



Policy Brief

PLANNING AND INVESTMENT IN EFFICIENT AND INCLUSIVE INFRASTRUCTURE AND SUPPLY CHAINS IN POST-COVID-19 RECOVERY

Task Force 8

Resilient Infrastructure and Financing

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Abstract

The pandemic has taught us that the readiness of supply chain infrastructure is critical for the recovery and rebuilding of post-pandemic economic activity. Yet not all countries have had the privilege of protecting their economy through the shock of the pandemic, amplified by a lack of synchronisation in prior infrastructure-development planning. Considering the central role of supply chain infrastructure in COVID-19 recovery plans, we put attention on three proposals for infrastructure project planning that facilitate the supply chains, infrastructure project finance and multilateral cooperation for investment in infrastructure projects.

Challenges

Infrastructure development over land and sea is important for the creation of efficient and inclusive supply chains in Southeast and East Asia. This is important for recovery and rebuilding in the post-pandemic phase. The coronavirus pandemic has created an unprecedented crisis in connectivity infrastructure everywhere, particularly in Asia. A new threat to the connectivity of production networks or supply chains is now under the policy watch of Asia to ensure resilient supply chains that do not fall prey to disruptions. This includes accelerated planning and investments in alternate and/or new connectivity infrastructure projects. It also means that the connectivity plans should be implemented not just as infrastructure but as the conduit of supply chains – for both goods and people – in Asia. Some connectivity plans can provide alternative supply chains during a crisis like the current pandemic.

Several infrastructure projects are underway in Asia, but these face impediments in planning and investment. Countries will face an investment crunch in the months ahead as their financial resources have been dispensed in managing the twin health and economic crises.

Along with road transportation, which has been widely studied from a policy perspective, port development requires equal attention. Ports play a crucial role in supply chain infrastructure as 80 percent of the global trade in commodities is borne via maritime routes. Nevertheless, the port planning and development of some countries that depend heavily on ports, especially archipelagic countries, are constrained by several factors. In the least-developed countries, like the islands of Oceania, the lack of national budget and high vulnerability due to sea level rise have constrained their port development. At the level of a developing country like Indonesia, the hurdles of many government policies and strategies have put the prioritisation of port development into abeyance through the blatantly construction of many ports, leading to competing cargo demand in the same hinterland areas.

The post-COVID-19 era poses a unique opportunity to invest in an integrated approach to planning and implementing supply chain infrastructure to develop efficient and inclusive connectivity between government institutions. This also can create better policy planning to overcome bureaucratic hurdles due to diverse national policies. Future integration planning can reduce the lengthy processing time and the significant budget of project preparation.

Proposals for G20

#1 Planning for infrastructure projects that facilitate supply chains

Infrastructure projects face planning and investment bottlenecks, especially during the COVID-19 pandemic. Asia is one of the most dynamic and productive regions, yet it is held back from realising its full potential by huge constraints in crucial infrastructure caused by a lack of investment. The Asian Development Bank (ADB) has estimated that developing Asia will need an investment of US\$26 trillion in infrastructure from 2016 to 2030, or \$1.7 trillion per year. This would allow the region to maintain its growth momentum, eradicate poverty and respond to climate change. Without climate change mitigation and adaptation costs, \$22.6 trillion, or \$1.5 trillion per year, will be needed (ADB, 2017).

ASEAN and East Asia are manufacturing hubs with close trade relations within the region and essential markets in the European Union and the United States. Such trade integration has been achieved through supply chain efficiencies and market demands in which seamless connectivity plays an important role. In ASEAN and East Asia, supply chains rest on the foundation of stable trade and investment links – to the extent that when there are risks, they are primarily at a micro-level.

Repeated natural disasters and the ongoing COVID-19 pandemic have reminded the world of the vulnerability of supply chains and the risks to connectivity (Kimura, Umezaki, and Prakash, 2020). In this context, the potential of infrastructure plans such as the Trilateral Highway (TLH), the Asian Highway (AH) and the Greater Mekong Sub-region (GMSR) lies in providing resilience to connectivity and supply chains once these are connected to other road networks and the networks of different modes of transportation (e.g., railways, waterways, maritime, and air). The three plans are expected to deepen the existing supply chains in Asia and facilitate new routes for investments in, and the production and consumption of goods and services.

Projects like the Asia Africa Growth Corridor (AAGC) envisage infrastructure planning and investment partly to provide new supply chain linkages in Asia. More recently, the India–Australia–Japan (AJI) Supply Chain Resilience Initiative, signed on April 27, 2021, was launched to minimise supply chain disruptions and diversify trade and investments, with a provision to expand the initiative to other regions (MOCI, 2021). The AJI is expected to create a sustainable global value chain (GVC) for the three countries and the region. The renewed emphasis on the Mekong Subregion in these new supply chain initiatives leads to new infrastructure drives in Asia that have trade integration at the core and inclusive growth as the objective.

Asia risks taking its eyes off the ball in the planning and investment of infrastructure projects during and after COVID-19, but a pandemic can lead to better prioritisation when developing infrastructure. Governments can identify how to fill infrastructure gaps in several sectors like health care, telecommunications and, specifically in this matter, logistics.

In Asia, land and sea infrastructure plans should incorporate the role of infrastructure as the conduit of supply chains – for both goods and people. Priority should be given to critical supply chain infrastructure.

During the COVID-19 pandemic, this will advance the transportation of necessary healthcare and basic needs amenities, such as vaccines, food and healthcare products.

#2 Financing of infrastructure projects by capital market

Infrastructure development has not kept pace with demand. A 2016 McKinsey report estimated the value of the world’s existing infrastructure at \$50 trillion, and the global market for new infrastructure up to 2030 could amount to more than \$90 trillion. Current infrastructure spending of \$2.5 trillion to \$3 trillion a year is only half the amount needed to meet the predicted \$6 trillion in average annual demand over the next ten years. More than 60 percent of this financing gap is likely to be concentrated in middle-income countries and more than 50 percent in the power sector. Given this vast demand, capital markets will be pivotal to financing investment, particularly the banks, pension and insurance companies that hold more than 80 percent of institutional assets under management (AUM) in middle-income countries (McKinsey, 2016).

As per ADB estimates, infrastructure investment needs vary considerably by sector (Table 1). The power and transportation sectors require the most significant investment. Telecommunications, water and sanitation are no less critical for an economy or individual welfare and direct investment. Each sector has varying regulatory, governance and sustainability challenges in different countries.

Table 1: Infrastructure investment needs by sector, 45 DMCs, 2016-2030 (\$ billion in 2015 prices)

Sector	Baseline estimates			Climate-adjusted estimates			Climate-related investments (annual)	
	Investment needs	Annual average	Share of total	Investment needs	Annual average	Share of total	Adaptation	Mitigation
Power	11,689	779	51.8	14,731	982	56.3	3	200
Transport	7,796	520	34.6	8,353	557	31.9	37	-
Telecommunications	2,279	152	10.1	2,279	152	8.7	-	-
Water and sanitation	787	52	3.5	802	53	3.1	1	200
Total	22,551	1,503	100	26,166	1,744	100	41	200

Source: ADB Estimates, 2017

The Global Infrastructure Outlook – a G20 initiative forecasts the relative infrastructure investment needs, taking into account each country’s stage of development. It estimates that Asia alone requires \$51 trillion in investments in infrastructure across all sectors. In current investment trends, this is expected to translate into a cumulative investment gap of \$4.6 trillion until 2030 (GIF 2022). This gap is expected to grow wider when sustainable development goals (SDGs) are considered.

Global funds are available for investment. A small fraction of the more-than \$100 trillion in assets managed globally and the low-yield resources would be enough to plug the financing gap and finance productive and profitable infrastructure. Issues of infrastructure project pipelines, feasibility assessments and national budget commitments are important factors that inhibit domestic and global savings from being plowed into infrastructure projects funds.

Infrastructure projects are an international strategy for growth. They are recognised pathways for economic growth, trade enhancement and narrowing development gaps among regions. Planning for quality infrastructure – whether for land or sea infrastructure – is indispensable for achieving Agenda 2030 and its 17 SDGs. Investing in infrastructure helps integrate national markets and connect global value chains. Infrastructure growth is trade-enhancing and enables direct investments in countries.

Planned infrastructure development improves an economy's productive potential but requires careful calibration of cost and benefit, quality infrastructure, land acquisition, sustainable financing and transparency. Regulatory policies and capacity issues add to the list. (Prakash, 2020). Promoters of infrastructure projects and prospective investors are usually left on their own to achieve these objectives and resolve the difficult triad of attracting investments that promise returns, project governance and sustainability.

Connectivity-related infrastructure plans that cater to new supply chain linkages, whether for trade in goods or services or the digital economy, will be subject to efficiencies and markets. At the same time, the global discourse on balanced, sustainable and inclusive growth shifts the emphasis onto economic corridors that can stimulate two-way trade between economic agglomerations within Asia and between Asia, Africa and Europe. International cooperation among governments for such infrastructure promotion is now more important than ever. The AJI Supply Chain Resilience Initiative, the Australia-Japan-US linkages, and the AAGC are examples of infrastructure planning and investments where government cooperation is the primary impulse. The G20 Principles of Quality Infrastructure Investment are important tools in this cooperation. More wide-ranging investment cooperation among G20 members is needed, especially in the post-pandemic rebuilding phase when financial liquidity will be an important concern for all members.

#3 Multilateral cooperation for investment in infrastructure projects

The general principles of multilateral cooperation for investment in infrastructure are already available in the G20. The G20 Principles of Infrastructure Project Preparation have introduced robust and transparent infrastructure planning and pipelines, improved business cases and project stage gate controls and the development of business case methodologies. (G20, 2018). The G20 Principles for Promoting Quality Infrastructure Investment stress the need to scale up infrastructure investment and provide the impetus for sound governance and transparency in infrastructure projects.

These principles reflect the global consensus on quality infrastructure planning and investment but are voluntary. Connecting the diverse requirements – or managing the complex triad – of the finances (investments and returns), governance (planning, implementation and maintenance) and sustainability (environment, resilience and inclusiveness) of infrastructure projects requires multilateral cooperation mechanisms to ensure prompt compliance. Collective decision-making is especially needed when an infrastructure scheme spans national boundaries, and the alignment of cost and benefits may be contested. (Hawke and Prakash, 2016)

Funding infrastructure around the world should not be an issue when financial resources are available. Apart from the public sector and central banks in advanced economies, institutional investors such as insurance companies, pension funds and sovereign wealth funds have around \$100 trillion in assets under

management globally. (Arezki et al., 2017). Mobilising these finances for investment in infrastructure is a critical issue. There are institutional issues, too, arising from managing the interaction of international pressures on national autonomy. There are practical aspects of the unified or standard regime for the movement of goods, services and people. The governance mechanisms and standards would also include technical specifications, safety management frameworks, the social and economic well-being of workers in the sector, competition policy and customs cooperation, etc. (Prakash, 2019).

With governments as the main drivers of multilateral cooperation, the critical role of multilateral development banks (MDBs) and other development finance institutions (DFIs) in blending public and private finance to scale up financing for infrastructure will be necessary. The Hamburg Principles have welcomed the role of the MDBs in mobilising and catalysing private capital and have endorsed a target of increasing mobilisation by 25 to 35 percent by 2020.

Policy solutions for the planning of land connectivity projects through cooperation among governments can create global standards and governance rules for infrastructure-related connectivity plans. Employing good governance and accountability as drivers, the plans must work towards the goals of sustainable development and inclusive growth. When connectivity plans converge with regional, national and global development priorities, implementing and monitoring programmes become easier.

Finally, the monitoring and regulatory mechanisms must ensure that connectivity plans are not used as a foil for regional leadership – nor can they be used to export debt problems in the promoter country or group of countries. Policymakers are working towards global standards on contemporary issues such as taxation, digital finance, the internet, data ownership and transfer and artificial intelligence. A global consensus around climate change, the SDGs, multilateralism and international trade is also being renewed. Logically, global (and regional) mechanisms for monitoring and regulating connectivity plans should ensure that these plans enhance economic and social well-being amongst people and create trust amongst partners. (Prakash, *ibid.*)

Centralised infrastructure development planning can align different stakeholders' interests, budgets and resource availability. A specific example of port infrastructure is four main stakeholders whose interests and capabilities should be examined: public policymakers, internal stakeholders, community groups and market players. Establishing a task force through a presidential regulation is necessary to integrate the different stakeholders. A cloud-based common data environment should assist the task force as a communication management platform and as the only source of truth.

In several countries, sea toll subsidy schemes cover operational ship subsidies, container subsidies and cargo subsidies. In other countries, subsidies are applied to increase operator income, for example, direct subsidies, tax reductions, risk transfers to the government and indirect transfers. In addition, it can also be done in the form of subsidies for production factors, such as labour, capital, energy, infrastructure and knowledge transfer (OECD, 2019). Each type of subsidy has advantages and disadvantages associated with the level of effectiveness and efficiency that can be achieved. It is necessary to have a just, effective and efficient subsidy mechanism in the future. One of the proposed subsidy programmes that can be implemented on sea tolls is a subsidy to reduce double handling, especially in the hub and spoke operation scheme.

Relevance to G20

The G20 is mandated to promote mechanisms for cooperation among governments. The rebuilding of economies and infusion of financial liquidity into infrastructure development are important concerns of the G20 for the next few years. A framework for government cooperation to facilitate infrastructure investment is essential for regional and interregional connectivity and new supply chains. The G20 encompasses member countries and financial institutions promoting several infrastructure plans in Asia, Africa and Europe. As the G20 is committed to providing the frameworks for innovative governance and cooperation mechanisms, this year's G20 meeting must evolve and endorse a government cooperation programme amongst countries and MDBs to facilitate seamless planning and investment in infrastructure projects that promote new supply chains and connectivity.

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