Investors and Asset Managers on Infrastructure Investment', which reflects investors' view on issues and challenges affecting private investment in infrastructure and presents policy options.

Annexure 1 continued....

Annexure 1 continued....

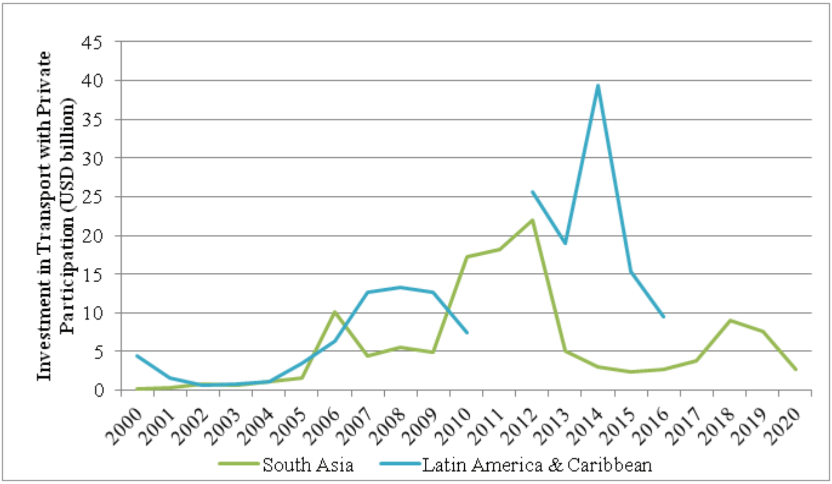
G20-Italy 2021	• Endorsed 'G20 Policy Agenda on Infrastructure Maintenance' and recognised the critical role of quality infrastructure investments in the recovery phase. Resilient, properly funded, well maintained and optimally managed systems are essential to preserve infrastructure assets over their life-cycles, minimising loss and disruption, and securing the provision of safe, reliable and high-quality infrastructure services. • In line with the G20 Roadmap for Infrastructure as an Asset Class, and building on the G20 Infrastructure Investors Dialogue, to continue to develop further the collaboration between the public and private investors to mobilise private capital.
G20-Indonesia 2022	• Endorsed the 'G20-OECD Policy Toolkit on Mobilizing Funding and Financing for Inclusive and Quality Infrastructure Investment in Regions and Cities' and the InfraTracker 2.0 which will enable both the public and private sectors towards. transformative infrastructure investment post-COVID. • Endorsed the 'G20 Compendium of Case Studies on Digital Infrastructure Finance: Issues, Practices and Innovations' and 'Quality Infrastructure Investment (QII) Indicators'.

Source: Author's compilation.

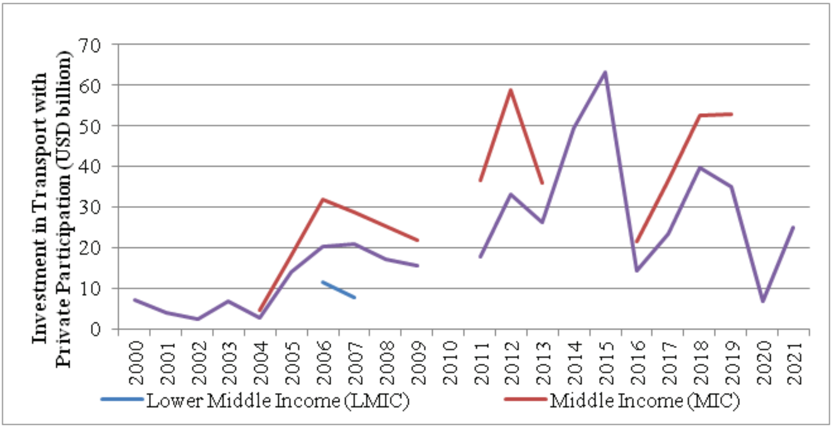
Annexure 2

Trends in Private Investment in Transport & Energy

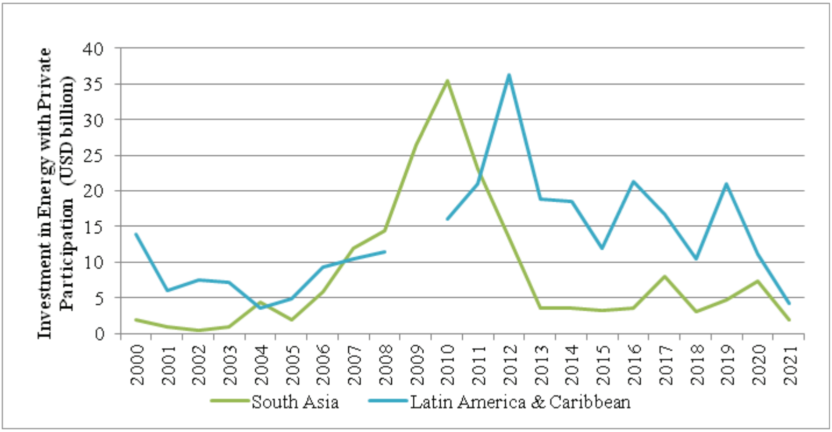
Region-wise :Investment in Transport with Private Participation



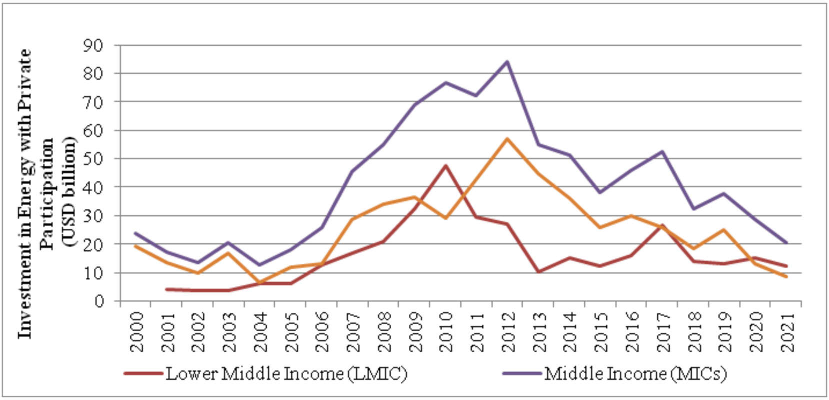
Income-wise:Investment in Transport with Private Participation



Region-wise : Investment in Energy with Private Participation



Income-wise : Investment in Energy with Private Participation



Source: Based on WB, world Development Indicators data base.

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