

Impact of COVID-19 on the development of infrastructure in Latin America and the Caribbean and the role of Public-Private Partnerships in times of crisis in the region

Network of Analysis and Best Practices in
Public-Private Partnerships
Regional Public Good



About the PPP Network and this Report

Network of Analysis and Best Practices in Public-Private Partnerships

Public and Private sectors working together for better infrastructure.

Although each country in the region faces a different reality, their infrastructure projects present similar challenges in terms of preparation, execution, operation, maintenance, etc., which can be extrapolated according to the circumstances of each country. These projects are large-scale investments, and as such they have the capacity to change countries and improve the quality of life of entire communities. The complexity and effort required to carry them out, as well as their huge impact on society, are strong reasons to encourage the search for learning from existing projects, and thus help improve the performance of future infrastructure projects in the region. While all projects are different and each case, country, and region has features that make each of the projects unique and challenging, the experience of working in the region and the shared knowledge show that it is possible to identify lessons learned that allow us to repeat successes and avoid mistakes. The systematization of experiences becomes information, and the correct analysis of information ends up being transformed into evidence, and, therefore, into applied practical knowledge.

With the support of governments and research institutions in Latin America and the Caribbean, the IDB in 2020 launched the ***Network of Analysis and Best Practices in Public-Private Partnerships (PPP Network)***, with the aim of improving infrastructure development in the region in terms of quality, sustainability, competitiveness, and efficiency.

PPP Network aims to: A) connect public demands for knowledge with the developed applied research (in other words, that analytical work on PPPs respond to what policy and project developers want to know about what works and what doesn't); B) systematize information through the generation of systematized data for project analysis, from investment decisions to financing ones; and C) generate and coordinate existing evidence through the development of analytical work based on available public information generated by the network, and connect regional applied research to enhance synergies in the generation of knowledge.

In early 2020 and based on a public consultation with governments in the region, several common topics of interest in the development of infrastructure through PPPs were defined around five major areas: Regulation and Institutionalality, Feasibility and Structuring of Sustainable Projects, Project Financing, Risk Management and Monitoring, and Evaluation, Performance and Impact. This paper, ***“Impact of COVID-19 on the development of infrastructure in Latin America and the Caribbean and the role of Public-Private Partnerships in times of crisis in the region,”*** responds to this demand and has been selected within an exceptional category about the circumstances brought about by the pandemic, through a competitive call for proposals. Its authors are Pablo Jaramillo and Laura Streubel from Dentons Cardenas & Cardenas Abogados. The document was supervised and reviewed by Network coordinators Ancor Suárez Alemán and Ángel Ferrero, as well as by Paula Castillo (IDB Invest) and Carolina Lembo (IDB). Claudia Álvarez Pagliuca provided support with Network management and coordination and with dissemination and knowledge tasks.

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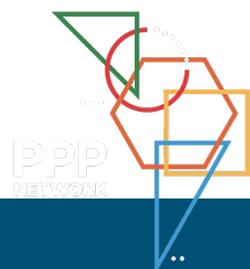
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Executive Summary

1.1 Motivation: Latin America and the Caribbean diagnosis

The expansion of COVID-19 has caused great difficulties and posed countless challenges in Latin America and the Caribbean. The pandemic is expected to have an estimated death toll of 3.2 million in the region (Infobae, 2020). Thus far, over 11 million people have gotten the disease and this figure is expected to grow considerably during the rest of 2020 and the initial months of the following year (Statista, 2020).¹ The pandemic will lead to the most significant economic contraction since the Great Depression of 1929 (Infobae, 2020). In a region where a remarkable number of countries are developing, the radical rates of unemployment will lead to a significant increase in poverty (OECD, 2020). Amid this context, governments have resorted to a series of measures to counter the effects of the virus and protect citizens. These measures have in turn led to different consequences in the development and execution of public-private partnership contracts in the region, especially in the transportation sector (ECLAC, 2020).

Projects in their structuring, construction, and operative phases have been facing an enormous number of obstacles brought about by measures concerning distancing and quarantines as well as closure of borders, states, departments, and regions within countries, suspended toll collection, and more. Therefore, the inability to continue with contractual execution and significant demand reductions have caused devastating economic losses and changes of circumstances for the participants in public-private partnership contracts in the region.

1.2 Analyzed data and methodological approach

The current document intends to analyze the level of impact, as well as the responses and approaches from countries in Latin America and the Caribbean in their efforts to mitigate the consequences of COVID-19. As part of the conducted analysis, contracts, decrees, legal frameworks, and reports were analyzed, among other data, to study the severity of the situation caused by the expansion of the virus to the development of public-private partnership contracts. Some of them concern concessionaire losses due to the suspension in toll collection, reduced income for airport concessionaires due to border closings, and lower passenger demand for public transportation systems.

Given this scenario, we decided to present a report on some representative countries in the region reflecting the situation before, during, and after COVID-19. We do this through a comparative analysis of the available or existing legal and contractual figures in legislation, prior to the expansion of the virus, and the responses and use of different mechanisms to counter its effects. We also propose strategies or solutions aimed at gaining a greater degree of preparation and containment should situations of similar characteristics occur in the future.

1.3 Analysis findings

As part of this study, we have found that, in the selected countries, there are legal entities in place that contemplate the occurrence and consequences of an unforeseeable or inevitable situation or event hindering or preventing contractual execution or compliance with one or multiple obligations. The figures of force majeure and the theory of unpredictability or of excessively burdensome conditions have been contemplated in these countries to determine whether the expansion of COVID-19 can be classified as an event constitutive of any of these figures.

¹ Number of confirmed Coronavirus (COVID-19) cases in Latin America and the Caribbean, by October 29, 2020.

The breakdown of the contractual economic balance has been analyzed following losses or revenue drops in public-private partnership ventures. In Jamaica, for example, breakdown of the economic balance occurs in the face of events framed within the doctrine of frustration. This happens when the circumstances under which several parties have agreed upon in a contract change and compliance with contractual obligations becomes impossible. In Colombia, economic balance breakdown can happen when sovereign acts take place, in other words, when the contractual circumstances of one party are modified because of measures, guidelines or general government decisions affecting a specific contract.

Regarding the analysis of the consequences of COVID-19 on contractual execution, some risk distribution policies have been analyzed, such as the guidelines of Peru's Ministry of Economy and Finance, or the CONPES documents in Colombia, which serve as a yardstick in the conclusion of public-private partnership contracts in relation to the way risks should be allocated. Overall, several countries follow the principle that the risk must be assumed by the party that is better able or in a more favorable condition to do so.

Most countries have tried to establish tools facilitating the continuity of contractual execution. This is done not only based on each country's legal doctrines and principles, but also after a careful case-by-case evaluation of the mechanisms contemplated by the contract to tackle COVID-19-related difficulties. In some cases, it's been estimated that, in the absence of effective elements within the contract, parties have the chance to modify contractual arrangements or make addenda to reach an agreement on the necessary changes or activities for the continuity of the execution of public-private partnership projects.

1.4 Recommendations and lessons learned

In the specific cases of the studied countries, different mechanisms or alternatives have been considered and presented to face the situation derived from COVID-19, both at a general level, concerning policies, guidelines, and support programs, as well as at the specific level through unique contractual mechanisms that can vary depending on each case. There clearly isn't a one and only response applicable to every country in the region that can serve as a tool to offset the virus effects. However, lessons learned can consider different recommendations, aiming at adapting them to the specific needs of each case.

The design of public policies aimed at promoting a collective approach that includes members of the public and private sectors will allow parties to reach different agreements to mitigate the effects of the virus and carry on with contract execution. This is the case of the working groups organized by Colombia's National Infrastructure Agency, the guidelines to face COVID-19 in Peru, and the commission set up in Rio de Janeiro to offer solutions to the parties involved in public-private partnership contracts execution.

The relaxation of rules and clauses regulating doctrines such as force majeure and the theory of unpredictability will allow adaptability to situations not specifically contemplated or stipulated in the contract, such as COVID-19. Thus, it will be possible to determine or classify the occurrence of a similar event in the future within a legal or contractual figure that already weighs the consequences or effects of its materialization for each party and lays out the ways in which risk should be assumed.

The procedures or options to agree on contract modification or renegotiation will generate the possibility of making some changes after knowing the situation and its consequences, thus granting the parties involved relief to continue with the development of the public-private partnership contract. It is important to take the economic factor into account so that concessionaires get not only longer terms or extensions, but also the chance to continue

with the fulfillment of their obligations, since one major difficulty derived from COVID-19 has been concession holders' lack of liquidity.

In the face of this liquidity problem, some countries like Colombia, Brazil, and Jamaica have set up or considered setting up contingency funds to provide access to certain necessary resources to offer financial relief to contractors if a situation affected the use of infrastructure and the normal course of a contract. This would provide a greater degree of certainty regarding the existence of resources to mitigate the effects of reducing the demand, collection, or revenue of concessionaires participating in public-private partnerships.

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4 Acronyms

Acronym	Meaning
ANI	National Infrastructure Agency
PPPs	Public-Private Partnerships
IDB	Inter-American Development Bank
ECLAC	Economic Commission for Latin America and the Caribbean
CONPES	Colombian National Council of Social and Economic Policy
COP	Colombian Pesos
EF	Peru's Ministry of Economy and Finance
IMF	International Monetary Fund
GPA	Grade Point Average
IHC/COR-VÍAS	Brazil's Coordinating Committee for Works and Repairs on Public Roads
PEI	Peruvian Economic Institute
MGP-S	Costa Rica's Ministry of the Interior and Police and Ministry of Health
MOPT-H	Costa Rica's Ministry of Public Works and Transport and Ministry of Health
MP-S	Costa Rica's Ministry of the Presidency and Ministry of Health
OECD	Organization for Economic Cooperation and Development
OLADE	Latin American Energy Organization
PAHO	Pan-American Health Organization
PCM	Peru's Presidency of the Council of Ministers
GDP	Gross Domestic Product
RJ	Rio de Janeiro
SELA	Latin American and Caribbean Economic System
SICOVID	Peru's Integrated System for COVID-19
USD	United States dollars

5 Introduction

On March 11, 2020, the World Health Organization declared COVID-19 a global pandemic. Most countries in Latin America and the Caribbean (the “Region”) were affected by the COVID-19 crisis, in a context of low potential growth, inequality, and social unrest (OECD, 2020) amid the worst economic contraction in a century. Some of the consequences for the Region are:

- Around 37.7 million jobs will be lost (ECLAC, 2020)
- There will be a GDP contraction of up to 5.5% in 2020 (IDB, 2020)
- The poverty rate will increase 4.4 percentage points during 2020 (IDB, 2020)
- People in poverty will increase by 29 million (IDB, 2020)

Measures adopted by different governments to face the pandemic affected Public-Private Partnerships (“PPPs”) in several ways. According to a World Bank survey of nearly 70 countries, the transport infrastructure sector was the most damaged by the impacts of COVID-19 (World Bank, 2020). The survey’s results revealed that five of the most affected sectors were:

- Transportation: 53.9%
- Tourism and recreation: 16.9%
- Energy: 7.5%
- Health: 7.1%
- Education: 5.9%

Transportation infrastructure PPPs were affected by measures implemented by the governments to offset the pandemic’s effects. These effects were not homogenous, varying according to the type of project or contract, and the stage it was in when COVID-19 began to spread. In this sense, we can differentiate between: (i) projects in structuring stage; (ii) projects under construction; and (iii) projects in operation.

Projects that were in structuring stage raised questions about the need to reconsider factors such as demand, return-on-investment recovery period, risk distribution, and others (IDB, 2020). For projects under construction, quarantines and mandatory distancing related measures made it impossible to continue operations and work stopped (La República, 2020). Lastly, for projects that were in operation, measures like border closure, mobility restrictions, businesses shutdowns, toll collection cessation, or reduced public transportation supply had clear consequences and led to income reductions (La República, 2020). Considering that projects in an operative phase were the most affected by government restrictions and measures caused by COVID-19, this paper will focus specifically on projects in this execution phase.

Amid this context, countries in the Region have taken a series of steps to mitigate the effects of the COVID-19 expansion, considering different tools and making decisions aimed at offsetting the effects on PPP

contracts. In this sense, studying the specific cases of some countries in the Region and their different reactions will help us compare, demonstrate, and appreciate different alternatives or mechanisms in the face of a same event, from a legal, contractual, and public policy perspective.

The situation that the Region is in, due to the spread of COVID-19 and the impact on the transportation sector's PPP contracts, create a need to analyze tools implemented or being considered by some countries in the Region. This while considering that, to offset the virus' effects, some sectoral or specific measures have been implemented, both for the transportation sector and for infrastructure in general.

This document and its conclusions have three objectives: (i) present the main impacts of COVID-19 on PPP development contracts in the Region; (ii) identify best practices through lessons learned in the context of COVID-19; and (iii) offer recommendations and future challenges in relation to strengthening the legal systems and contractual mechanisms available to offset situations of similar magnitude. This will make it possible to have parameters and guidelines of lessons learned to generate detailed, yet flexible, regulations, should unpredictable circumstances arise. This will enable a better adaptation and conditioning of PPP contracts when facing an event of this nature.

6 Methodological Scheme

6.1 The Region’s Response Analysis based on Specific Cases

This research document aims at analyzing the ways that countries in the Region have responded to the effects of COVID-19 in transportation infrastructure PPPs. To this effect, we have selected five countries that we considered representative of the Region, as they reflect different ideologies, political systems, legal systems, scales of economy, and locations.

In this sense, studying the cases of Peru, Costa Rica, Colombia, Brazil, and Jamaica may help compare the measures adopted by different governments in countries throughout Latin America and the Caribbean, and evidence their efficiency and suitability, so that they can be considered in the future in similar scenarios. Within this study group, there are countries with vast experience in PPP contracts such as Brazil, Colombia, and Peru. There are also countries with different systems such as Brazil’s federal one. The legal systems also vary among countries, with *civil law* prevailing in Colombia, Brazil, Peru, and Costa Rica, and *common law* in Jamaica. They are also located at different latitudes: northern South America (Colombia and Brazil), central South America (Peru), Central America (Costa Rica), and the Caribbean (Jamaica).

Other selection criteria for the countries under study are:

Criteria	Peru	Costa Rica	Colombia	Brazil	Jamaica
Features	A broad project portfolio and vast experience with concessions.	One of the most advanced countries in Central America in terms of PPPs.	Has an ambitious fourth generation (“4G”) toll roads concessions program and is structuring a fifth-generation program that includes toll roads, railroads, airports, and river concessions.	One of the few countries in the Region with a federal system. In addition, Brazil stands out for having the largest economy in Latin America. In 2019, it was deemed the ninth (9th) economy in the world (World Bank, 2020).	The country’s legal system based on common law stands out both in the Caribbean and the rest of the Region.
GDP (GPA) in USD billions (IMF, 2020)	230,738	62,142	323,561	1,839,077	15,884

Table 1. Analyzed countries.

6.2 Paper Methodology

According to the Public-Private Partnerships (PPP) Certification Guidelines (2016) of the Association of Project Managers Group (APMG), there is no one definition of PPPs. However, there is an overarching concept based on the World Bank's definition in their PPP Reference Guide and to the effect of this paper, a PPP will be defined as:

“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 during the life-cycle of the contract, and remuneration is linked to performance and/or demand and/or the use of the public asset or service.”

Based on this, we seek to conclude what measures could be implemented in different countries to mitigate the impact of COVID-19 in PPP contracts. Therefore, in this document, in addition to evaluating PPP projects from the transportation sector, contracts that are not typically included in the legal definitions of PPP will be analyzed, such as those concerning massive transportation systems. This analysis will allow us to present, in overarching terms, recommendations for best practices in PPP execution in the Region for situations such as what happened with the spread of the virus.

To this end, in this document we present the study of selected countries in terms of before, during, and after COVID-19. In every case, we'll conduct a comparative study of: (i) the legal and contractual figures foreseen in legal systems for large-scale unforeseen situations, in other words, the legal tools that studied countries had prior to the pandemic; (ii) the reactions and measures adopted in light of the expansion of COVID-19, taking into consideration aspects such as the general level of impact of these measures, the regulation of figures like *force majeure*, and each country's risk allocation policies; and (iii) the strategies and tools that have developed as a consequence of COVID-19 that could be suitable to face similar risks in the future.

The analysis we present in the terms described will lead us to establish a series of recommendations about best practices to be implemented in the Region, based on the experiences of the studied countries. Although it is impossible to adopt one same measure at a regional level given that the legal systems, regulations, and conditions of each country wouldn't allow a homogenous application, we expect to offer a range of options that could be useful for every country in the Region, so that they constitute best practices in structuring and executing PPP contracts, especially those related to transportation infrastructure.

7 Specific case studies: before, during, and after COVID-19

7.1 Peru

7.1.1 Legal and contractual figures contemplated prior to the COVID-19 outbreak

The spread of COVID-19 has led to question whether in Peru it would be considered under the theory of unpredictability or seen as a case of force majeure in PPPs. It is also being discussed whether, due to its effects, a breach in the financial economic balance of PPP contracts could be alleged. The theory of unpredictability or of excessively burdensome conditions in Peru is that which arises when compliance, with one or many contractual obligations, becomes excessively costly for the debtor.

It arises from the “*rebus sic stantibus*” principle, which states that contractual obligations must be agreed upon and executed if the factual circumstances under which the contract was signed do not vary. It is understood as an exception to the “*pacta sunt servanda*” principle, under which a contract is law between the parties and requires full compliance (Bravo, 2020). The Civil Code of Peru points out that in continued, periodic, or differed execution contracts, if service provision reaches extreme costs due to extraordinary and unpredictable events, the affected party may request the judge a service performance reduction or increase to avoid incurring in excessive costs, if that is feasible. If, due to the nature of the service, this were not possible, the judge could rule to terminate the contract (Peruvian Civil Code, Article 1440).

The figure of force majeure is regulated in Peru at three complementary levels. First, the Civil Code defines it as the none-attributable cause of an extraordinary, unpredictable, and irresistible event that precludes the execution of an obligation or reduces it to partial, late, or defective compliance (Peruvian Civil Code, Article 1350). Secondly, Supreme Decree 240-2018 EF, known as the Public-Private Partnerships Law, defines force majeure as an event that allows the consideration of extending the PPP contract if the conditions, requirements, and mechanisms for the contract can be established (Supreme Decree 240-2018, Article 38). In addition, this Law contemplates cases of force majeure that prevent contract execution or service provision, such as events that can lead to the suspension of PPPs (Supreme Decree 240-2018, Article 111). Third, force majeure is regulated on a case-by-case basis in PPP contracts, where its scope and risk distribution are established.

Overall, neither the virus nor the governmental, legal, or judicial measures taken to mitigate its effect can be classified as force majeure events or constitutive of excessive service provision costs that cause economic-financial unbalance in PPP contracts. A case-by-case assessment must be conducted to calculate the impact on these contracts, considering the specific situation, contractual stipulations, and the consequences for its execution.

Regarding the relationship with contractual measures, in Peru, PPP contracts must include an appropriate distribution of risk between parties. Based on this, Legislative Decree 1224 on the Framework for Promoting Private Investment through Public-Private Partnerships and Projects in Assets states that there must be an appropriate distribution of risks between PPP parties. This distribution must take into

consideration each party's risk management capabilities (Legislative Decree No. 1224, Article 11). In addition, Supreme Decree 240-2018 EF indicates that the promoting body of private investment or the public entity in charge of the project can, among other things, *"identify risks and allocate them to the party more capable to manage them."*

For the promoting body of private investment or public entity in charge of the project, the Ministry of Economy and Finances has issued a document establishing guidelines for allocating risks in PPP contracts ("Risk Guide"). The Risk Guide does not apply restrictively to any PPP; rather, it includes models to be followed according to PPP type and characteristics.

The Risk Guide contemplates force majeure events during the phases of design and construction. It states that force majeure impacts can range from cost overruns to the impossibility of contract compliance and, therefore, its temporary or permanent termination. According to the Risk Guide, the risks brought as a consequence of force majeure events should be shared between the concessionaire and the concession grantor (EF, 2016).

Part of the risk is transferred to the contractor in terms of hiring certain insurances for events that fall under the umbrella of force majeure. These insurances should cover damages due to floods, fires, earthquakes, riots, or others. If a force majeure event occurs and the insurance doesn't cover it in its totality, that portion of the risk will be assumed by the contracting entity and will be considered an uninsurable case of force majeure.

For the design and construction phases, the Risk Guide also identifies regulatory or normative risks, defined as regulatory changes that the concessionaire or contractor must implement if applicable, which could have an impact or affect the cost or term of a project. This risk will be shared between the grantor and the concessionaire and must include a contract economic/financial re-establishment mechanism in the event of significant project income or cost variations to compensate the affected party (EF, 2016).

However, despite the existing regulations about force majeure, excessive costs, the economic balance in contracts and documents like the Risk Guide, it has not been determined that COVID-19 should be considered legally as such phenomenon. The spread of the virus and the measures adopted to mitigate its effect have different impacts depending on the type of PPP contract, the stage that the project is in, and the contractual clauses previously agreed upon by the parties, due to which COVID-19 cannot be considered an event of force majeure in every single case (Carneiro, 2020).

7.1.2 Mobility restrictions and effects on PPPs

Some of the reactions in Peru to the spread of the COVID-19 virus and the effects it generated were:

Decree	Adopted measure	Some of the effects
<p>Supreme Decree of March 15, 2020</p>	<p>National Emergency was declared due to the life-threatening circumstances resulting from the spread of the COVID-19 virus. This decree established a national mandatory quarantine. In addition, it mandated total border closures, discontinuing all international passenger transportation by land, air, sea, or rivers. Within Peru's own borders, it ordered to reduce overland and river transportation supply. Interprovincial passenger transportation was suspended (PCM, 2020).</p> <p>The quarantine and social distancing also affected port concessionaires.</p>	<p>Measures to mitigate the effects of COVID-19 in Peru had a clear impact on PPP contracts.</p> <p>Concerning airport concessions, border closures and discontinuation of air transportation had a negative effect for the concessionaires. As a result, passenger traffic dropped 99% from 2019, causing an airport concessionaire revenue reduction of approximately 52% (ALNNews, 2020).</p>
<p>The Ministry of Transportation's Ministerial Resolution 0204-2020</p>	<p>Public land transportation was restricted to 50% of capacity.</p>	<p>When this regulation was issued, demand for public transportation in the city of Lima dropped by approximately 9% of capacity. By mid-April, it had dropped by 93.6% (OLADE, 2020).</p> <p>In May of this year, the Municipality of Lima indicated that the bus system of fast transit in the city, <i>El Metropolitano</i>, faced a reduction of about 80%, compared to typical levels (Ramos, 2020).</p>

		<p>On August 6, the demand had dropped by 68.8% from levels prevailing at the outbreak of the pandemic (OLADE, 2020).</p> <p>The concession contract established that daily passenger demand would be around 700,000 people on average (PEI, 2020). After the pandemic began, this number shrunk to 533,000 (in the week before the quarantine was declared), and to 119,000 (the week of June 22).</p> <p>Although <i>El Metropolitano</i> has currently recovered up to 92% of its operation levels before the state of emergency and is working almost at full capacity, the number of passengers is one fifth of what it used to be, directly affecting the system's income (PEI, 2020).</p>
<p>Law No. 31018 of May 7, 2020</p>	<p>Terminated toll collection in every road at the national, departmental, and local levels to prevent contact with users and comply with mandatory social distancing imposed during the national emergency due to COVID-19.</p> <p>This measure was taken to court by the government of Peru, arguing that it was unconstitutional (Political Constitution of Peru, Article 62).</p>	<p>The executive branch informed that this law led the State to lose millions of dollars. Plus, it had to assume all the legal and tax risks derived from contractual default.</p> <p>On August 25, the Law was declared unconstitutional because it implied a violation of a constitutional provision since it affected the contractual conditions of concession deals.</p> <p>Consequently, the concessionaires <i>Concesionaria Vial del Peru S.A.</i>, <i>Concesionaria Vial del Sol S.A.</i>, <i>Desarrollo Vial de los Andes S.A.</i>, and <i>Concesionaria Peruana de Vías – Covinca S.A.</i>, could request the economic balance of their PPP contract to be restored. This, taking into consideration that, in addition, by virtue of these contracts, the government grants guarantees or assurances that may not be modified legislatively.</p>

The Ministry of Transportation's Ministerial Resolution 0257-2020	Preventive COVID-19 health protocols were put in place in PPP contracts.	This measure required, on PPP contracts, the evaluation, identification, and registry of workers in the SICCOVID platform; the acquisition of personal protective equipment; permanent worker monitoring; personal cleaning and disinfection verifications; continued distancing in dining halls and offices; the disposition of locker rooms, showers, and hygiene services; and vaccination campaigns, etc.
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Table 2. Measures adopted in Peru.

7.1.3 Remedial measures issued to mitigate the impact of the restrictions and lower PPP demand

In addition to measures to mitigate the effects of COVID-19 on PPP contracts, the government of Peru has taken steps to alleviate or offset the negative effects of these measures upon the contracts. Measures taken in the port sector include:

- Legislative Decree No. 1492 of May 9, 2020, instructing those operations and procedures in the foreign trade logistics chain be conducted online. Usually, port operations were performed in person and demanded the presentation of physical documents, which led to delays and limitations, especially with the COVID-19 outbreak (Peru's Ministry of Economy and Tourism, 2020).
- The National Port Authority Guide, including recommendations for port facilities and its operators during and after the emergency caused by the pandemic (SELA, 2020).

Meanwhile, regarding road concession PPPs, the Ministry of Economy and Finances issued Resolution 033-2020 EF, approving the publication of a detailed guide on the steps to be followed by parties involved in PPP projects. In addition, on August 24, 2020, a set of *"guidelines for the government's response to potential impacts caused by the COVID-19 pandemic to PPP projects"* were approved. These guidelines are based on the impact of government measures to mitigate the effects of the pandemic on PPP contract execution, such as: (i) border closures concerning the provision of airport and land route services, (ii) mandatory social distancing concerning the provision of land transportation services, and (iii) compliance with specific protocols against the virus concerning the regular course of these contracts (EF, 2020).

These guidelines aim at providing agile and consistent solutions that, as far as possible, do not affect citizens and PPP contracts. To this end, they seek to count on specific work groups among the public and private organizations that are part of the National System for the Promotion of Private Investment,² to work in an articulated and joint manner. These actions aim to mitigate the negative impacts caused by

² It is a functional body for the development of Public-Private Partnerships and Projects in Assets, comprising the Ministry of Economy and Finance, other ministries and public agencies of the national government, the Private Investment Promotion Agency, and regional and local governments.

the Peruvian government’s decisions in the context of COVID-19, guaranteeing the sustainability of these contracts.

To fulfill this goal, the government of Peru issued six guidelines to offset the negative impacts of COVID-19 in PPP contracts:

Guideline	Description
Compliance with obligations and rights laid out in the contracts	Reviewing contractual risk assignment and their effects. The contract contains the specific provisions applicable to each party and a forecast of situations that could affect its execution.
Importance of PPPs for the private investment system	The solutions implemented should generate trust among investors, which is essential to the development of PPP contracts. Therefore, whenever possible, solutions must allow the continuity of contract execution. Although most contracts include clauses on force majeure and the reestablishment of the economic/financial balance, these may be alternative or complementary, depending on each case. Thus, a contractor’s request to terminate certain obligations should be properly supported in terms of causality and quantification. It is not enough to allege force majeure or a contractual imbalance – the problem or impact need to be demonstrated.
Problem segmentation	The measures implemented by the government have not had a homogenous effect. That’s why identifying the sector is not enough. During the contract stage, the mode of remuneration, dates of the sector’s economic reactivation, and type and level of affectation should also be identified.
Focus and non-conditioning	The problems identified or generated prior to the spread of the pandemic will not be resolved through the guidelines.
Baseline to evaluate potential impacts	The starting point for contract enforceability of these guidelines is March 15, 2020, the day before the Supreme Decree 044-2020 PCM goes into effect.
Fiscal sustainability amid a crisis	Within the working groups, state agencies will seek to protect the sustainability of public finances.

Table 3. Guidelines issued by the government of Peru.

When implementing these guidelines, three cross-cutting principles should be considered in the analysis of possible solutions to the negative impacts on PPPs:

1. **Primacy of the concession contract:** assigned risks in the contract must be analyzed respecting the conditions and equally distributing the impact caused by unforeseen events.³
2. **Good faith and transparency:** public and private officials should act in good faith and with transparency to look for solutions within contractual provisions and the regulatory framework. Concessionaires requesting negative impacts to be evaluated should provide all the information to prove the effects on the PPP. This is necessary to quantitatively review required solutions in accordance with contractual stipulations or other mechanisms.
3. **Application:** Joint work lines will apply to the potential impact caused in the normal development of PPP contracts. The guidelines only apply to PPP contracts that were affected after the health emergency was declared and only in connection with the effects attributed to the measures taken in the context of the aforementioned emergency.

Lastly, the guidelines establish two specific steps to evaluate the impacts and propose solutions in the context of joint workgroups. This is because, if the impact can be determined and specified, efficient case-by-case solutions can be developed. Evaluation and communication to determine the impacts and their possible solutions will be articulated by the contractors. They will conduct an impact assessment and provide the information necessary for evaluations.

- The first step to determine impacts and their possible solutions on PPP contracts concerns the identification and justification of the problem. This should include a financial evaluation of the impacts, identifying the regulations or measures that caused them during contract execution, and a description of the specific effects that these regulations had on the development of the contract, identifying the specific stage the project was at.

In addition, contractors should identify the legal basis or contractual provision that they are invoking, indicating the eventual obligation or responsibility of the state agency to mitigate the negative impact. This should always be based on the original risk allocation established in the PPP contract. Lastly, the contractor should lay out the proposals or measures that the state agency is evaluating and will possibly adopt, as established in the corresponding contract, to mitigate the negative consequences. It should also include the period deemed necessary to remedy or overcome the situation.

- The second step refers to selecting and executing the contractual mechanism applicable in the search to offset or remedy the negative impact on the PPP contract. The contractor and the state agency should analyze the applicable contractual clauses enabling them to continue with PPP execution.

Two scenarios may emerge when identifying impacts and searching for their potential applicable solutions:

³ Guidelines refer to the concession contract, as it is the most common, but they apply to Public-Private Partnership contracts in general.

- That the solutions in effect derive from mechanisms included in the contract. In this case, the parties should issue a minute or similar document stating: (i) applicable contractual clause or clauses; (ii) the will to not alter the nature of the project, competitive conditions, or original risk allocation; and (iii) the waiver of both parties to engage in any lawsuit or arbitration claim in connection to the effects derived from the regulations approved by the government of Peru within the COVID-19 crisis framework.

If, because of this agreement, a mechanism is applied for a monetary compensation from the state agency to the contractor, the agency will implement actions to prioritize the resources derived from undertaken commitments. State agencies will, to this end, resort to their institutional budgets without requesting additional resources from the Public Treasury.

- That the contractual mechanisms don't solve the problems affecting the PPP contract, as determined by the parties. In this case, the possibility to sign an addendum or modification to the contract that maintains the economic balance and original risk allocation should be evaluated by mutual agreement. The contractor must present the proposed addendum or modification to the state agency, attaching the evidence and the necessary technical, legal, and economic information. The state agency will proceed with the corresponding evaluation and contractual modification.

In addition to a contractual review, the legal provisions or measures adopted in the context of COVID-19 to offer relief, credits, and benefits, considering the virus' negative impacts in Peru, could be analyzed. The guidelines include measures related to economic recovery, boosting investment, creating a fund and tax measures to support businesses, among others, to benefit contractors, in specific cases.

The guidelines put in place by the government of Peru through Resolution 003-2020 EF set out very clear standards that seek to provide an opportunity to remedy the possible negative impacts of administrative acts issued to mitigate the effects of COVID-19, on PPP contracts. In addition, these guidelines could be implemented in the future as a guide or model in case of a situation of similar characteristics that interferes with or impedes the execution of contractual obligations.

Meanwhile, Statement N° 005-2020 of the State Procurement Supervisory Agency⁴ indicates that the declaration of a national state of emergency constitutes an act of force majeure, which may affect contractual ties established under state procurement regulations. Should social distancing or social isolation established by Supreme Decree 240-2018 prevent proper delivery of goods and services, the contractor has a right to submit a request for an extension of the PPP contract's initial deadline.

This statement also establishes that the parties, by mutual consent, *"may agree to the suspension of the contract's term of execution until the force majeure situation or its effects cease, and the extension of such suspension may also be agreed."*

⁴ This, under the Ministry of Economy and Finance, oversees public procurement processes that State agencies engage in to ensure they are done with integrity, efficiency, and that they are competitive to the benefit of citizens. They promote best practices in hiring processes. Peruvian State's Digital Platform. (EF, 2020).

A guideline was set up for State agencies and contractors to conduct the negotiations and respective and necessary agreements in the context of the pandemic, taking into consideration the principle of equality (Law of State Contracts, Article 2). *According to this principle, the parties' benefits and rights must keep a reasonable balance between equivalence and proportionality.*

Nonetheless, this statement is non-binding, neither does it apply to all cases indistinctly. Therefore, as previously indicated, it will be essential to conduct a case-by-case study of the negative impact on PPP contracts and possible solutions.

However, Peru's Ministry of Economy and Finance circular 063-2020-EF stated that *"the risk of force majeure is the risk of unexpected external events taking place out of either of the parties' control, hindering or preventing the execution of obligations, e.g. natural disasters, wars, non-insurable riots (...)"*. In this sense, the Ministry considered that the effects of regulations in place and issued in response to the virus do not constitute an event of force majeure that can be alleged by the concessionaire (Lexlatin, 2020). In view of this, concessionaires requested the reinstatement of the economic balance in contracts because of the measures adopted to curb the effects of COVID-19.

7.2 Costa Rica

7.2.1 Legal and contractual figures contemplated prior to the COVID-19 outbreak

Since the situation brought about by COVID-19, Costa Rica has debated whether this is a case of force majeure or fortuitous event. The legal framework refers to the risk of force majeure or fortuitous event as a risk allocated to the concessionaire during PPP contract execution, unless it is agreed that the risk will be shared. In these cases, the granting entity can assume part of the risk, covering part of the costs caused by its occurrence (the General Law for the Concession of Public Works with Public Services No. 7762, Article 36). Once the construction phase is over, the regulation does not preclude the possibility that this risk be allocated to either party.

Although the regulation concerning concession contracts for public works with services is vast, the norm does not define the figure of force majeure. Therefore, this figure is entirely regulated by contract. At the same time, there is a doctrinal development on this figure. Cordoba (1977) has defined it as:

"The words fortuitous event or force majeure designate the impossibility of fulfilling the obligation due to an extraordinary event that exceeds the debtor's will. Although certain differences could be established between both terms, in practice, it would prove useless, because modern laws, like Roman laws, use them indistinctively to refer to an insurmountable impediment. According to its original meaning, fortuitous event refers to the circumstance of being unpredictable whereas force majeure stems from it being insurmountable."

Thus, of force majeure and fortuitous events are similar concepts in terms of public procurement in Costa Rica, and they are characterized by:

- They are of supervening nature. In other words, the contract must be signed and in execution.
- They must make it impossible to comply with one or more contractual obligations.
- This must be a situation that could not have been foreseen by the affected party.

- These must be events that cannot be overcome.

In connection with the contractual measures or provisions, there is no specific regulation in Costa Rica for PPP contracts. On May 3, 1994, the General Law for the Concession of Public Works, No. 7404, was approved to facilitate access to new funding sources for projects that may boost the development of the transportation infrastructure sector. This Law was amended on May 22, 1998, through Law No. 7762, becoming the General Law for the Concession of Public Works with Public Services (Vinocour, 2008). The Law defined the concession of works with public services as the administrative contract by which the administration commissions the design, planning, financing, construction, conservation, expansion, and restoration to a third party, which also undertakes exploitation, offering the services outlined in the contract in exchange for compensations charged to the users of the infrastructure (Vinocour, 2008).

However, within the aforementioned regulation there is no development against the allocation of risks in this type of concession contracts that include service provision. Neither is there a documented public policy indicating how to allocate risks between the granting entity and the concessionaire. Taking into consideration that PPP contracts are risk sharing contracts, clear guidelines indicating which risks each party should assume throughout its execution seems necessary.

When it comes to risk allocation, the regulation only lays out the risk of force majeure or a fortuitous event during the construction phase. These risks are assigned to the concessionaire, except that the PPP contract establishes that it will be assumed by both parties. If so, the administration will assume part of the costs that arise as the risk materializes (General Law for the Concession of Public Works with Public Services, Article 36). Once the construction phase has been completed, the regulation does not indicate how risks should be allocated and therefore, as a rule, the contracting entity determines their allocation at the pre-contractual stage.

In the absence of a regulation indicating how risks should be allocated in PPP contracts, there could eventually be a disequilibrium in their allocation by the granting entity. Because of this, the risks derived from COVID-19 and the measures adopted to mitigate its effects could be assigned to the concessionaire, at least during construction phase. This is due to the regulation stating that the works will be executed at the expense and risk of the concessionaire, who must even assume the consequences in case of fortuitous events or force majeure (Lopez, 2013).

In addition to risk allocation, to protect the concessionaire and the balance of the PPP contract, the case-law indicates that the economic balance of the contract begins at the pre-contractual stage with the delivery of the offer. For this reason, since that moment, there exists a right to readjust the PPP contract for unforeseeable situations, or for situations that, although foreseeable, affect the services of the parties (Supreme Court of Justice, 1998). In these cases, the risks must be assumed by the administration, protecting the private contractor from assuming irrational risks. This is how the legal system in Costa Rica prevents the administration from allocating risks that the contractor is incapable of assuming.

Additionally, the regulation on the concession of public services in Costa Rica includes a series of mechanisms to mitigate the impact of situations that can alter the conditions in which the contract was originally established. The effects of COVID-19 and of the measures seeking to mitigate these effects can lead to alterations in the terms established in PPP contracts.

The first measure included in the existing legislation in Costa Rica is the unilateral modification of contracts. The general rule of administrative procurement agreements establishes that the object of contracts can be modified increasing or decreasing their scope (Law of Administrative Procurement, Article 12). Notwithstanding the foregoing, the General Law for the Concession of Public Works with Public Services lays out specific conditions for the modification of the contractual object to proceed in the distinct case of these contracts (Regulations of the General Law for the Concession of Public Works with Public Services, Article 47):

No.	Condition	Description
1	Limit	During contract execution, the administration may unilaterally modify, reduce, or increase the features of the hired works and services. This modification will, in no case, exceed 25% of the total sum of the investment foreseen for the concession contract. In addition, it must be based on public interest considerations. ⁵
2	Compensation	When the modification affects the concessionaire, there will be an obligation to provide compensation. This compensation may concern adjustments to the concession's timeline, fees, contributions by the administration, or any other measure that helps restore the economic balance of the contract. Multiple measures can be implemented simultaneously.
3	Guarantees of construction or exploitation	When this power is used to increase the investment amount, the concessionaire will be asked to submit an updated amount of the construction or operating guarantees.
4	Modifying the conditions in favor of the concessionaire	When, because of these modifications, the conditions initially agreed upon vary in favor of the concessionaire, allowing it to recover the investment and its corresponding profits ahead of schedule, the administration may reduce the fee charged by the concessionaire.

Table 4. Rules of unilateral contract modification in Costa Rica.

The unilateral modification of contracts in Costa Rica must, in principle, be promoted by the granting entity, but it can also be requested by the concessionaire. The regulation establishes that one of the rights of the latter is to request the modification of contract terms to the administration when, for reasons that exceed their obligations, the economic balance is affected (General Law for the Concession of Public Works with Public Services, Article 17).

According to prevailing jurisprudence, state agencies have an obligation to protect the economic balance of contracts (Supreme Court of Justice, 1992). In case of the emergence of an event or fact affecting the economic balance to the detriment of the contractor, the administration must assume the higher cost, so that the concessionaire *“can achieve the profits that it would have obtained from fulfilling the contract under the original conditions.”*

⁵ Article 13 of the General Law of Public Governance defines public interest as *“(…) the expression of the coinciding interests of the general public.”*

This regulation aims at protecting the public interest and the continuity of PPP contract execution. It also protects the concessionaire and financiers because it pursues recovering the investment and achieving the expected yield.

Another mechanism incorporated into Costa Rica’s legal framework is the adjustment to services provided based on public interest. This modification can be made on the service provided or on fees charged by the concessionaire. Tariffs can be adjusted according to the actual need for the service, if it is made to safeguard the public interest (Law of Administrative Procurement, Article 74). The adjustment must be done in accordance with the guidelines or conditions established in the tendering rules⁶ and in the contract (General Law for the Concession of Public Works with Public Services, Article 17).

According to this, when a situation arises where, for reasons of public interest, it becomes necessary to readjust the service or charged fees, the concessionaire has the right to request that the contract’s economic balance be restored as defined by the original conditions established by the parties. This way, if due to COVID-19 the economic balance of the contract is affected, any one of the parties may seek to restore it by adjusting fees, subject to the approval of the tendering rules and contractual conditions.

7.2.2 Mobility restrictions and effects on PPPs

Through Executive Order 42227-MP-S, the government of Costa Rica declared a state of emergency due to the COVID-19 situation. Costa Rica is among the countries in the Region with the lowest number of infections (PAHO, 2020). On September 5, 2020, 46,920 confirmed cases were reported, out of which 471 required hospital services and 210 were in intensive care units (Ministry of Health of Costa Rica).

To mitigate the outbreak of COVID-19, the government issued Executive Order 42238-MGP-S, restricting foreigners’ access to the territory of Costa Rica as of March 16, 2020. In line with this, it issued Decree 43335-MOPT-H, restricting incoming international flights.

As a result, traffic at Costa Rica’s airports dropped compared with previous year's figures, with its two main airports seeing a significant decrease in the number of passengers during the first half of the year (National Directorate of Civil Aviation, 2020):

Airport	Passengers in 2019	Passengers in 2020	Growth Rate
Juan Santamaria – San Jose	2,885,766	1,366,613	- 52.15%
Daniel Oduber Quiros - Liberia	671,734	423,717	- 36.92%

Table 5. Impact on main airports in Costa Rica

By August 1, 2020, airports were allowed to reopen for flights from the European Union, the United Kingdom, and Canada, which represent less than 1% of the volume of pre-pandemic incoming flights (Ministry of Health of Costa Rica, 2020). On August 13, the list was extended to include flights from a total of 44 countries (Horwitz et al., 2020).

⁶ According to Article 42 of the Law of Administrative Procurement, the tendering rules constitute the document in which the general conditions and technical, financial, and quality specifications are laid out.

Other measures that Costa Rica, one of the least affected countries in the region, took to mitigate the effects of the virus was Executive Order 42285-MP-MOPT-H of April 3, 2020, restricting vehicular traffic throughout its territory. Only vehicles whose license plates ended in the authorized digits were allowed. Executive Order 42295-MP-MOPT-H was subsequently issued on April 11, 2020, extending the duration of the initial decree. The final duration of this extension will depend on the epidemiological behavior of COVID-19 (Executive Order 42295-MP-MOPT-H).

Therefore, traffic was vastly reduced throughout the national territory, which had a direct impact on PPP road contracts. One example of this is the road connecting San Jose and San Ramon (Muñoz, 2020), where toll collection at Rio Segundo and Naranjo de Alajuela dropped about 62% due to traffic restrictions (MOPT, 2020).

7.2.3 Remedial measures issued to mitigate the impact of the restrictions and lower PPP demand

As previously analyzed, unilateral contract modification helps restore a contract’s economic and financial balance. This measure may be promoted by the granting state agency or by the concessionaire, whenever either party deems it necessary.

In addition, the possibility to adjust fees provides contractors a relief in the face of a potential impact on PPP contract execution. This readjustment could allow concessionaire to get more liquidity in less time, alleviating the COVID-19 impact on cash flows. The experience of COVID-19 will surely lead to further specificity in the wording of contractual clauses concerning events constituting force majeure or a breakup of the economic/financial balance of PPP contracts.

As a result, Costa Rica has seen no needed to issue decrees or guidelines to modify regulations on concessions. This is because the current regulations already have mechanisms in place allowing granting entities and concessionaires to seek to keep the original conditions agreed upon when the contract was signed and to maintain the contracts’ economic balance.

7.3 Colombia

7.3.1 Legal and contractual figures contemplated prior to the COVID-19 outbreak

In Colombia, irresistible and unpredictable events have been regulated through legal figures such as the theory of unpredictability, force majeure, or sovereign acts. These figures have been defined and described as:

Theory of Unpredictability	Force Majeure	Sovereign Acts
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Definition	According to Article 868 of the Commercial Code, <i>“when extraordinary, unpredictable or unforeseeable circumstances –which occur after a contract of successive, periodic, or differed execution has been signed– modify or worsen future compliance of one of the parties’ deliveries to the point where it becomes excessively costly, they will be entitled to request this revision.”</i>	According to the Council of State (2013), <i>“It is an unforeseeable and overpowering fact that cannot be attributed to the hiring parties, which leads to failure to comply with obligations as stated in the contract. It constitutes a cause for exemption from responsibility because it breaks the causal link between the non-execution of the contract and the damage derived from it.”</i>	A phenomenon that takes place when the administration, in fulfillment of its duties, issues a measure that has an indirect effect on the contract. As a result, the contract could be heavily affected, leading to an economic imbalance in the contractual relationship.
General requirements	<ul style="list-style-type: none"> • Events after contract signature. • The contract must still be in execution. • Burdensome for the concessionaire. 		
Specific requirements	Events that cannot be attributed to any party and are unforeseeable.	Events that cannot be attributed to any party, and even though foreseeable, are overpowering.	Events are the result of measures taken by the administration in its role of state authority.
Exemption from liability	The affected party is not exempt from liability. Contract compliance becomes difficult, but obligations are met.	The affected party is exempt from liability.	The affected party is not exempt from liability. The affected party continues executing the contract and the Administration makes the corresponding recognitions.

Reestablishment of economic balance	The costs incurred by the affected party are paid up to the point of no-loss.	Contractors' costs are not recognized, as they are exempt from liability.	All costs incurred by the affected party are paid and lost profits are recognized.
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Table 6. Requirements to fall under Theory of Unpredictability, Force Majeure, or Sovereign Acts in Colombia.

The outbreak of COVID-19 has triggered a debate in Colombia on whether it can be classified as any of the previously reviewed figures. In addition, available contractual figures and measures have been considered prior to the context of the virus to mitigate adverse situations and circumstantial changes in PPP contract execution.

PPP contracts are defined in Law No. 1508 of 2012 (Article 1) as *“(...) a binding instrument of private capital, materialized in a contract between a state agency and a natural or legal person of private law for the provision of public goods and their related services, which involves the retention and transfer of risks between the parties and payment mechanisms related to the availability and level of service of the infrastructure and/or service.”*

As these are contracts based on risk retention and transfer, Colombia’s legal system has established public risk policies that are applicable to projects of this nature. This is one of the responsibilities of the National Council for Social and Economic Policy (“CONPES”)⁷ by way of the so-called CONPES documents. Their aim is to establish a clear and objective set of rules that allow the parties to have clarity on how to determine if a risk is ascribable to the grantor or to the concessionaire (CONPES 3760, 2013). Although CONPES guidelines are not mandatory for state agencies,⁸ if risks are to be allocated differently, this modification must be justified before the Ministry of Finance and Public Credit and the National Planning Department (DNP), both members of the CONPES (Law No. 1508 of 2012, Article 27).

CONPES document 3760 of 2013 —where the guidelines for the 4G program are laid out— outlines a cross-cutting and objective principle for PPP projects by virtue of which risks must be assigned to the party better capable of mitigating them. Nonetheless, neither this CONPES document nor the CONPES 4000 document of August 5, 2020 —setting out contractual risk policy guidelines for the government for airport projects with private participation— specifically provide for the allocation of pandemic risk.

Meanwhile, there are other mechanisms in Colombia that can help mitigate the effects of COVID-19. The first of them refers to the contingency fund of state agencies. As part of the PPP contract structure, the Colombian government assigns a value to risks and makes provisions in the contingency fund to cover contingent liabilities (Law No. 448, 1998 and Decree 2043, 2014).

⁷ CONPES is an agency that lays out recommendations concerning the risk distribution in state contracts according to Law No. 19 of 1958 and Article 2.2.12.1.1 of Decree No. 1082. It comprises the Vice-president of the Republic, the 18 Cabinet ministers, the Administrative Department of the President's Office, the National Planning Department, and the Administrative Department of Science, Technology, and Innovation.

⁸ The documents issued are not binding given that CONPES is a collegiate body with no legal status, so its measures lack the legal capacity to create obligations. National Planning Department. *“Methodological guideline to elaborate and track CONPES documents”*.

Furthermore, contractually, 4G has included the concept of collection differential to designate the amount of money with which the contracting agency recognizes to the concessionaire the difference between the actual collection of the project and the collection estimated by the concessionaires. This difference is granted to the concessionaire during years 8, 13, and 18 of the concession to account for project traffic risks.

Although this is an efficient way to prevent the impact on revenue during the pandemic, it does not address the concessionaires' liquidity problems, because it is only paid in the previously mentioned specific years. This means that until the time of payment of the collection differential is reached, the concessionaires will not be able to receive that guaranteed amount and the risk of a situation of economic imbalance of the contracts because of COVID-19 is not eliminated.

7.3.2 Mobility restrictions and effects on PPPs

A set of measures was adopted in Colombia to offset the impact of COVID-19, which in turn affected transportation PPPs that were being executed. Some of these measures were:

Executive Order	Measure	Some effects
<p>457 of March 22, 2020</p> <p>Lockdowns were instituted between March 25 and April 13, 2020, but were later extended on several occasions. The last time it was extended was through Executive Order No. 749 of May 28, 2020.</p>	<p>Mandatory preventive isolation was declared for the first time throughout the national territory.</p> <p>The lockdown was to take place between March 25 and April 13, 2020, but had to be extended several times. Executive Order No. 1076 of July 28, 2020, prolonged the mandatory lockdown until September 1, 2020.</p> <p>Domestic flights were cancelled.</p>	<p>It restricted the mobility of all people and vehicles in the Colombian territory, except if they fell under any of the exceptions laid out in the Executive Order such as, the provision of health services and medical care, and the acquisition of necessities – food, medicines, medical devices, and toiletries.⁹</p> <p>The air traffic restrictions entailed major cash flow losses for airport concessionaires and their capacity to repay debt services. In the case of the El Dorado airport in Bogota, the concessionaire had a reduction in revenues that affected their payment capacity for debt services. In 2020, the concessionaire is expected to have the capacity to pay debt services 0.8 times. In 2022, this payment ratio will rise to 1.1 times, but it is expected to drop below 1.1 times by 2025 (FitchRatings, 2020).</p>

⁹ Section 2 of Article 1 of Executive Order No. 457 of 2020 states that “to the effects of achieving an effective preventive mandatory lockdown, the free movement of people and vehicles in the national territory is being completely limited, with the exceptions determined in Article 3 of the current Executive Order.”

<p>Office of the Mayor of Bogota. Decree No. 106 of April 8, 2020</p>	<p>Mobility within the city was restricted as from April 13, 2020.</p>	<p>Measures concerning the preventive mandatory isolation of people —together with restrictions on mobility at national, departmental, and municipal levels— had a direct impact on PPP contracts, because for many months the movement of people within the national territory was restricted.</p>
<p>482 of March 26, 2020</p>	<p>Toll collection was halted for vehicles within the national territory during the state of emergency.</p> <p>The percentage of passengers that buses and public service vehicles were allowed to carry was restricted to 50% of capacity.</p>	<p>In PPP contract executions, concessionaires had the obligation to operate and maintain the project under the conditions established by contract. This obligation was kept in place despite the issuance of the Decree, and therefore concessionaires had to continue the contractual execution without receiving the projected revenues due to the cancellation of toll collection established by the Colombian government.</p> <p>While toll collection was restricted, concessionaires ceased to collect an estimated 1,225,000,000,000 Colombian pesos (henceforth “COP”), the equivalent of approximately US\$330,277,702.88 (Montaña, 2020). This resulted in concessionaires’ lack of liquidity, which had a direct impact on the contractual equation and subsequent rupture of the economic balance of the contracts. Concessionaires from the Integrated Public Transport System in the city of Bogota suffered a passenger reduction of about 70% since the nationwide quarantine was declared. By August 6, 2020, the demand for the public transportation system in the city had been reduced by 76.7% of total passengers (El Tiempo - Bogota, 2020).</p> <p>Furthermore, the public transportation system of the city of Cali suffered a demand reduction of about 70%, going from an average 450,000 to 120,000 passengers per day (OLADE, 2020).</p>

<p>847 of June 14, 2020</p>	<p>The mayors of municipalities and districts with aerodromes or airports were allowed to request permission to implement domestic transportation pilot projects for passenger air travel.</p>	<p>The phased nature of these plans and restrictions in the number of allowed flights curtailed the level of operations at airports and, consequently, the recovery of concessionaires' revenue.</p> <p>Airports stopped collecting fees for airline infrastructure usage because air traffic was halted. In addition, revenues from the commercial exploitation of airports were affected by the lack of flow of people on their premises.</p>
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Table 7. Measures adopted by the government of Colombia.

7.3.3 Remedial measures issued to mitigate the impact of the restrictions and lower PPP demand

In addition to the measures to mitigate the effects of COVID-19 that have negatively affected PPP execution, the government of Colombia has issued provisions to offer relief or solutions during their development, especially by expanding the legal limits to their extensions. PPP contract regulations set out certain restrictions concerning the length of their extensions in time and additional resources. Public initiative PPPs can add up to 20% of their initial value and extend their initial terms by up to 20%. In the case of private initiative PPPs (unsolicited proposals), the general rule is that they can be extended by up to 20% of their initial term and, in case of private initiatives with public resources, an additional 20% of the original value can be added.

Decree No. 482 of March 26, 2020, established that:

- Public initiative PPPs whose revenue has been reduced can be subjected to extensions in time exceeding 20% of the value originally agreed upon in the PPP contract.
- Private initiative PPPs can be extended by 20% of the initial term.
- Increased extension period for port concessions, for as long as deemed necessary to overcome the negative economic effects generated during the state of emergency.

Meanwhile, the ANI is currently advancing worktables with toll road concessionaires to seek ways to help mitigate the effects of COVID-19 on PPPs (ANI, 2020). One of the main advances so far to the worktables is that ANI will grant concessionaires a special period of 98 calendar days to compensate for the reduced revenues and idle costs they have incurred. Idle costs generated between March 25 and May 31, 2020 will be recognized as long as they are credited and not derived from lack of diligence on behalf of the concessionaire (Colombian Chamber of Infrastructure, 2020).

These worktables also seek to arrange an abbreviated procedure for the recognition of exculpatory events related to the health crisis, such as acts by the government of Colombia related to the pandemic or the

future lack of raw materials because of new preventive isolations. A relevant point still to be addressed by the ANI and road concessionaires concerns economic relief in favor of concessionaires, since road traffic reduction and collection suspension heavily affected PPPs' cash flow.

In the case of airport concessionaires, ANI is organizing worktables to establish out guidelines and procedures to mitigate the impact of the pandemic and measures to mitigate its effect on PPPs. These worktables are analyzing mechanisms to allow concessionaires to obtain resources for contract execution, taking into consideration that their revenue has been affected by the conditions and restrictions of current operations.

In addition to the pursuit of liquidity that allows PPPs to continue developing, they are also currently evaluating scenarios that would suspend the fulfillment of obligations that are not essential to contract execution under the current conditions. At the same time, it is expected that direct agreements will be signed between concessionaires and the current holders of commercial exploitation spaces.

Taking into consideration that the mechanism of collection differential has been identified as one of the key aspects to improve in PPP 5G because it was only recognized in years 8, 13, and 18 of the concession, ANI changed this figure in the draft minute of the 5G contract given Income Support. This new tool replaces collection differential, becoming the payment of the difference between real project revenue over the past 12 months and the value for the corresponding period. Although the effects of this income support scheme have not yet been proven in practice because the first road of 5G generation is still in the bidding process, this will prove a relief to 5G concessionaires' liquidity problems.

In the draft minute of the 5G contract, ANI introduced another concept of special significance to be implemented in situations such as those derived from COVID-19. The concept of restricted mobility is envisioned for cases where an event or series of events related to the declaration of a state of exception and/or of emergency by decision of a national government authority, restrict mobility and/or free movement. This will be implemented when due to confinement or vehicular restrictions that cause an atypical, significant, and direct impact on project corridors' traffic there is a decline in toll collection, exclusively during the period in which the event takes place.

If these conditions are met, the concessioner will be compensated for the lower toll collection starting the day after the mobility restriction event has been declared by the corresponding government authority. This compensation will be equal to 90% of the difference between the toll's actual collection and that which would have been reaped had it been operating under normal circumstances for that quarter. Therefore, acknowledging an event of restricted mobility offers concessionaires a guarantee that, if vehicle traffic in some of the project's corridors directly affects toll collection because of an administrative measure issued by a national authority, they will be entitled to compensation to mitigate the impact on revenue caused by restricted mobility.

7.4 Brazil

Brazil is a federal republic, so it has regulations that apply at both national and state levels. Every state has administrative and governmental autonomy. Therefore, to mitigate COVID-19 and its effects, policies have been implemented at the two levels.

7.4.1 Legal and contractual figures contemplated prior to the COVID-19 outbreak

Concerning the legal figures studied after the COVID-19 outbreak, pandemics or epidemics have not been specifically considered in Brazil as situations constituting force majeure events (Villela, 2020). However, as the virus spread, this figure has been contemplated as a response to the negative effects of the pandemic on PPP contracts. The concept of force majeure is regulated by legal and contractual provisions. In general terms, force majeure is described in the Civil Code as an exemption of responsibility in favor of the debtor in cases of damages resulting from unforeseeable circumstances derived from a fortuitous event or force majeure. This occurs unless the debtor has explicitly taken responsibility for them. Force majeure is when there is an event that has effects that cannot be avoided or prevented (Civil Code, Article 393).

Regarding contractual provisions or measures in Brazil, contractual risk allocation must be established in every contract. According to Law No. 11079 of 2004, PPP contracts must include clauses assigning risks between the parties, including those in connection with unforeseeable circumstances like force majeure or sovereign acts (Karanvic Partners, 2020). For this reason, when claiming the occurrence of an event that constitutes force majeure, it is important to collect as much evidence as possible to prove the claim according to the provisions established in the PPP contract.

At the same time, Law No. 8666 of 1993 covers situations where the parties can modify concession contracts. Its Article 65 declares that, when it's necessary to reestablish the agreed upon relationship by the parties concerning contractor charges and work, service, or provision remuneration to maintain the contract's original economic/financial balance, the parties will be able to amend it in the face of fortuitous events, force majeure, or sovereign acts (Gil, Marrara, 2020).¹⁰

The processes of modifying PPP contracts are called *rebalance proceedings* (KPGM, 2020). These procedures include changes such as extending contract deadlines, increasing fees, reducing, or extending the time to fulfill obligations, and curtailing annual fees for the concessionaire. However, these procedures can take up to a few months, so they might not be particularly efficient for the purpose of keeping PPP contract execution in operation (Dentons, 2020).

7.4.2 Mobility restrictions and effects on PPPs

Brazil has issued federal and state measures because of the virus outbreak. Among them, the following stand out:

Regulation	Measure adopted
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¹⁰ *Sovereign acts* are a figure in public law that refers to the contractual relationships between the public administration and individuals. "They relate to the legitimate exercise of the powers of the authority outside of the contractual relationship that affect the conditions and obligations of administrative adjustments, making it necessary to find an economic and financial rebalance."

<p>Law No. 13979</p>	<p>This law was issued to provide for measures in the face of the public health emergency derived from the virus. It laid out the obligation for people suspected and confirmed to have COVID-19, to remain in precautionary confinement, and forbid them from circulating in public spaces (Law No. 13979, 2020).</p> <p>This law was later modified by Law No. 14019 of July 2020, which stated that public transportation concessionaires and companies had to work in collaboration with public authorities. The goal was to prevent passengers suspect of being infected from using the transportation systems that they regulated.</p> <p>Among impacts on PPP contracts, in March 2020, traffic on privately operated highways dropped 18.4% on average, with the steepest decline seen in passenger vehicles, at 22.7% (Pan-American Highway, 2020).</p>
<p>Federal Decree of March 28, 2020</p>	<p>The federal government issued a decree barring entry of foreign nationals from all countries via airports for a 30-day period. This measure was last extended on June 30, 2020.</p>
<p>Rio de Janeiro. Municipal Secretariat for Urbanism, Infrastructure and Housing regulation of March 20, 2020</p>	<p>This secretariat issued a regulation stating that works and repairs in public places should be put on hold for as long as the COVID-19 emergency remained in place in Rio de Janeiro. It added that the president of IHC/COR-VÍAS would, for extraordinary reasons, have the power to authorize some of these works (Brazil's Secretariat for Urbanism, Infrastructure and Housing, 2020).</p>
<p>Rio de Janeiro. Ruling No. 3255 of March 20, 2020</p>	<p>By way of this ruling, the Secretariat of Transportation reduced the transportation system's Bus Rapid Transit's fleet operations by 50% and completely stopped services in certain lines (Brazil's Secretariat of Transportation, 2020).</p>
<p>Rio de Janeiro. Decree No. 47228 of August 25, 2020</p>	<p>This decree laid out new measures concerning the occupancy rate allowed for interurban passenger transportation. The stipulations were made considering that there is currently a higher demand of users compared to March of this year. However, far from a total reactivation of transportation systems, the occupancy in subway, railroad, and interurban buses was limited to 60% (Official State Gazette of Rio de Janeiro, 2020).</p>

Table 8. Measures adopted by the federal and regional governments in Brazil.

The measures implemented in the context of COVID-19 vary between states in Brazil. Some of the consequences of the measures concerning social distancing, telecommute, the schools and universities closures, among others (Jornal de Brasilia, 2020), were:

City	Consequence
<p>Rio de Janeiro</p>	<p>According to the operator of the Bus Rapid Transit, Rio Ônibus, there was a 50% drop in passengers because of the measures adopted by the state government to mitigate the effects of COVID-19 (Tokarinia, 2020). In particular, the Municipality of Rio de Janeiro’s joint resolution of March 19, 2020, banned buses and trucks in the municipalities of the metropolitan region (Official State Gazette of Rio de Janeiro, 2020). As a result, the metropolitan train operator SuperVia was forced to close eight stations and had to suspend certain lines’ operations (National Association of Urban Transportation, 2020).</p> <p>The demand for public transportation reached a low of 70% compared to pre-pandemic levels. By August 2020, the public transportation service’s demand had a 45.4% deficit (OLADE, 2020).</p>
<p>Sao Paulo</p>	<p>Restrictive measures on free movement led to a 45% decrease in subway passenger demand, 40% for bus users, and 30% in the demand for Metropolitan Train Company of Sao Paulo services. Services kept operating despite this reduction, but the effects on contract development in the transportation sector are undeniable (Ibold, Medimorec, Wagner, Peruzzo, 2020).</p> <p>Restricting foreign nationals’ admission has affected air traffic at Guarulhos, the airport with the heaviest air traffic in the country. By July, this terminal had a passenger reduction of about 88% compared to 2019 (Alves, 2020). The airport’s current concessionaire is renegotiating concession fees and debt services to avoid bankruptcy (FitchRatings, 2020).</p>
<p>Brasilia</p>	<p>As a result of foreign air travelers’ restrictions, Juscelino Kubitschek airport suffered a 97% drop in passengers during the month of July, compared to 2019 (Alves, 2020).</p> <p>Concerning this city’s public transportation, demand fell by a nearly 60% compared to pre-pandemic levels. By August 2020, demand for public transportation services had a 32% deficit (OLADE, 2020).</p>
<p>Pernambuco</p>	<p>The bus system of the Metropolitan Region of Recife in Pernambuco saw a passenger contraction of 45%. Meanwhile, the subway in Recife reduced operations during rush-hours due to a 33% decrease in passengers (State, 2020).</p>

Curitiba	The number of urban passengers in the massive transportation system dropped 37% (National Association of Urban Transportation, 2020). Subsequently, demand rates reached a minimum of more than 60% decrease from the date of the pandemic outbreak. In August 2020, public transportation recovered to a demand reduction of 39.6% (OLADE, 2020).
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Table 9. Impact of measures adopted by the federal and regional governments in Brazil on PPP contracts.

In addition, in the port sector, COVID-19 led different government agencies to execute agreements, guidelines and policies to prevent people from being exposed to pandemic-related risks. These included:

- The federal government and the Ministry of Labor issued a joint recommendation to standardize protective actions and guarantee the full operation of Brazilian ports.
- The National Agency for Waterway Transportation issued a statement indicating that public and private port installations would remain operative despite the pandemic outbreak.
- The determination that to dock or operate in any port in Brazil, vessels had to be previously authorized by the National Health Surveillance Agency. This permit was issued once the health conditions of the crew and travelers had been certified (SELA, 2020).

Considering the priority of giving continuity to port activities, the impact of COVID-19 on this type of port concessions was not as significant as in other kinds of PPPs. Nevertheless, issues such as those previously mentioned limited the normal operations of Brazil’s port concessions.

7.4.3 Remedial measures issued to mitigate the impact of the restrictions and lower PPP demand

In addition to the measures to mitigate the effects of COVID-19 on PPP contracts in Brazil, there were also additional moves aimed at offsetting this condition in their execution. Specifically, the state of Rio de Janeiro issued Decree No. 47212 on August 13, 2020.

This decree created the Extraordinary Administrative Transport Commission – COVID-19 (the "Commission"). The Commission is composed of the Governor of Rio de Janeiro and the Secretary of State of the Civil House. Other members are:

- The Secretary of State for Transport.
- The Secretariat of State for Monitoring of Integrated Government Actions on Covid-19.
- The Secretariat of State for Planning and Management.
- The Secretary of State for Economic Development.
- The Secretary of State for Finance.

- The Attorney General (State Decree – RJ No. 212, 2020).

This Commission has two main functions:

- To conduct evaluations and propose administrative measures to mitigate public state transportation concessionaires' financial problems due to the low passenger flow during the social confinement period.
- To submit bills and decrees to the state governor for administrative solutions to offset the effects of the pandemic and its mitigation efforts on PPP contracts.

Furthermore, the Commission must consider measures such as temporarily eliminating concessionaire or contractor charges or obligations that seem unreasonable in the critical scenario resulting from COVID-19, such as, for example: (i) paying fines or grants; (ii) complying with investment obligations; (iii) achieving goals for operative development indicators; and (iv) measures to reestablish contracts' economic/financial balance. This Commission is also in charge of allocating funds for emergency financial resources to concessionaires and contractors in the public transportation sector.

The creation of this Commission might help offset the negative effects of COVID-19 and of the administrative and governmental responses to the pandemic on PPP contracts. It aims at laying out the steps to continue executing these contracts efficiently. Therefore, the work of the Commission could prove timelier and swifter than negotiations or the aforementioned rebalance proceedings, given that these tend to require a considerable amount of time, which translates into further economic erosion.

Measures such as more efficient process approvals, renegotiating obligation compliance deadlines, extending initially established timelines for contract execution, and, overall, all measures pursuing the restoration of contract economic/financial balance are essential in this context. The current urgency lies in the possibility of providing continuity to PPP contract execution, to comply with their goals for reasons of public interest, avoiding their suspension. However, to attain this, it is vital for contractors to find an environment allowing them to continue executing contractual obligations, even extemporaneously (Dal Pozzo, Marcondes, 2020).

7.5 Jamaica

7.5.1 Legal and contractual figures contemplated prior to the COVID-19 outbreak

The legal system in Jamaica is based on common law, which is why judicial decisions in this country are very relevant when determining the meaning of regulations and rulings. This system is based on judicial precedent, so the interpretation of legislation is highly derived from reviewing previous cases (Supreme Court of Jamaica, 2020). Thus, the body of regulations in Jamaica is not as vastly developed as that of other jurisdictions.

With the spread of COVID-19, Jamaica considered the figure of force majeure. Unlike other legal systems that may include guidelines on the regulations and legal nature of force majeure because this is a common

law system, the parties involved are free to agree on what will be considered force majeure on a case-by-case basis.

According to what the parties have agreed upon, a force majeure clause can be general or specific. In the former, the parties will be able to determine whether or not an event constitutes force majeure as events materialize. In the latter, a specific clause will lay out which events constitute force majeure, which generally includes fortuitous events. This clause normally covers fires, earthquakes, riots, storms, and sometimes even epidemics or pandemics (Dentons Jamaica).

Another figure contemplated is the *Doctrine of Frustration* (henceforth “Frustration”). Frustration constitutes an exemption from complying with obligations when:

- The parties reach an agreement based on specific circumstances, assuming that during execution, these circumstances will remain like those at the time of contract signature.
- An event or fact takes place rendering compliance with contractual obligations impossible or only possible in a different way than that initially agreed upon (Dentons Jamaica).

Frustration occurrence has the following effects because of the inability of execution:

- It relieves parties from having to comply with contractual obligations.
- There is room for contract termination.

It is worth mentioning that the circumstances that activate Frustration cannot activate force majeure; this will depend on the terms or clauses in the contract. "Typically, force majeure exculpates the noncomplying party in the face of impossibility in the fulfillment of certain contractual obligations."

The guidelines of Jamaica’s legal system have not established a general rule concerning whether a pandemic should be considered force majeure or a case for Frustration. Therefore, every case must analyze the contract. The lack of a legal definition of force majeure forces the parties to include a clause regulating it and establishing which events would be considered under this figure. Therefore, for the pandemic to be considered an event of force majeure and to consequently be exculpatory of responsibilities, parties need to have explicitly mentioned that in the contract. Otherwise, there must be a case-by-case analysis to determine whether it can fall under a situation for Frustration.

Regarding contractual tools or provisions, there are no specific laws or provisions that lay out norms applicable to PPP contracts. Since October 2012, Jamaica has promoted the Public-Private Partnership Programme through a public policy called *Shaping the new partnerships for national development – Policy and Institutional Framework for the Implementation of a Public-Private Partnership Programme for the Government of Jamaica: The PPP Policy*. This program was designed in collaboration with the Development Bank of Jamaica and Jamaica’s Ministry of Finance and the Public Service.

This public policy has positioned Jamaica as an example in the development and execution of PPP projects, given that it now ranks fourth in PPP contract environmental assessment in the Region (The Economist, 2019). There are currently 16 PPP projects being executed in Jamaica, including two highways and two

airports. The investment for these transportation infrastructure projects is roughly COP 6,143,568,000,000 (approximately US\$1,612,000,000) and every project has achieved its financial closure under the terms established in its contract (PPP Knowledge Lab- Jamaica).

7.5.2 Mobility restrictions and effects on PPPs

To mitigate the spread of COVID-19, Jamaica’s Prime Minister decided to temporarily close national airports. The measure originally decreed the closure of airports for 14 days since March 21, 2020, but it was later extended until May 15, 2020.

Consequently, the airport operator in Sangster, –the largest in Jamaica— had a 70%, or 28,414,002,000 (approximately US\$7,429,354), decline in revenues while suffering operational losses for about COP 23,038,380,000 (approximately US\$6,024,287) (Jackson, 2020).

Also, the government of Jamaica declared a mandatory quarantine in St. Catherine for seven days, from April 15 to April 22, 2020. This was due to an outbreak of 33 new cases of COVID-19, which were significant among the 105 cases that had been confirmed in the country thus far (Prime Minister Communication Office, 2020). Therefore, traffic in April was reduced by 52% at the concessional Highway 2000 East-West compared to April 2019 (Trans Jamaican Highway, 2020).

Lastly, and concerning the port sector, some measures and actions were implemented to monitor and research the effects of the virus in the country. In particular, the Caribbean Public Health Agency developed a guide to mitigate the impacts of COVID-19 in the Caribbean, offering guidelines to port entries throughout the region (SELA, 2020).

7.5.3 Remedial measures issued to mitigate the impact of the restrictions and lower PPP demand

In connection with disaster risk policy management, the government of Jamaica has made a historic transfer to the Natural Disaster Contingency Fund, created in 2018 to cover all types of costs derived from natural disasters. Some of these resources have been used to finance part of the necessary expenditure derived from COVID-19, which has allowed the response of the Jamaican government to social demands to be swift and efficient (IMF, 2020).

In June 2020, the Inter-American Development Bank (“the IDB”) and the Development Bank of Jamaica published the document *“Improving Climate Resilience in Public Private Partnerships in Jamaica”* (IDB, 2020). This document covers risks associated with climate change in PPP projects. Although it is not directly related to COVID-19, it does include suggestions to improve public policies linked to disaster risks. Therefore, we believe that some of the guidelines it includes could be implemented to mitigate both risks derived from the pandemic and those that eventually result from future situations of similar characteristics.

This document differentiates four implementation stages in infrastructure projects through PPPs in Jamaica, as follows:



Chart 1. Stages of Project Implementation in Jamaica

There are suggestions for each stage to be integrated into PPP legal framework. The document concludes with an implementation guide with short-, middle-, and long-term recommendations for the Jamaican government, including:

- Incorporate a classification of projects’ geophysical and hydrometeorological vulnerabilities.
- Review PPP acceptance criteria in its initial stages to include climate resilience as part of public policy guidelines.
- Include insurance requirements in selection processes.
- Conduct market research on environmental risk insurance.
- Consider risk transfer mechanisms such as catastrophe bonds (*cat bonds*) or *weather derivatives*. Cat bonds are mechanisms used to transfer risks to private investors while making sure to have enough sources to cover losses in case a catastrophe materializes (Yoon, Scism, 2020). Weather derivatives are financial market instruments capable of mitigating the impacts of future and indeterminate weather events. These derivatives grant access to enough funds to cover the effects of weather events, because the resources collected from their sales are used as risk insurance (Considine, 2020).
- Develop specific definitions for contracts in line with the climate report carried out during the case study phase. Although force majeure clauses usually include climate risks that are beyond the control of any of the parties, the recommendation is that PPP projects contain clauses of force majeure with the particularities of each project.

The creation of public policies –such as those concerning PPP resilience regarding climate change, COVID-19, or in the face of situations of similar characteristics that entail consequences like the pandemic– will be decisive to avoid or offset eventual impacts on PPP contracts bankability. This will bring recommendations that can be used as tools when writing contract clauses in connection with the economic balance of contracts and force majeure, which –after the experience of COVID-19 and, in the case of Jamaica, climate change— can lead to more specific and detailed contract stipulations, providing for risk distribution and potential scenarios for contract execution.

8 Comparative analysis of the measures adopted by reviewed countries to mitigate the effects of COVID-19

Because of the COVID-19 outbreak, reviewed countries adopted different measures that had impacts on PPP development. The following table is a general summary of the impacts on each country, the regulation of legal concepts like force majeure, and the existence or absence of risk allocation policies.

	Peru	Costa Rica	Colombia	Brazil	Jamaica
General overview of the region	There is no consensus in the region on whether COVID-19 and the measures taken to mitigate its effects can be considered force majeure or sovereign acts. Not every case has led to the end of the economic balance of PPP contracts, which is why there must be a case-by-case evaluation of contractual stipulations and the impacts that the pandemic has had on contract execution. Based on this, as part of contract evaluations, it is important to identify if there are specific clauses that cover these events. Some legal systems provide more general solutions that are not at the contract level.				
Impact	High. Measures like the law of toll collection suspension.	Low. One of the countries in the region that was less affected by the outbreak of COVID-19.	High. Measures were extended over time, with a higher impact on PPP contract development.	High. Measures to reduce the maximum allowed occupancy in mass passenger transportation.	Medium. Despite the consequences of the pandemic, resources available from the Natural Disaster Contingency Fund combined with policies developed by the Jamaican government and the IDB, are available mechanisms or tools to offset the effects of the virus.

Legal regulation of force majeure	Yes.	No. The legal framework in Costa Rica does not include the specific regulation of force majeure. Therefore, the measures to regulate force majeure depend on what is established in each PPP contract and specific jurisprudential provisions.	Yes.	Yes.	No. The legal framework in Jamaica does not include the specific regulation of force majeure. Therefore, the events and effects of force majeure must be agreed upon by the parties when establishing a PPP contract.
Risk allocation policies	Yes, the Risk Guide.	Yes. The regulation of concession contracts establishes how the risk of force majeure must be allocated in each stage of a contract.	Yes, the CONPES documents.	No. Risk allocation is established in each contract.	No.

Table 10. General overview of the impact of COVID-19, regulation of legal concepts like force majeure, and the existence or absence of risk allocation policies.

Based on this, we present an assessment of how risk allocation in reviewed countries has affected the measures taken to mitigate the effects of COVID-19 on PPP contracts:

Peru	Costa Rica	Colombia	Brazil	Jamaica
<p>In Peru, the risk guides issued by the Ministry of Economy and Finance have defined the risk of force majeure as a shared risk. However, the scope of the risk of force majeure is focused on natural disasters such as floods, fires, earthquakes, or events like riots. Although some events are regulated, the pandemic was not considered an object of force majeure, according to the risk guides.</p> <p>Because of the measures taken to prevent the impacts of the pandemic on contracts, the declaration of a national emergency constitutes a situation of force majeure. This seeks to protect contracts,</p>	<p>Costa Rica has a limited risk allocation policy. Regulations establish that the risk of force majeure during construction stage must be assumed by the concessionaire unless otherwise agreed.</p> <p>This has not been an impediment to mitigate the effects of the pandemic, because the same regulation states that the economic balance of contracts must be protected, so that in the event of a situation that terminates that balance, the state agency must modify the contract to reestablish it. Meanwhile, the concessionaire can request an amendment to the contract if they consider that</p>	<p>In Colombia, among the measures taken to mitigate the impacts of the pandemic, the national risk allocation policy does not contemplate a risk allocation in case of pandemic or similar events. Nevertheless, national authorities are clearly trying to mitigate the effects on PPP contracts, declaring COVID-19 an event of force majeure and acknowledging concessionaires' idle costs during specific periods in which government decisions have affected contract execution and concessionaire revenue.</p> <p>Therefore, due to the absence of a regulation addressing the risk</p>	<p>In Brazil, risk allocation is contractual in nature. In other words, parties are free to agree on who is going to assume which risk in each specific situation. Considering this, PPP regulations have a figure to maintain contract balance – namely, rebalance proceedings.</p> <p>Among the measures taken to protect contracts, their renegotiation has begun seeking to restore balance, given that COVID-19, or a pandemic, were not foreseeable and were therefore not included among force majeure events.</p> <p>In this sense, despite lacking a risk policy, regulations in Brazil tend to uphold contract</p>	<p>In Jamaica, risk regulation is of contractual nature. Therefore, force majeure is only considered if the event that takes place has previously been specified to configure it. However, there is no evidence suggesting that COVID-19 has had such a significant effect for the Jamaican government to institute measures to modify PPP contracts.</p>

<p>pursuing the goal of maintaining their balance.</p>	<p>this balance has been broken.</p> <p>In this case, the lack of an extensive risk allocation policy regulating the risk of a pandemic has not had major effects on contracts, because the legislation already contemplates the restoration of economic balance as a concessionaire's right.</p>	<p>of a pandemic or similar event, agreements have had to be made to prevent concessionaires from absorbing a disproportionate risk.</p>	<p>balance.</p> <p>Therefore, the measures to mitigate the pandemic effects have been paired with adjustments allowed by the regulation.</p>	
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Conclusions

- One of the main challenges for parties in a PPP contract when an extraordinary event takes place is to establish the specific legal concept that is applicable to determine the right type of compensation and how it should be calculated.
- Among the countries that have risk policies in place, there is a regulatory vacuum to mitigate the effects of an event that is not considered force majeure. On the other hand, countries that lack risk policies have regulatory tools in place to modify contracts should there appear imbalances in the agreed conditions.
- Out of the analyzed countries in the region, the one overarching conclusion is that contracts need to be amended because that COVID-19 and the measures implemented to respond to it have had on them. The countries most affected by the pandemic –i.e., Colombia, Peru, and Brazil– are already implementing necessary procedures to mitigate the effects of the pandemic on PPP contracts.
- Including contractual mechanisms to determine which events constitute force majeure in each case, does not necessarily imply compensation in favor of the concessionaire in the event of their occurrence. Compensation should be aligned with the risk allocation established by contract, derived from the agreement between the parties or each country's public policy guidelines.

Table 11. Comparative analysis of the region and conclusions.

9 Recommendations and best practices going forward

According to the impact and effects of COVID-19 on PPP development in the region, several mechanisms were proposed to mitigate contract repercussions. The study of these mechanisms has shed light on best practices that may be implemented in the region to be better prepared for similar situations in the future.

Herewith is a summary of the mechanisms each country has considered along with a brief description. Their strongest advantages and disadvantages are described to offer the region recommendations concerning best PPP execution practices going forward, following the experience of COVID-19.

Country	Mechanisms	Description	Advantage	Disadvantage
Peru	Guidelines.	To find solutions for state agencies and contractors, such as the exercise of contractual elements or making amendments to them.	A detailed description of steps to be followed by the parties in a PPP contract.	Due to the information required to substantiate impacts in each case, it can be a very lengthy process.
Costa Rica	Unilateral contract amendment.	To reestablish economic balance.	Although this mechanism is implemented by the state agency, contractors are entitled to request reestablishment of the contract's economic balance.	The request, negotiation, and its concrete implementation can add up to a lengthy process.
Colombia	<ol style="list-style-type: none"> 1. Worktables. 2. Contingency funds Contractual concepts of mobility restrictions and income support.	<ol style="list-style-type: none"> 1. Aimed at seeking joint solutions such as compensations, suspension of honoring non-essential obligations, recognizing events that 	<ol style="list-style-type: none"> 1. Involves both public agencies and representatives of the private sector. 2. The contingency fund allows state agencies and concessionaires 	<ol style="list-style-type: none"> 1. Specific economic relief in favor of concessionaires has not been specified. 2. Resources from contingency funds cannot be used for any unforeseen

		<p>exonerate responsibilities.</p> <p>2. Resources in favor of the concessionaire for future uncertain events as compensation either in the form of contract duration extensions or monetary sums.</p> <p>3. Restricted mobility: compensation for reduced toll collection, equivalent to 90% of the difference between actual revenue and that which would have been collected under normal circumstances during that quarter.</p> <p>Income support: a reimbursement of the difference between actual project income for the last 12 months and that of the corresponding period.</p>	<p>to have resources available in the event of circumstances that are described in the contract as contingencies.</p> <p>3. Restricted mobility: specifically envisions broader situations than COVID-19, where mobility is restricted.</p> <p>Income support: helps concessionaires have more certainty concerning the project's expected traffic, because it guarantees a minimum income, even in the event of an unforeseen toll collection reduction.</p>	<p>event. Therefore, contingencies not subject to compensation via these resources lack coverage.</p> <p>3. Restricted mobility: the concessionaire must assume 10% of the lowest collection. Therefore, the concessionaire is not completely covered by this measure.</p> <p>Income support: only protects concessionaires up to a certain sum, which does not cover 100% of project proceeds. This means that, if the limit is exceeded, the concessionaire must assume the revenue loss.</p>
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Brazil	Rio de Janeiro Commission.	To promote administrative measures and laws to mitigate the impact of COVID- 19. Consider suspending concessionaires' non-essential obligations.	Not only does it provide for the proposal of agreements and law drafts, but also seeks an allocation to the Contingency Fund.	Members of this commission do not include representatives of the contractors.
Jamaica	<ol style="list-style-type: none"> 1. Catastrophe bonds or weather derivatives. 2. Natural Disaster Contingency Funds. 	<ol style="list-style-type: none"> 1. Bonds: Risk transfer to private investors to have sources and cover losses in event of a catastrophe. Derivatives: Financial market instrument responsible for mitigating the impacts of future and unpredictable weather events. 2. To cover any type of cost resulting from natural disasters. 	<ol style="list-style-type: none"> 1. Risk allocation transfer helps better prepare for situations like COVID-19. 2. They allow liquidity problems to be addressed effectively and to continue executing PPPs. 	<ol style="list-style-type: none"> 1. These bonds are currently not designed to mitigate risks other than those related to weather. 2. Currently only considered in the event of a natural disaster.

Table 12. Best practices of countries in the region.

Considering the previously described advantages and disadvantages, and in the understanding that the implementation of these mechanisms should vary according to each country’s possibilities and characteristics, the experience of COVID-19 helps establish some regional recommendations. In this sense, to provide best PPP development practices for the region, it would be interesting to adopt mechanisms incorporating elements from each of the analyzed responses.

Therefore, an assessment and subsequent adaptation of measuring like the ones described below is recommended.

9.1 Policies:

- a. Design of public policies, working tables, and guidelines, to work together and find solutions to offset the negative effects. Working tables such as those implemented in Colombia and Brazil constitute a mechanism that can help parties reach agreements on how to mitigate the impact of COVID-19 in contracts. This helps to conduct a study of each case and reach solutions in a more agile way.
- b. Increasing flexibility: (i) in norms that regulate force majeure in different legal frameworks; and (ii) force majeure clauses, to make them more easily adaptable to situations like COVID-19. This aims at endowing granting entities and concessionaires with more tools to efficiently determine whether a situation of this nature constitutes an event of force majeure. Making regulations and contractual clauses more flexible could prevent the uncertainty of how to classify these kinds of situations, because they could be contained under the umbrella of force majeure.
- c. Procedures to amend or renegotiate contracts to jointly face the negative effects of COVID-19. Cases like those of Peru and Costa Rica have shown that their legal frameworks allow concessionaires and granting agencies to mutually agree to modify contracts in the event of an economic imbalance in the contract. Implementing these amendment figures in other jurisdictions would provide project financiers increased security, because they would be seeking to preserve the conditions originally agreed upon by the parties. Colombia has also made an early renegotiation of contractual conditions in PPP contracts to mitigate the negative effects of government regulations aimed at addressing the pandemic. This has helped concessionaires not have to answer for all the costs that they had to incur during the time when there were mobility restrictions in the country.

It is important that contract amendments and renegotiations are accompanied by liquidity reliefs for concessionaires and not solely contract duration extensions. Throughout the pandemic, one of the main problems that concessionaires have had to face is the lack of liquidity due to limited revenue or fee collection from infrastructure use. Therefore, negotiations should include liquidity aid for concessionaires to absorb the impacts of the fixed costs they must cover even when the infrastructure is not in use.

9.2 Programs:

- a. Contingency funds such as those in Colombia, Rio de Janeiro, and Jamaica's Catastrophe Contingency Funds can be very useful to solve contractors' liquidity problems. In the event of a situation affecting the use of infrastructure, like COVID-19, contingency funds ensure liquidity in case of significant impact on concessionaires' cash flow. The source of liquidity of these funds must be considered by the granting entity, as is the case in Colombia, to provide resources based on the contribution plan approved for the project. If this contribution plan is not complied with,

use part of the excess resources of the autonomous equity accounts for funding. Alternatively, granting agencies can allocate part of their annual budgets to channel resources to the contingency funds. This brings further certainty about the existence of resources to mitigate the effects of events like reduced toll collection due to the pandemic.

- b. Exploring risk transfer mechanisms like establishing insurance policies or implementing mechanisms like catastrophe bonds or weather derivatives. These mechanisms endow the financial sector with more certainty of project bankability because they transfer project risks from the concessionaires to third parties. This way, in the event of a risk like the pandemic –of unforeseeable and unpredictable nature– materializing, there is an insurance mechanism in place to prevent project paralysis, protecting concessionaires and financiers. This could lead to higher private sector investments in PPP contracts and infrastructure in general because it mitigates projects volatility.

9.3 Contractual mechanisms:

Considering that the circumstances necessary to assert that an event constitutes force majeure vary in each PPP contract and with every country's regulation, including mechanisms to calculate concessionaire compensations and reliefs is recommended. This is because it is impossible to pre-establish a figure or percentage that would apply to every case, because contract conditions are affected very differently. Some of these mechanisms could be:

- a. Designing contractual measures to provide relief to concessionaires concerning liquidity, such as collection differentials and income support in Colombia. Although this mechanism doesn't completely address concessionaires' lack of income, these two figures detailed in chapter 9.3.3 of the current document offer concessionaires the certainty that they will get help to mitigate the impacts in the event of a risk materializing and reducing traffic. It also allows the risk of traffic reduction to be shared between the public and private sectors, alleviating the burden on the concessionaire.
- b. Liquidity aid measures, like the mobility restriction in Colombia, which mitigates the decline in toll collection caused by decisions by state authorities restricting people's free movement, which led to less use of infrastructure. This measure helps mitigate the effects of situations like COVID-19, because if government authorities issue regulations that restrict road usage, concessionaires obtain this aid to prevent them from losing the totality of their revenue. Nevertheless, in Colombia, this measure does not cover the totality of the revenue loss, so the concessionaire still assumes part of the losses.

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