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FACILITATION OF TRANSPORT AND TRADE IN **LATIN AMERICA AND THE CARIBBEAN**

Progress and challenges of public-private partnerships and the importance of institutions for sustainable infrastructure in Latin America and the Caribbean

Introduction

For decades, Latin America and the Caribbean has been investing in infrastructure, which has been essential for development and, at the same time, has had an impact on economic growth and the well-being of the population.

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This *FAL Bulletin* sets out some of the characteristics of public investments in infrastructure through public-private partnership (PPP) mechanisms in Latin America and the Caribbean, as well as challenges they face. It also looks at the performance of institutions and the importance of raising the standard of investments —whether public or private— under approaches oriented towards sustainable-development. The importance of stakeholder participation throughout the project life cycle is underlined as a particularly pivotal requirement for the sustainability of assets and their services.

There is agreement across all the economic literature reviewed that the main obstacles to carrying out infrastructure projects include the weakness of the political, legal and regulatory environment, poor long-term planning, financing difficulties and, in many cases, the lack of expertise and experience of civil servants.

Among the findings, it is worth noting that the number of PPP projects in the region in 2022 was higher than in 2019 and that, although the value of those projects has increased as a proportion of GDP, it has not regained its pre-pandemic levels. In addition, on average, the projects that smaller countries invested in were larger (relative to the size of their economy) than the projects that larger countries invested in, which, coupled with very long-term contracts, could eventually compromise fiscal sustainability and increase the risks of infrastructure projects.

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An examination of the 2000–2021 period finds that: (i) container throughput at ports more than tripled; (ii) airfreight increased by about 25%, from 4.67 billion ton-kilometres (tkm) to 5.78 billion tkm; (iii) fixed broadband subscriptions per 100 went up from barely more than 0 to 17; (iv) the proportion of the population using the Internet expanded from 4% to 76%; (v) access to electricity increased from 92% to 98% (near-universal coverage); and (vi) the population with access to safely managed drinking water rose from 71% to 75% (see table 1).

Table 1
Latin America and the Caribbean: evolution of selected infrastructure services indicators, 2000, 2021 and 2022

	2000	2021	2022
Total container number of movements[a]	16 739 792	57 634 832	57 937 245
Air transport, freight *(Million tkm)*	4 670	5 783	...
Fixed broadband subscriptions *(Per 100 inhabitants)*	0	17	18
Internet use *(Percentages of population)*	4	76	...
Access to electricity *(Percentages of population)*	92	98	...
Access to safely managed drinking water *(Percentages of population)*	71	...	75

Source: Economic Commission for Latin America and the Caribbean (ECLAC), "Maritime and logistics profile" [online] https://perfil.cepal.org/l/es/portmovements_classic.htm); and World Bank, World Development Indicators [online] https://databank.worldbank.org/source/world-development-indicators#.
Note: An ellipsis indicates that data are not available or cannot be disaggregated.
[a] Considering all movements of full and empty units.

Despite progress in infrastructure and its services, a great deal remains to be done in Latin America and the Caribbean. Public investment has historically proven insufficient to meet the needs for infrastructure services, which has resulted in an accumulation of structural gaps in multiple areas critical to sustainable development. Sánchez and others (2017) found that for the 2016–2030 period, Latin America needs to invest at least 6% of GDP annually in four infrastructure sectors (transport, electricity, telecommunications, and water and sanitation) under a 3.9% GDP growth scenario, while to achieve universal access to basic services, the amount of investment required was estimated at 7.4% of GDP.

ECLAC has continued to reiterate that the region is in a development crisis characterized by three mutually reinforcing traps: a low growth trap, a trap of high inequality and low social mobility, and a trap of low institutional capacity and ineffective governance. These traps condition and limit progress on the 2030 Agenda for Sustainable Development and, by extension, the achievement of inclusive social development.[1] The Sustainable Development

[1] See [online] https://www.cepal.org/en/pressreleases/latin-american-and-caribbean-economies-will-grow-21-2024-context-global-uncertainty.

Goals (SDGs) were proposed by the United Nations in the 2030 Agenda and adopted by the Member States in September 2015 at the seventieth session of the General Assembly, held in New York during the United Nations summit for the adoption of the post-2015 development agenda.[2]

To boost growth in the region, ECLAC recommends boosting productivity and investing more in physical and human capital, but also investing better.[3] Sustainable infrastructure contributes to sustainable development through productivity improvements and diversification of the production matrix; it also promotes greater access to services for citizens, as well as greater resilience. The United Nations Environment Programme (UNEP, 2021) defines sustainable infrastructure systems as those that are planned, designed, built, operated and decommissioned in a manner that ensures economic and financial, social, environmental (including climate resilience) and institutional sustainability throughout the infrastructure life cycle. Sustainable infrastructure can also include built infrastructure, natural infrastructure or hybrid versions (i.e. infrastructure containing built and natural elements).

As discussed in Cavallo and Powell (2018), one of the major bottlenecks in the region is stagnant productivity. The author argues that the contribution of variations in total factor productivity to growth has since the 1960s is basically zero, which explains the region's relatively slow growth compared to other parts of the world. In addition, the infrastructure gap in key sectors, such as roads and port, airport and storage facilities, is one of the determinants of high logistics costs in the region, which has a bearing on the region's low productivity and competitiveness.[4]

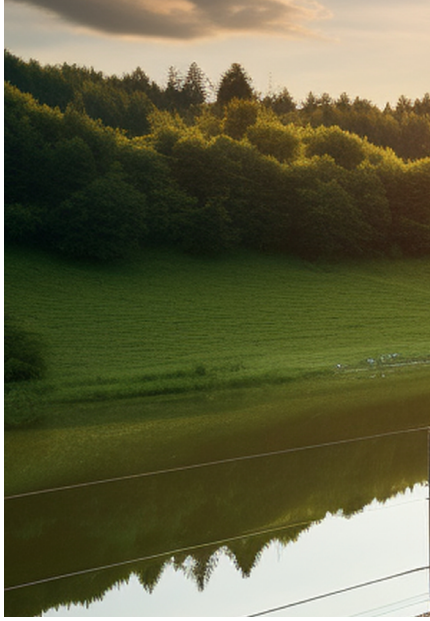
To increase social inclusion and reduce inequality while providing greater access to, for example, education, health, recreation and labour markets, it is necessary to increase access to and the affordability of basic services (energy, transport, telecommunications, and water and sanitation). People with lower incomes often lack access to infrastructure services. Moreover, the services that they pay for are often of lower quality and they have to spend a higher proportion of their income on those inferior-quality services. The poorest in Latin America and the Caribbean typically spend around 14% of their income on infrastructure services, compared to approximately 10% in East Asia and the Pacific (Cavallo, Powell and Serebrisky, 2020).

Thacker and others (2018) argue that infrastructure systems affect the SDGs in different ways and have an impact on the achievement of as many as 92% of all SDG targets. The 2030 Agenda seeks partnerships for sustainable development and emphasizes the responsibility of all countries and people to participate. The SDGs represent a shared long-term vision and a global planning and monitoring tool.

In Latin America and the Caribbean, the resilience and sustainability of infrastructure and its services in the face of natural disasters and climate change are low. Examples include widespread power outages and hurricanes of increasing frequency and intensity in the Caribbean, which destroy or adversely affect productive, commercial and passenger infrastructure. At the same time, the transport sector in Latin America is extremely dependent on the hydrocarbon sector relative to more-developed countries outside the region. According to the author's own calculations based on International Energy Agency (IEA) data (2020), transport emissions accounted for 24% globally in 2019, while in Latin America and the Caribbean they amounted to 40%. According to IEA projections and the policy scenario to 2020, these emissions will increase unless a more sustainable growth path is followed.

Faced with low fiscal revenues, public debt that remains high (ECLAC, 2023) and an urgent need to invest more resources to accelerate infrastructure projects to meet the SDGs, States' interest in PPPs has increased. In that regard, the main objective of this *FAL Bulletin* is to explore recent developments and the characteristics and challenges of public and private investments (in the form of PPPs) in Latin America and the Caribbean. It also aims to examine the performance of institutions

[2] See [online] https://biblioguias.cepal.org/c.php?g=447204&p=6366258.
[3] *Ibid*.
[4] See [online] https://www.caf.com/es/actualidad/noticias/2017/05/infraestructura-clave-para-la-productividad-y-el-crecimiento-sostenible-en-america-latina/.



and the importance of interaction among the public sector, the private sector and civil society in the provision of infrastructure and its services with a view to improving people's well-being on the path towards sustainable development.

The first section starts with a description of PPPs. The second section refers to the "PPP for SDGs" assessment methodology developed by the Economic Commission for Europe (ECE). The third section presents the main trends in public and private infrastructure investment and institutional capacities in Latin America and the Caribbean since the 1990s, with greater emphasis on recent years. The fourth and final section presents concluding observations and recommendations.

The scope of this *FAL Bulletin* is confined to what is classified as economic infrastructure and telecommunications;[5] in other words, it includes information on "networked infrastructure" (except solid waste management).[6]

I. Description of public-private partnerships[7]

Many governments are increasingly attracted to PPPs, which combine the public sector's regulatory and protection capabilities with the private sector's strengths in finance, management and innovative technologies. For many developing economies, this is the main option, as public finances are often insufficient owing to the high level of capital investment required to build quality infrastructure (e.g. infrastructure that is efficient, resilient and sustainable).[8]

Most infrastructure services projects are publicly funded, so PPPs only address a portion of infrastructure needs. PPP investment in infrastructure in developing countries is estimated to account for around 10% of total infrastructure investment, while globally it is estimated at between 3% and 10% (Straub, 2022 and Delmon, 2021).

A. Definition of public-private partnerships

There are different definitions of PPPs and types of contracts that are typically considered PPPs. Generally speaking, each country incorporates its own definition of PPPs into its laws, while individual institutions may also have their own definitions. Table 2 shows some definitions from different international organizations.

In general, PPPs have the following key characteristics (ECE, 2012):

- A long-term contract (10, 25 or 30 years, depending on the type of asset) between the public sector or the client and a private sector party for the design, financing, construction, operation and maintenance of public capital assets from the private sector;
- Payment over the life of the PPP contract to the private sector party for the provision of services and use of the asset, made either by the public party or by the general public as users of the asset;
- At the end of the contract, the asset reverts to public sector ownership.

[5] According to ECE (2012), public infrastructure can be classified as economic infrastructure, which is infrastructure that is considered essential for day-to-day economic activity (e.g. transport facilities and utility networks, such as water, sewerage and electricity); and social infrastructure, which is infrastructure considered essential to the structure of society (e.g. schools, hospitals, libraries and prisons).

[6] Thacker and others (2018) classify infrastructure as networked infrastructure, including transport, energy, water, digital communication and solid waste; and non-networked infrastructure, including housing and shelter, health centres, schools, markets, industrial facilities, community centres, courts and prisons, and government buildings.

[7] Other than section F, all sections of this chapter are based on the following documents: ECE (2012), [online] https://investmentpolicy.unctad.org/pages/27/what-are-ppps#:~:text=PPPs%20are%20formal%20arrangements%20between,e.g.%20public%20services%20and%20infrastructure; and https://ppi.worldbank.org/en/ppi.

[8] The book by Rozas Balbontín, Bonifaz and Guerra-García (2012) is recommended for its most comprehensive analysis of the strengths and weaknesses of different public infrastructure financing options, including conventional sources, some innovative instruments and public-private partnerships. It also presents —in great detail and with a wealth of information— examples of PPP experiences in Latin America and the Caribbean, while drawing lessons from that evidence.

Table 2
Selected definitions of public-private partnerships

ECE: Innovative, long-term, contractual arrangements for developing infrastructure and providing public services by introducing private sector funds, expertise and motivation into areas that are normally the responsibility of government.[a]
United Nations Conference on Trade and Development: Formal arrangements between public and private counterparties to share risks and rewards in the delivery of, for example, public services and infrastructure.[b]
World Bank, as cited in ECE (2012): The term PPP refers to a number of elements, including the existence of a "partnership" approach to the provision of infrastructure as opposed to an arm's-length "supplier" relationship. Either each party takes responsibility for an element of the total enterprise and they work together; or both parties take joint responsibility for each element. A PPP involves a sharing of risk, responsibility, reward and value.[b]
World Bank: A long-term contract between a private party and a government entity, for providing a public asset or service, in which the private party bears significant risk and management responsibility, and remuneration is linked to performance.[c]

Source: Prepared by the author.
[a] https://unece.org/DAM/ceci/images/ICoE/Introductionppp.pdf.
[b] https://investmentpolicy.unctad.org/pages/27/what-are-ppps.
[c] https://ppp.worldbank.org/public-private-partnership/sites/default/files/2024-08/PPP%20Reference%20Guide%20Version%203.pdf.

Why are PPPs attractive to governments? Originally, the reasons for governments using PPPs were financial and budgetary. More recently, governments are choosing PPPs for other reasons, such as efficiency, cost-effectiveness and value for money.

B. Stakeholders in a public-private partnership project

Stakeholders are all individuals or groups that have an interest in a PPP project or influence on it, such as state entities (or government agencies), private partners, users, lenders, communities and civil society. Engaging stakeholders effectively can help ensure the success and sustainability of a PPP project, as well as enhance its legitimacy and accountability. Some of the stakeholders in PPP projects are listed below.

- **Public sector**: the State entity can be a ministry, a local government or a non-financial institution.
- **Private sector**: the project company formed (a construction company plus an operator, and financial investors).
- **Government entities**: involved in, for example, regulation, regulatory plans, expropriations and relocations.

- **Lenders**: those who benefit from the interest if the project performs well. In other words, they run the risk of making a loss if the project does not perform as expected, so they tend to be very conservative.
- **Local community**: the most important part of a project because it is the users, employees or neighbours who benefit or are adversely affected by the project. PPPs work best when the community they are intended to serve is consulted. Basically, they are a critical component because they constitute the demand for the service and may also be part of the group of people employed by the project to provide the services, the neighbours of the project or the surrounding communities.

C. Background on public-private partnerships in Latin America and the Caribbean[9]

In the 1990s, after the debt crisis in Latin America, the public sector was still struggling to finance all infrastructure needs. In that context, several countries embarked on structural and regulatory reforms with new models of collaboration between the public and private sectors. At that time, in addition to privatization, the PPP model was seen as an opportunity to continue promoting infrastructure development in the region while simultaneously combining the two sources of financing: public and private.

The implementation of PPP mechanisms in Latin America and the Caribbean has been heterogeneous, both in terms of entry into force and the diversity of legal frameworks. The first countries to use this model to finance infrastructure were Mexico and Argentina in the late 1980s. Thereafter, Chile launched its first PPP project in 1991, Colombia in 1997, Costa Rica in 1998, Brazil in 2003 and then Peru in 1998. So far in the twenty-first century, other countries have also made efforts to advance regulatory change and build capacity for PPP investments. Examples include Guatemala in 2010, Uruguay in 2011, Jamaica in 2012, El Salvador in 2013, Panama in 2019 and the Dominican Republic in 2020 (although PPP arrangements for energy, airports, seaports and roads were already in use there at least 10 years earlier).

The development of PPPs has produced different results in different countries. For example, Chile's remarkable experience in the area of transport infrastructure has served as a model for many Latin American countries. Mexico is one of the most active countries in the region and has distinguished itself in both the development of concessions and other PPP models to introduce private enterprise in infrastructure provision. Brazil, as the largest economy in Latin America, faces large infrastructure needs, which have led to a continuous search for improvements in the investment and institutional framework. Peru, for its part, is on a par with the best-performing countries in the region in terms of its regulatory and institutional framework.

However, progress in individual countries has not been without problems; these have included (i) inadequate investment climate, (ii) shortage of financial facilities and limited technical capacity, (iii) weak institutions and regulatory and judicial framework, (iv) social upheaval and (v) environmental protests.

As Cipoletta Tomassian (2015) notes, PPPs have proved an important instrument for mobilizing private resources to finance new infrastructure, with the potential to incorporate technology, innovation, greater efficiency and quality in public service provision, even without putting pressure on governments' fiscal space. However, if not properly used, PPPs can also compromise the sustainability of public finances and create future (often unforeseen) fiscal obligations. This is because PPPs are complex in terms of risk-sharing, costs, contract negotiation, service affordability, and budgetary and accounting treatment.

[9] Based on CAF (2015), except where otherwise specified.

The World Economic Forum also regards institutions as part of a sound investment environment, alongside the availability of infrastructure, macroeconomic stability and the adoption of digital technologies. According to this approach, institutions encompass at least eight elements (WEF, 2019):

(i) Security from crime and terrorism;

(ii) Development of social capital;

(iii) Oversight (budget transparency, judicial independence, efficiency of the legal framework in challenging regulations, freedom of the press);

(iv) Public sector performance (burden of government regulations, efficiency of the legal framework in dispute resolution, existence of e-government);

(v) Transparency (incidence of corruption);

(vi) Property rights;

(vii) Corporate governance (the set of auditing and accounting standards, regulation of conflicts of interest and shareholder governance);

(viii) Future orientation of government (government adaptability, political stability, long-term vision, commitment to sustainability).

The implementation of PPP projects involves highly complex processes and the management of factors that are not always under the control of the project promoter (Zavala Chevero, 2015). In other words, it includes having good governance to plan, make decisions, implement and monitor the entire life cycle of public infrastructure, through policies, frameworks, rules, processes and instruments used by public bodies (see OECD, 2024).

Governance of infrastructure refers to the processes, tools and rules of interaction, decision-making and monitoring used by government organizations and their partners with regard to making infrastructure services available to the public and the public sector. It therefore relates to the interaction among government institutions (at all levels of government) and between government and the private sector, users and citizens. Governance of infrastructure generally covers the entire life cycle of the asset; however, the most resource-intensive activities tend to be in the planning and decision-making phase. Infrastructure projects with poor governance often result in cost overruns, delays, underperformance, underutilization, further deterioration due to poor maintenance and, occasionally, costly "white elephants" (OECD, 2015).

II. Public-private partnerships for the Sustainable Development Goals[10]

The concept of sustainable development was promoted as a policy objective by the World Commission on Environment and Development in its report "Our Common Future" (also known as the Brundtland Report), which was issued in 1987 for the forty-second session of the General Assembly of the United Nations. The report introduced the term "sustainable development", defining it as "development that meets the needs of the present without compromising the ability of future generations to meet their own needs". The report also argued that sustainable development is essentially about distributive justice, both in time and space. This means that sustainable development must take into account the distribution of well-being between present and future generations as well as among countries (ECE/Eurostat/OECD, 2012).

[10] On the basis of ECE (2022 and 2024); and Sánchez and Lardé (2020), except where another source is specified.

In 2015, the Member States of the United Nations adopted the SDGs as part of the 2030 Agenda, which called for the use and enhancement of public-private partnerships. At its International Public-Private Partnerships Forum in March 2016,[11] ECE noted that PPP models that put the public interest first should be clearly identified and promoted to realize the 2030 Agenda; it also adopted the new term "people-first PPPs" (later replaced by the term "PPPs for SDGs"). In addition, ECE developed the Public-Private Partnerships and Infrastructure Evaluation and Rating System (PIERS) methodology for evaluating the SDGs, with the support of more than 100 experts from the public and private sectors, academia and non-governmental organizations (see ECE, 2024).

While financial, budgetary, efficiency and value-for-money reasons constitute a valid rationale for PPPs, there is a broader set of reasons for implementing these partnerships. Comparatively, PPPs for SDGs are designed to advance sustainable development and deliver a higher standard of benefits for people and the planet.

The PIERs methodology can be used by governments, the private sector, private lenders and a variety of organizations and is applicable to all sectors and all categories of PPP projects, be they small or large in scale, or domestic or cross-border in scope. It can be used at any stage of the public-private partnership life cycle, from project identification (original conception or idea) to project development and implementation, commissioning and eventual decommissioning (disposal). The earlier it is applied, the better and the greater its contribution to sustainable development, because making changes in the early stages of the project rather than during implementation or operation affords greater flexibility and lower costs.

What is the way forward if there is to be a serious effort to make PPPs work for the SDGs? The answer lies in reforming the principles underpinning PPPs and reformulating the toolbox on which PPPs depend to address the challenges of the SDGs directly. To that end, a list of 10 action principles was defined to assist governments and other stakeholders in this transition (see diagram 1).

The methodology consists of a platform with a web-based self-assessment questionnaire to score infrastructure projects for their alignment with the SDGs. Projects are evaluated on the basis of five desirable outcomes (access and equity; economic efficiency and fiscal sustainability; environmental sustainability and resilience; replicability; and stakeholder participation), according to 23 indicators and 104 open questions (evaluation criteria). Of the 104 open questions, 14 are mandatory (see diagram 2). Different officials and experts are responsible for assessing whether or not the project meets the criteria for designation or recognition as a PPP for SDGs.

Mandatory compliance criteria for projects include: (i) provide services that are accessible to all users; (ii) create a significant number of new local jobs; (iii) reduce or offset greenhouse gas emissions; (iv) successfully apply opportunities to transfer knowledge, competencies, technologies and skills from the private to the public side, as well as to local community stakeholders; and (v) enable engagement with stakeholders, including civil society.

[11] See [online] https://unece.org/ppp/forum1.

Diagram 1
Ten guiding principles on public-private partnerships in support of the Sustainable Development Goals

Principle 1: Build into infrastructure strategies the PPPs for the SDGs transformative agenda, making sure that peoples' needs are listened to	**Principle 2:** Deliver more, better, simpler projects by joining up government and allowing cities and other local levels to develop projects themselves	**Principle 3:** Increase officials' skills in delivering projects in line with the PPPs for the SDGs' outcomes, particularly ensuring that governments know how to better empower women in projects as well as encouraging the private sector to contribute to the necessary transfer of skills	**Principle 4:** Make more inclusive policy and legal frameworks that allow for active engagement of communities and focus as well on a zero-tolerance approach to corruption	**Principle 5:** Disclose more information about projects to society especially on the commitments made to various partners in the project
Challenge 1.1: Increasing demand for services Challenge 1.2: Sustainable development Challenge 1.3: Meeting "real needs" Challenge 1.4: Demonstrating impact	Challenge 2.1: Project delivery Challenge 2.2: Improving the investment climate Challenge 2.3: Coordination within governments Challenge 2.4: Bottom-up - Top-down Challenge 2.5: Importance of social infrastructure Challenge 2.6: Prioritizing projects for impact	Challenge 3.1: Lack of capacity within governments Challenge 3.2: Standardization Challenge 3.3: Training steps Challenge 3.4: Underrepresentation of women and lack of gender perspective	Challenge 4.1: Prioritizing policy and legislation for PPPs for the SDGs	Challenge 5.1: Information on project agreements Challenge 5.2: Enhancing investor confidence Challenge 5.3: Check list for enhancing accountability
Principle 6: De-risk projects by providing more predictability in the enabling environment	**Principle 7:** Set out clearly the projects' selection criteria to promote "Value for People" so that the best projects can be selected	**Principle 8:** Make environmental sustainability a key component of evaluating, awarding and implementing PPPs for the SDGs	**Principle 9:** Ensure that blended financing catalyses private partners to invest in PPPs for the SDGs	**Principle 10:** Avoid debt traps by ensuring the fiscal sustainability of projects and the transparency of fiscal policies
Challenge 6.1: Balanced sharing of risks Challenge 6.2: High risk countries	Challenge 7.1: Adding features to the selection criteria Challenge 7.2: Costs of competitive tenders Challenge 7.3: Output specifications Challenge 7.4: Technological changes during the contractual term Challenge 7.5: Involving the stakeholders Challenge 7.6: Anti corruption procedures	Challenge 8.1: Environmental sustainability Challenge 8.2: "Value for people" Challenge 8.3: Assessing environmental impact	Challenge 9.1: Blended finance Challenge 9.2: Scaling up Challenge 9.3: Focusing impact on development	Challenge 10.1: Lending to low and middle-income countries

Source: Prepared by the author on the basis of Economic Commission for Europe (ECE), *Guiding Principles on People-first Public-Private Partnerships in support of the United Nations Sustainable Development Goals* (ECE/CECI/WP/PPP/2022/7), 2022.

Diagram 2
Public-Private Partnerships and Infrastructure Evaluation and Rating System criteria: five desirable outcomes of public-private partnerships for the Sustainable Development Goals

Access and equity	Economic effectiveness and fiscal sustainability	Environmental sustainability and resilience	Replicability	Stakeholder engagement
Provide essential services	Avoid corruption and encourage transparent procurement	Reduce greenhouse gas emissions and improve energy efficiency	Encourage replicability and scalability	Plan for stakeholder engagement and public participation
Advance affordability and universal access	Maximize economic viability and fiscal sustainability	Reduce waste and restore degraded land	Standardize PPP preparation and tender	Maximize stakeholder engagement and public participation
Improve equity and social justice	Maximize long-term financial viability	Water consumption and wastewater discharge	Enhance government, industry and community capacity	Provide transparent and quality project information
Plan for long-term access and equity	Enhance employment and economic opportunities	Protect biodiversity	Support innovation and technology transfer	Manage public grievances and end user feedback
Avoid/minimize and mitigate physical and economic displacement		Assess risk and prepare for disaster management		

Source: Prepared by the author on the basis of Economic Commission for Europe (ECE) (2024), *PPP and Infrastructure Evaluation and Rating System (PIERS): An Evaluation Methodology for the SDGs User's Guide to the Self-Assessment Tool*, February [online] https://unece.org/ppp/em.

Examples of the potential benefits of PPP projects for the SDGs are set out below (Lardé, 2023).

- PPPs for SDGs accelerate progress towards the SDGs, including by contributing to local development and building more inclusive, sustainable and resilient projects (for example, increased access to essential services, such as water, energy, transport and telecommunications; improving community resilience; increasing the sustainability and resilience of infrastructure and services; fostering the transition to a circular economy; and promoting women's empowerment).
- When projects are aligned with the SDGs, they are of a higher standard, with greater positive impacts for people and the environment.
- May improve reputation with lenders; banks may be more willing to finance a project that meets PPP characteristics for the SDGs, owing to the likely lower risk of the project.
- A PPP for the SDGs that involves communities should lead to a social licence to carry out the project, which means higher project quality and more sustainable and resilient projects in the long term.
- As regards time and cost of project implementation, the results are ambiguous; by involving more people, there may be greater need for dialogue, coordination and collaboration between more parties, which may delay project implementation and increase costs. However, projects supported by communities are approved and implemented faster. Therefore, PPPs for SDGs should be approved faster.

Since 2016, Latin America and the Caribbean has had at least 34 projects that have achieved PPP for SDGs designation.[12] The countries that have carried out these projects are Argentina, Brazil, Chile, Colombia, Costa Rica, Haiti, Mexico and Peru. Examples of these projects are shown in Box 1.

Between 2000 and 2022, 3,192 financial closures of PPP projects were registered in Latin American and Caribbean countries,[13] while 34 projects were awarded PPP for SDGs designation. The number of PPP for SDGs projects as a proportion of traditional PPP projects in the region is around 1%.[14] This figure is currently too small for infrastructure projects to become an important pillar for achieving the SDGs.

[12] In 2016: Haiti and Brazil (2), Chile (1) + Colombia (sustainability indicators); in 2018: Brazil (6), Colombia (1), Costa Rica (1), Mexico (1), Peru (1); in 2019: Brazil (1); in 2021: Brazil, Chile, Haiti, Mexico; in 2022: Brazil (2), Mexico (1); in 2023: Argentina (4), Brazil (3), Mexico (1), Peru (1); in 2024: Brazil (3). Total: 33 projects + Colombia (sustainability indicators).
[13] Calculations of the author on the basis of World Bank, *Private Participation in Infrastructure* (PPI) data.
[14] (34/3,192)*100 = 1%.

Box 1
Public-private partnerships for the Sustainable Development Goals: success stories in Latin America

Peanut sector, Córdoba Competitiveness Agency, Cluster Project (Córdoba, Argentina)

The Córdoba Cluster Project aims to have significant social and environmental impacts. Expected outcomes include job creation and strengthening of local communities. The project seeks to promote sustainable practices and the integration of environmental criteria in the cluster's activities. The initiative aims to contribute to the sustainable development of the province, balancing economic growth with social and environmental considerations, while striving for territorial competitiveness for the well-being of the community.

Green Industrial Parks (Córdoba, Argentina)

The purpose of the programme is to enable efficient use of natural resources within the province's industrial parks by implementing sustainable production systems, promoting green industry, increasing production through the use of new technologies, reducing costs and generating quality employment. Green industrial parks are expected to achieve better performance and stand out from the competition by allowing industries to operate in an appropriate, productive and safe and environment with a sense of responsibility towards the community. The public-private combination is expected to generate a symbiosis between both parties, which is fundamental for the fulfilment of the proposed objectives.

VLT Carioca Tram (Rio de Janeiro, Brazil)

The VLT Carioca Tram is part of the Porto Maravilha urban project that aimed to revitalize the Porto region of Rio de Janeiro ahead of the Confederations Cup (2013), the World Cup (2014) and the Olympic Games (2016), all hosted in Brazil. The PPP contract for the VLT Carioca Tram, signed as a separate agreement from that of Porto Maravilha, was for the construction of a new, technologically advanced, catenary-free tramway. Its objective was to enable the interconnection of the port region with Rio de Janeiro's financial hub and Santos Dumont Airport in a fast, safe and sustainable way. This project also aimed to attract new residents, decentralize the city of Rio de Janeiro and promote tourism in the area. However, the economic crisis in Brazil in 2015 had an impact on the area's development, bringing construction to a halt and undermining demand for the VLT Carioca Tram, prompting the administration to increase financial contributions to the project.

Route 27 (San José–Caldera, Costa Rica)

The project aimed to provide faster and safer access between San José and Caldera, with a time savings of 35 minutes during off-peak hours and 60 minutes during peak hours compared to alternative routes. Annual fuel savings are estimated at US$ 100 million. Previously isolated areas were turned into connected towns, with 1,500 jobs generated during construction, and 500 during the operational phase. In addition, new logistics and industrial hubs developed along Route 27 and various corporate social responsibility initiatives sought to bring social, environmental and educational benefits to communities.

Kuélap cable cars (Nuevo Tingo, Peru)

The need to provide tourists with an adequate service connecting Kuélap Fortress with the nearest municipality (Nuevo Tingo) was an issue that the Ministry of Foreign Trade and Tourism began to evaluate in 2005. Before the completion of the Kuélap cable car project, the journey took two to four hours on a road of poor quality. A PPP was used to build a 4 km cableway for the cable car. It has not only improved accessibility, but also promotes tourism and economic development. Management benefited from private expertise and capital investment, with better-than-expected results, and private firms participated in a profitable, sustainable landmark project.

Source: Prepared by the author on the basis of Economic Commission for Europe (ECE), "Case Studies" [online] https://unece.org/ppp/casestudies.

The success of public, private or public-private projects (in the short, medium and long term, during each stage of the project life cycle) in contributing to the SDGs depends not on the implementation of just a few projects, but rather on the implementation of a vast number of transformative projects that will make countries, in particular low income ones, more prosperous, and set out a new agenda to include the sustainability of infrastructure and the commitment of all stakeholders to the public good and social welfare (ECE, 2022).

The PPP for SDGs approach is a tool that provides many opportunities for advancing towards sustainable development, such as meeting various social inclusion goals; improving inequality; boosting the resilience of systems to increased disaster risk as a result of climate change; transferring knowledge, skills, technologies and abilities from the private sector to the public sector/local communities; and migrating from the current economy to a net zero carbon economy.

The assessment methodology is designed to determine whether a project qualifies as a people-first PPP and how it would contribute to the SDGs. However, as mentioned in ECE (2024), the methodology alone is not sufficient to determine whether a PPP is the optimal procurement model to carry out an infrastructure project. A number of national or regional success factors also need to be assessed, such as the institutional framework, the investment and business climate, and government capacity.

III. Trends in public and private infrastructure investment and institutional capacities in Latin America and the Caribbean

An analysis of more than 2,000 PPP contracts found that the success of projects depends on sending the right signals to the private sector about the stability of long-term investments by ensuring an enabling, efficient, consistent, credible and transparent environment. This requires developing an adequate and coherent PPP programme, with policy, regulatory and legal frameworks, sound processes and institutions, public financial management, and broad programme governance as critical building blocks or components to ensure that the many benefits of PPPs are realized (Sanchez and Chauvet, 2019 and Guasch, 2017).

A. Institutional capacity in Latin America and the Caribbean to develop and implement efficient and sustainable public-private partnerships

1. Necessary conditions for infrastructure development

Rozas Balbontín, Bonifaz and Guerra-García (2012) highlight the important role of institutions that are involved in public and private investment processes in scaling up infrastructure investment and maximizing its impact. The author says that to strengthen the institutions, the following aspects need to be explored in depth:

- **Systemic view of development**. Public resources for direct financing of infrastructure and also for human resources in project preparation have to compete with resources allocated to different sectors (social spending gaps, direct support to production and pending institutional reforms). Therefore, the stronger the institutional framework for planning, the more likely it is that adequate and sufficient resources will be allocated for investment and maintenance of basic infrastructure;

- **Consistency of public policy goals and objectives**. While economic development planning has been modernized and is more flexible and referential than in past decades, it remains an indispensable process for encouraging rational decision-making in public resource allocation;
- **Policies agreed and legitimized through citizen participation and consultation mechanisms**. Public policies aimed at creating and enhancing basic infrastructure require a broad political consensus in each country. Therefore, private investment promotion and conservation policies require particularly effective communication and targeted consensus-building strategies. Public opposition has become a real operational constraint, making efforts to design and implement persuasive policy strategies on private participation a priority. Similarly, there is growing environmental and social awareness in communities located in the areas of influence of large infrastructure projects. As a result, community relations strategies to obtain environmental or social licences have become increasingly important to achieving infrastructure policy objectives;
- **Strengthening public management**. Accelerating infrastructure investment requires strengthening human resources in the public sector, regardless of whether the policy of expanding coverage and improving quality standards is based on public investment, private investment or a combination of the two. Such a task is complex and requires expertise that is often not available in the public sector and can only be acquired with time and practice.

2. 2021/2022 Infrascope results[15]

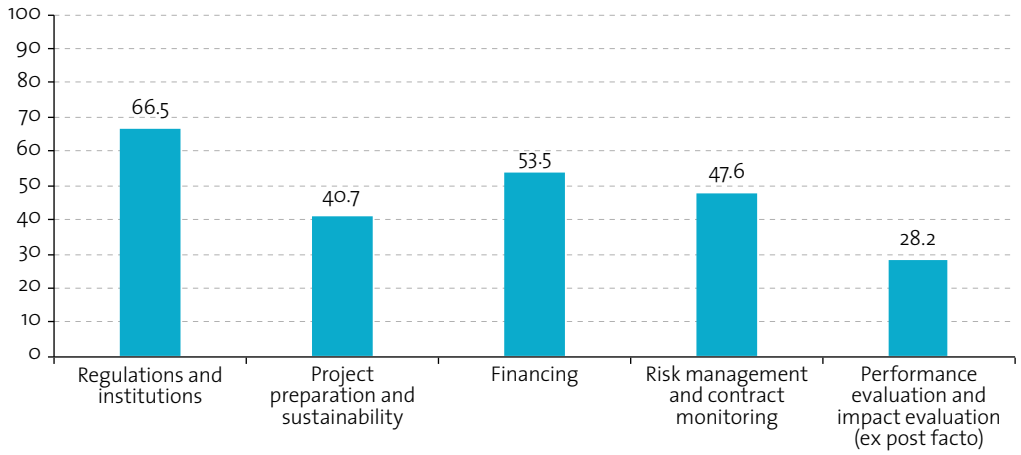
One of several documents that could support the assessment of environmental factors for the success of PPPs in a country could be Economist Impact (2022), with its Infrascope index that measures the capacity of countries to develop, finance and implement efficient and sustainable infrastructure through PPP schemes.

Data for quantitative indicators are obtained from The Economist Intelligence Unit, IJ Global, Infralatam (see [online] https://www.infralatam.info/), the World Economic Forum and the World Bank's Public Participation in Infrastructure (PPI) database. One general indicator per country plus five specific indicators are constructed according to five key areas or categories, namely: (i) regulations and institutions; (ii) project preparation and sustainability; (iii) financing and access to capital; (iv) risk management and contract monitoring; and (v) performance evaluation and impact evaluation ex post facto (see figure 1).

According to the results of the 2021/22 Infrascope, Latin American and Caribbean countries have taken significant steps towards creating enabling environments to develop and implement efficient and sustainable infrastructure PPPs. Of the 26 countries included, ranked by their score from highest to lowest (100–0), 7 countries were the best performers and are categorized as "developed" (Brazil, Chile, Uruguay, Colombia, Peru, Panama and Costa Rica). Their scores range from 60.7 (Costa Rica) to 76.3 (Brazil), which can be considered "good" and, therefore, feasible for improvement. Twelve "emerging" countries had an intermediate performance (El Salvador, Guatemala, Dominican Republic, Mexico, Jamaica, Honduras, Paraguay, Ecuador, Argentina, Nicaragua, Guyana and Bahamas), with scores ranging from 37.0 for the Bahamas to 58.1 for El Salvador (considered "mediocre" and "poor"). Lastly, 7 other "emerging" countries performed "very poorly" (Haiti, Trinidad and Tobago, Plurinational State of Bolivia, Belize, Barbados, Bolivarian Republic of Venezuela, and Suriname), with scores ranging from 13.9 for Suriname to 27.1 for Haiti.

[15] On the basis of Economist Impact (2022).

Figure 1
Latin America and the Caribbean: average scores (0–100) according to five environmental determinants



Source: Economist Impact, *Evaluating the environment for public-private partnerships in Latin America and the Caribbean: The 2021/22 Infrascope*, New York, 2022 [online] https://impact.economist.com/projects/infrascope/evaluating-the-environment-for-public-private-partnerships-in-latin-america-and-the-caribbean/.
Note: Based on the author's criteria, a score of 80 and above is "very good"; 60 to below 80 is "good"; 50 to below 60 is "mediocre"; 30 to below 50 is "poor"; and 0 to below 30 is "very poor".

3. Assessing public-private partnership performance in Latin America and the Caribbean

The path to achieving the 17 SDGs requires an adequate institutional framework, effective and participatory governance at all levels, and the rule of law at national and local levels to implement legal protections, enforce laws and ensure access to justice (Thacker and others, 2018).

The need to make progress with other factors for the success of PPPs for SDGs is related to the performance of infrastructure governance in the region. Various studies, such as "The Changing Face of Infrastructure in Latin America" (KPMG, 2021), present the results of interviews conducted in 2020 in 15 Latin American countries with high-level officials from the public sector, multilateral organizations, non-governmental organizations and others involved in policy, procurement, infrastructure development, national governments, regional governments and municipalities.

When asked about the greatest impediments to infrastructure investment, respondents identified lack of funds (23% of responses); lack of a long-term infrastructure plan (17%); politicization of infrastructure project priorities (12%); lack of public policy stability (9%); corruption or misuse of funds earmarked for infrastructure (6%); lack of skills/knowledge/training of officials in this area (6%); lack of an effective procurement process (5%); and lack of an appropriate legal/regulatory framework (5%) as the main obstacles. These responses were similar to those obtained 10 years earlier in the wake of the global financial crisis.

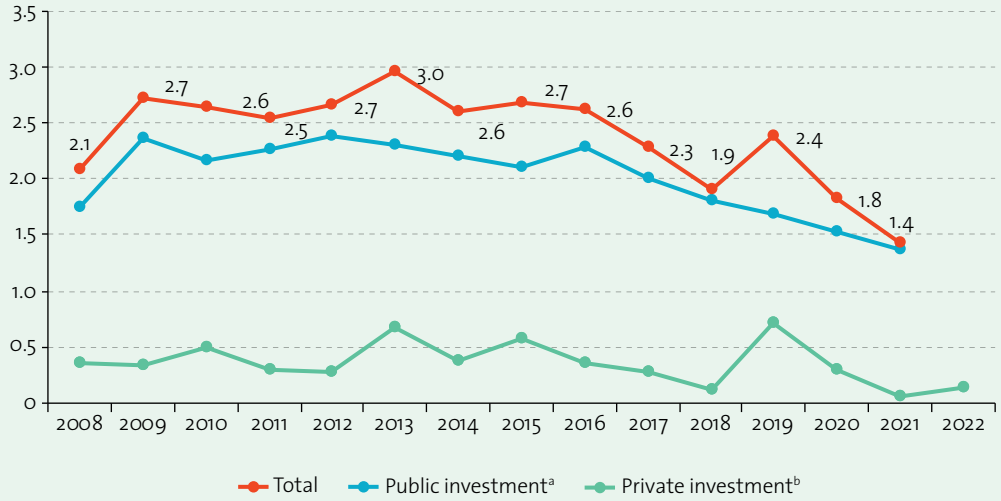
When asked about the factors that could produce the greatest improvement in infrastructure development in their respective jurisdictions, about 16% of respondents pointed to the importance of depoliticizing the infrastructure public policy process; another 16% pointed to the need for better training of public sector officials; 13% pointed to the need for greater use of PPP models; 10% noted the need for more transparency in project selection; 9% mentioned the need for better clarification of the role of different government agencies in infrastructure delivery; about 9% noted the need for establishing centres of excellence; and 8% alluded to measuring the wider impacts that environmental, social and governance projects generate.

B. Recent trends in public and private investment

Since 2016, total regional investment (public plus private) in infrastructure has accounted for a decreasing share of GDP. After the significant drop in total investment from 2019, which was subsequently exacerbated by the coronavirus disease (COVID-19) pandemic in 2020 and 2021, some private infrastructure investment commitments resumed in 2022.

Private investment in infrastructure has always lagged behind public investment levels. From 2008 to 2021, private investment through PPPs accounted for approximately 20% of what the public sector invests. As figure 2 shows, in the period 2008–2021, total infrastructure investment reached its highest value (3% of GDP) in 2013, and its lowest in 2021 (1.4% of GDP). Much of this decline was due to the reduction in public investment, which trended downward from 2012 onward, falling from 2.4% of GDP to its low of 1.4% of GDP in 2021.

Figure 2
Latin America and the Caribbean: infrastructure investment by sector, public and private, 2008–2022
(Percentages of GDP)



Source: Prepared by the author on the basis of data from Infralatam [online] https://www.infralatam.info/; and World Bank, *Private Participation in Infrastructure (PPI). Annual Report* [online] https://ppi.worldbank.org/en/ppi.

[a] Includes Argentina, Belize, Brazil, Chile, Colombia, Costa Rica, Dominican Republic, Ecuador, El Salvador, Guatemala, Guyana, Haiti, Honduras, Mexico, Nicaragua, Panama, Paraguay, Peru, Plurinational State of Bolivia, Trinidad and Tobago, and Uruguay.

[b] Includes Antigua and Barbuda, Argentina, Belize, Bolivarian Republic of Venezuela, Brazil, Colombia, Costa Rica, Cuba, Dominica, Dominican Republic, Ecuador, El Salvador, Grenada, Guatemala, Guyana, Haiti, Honduras, Jamaica, Mexico, Nicaragua, Paraguay, Peru, Plurinational State of Bolivia, Saint Kitts and Nevis, Saint Lucia, Saint Vincent and the Grenadines, Suriname and Uruguay.

GDP shares and trends are uneven when analysed by country. In 2021, the five countries with the highest levels of public investment as a percentage of GDP were Nicaragua with 5%; the Plurinational State of Bolivia with 3.6%; Belize with 3.3%; Peru with 2.6%; and Paraguay with 2.5%. In 2022, the five countries with the highest amount of private investment were Brazil (1.1% of GDP), Colombia (0.8%), Peru (0.7%), Uruguay (0.7%) and the Dominican Republic (0.3%).

C. Public and private investment by infrastructure sector

Historically, the region's public sector has invested mainly in the transport sector, followed by energy, water and sanitation and, lastly, telecommunications. Meanwhile, the private sector, in the form of PPPs, has given the greatest priority to investment in energy, followed by transport, telecommunications and, to a lesser extent, water and sanitation (where there is more State participation) (see table 3). Power generation, distribution and transmission are almost separate industries, but they work together, and PPPs are seen more in electricity generation and distribution. In the telecommunications sector, for example mobile phones, full privatization is common (Straub, 2022).

Table 3
Latin America and the Caribbean: public and private investment in infrastructure by sector and period
(Averages for each period as a percentage of GDP)

	Public investment					Private investment					
		Percentage of GDP			Percentage distribution	Percentage of GDP					Percentage distribution
	2008–2021	2019	2020	2021	2008–2021	2008–2022	2019	2020	2021	2022	2008–2022
Transport	1.127	0.943	0.835	0.774	56.5	0.139	0.198	0.068	0.046	0.079	34.5
Energy	0.442	0.284	0.303	0.206	22.1	0.249	0.499	0.229	0.014	0.053	61.8
Telecommunications	0.137	0.158	0.088	0.095	6.9	0.009	0.013	0.001	0.000	0.000	2.3
Water	0.291	0.273	0.248	0.212	14.6	0.005	0.001	0.003	0.003	0.007	1.3
Total	1.997	1.679	1.527	1.363		0.403	0.710	0.301	0.063	0.138	

Source: Prepared by the author on the basis of data from Infralatam [online] https://www.infralatam.info/; and World Bank, *Private Participation in Infrastructure (PPI). Annual Report* [online] https://ppi.worldbank.org/en/ppi.

During the COVID-19 pandemic, public investment trended downward, sliding from 1.7% in 2019 to 1.5% in 2020 and 1.4% in 2021. The 2021 decline occurred across all four infrastructure sectors, though energy decreased the most (-32%). Private investment fell from 0.71% of GDP in 2019 to 0.3% in 2020, then edged up to 0.06% in 2021 before rising to 0.14% in 2022. The greatest drop in private investment in 2021 came in the energy sector, with a fall of 94%, while the largest rise was also thanks to energy, which saw very strong growth of 270% in 2022 (see table 3).

D. Public and private investment by mode of transport

In Latin America and the Caribbean, both public sector and PPP investments are present in all modes of transport: road, railway, metro, bus, ports and airports. Public and private investment in road transport averaged 0.07% of GDP between 2008 and 2021, accounting for the largest amount of investment. According to table 4, after road transport, inland waterway and maritime transport account for the most investment, with an average (private and public) of 0.031% of GDP between 2008 and 2021. Maritime and inland waterway transport is the dominant mode for freight in Latin America and the Caribbean, accounting for almost 95% of the region's trade[16] (ECLAC, 2019). Railway investment accounted for only 0.017% of GDP between 2008 and 2021, making it the third largest area of transport investment. Lastly, air transport received the smallest amounts during the period, with public and private investors combined accounting for 0.008% of GDP.

Table 4
Latin America and the Caribbean: average public and private investment in transport infrastructure, by mode of transport and year or period
(Percentages of GDP)

	Public investment					Private investment						
	Percentage of GDP				Percentage distribution	Percentage of GDP					Percentage distribution	Public + private investment
	2008–2021	2019	2020	2021	2008–2021	2008–2022	2019	2020	2021	2022	2008–2022	Average 2008–2021
Roads	0.969	0.843	0.735	0.698	88.9	0.070	0.102	0.026	0.045	0.055	65.5	0.071
Railways	0.036	0.036	0.027	0.025	3.3	0.017	0.067	0.000	0.000	0.010	5.3	0.017
Inland waterway and maritime	0.085	0.041	0.012	0.009	7.8	0.029	0.004	0.010	0.000	0.001	5.8	0.031
Air	0.023	0.023	0.011	0.018	2.1	0.009	0.025	0.031	0.000	0.013	23.4	0.008
Total	1.113	0.920	0.773	0.733		0.124	0.198	0.068	0.046	0.079		0.128

Source: Prepared by the author on the basis of data from Infralatam [online] https://www.infralatam.info/; and World Bank, *Private Participation in Infrastructure (PPI). Annual Report* [online] https://ppi.worldbank.org/en/ppi.

[16] About 70% of world trade (on a tkm basis) is transported by inland waterway or sea, while road, railway and air transport account for 22%, 7% and less than 1%, respectively (ITF, 2023).

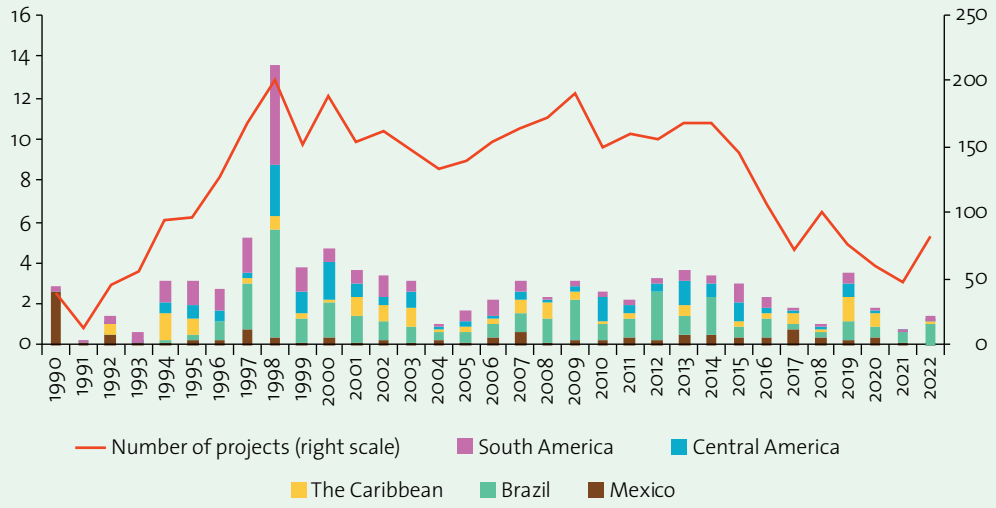
A comparison of public and private sector investments in the period 2008–2021 shows that public sector investments have been concentrated in roads (88.9%), followed by inland waterway and maritime transport (7.8%), railways (3.3%) and air transport (2.1%). Similarly, although less concentrated, during 2008–2022, the largest private sector investments were in roads (65.5%) followed by air transport (23.4%), inland waterway and maritime transport (5.8%) and railways (5.3%) (see table 4).

During the peak period of the COVID-19 pandemic (2020 and 2021), public investment in transport infrastructure shrank, in particular in the inland waterway and maritime modes, followed by railway and road projects; in contrast, investment in air transport more than doubled. In the private sector, from 2020 to 2021 there were contractions in air transport and inland waterway and maritime transport, while investment in roads increased; from 2021 to 2022, the largest investment increases were in air transport, followed by railways and roads (see table 4).

E. Private infrastructure investment by geographical area

As noted above, following the contraction in investments as a result of the COVID-19 pandemic, private sector investment in infrastructure began to recover in 2022. In total, investment commitments to this sector accounted for 0.71% of GDP in 2019, declined to 0.30% of GDP in 2020, reached a value of near 0 (0.06%) in 2021 and started to recover in 2022, reaching a value of 0.14% of GDP. Although investment commitments did not return to pre-pandemic levels, the total number of PPP projects in the region increased from 47 in 2021 to 82 in 2022, surpassing the 2019 total of 76 projects (see figure 3).

Figure 3
Latin America and the Caribbean (selected countries and subregions): private infrastructure investment by geographical area and number of projects, 1990–2022
(Percentages of GDP and number of projects)



Source: Prepared by the author on the basis of World Bank, *Private Participation in Infrastructure (PPI). Annual Report* [online] https://ppi.worldbank.org/en/ppi.
Note: Countries included in the private investment data are Antigua and Barbuda, Argentina, Belize, Bolivarian Republic of Venezuela, Brazil, Colombia, Costa Rica, Cuba, Dominica, Dominican Republic, Ecuador, El Salvador, Grenada, Guatemala, Guyana, Haiti, Honduras, Jamaica, Mexico, Nicaragua, Paraguay, Peru, Plurinational State of Bolivia, Saint Kitts and Nevis, Saint Lucia, Saint Vincent and the Grenadines, Suriname and Uruguay.

In the three most annual variations (2019–2022), the following was observed: from 2019 to 2020, the level of private investment declined in all subregions, excluding Mexico; the strongest contraction occurred in Central America, where it fell from 0.66% to 0.11%, while in Mexico it increased from 0.23% to 0.4%. From 2020 to 2021, all subregions, including Mexico, saw their levels of investment decrease, except in South America, where investment remained constant at 0.16% of GDP. From 2021 to 2022, all subregions, excluding Mexico,

increased investments, with Central America recording the largest rise, from 0.01% of GDP to 0.04%. Only Brazil surpassed its pre-pandemic levels in 2022, investing 1.08% of GDP, compared to 0.97% in 2019 (see figure 2).

In terms of the level of private investment by decade, Brazil is the geographical area with the highest PPP commitments, at around 0.97% of GDP on average from 1990 to 2022. It was followed by South America, with 0.67%; Central America, with 0.53%; and Mexico, with 0.38% (see table 6). Looking at the same investment variable as a proportion of the population, the highest percentage still corresponds to Brazil (US$ 80.99 per capita), but in this case is followed by Mexico (US$ 32.54 per capita), South America (US$ 30.22 per capita) and Central America (US$ 16.38 per capita) (see table 7).

Table 6
Latin America and the Caribbean: average private infrastructure investment, by geographical area and period, 1990–2022
(Percentages of GDP)

	1990–1999	2000–2009	2010–2019	2020–2022	1990–2022
South America	1.23	0.53	0.39	0.22	0.67
Central America	0.68	0.49	0.59	0.05	0.53
The Caribbean	0.43	0.53	0.31	0.21	0.40
Brazil	0.99	1.02	0.99	0.72	0.97
Mexico	0.52	0.27	0.40	0.17	0.38

Source: Prepared by the author on the basis of World Bank, *Private Participation in Infrastructure (PPI). Annual Report* [online] https://ppi.worldbank.org/en/ppi.

Table 7
Latin America and the Caribbean: average private infrastructure investment, by geographical area and period, 1990–2022
(Current dollars per capita)

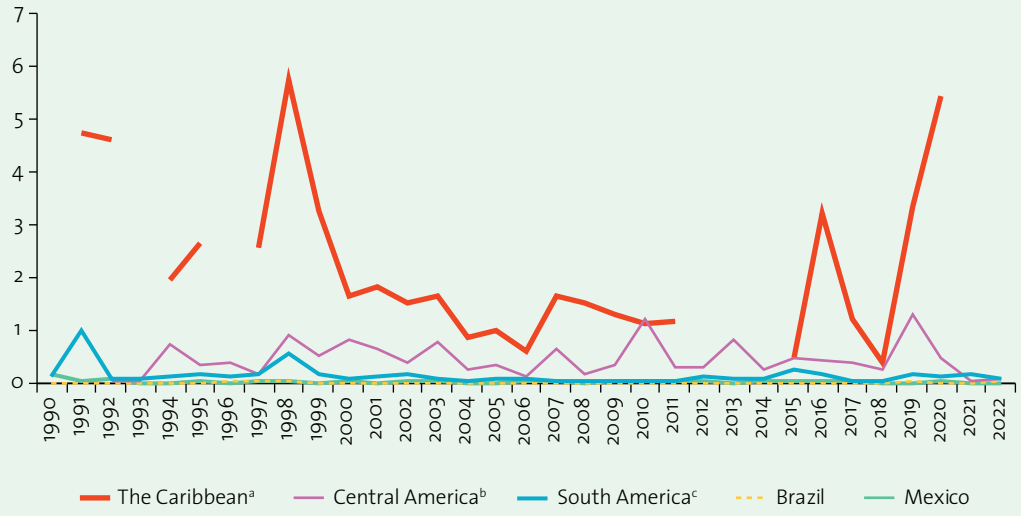
	1990–1999	2000–2009	2010–2019	2020–2022	1990–2022
South America	50.12	17.53	24.68	16.92	30.22
Central America	17.46	15.11	16.69	2.13	16.38
The Caribbean	25.87	35.31	23.75	35.57	27.96
Brazil	69.39	68.41	99.58	44.12	80.99
Mexico	33.52	27.97	35.32	14.10	32.54

Source: Prepared by the author on the basis of World Bank, *Private Participation in Infrastructure (PPI). Annual Report* [online] https://ppi.worldbank.org/en/ppi.

G. Private infrastructure investment by project size and geographical area

The Caribbean and Central American countries had the largest projects relative to GDP: in the period 1990–2022, the average project size was equivalent to 2.2% of GDP in the former and 0.45% of GDP in the latter. All the other geographical areas recorded a lower average: 0.15%, 0.03% and 0.01% in South America, Mexico and Brazil, respectively (see figure 4).

Figure 4
Latin America and the Caribbean (selected countries and subregions): average size of private investment projects, 1990–2022
(Percentages of GDP)



Source: Prepared by the author on the basis of World Bank, *Private Participation in Infrastructure (PPI). Annual Report* [online] https://ppi.worldbank.org/en/ppi.
[a] Antigua and Barbuda, Belize, Dominica, Grenada, Guyana, Jamaica, Saint Kitts and Nevis, Saint Lucia, Saint Vincent and the Grenadines, and Suriname.
[b] Costa Rica, Cuba, Dominican Republic, El Salvador, Guatemala, Haiti, Honduras and Nicaragua.
[c] Argentina, Bolivarian Republic of Venezuela, Colombia, Ecuador, Paraguay, Peru, Plurinational State of Bolivia, and Uruguay.

Central American and Caribbean countries are likely to have less experience with PPP projects, as they started PPPs much later than the South American subregion and Mexico did. In addition, as the results of the 2021/22 Infrascope show, not all countries had favourable environmental conditions. Within Central America, Panama and Costa Rica scored well, while El Salvador, Guatemala, the Dominican Republic and Haiti ranked from mediocre to very poor. In the Caribbean, only Jamaica achieves a mediocre score, with the rest (Guyana, Bahamas, Trinidad and Tobago, Belize, Barbados and Suriname) scoring from poor to very poor. Thus, for some Central American and Caribbean countries, there seems to be a pattern of large projects relative to GDP, governments with fewer years of experience in PPPs, and unfavourable environmental conditions.

Country experiences show that the steps leading to the materialization of a PPP contract are extremely complex and very costly, making it advisable to assess whether it is worth the expense. For all preliminary proceedings, it is advisable to have a group of subject matter experts in place in order to ensure quality analysis and good contract designs. PPP contracting procedures are complicated enough in developed countries and can be even more so in less developed countries because there is usually less capacity and experience in joint initiatives between the public and private sectors, not to mention the communities involved and other stakeholders. Capacity-building involves a long process of dedicated joint efforts among the various stakeholders. In some cases, it can take decades before they are truly well placed to efficiently undertake the kind of PPP they want (Delmon, 2021).

Initially, in countries with little experience, it is advisable to start by getting to know the place, proposing simpler, perhaps even smaller projects, and to develop expertise over time. However, these decisions are complex, as it is very difficult to spend so much money on capacity-building for small projects. It is hard to strike the right balance, because governments are more enthusiastic about big projects, as they win over more voters (Delmon, 2021).

Furthermore, the success of each PPP project depends very much on the initial work (i.e. the works design, the joint work between stakeholders, the bidding process and the details of

the contractual terms on all future eventualities) (see Sanchez and Chauvet, 2019). Many mixed or poor outcomes from PPPs stem from the fact that the authorities had very limited capacity to manage the contract, in addition to potential environmental problems, such as macroeconomic stability and the quality of institutions.

At the same time, very long-term contracts may entail greater risk, since it is uncertain what the future will hold in 20, 25 or 30 years, let alone 50 years. The longer the term, the greater the planning challenges, the more unforeseen events arise, and the greater the contingencies may be, so the contract fundamentals should contain clauses to accommodate such contingencies. If the contract focuses too much on the short term, with little emphasis on medium- and long-term contingencies, it may generate a substantial fiscal risk that could be very difficult to manage in the future. This warning is also important for the private sector, as it can tend to be very "short-termist" (Straub, 2022).

IV. Key findings and concluding observations

When investing in infrastructure projects, the public sector usually seeks to deliver services that are sustainable, accessible, affordable, equitable and resilient, while also being economically efficient and fiscally sustainable. The PPP approach to sustainable development seeks to raise the standard of traditional projects so that they boost positive impacts while reducing negative ones through greater stakeholder participation; they also seek increased access to essential services and greater equity; economic efficiency and fiscal sustainability; and environmental sustainability and resilience; and they must be replicable.

Recent infrastructure investment trends show that since 2016, total public plus private infrastructure investment in Latin America and the Caribbean relative to GDP has trended downward. From 2008 to 2021, total infrastructure investments in the region have been concentrated in transport and energy, accounting for around 53% and 29% of GDP, respectively, followed by water and sanitation and telecommunications (12% and 6%, respectively). Within transport, roads account for the largest amounts of total investment, followed by inland waterway and maritime transport, rail transport, and air transport.

The public sector has invested mainly in the transport sector, followed by energy, water and sanitation and, lastly, telecommunications. The private sector, meanwhile, in the form of PPPs, has given the greatest priority to investment in energy, followed by transport and telecommunications; however, there have been fewer PPPs and thus little private sector participation in water and sanitation, where there is greater State participation.

In terms of performance by region, Brazil is the geographical area that has implemented the most PPPs, relative to both GDP and population. Although Central America and the Caribbean have the lowest percentages of investment, on average, projects are larger as a percentage of GDP.

From the analysis, it can be inferred that in Latin America and the Caribbean countries face two major challenges:

(i) Institutional capacity-building, including policy, regulatory and legal frameworks, public policy stability, legal certainty, contract enforcement, long-term planning, difficulties in obtaining the necessary financing, shortages of skilled human resources in the public sector, and problems in estimating demand and revenues, among other elements necessary to an enabling investment environment;
(ii) Increasing investment, whether private or public, in infrastructure, with a large number of quality projects that increasingly adhere to the SDG approach; this entails moving away from the traditional project model and adapting to PPPs aligned with the 2030 Agenda.

One of the main expected outcomes of PPPs for SDGs is that the project should generate benefits for all (States, communities, individuals), and that the environmental impact should be as low as possible. It must be taken into account that projects are implemented within territorial spaces, where there are communities with social capital and cultures that affect

their lives, hence the importance of public participation in aligning different interests and wishes, which reduces the likelihood of future conflicts.[17] PPPs that fail to meaningfully engage stakeholders throughout the life of the project run the risk of failure; for example, they may fail to account for demographic, cultural, socioeconomic, environmental, political or other changes in the community that may affect the success of PPPs.

Thus, while strengthening the success of project implementation and operation through greater commitment and alignment on the part of project stakeholders, PPPs also contribute to the formation of social capital. PPPs for SDGs not only contribute to social capital formation, but also to global sustainability by strengthening natural, human and economic capital. Economic capital includes tangible fixed assets, such as machinery, buildings, roads, seaports and airports, which contribute to the maintenance of natural capital if the project is mindful of ecosystems, and to the formation of more natural capital if the project also incorporates green infrastructure. Infrastructure assets also encourage access to education and job training and contribute to the health of the population.

Lastly, PPPs appear to have great potential to achieve adequate delivery of infrastructure services (services that are available in the required quantity and at the required time, at predefined quality levels), and also to offer better value for money than more traditional forms of asset acquisition or service provision.

However, countries need to develop their capacities to implement infrastructure and public services projects through an initial effort of collaborative work among the various stakeholders. This implies a long-term, multidimensional, multisectoral and measured process that requires starting small, with simple projects that are not overly large or long-term, in order to reduce project risks. As stated in ECE (2022), "It is a mistake to think that it is a *mission impossible* for countries with very limited expertise to achieve a pipeline of projects. On the contrary, with focus and due intent, it can be achieved with success in a relatively short period of time and can directly lead to the delivery of actual projects". It is also important for countries to direct their expertise towards infrastructure that contributes to sustainable development, increases domestic productivity and promotes greater inclusion and resilience with the ultimate aim of improving human well-being.

[17] See ILPES, "Multicriteria Evaluation Course", 2024 [online] https://elearning.cepal.org/moodle/.

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VI. Publications of interest

FAL Bulletin No. 389

Investing in sustainable, resilient and inclusive infrastructure for economic recovery

Jeannette Lardé

This document outlines the situation and challenges of infrastructure investments in Latin America and the Caribbean, taking the global environment as a reference, and sets out some considerations on the behaviour of investments in 2020 and the outlook for 2021. It summarizes some of the stimulus packages provided by the countries for recovery from economic crisis caused by the coronavirus disease (COVID-19) pandemic. It also highlights the need for sustainable, resilient and inclusive infrastructure criteria in order to make economic recovery more dynamic, to narrow some structural gaps, and so to boost long-term economic growth.

Available in: English Spanish

FAL Bulletin No. 383

Public-private partnerships under the "people-first" approach

Ricardo Sánchez,
Jeannette Lardé

One of the structural problems that hinders fuller development in Latin America is a lack of infrastructure investment. Since the 1980s, when investment in economic infrastructure ceased to be almost entirely public, the private sector has played an important role, at times accounting for about half of the total. Such investments mainly take the form of concession contracts or other forms of public-private partnerships (PPPs).

Traditional PPP initiatives for the provision and financing of infrastructure services have had varying success, resulting in contrasting perceptions of their performance and the services they have provided. Given how important PPPs have increasingly become, it is important that the various problems are solved in a way that enables them to make a more effective contribution to development. This article analyses the "people-first" approach when considering the future of PPPs in Latin America and the Caribbean, which can can be done by placing them under the umbrella of the Sustainable Development Goals (SDGs).

Available in: English Spanish