



1 G20 Guidelines on Quality Infrastructure for Regional Connectivity

2 Final Draft

3 BACKGROUND

4 **Many developing countries lack efficient access to local, regional and global markets.** To continue
5 developing, including towards the objectives of the 2030 Agenda and its Sustainable Development
6 Goals (SDGs), they need quality infrastructure that reliably connects them to neighboring and global
7 markets and strengthens domestic intra- and inter-regional, urban-urban and rural-urban linkages.

8 **Ensuring the supply of connectivity services and their quality infrastructure in developing**
9 **countries is a challenge.**^{1 2} In most countries, public and private, current and capital expenditures
10 are subject to high opportunity costs. The ongoing COVID-19 crisis demonstrates first-hand the
11 extreme competition for scarce resources in the budgets of most developing countries where the
12 focus is on the medical response to COVID-19 rather than infrastructure investment projects which
13 can assure higher resilience in future crises.

14 **In March 2020, the G20 leaders addressed the COVID-19 Pandemic at the Extraordinary Summit**
15 **when they voiced concerns with the serious risks posed, particularly to developing and least**
16 **developed countries.** In April 2020, the G20 Finance Ministers and Central Bank Governors adopted
17 an Action Plan to Support the Global Economy Through the COVID-19 Pandemic, addressing inter
18 alia the need for investment in quality infrastructure to build resilience for future crises in
19 developing countries.

20 **Promoting quality infrastructure for regional connectivity involves a diverse range of**
21 **prerequisites.** Efforts to improve connectivity start with exploring connectivity challenges at the
22 country and regional levels. At this stage, a dialogue on connectivity issues among countries and
23 regional organizations is indispensable to raise awareness of the benefits of quality connectivity,
24 such as on trade, movement of people and local and regional development. The dialogue can
25 increase awareness of the impact of connectivity infrastructure on local communities and their
26 environment and the reduction of inequalities. Good practices can be shared. At the same time,
27 discussed are the gaps, bottlenecks and inefficiencies, and other challenges that hinder connectivity
28 development. Subsequently, at the stage of planning quality connectivity projects, stakeholders
29 need to take into account numerous factors that impact specific projects, including variations in the
30 level of economic development, development strategies, local project implementation capacity (i.e.,
31 human capital, access to equipment, technology, and construction materials), weather variations
32 (e.g., rainy or arid; temperate or tropical), differences in governance, investment policies, local laws
33 and regulations.

¹ Quality infrastructure relate to the G20 Principles for Quality Infrastructure Investment (QII) adopted by the G20 Finance Ministers and Central Bank Governors in 2019.

² Connectivity, including its supporting infrastructure help people move and transport goods, services, and carry information; i.e., roads, rail, air, sea, river transport, pipelines, electricity and digital connection.



34 G20 GUIDELINES ON QUALITY INFRASTRUCTURE FOR REGIONAL CONNECTIVITY

35 **This proposed voluntary guidelines build on G20 Principles for Quality Infrastructure Investment,**
36 contribute to their implementation and aim to support policymakers involved in infrastructure
37 development by bringing focus to the economic, social and environmental considerations and needs
38 for cooperation among diverse stakeholders to support the development and maintenance of
39 quality connectivity. The Guidelines highlight important considerations that affect the demand and
40 supply of quality connectivity networks and services, as well as financing challenges faced by
41 developing countries. Advancing these areas and others such as governance, decent work, women
42 and girls' empowerment, and climate and natural disaster resilience, would promote the
43 development of connectivity in developing countries and, therefore, help them integrate regionally
44 and globally.

45 **Quality connectivity should be reflected in the National Development Strategy.** A dedicated and
46 data-driven national connectivity strategy can help to define strategic priorities and objectives at
47 local, national and regional (cross-border) levels, assess connectivity gaps (in hard and soft
48 infrastructure) and plan investment in physical and institutional capacities.

49 **Cross-sectoral approach to connectivity is required** to expand the discussion to broader policies
50 that consider the spatial distribution of economic activity and people, and the subsequent need for
51 connectivity based on quality infrastructure. "To help support adequate quality of connectivity,
52 policy makers and developers of regional infrastructure can draw on the existing G20 consensus,
53 including the "G20 Principles on Quality Infrastructure Investment" endorsed at the G20 Osaka
54 Summit. In addition, the DWG takes note with appreciation of the OECD's "Compendium of Good
55 Practices on Quality Infrastructure Investment" that could further inform quality infrastructure
56 development. Furthermore, human capital and the use of appropriate technology can support the
57 positive impacts of investment in quality connectivity infrastructure on development. Technology
58 can make services safer, affordable with respect to life-cycle costs and thus, more accessible to
59 enhance sustainability and inclusivity.

60 Risk and Return

61 **The risk-return analysis applies to quality infrastructure for connectivity.** Connectivity must be
62 treated as a sustained economic service to remain viable and sustainable as a quality service in the
63 long term. The selection of connectivity projects should focus on a detailed risk-return analysis. The
64 analysis considers the needs of a population and pays attention to the projects' own sustainability as
65 well as macro-level debt sustainability. The analysis should consider the impact on economic
66 activities, social welfare and environment, the life-cycle costs and benefits of quality infrastructure
67 investments, to help support the selection of high impact projects, notably those that are market-
68 based and climate smart, that can attract financing and remain sustainable.

69 **The risk-return profile of connectivity projects should consider positive and negative externalities**
70 **caused by connectivity infrastructure.** The externalities should be internalized in the costing and
71 pricing framework. Revenues from positive externalities can be used to support investment in



72 connectivity infrastructure and to defray operating costs, including those due to the projects'
73 negative externalities. Internalizing costs arising from negative externalities help support the choice
74 of the most optimal projects from the perspective of sustainable development in all its dimensions.

75 **User fees and related revenues from connectivity services should be intended for covering both**
76 **fixed and operating costs to ensure continued quality and sustainability.** If the revenues based on
77 acceptable user fees cannot ensure the sustainability of already efficiently developed and managed
78 projects, sustainable sources of subsidies must be identified. Assistance to ease access to
79 connectivity for selected groups should be provided in a transparent and well-targeted manner to
80 avoid distortionary quasi-fiscal expenditure, such as unfunded mandates that envisage cross-
81 subsidization of services among different categories of users.

82 **Demand and Supply**

83 Policymakers should consider using a wide range of tools to manage both short and long-term
84 demand and supply for connectivity services according to different regions' needs.

85 **The demand for connectivity is not fixed.** Broader policies such as land tax or zoning regulations
86 influence the spatial distribution of population and economic activity, which in turn affect the
87 demand for connectivity and its infrastructure over the medium-to-long term. Dynamic congestion
88 pricing represents a relatively simple approach to optimizing utilization of connectivity infrastructure
89 in the short term. The effectiveness of dynamic pricing on connectivity capacity utilization can be
90 strengthened when supported by appropriate private and public sector financial and administrative
91 policies (e.g. flexible work or vacation arrangements) and coordination among all stakeholders
92 through public consultation. The use of technology can facilitate dynamic connectivity pricing to
93 manage short-term demand and supply. It is also vital to engage women and girls in the evaluation
94 of short and long-term demand for connectivity services and planning of quality infrastructure
95 investments given the differences in their needs.

96 **The supply-side challenges are diverse.** They require local and regional collaboration among many
97 public entities, including possible partnerships with the private sector, supporting efficient execution
98 and financing of projects of quality connectivity infrastructure, operation through openness,
99 transparency, resilience and non-discrimination in procurement taking into account local laws and
100 regulations and promotion of competition, market entry and choice. Many connectivity projects
101 share common infrastructure needs. Policymakers can seek to implement policies that promote
102 shared use of infrastructure to reduce costs, while preserving overall competition. Supply
103 management policies should take into consideration the need to support access to connectivity for
104 disadvantaged and vulnerable groups, including refugees and displaced persons, disabled and the
105 elderly.

106 **Policymakers should consider using investment in regional connectivity infrastructure in their**
107 **countercyclical management of aggregate demand.** This will require advanced planning to support
108 the availability of bankable projects that can be launched during economic downturns and include
109 considerations of the impact of such investments on competition and private sector investment, as



110 appropriate. The well-planned and executed countercyclical investment would crowd-in the private
111 sector during periods of economic contraction and could reduce costs of connectivity infrastructure.
112 Capacity building and training can also help in preparing suitable and bankable projects. Ensuring
113 good governance and strengthening local capacity is essential for better management of investment
114 of quality connectivity infrastructure. Furthermore, building coherence of policy and strategy in
115 regional and national level through a voluntary dedicated country-level management body is needed
116 to guide and accelerate the implementation of regional connectivity infrastructure.

117 **Cooperation**

118 **International cooperation is critical for supporting regional connectivity.** Collaboration is a crucial
119 dimension of regional infrastructure development and operation. It requires cooperation and
120 partnership on connectivity among national and sub-national governments and institutions across
121 the region and among the public and private sector entities, local communities, and civil society
122 organizations in accordance with national and international laws, while respecting state sovereignty
123 and territorial integrity. Moreover, bilateral and multilateral cooperation is necessary, such as
124 appropriate trade policies and agreements, to support fair access, shared opportunities and benefits
125 for all involved players in the connectivity markets. International and multilateral agreements should
126 ensure that countries and regions could respond effectively to catastrophic events and emergencies
127 such as pandemics and natural disasters.

128 **International Organizations and Multilateral Development Banks could help build and expand**
129 **capacity in quality connectivity infrastructure in developing countries** including by better
130 coordinating their activities and considering the different conditions in each country. The efforts
131 could involve exchanges with all relevant G20 working groups and work streams. Case studies and
132 the exchange of lessons learned, and best practices could help inform and develop regional
133 connectivity policy tools.