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Abstract

Latin America and the Caribbean (LAC) is one of the regions most exposed and vulnerable to climate-related risks, with large shocks occurring regularly. Climate change is exacerbating the frequency and variability of climate related extremes and increasing slow onset events, threatening social and economic outcomes in the region. Responding to climate change will require stronger risk management systems that include social protection. Social protection systems in LAC are relatively advanced, but they do not yet consider climate shocks. Overall, social protection systems suffer from relatively low coverage, leaving significant parts of the population vulnerable to transient and chronic poverty in the face of shocks. The large social protection responses that LAC implemented to address the impacts of COVID-19 present an opportunity to prepare for the challenges arising from increased climate-related shocks. This study investigates how non-contributory social protection (mainly income support) has been used to respond to previous climate-related shocks and to COVID-19, and what are the implications for managing climate-related shocks in the future.

JEL Codes: I38, Q54
Keywords: shock-responsive social protection; cash transfers; climate change; Latin America; Caribbean

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Executive Summary

Latin America and the Caribbean (LAC) is one of the regions most exposed and vulnerable to climate-related risks, with large shocks occurring regularly. Climate change is exacerbating the frequency and variability of climate-related extremes and increasing slow-onset events, threatening social and economic outcomes in the region.

Responding to climate change will require stronger risk management systems that include social protection. Social protection systems in LAC are relatively advanced, but they still do not consider climate shocks. Overall, they suffer from relatively low coverage, leaving significant parts of the population vulnerable to transient and chronic poverty in the face of such shocks. The large social protection responses that LAC implemented to address the impacts of COVID-19, however, present an opportunity to prepare for the challenges arising from climate change.

Social protection includes a range of instruments, such as social assistance, which is the focus of this study. Social protection systems that simultaneously aim to mitigate the impacts of shocks that affect multiple households are shock responsive. Several strategic and programmatic elements are important in the design and implementation of shock-responsive social protection: i) System response, which includes type of responses (vertical, horizontal, new programs, design tweaks, and alignment) and response performance (coverage, adequacy, and timeliness), and (ii) System preparedness, which includes the targeting, information, and delivery systems, as well as the institutional and financial arrangements that enable a response.

This study investigates how non-contributory social protection (mainly income support) has been used to respond to previous climate-related shocks and to COVID-19, and what the implications are for managing climate-related shocks in the future. It has been primarily conducted through a review of existing literature and a small set of key informant interviews, and includes both a regional review and country examples from Peru, Honduras, and Bolivia.

Shock-Responsive Social Protection in LAC Before COVID-19

Social protection systems in LAC before COVID-19 were not developed with shock-responsive objectives in mind. Nonetheless, they played that role in an ad hoc manner multiple times, including in reaction to climate-related shocks. Most responses addressed rapid-onset shocks, and vertical expansions were much more common than coverage expansions (horizontal and new programs). There was relatively little alignment between social protection and humanitarian responses, and while overall disaster response in the region before COVID-19 was dominated by in-kind transfers, social protection responses relied largely on cash assistance.

Social protection targeting mechanisms in the region were designed to reach the chronic poor. Given the prevalence of vertical expansions, this has likely led to significant exclusions of affected people in responses to shocks. Social registries became increasingly popular in the region, but they were rarely used to inform shock-responses prior to the pandemic. The delivery of emergency benefits has often relied on existing mechanisms, such as manual delivery, but e-payments have gained ground in recent years. Coordination between social protection and disaster response institutions in most countries has been limited, even when formal coordination structures exist. Disaster risk financing strategies and instruments are still nascent in the region, and most countries have relied on a combination of ad hoc measures to finance disaster response through social protection.

Shock-Responsive Social Protection Responses to COVID-19

System Response

The COVID-19 crisis was a game changer for shock-responsive social protection in LAC. Virtually all countries implemented at least one social protection measure in response to the pandemic. The

launch of new programs took precedence, although vertical and horizontal expansions of existing programs were also important in reaching affected populations.

There are significant differences in the scale and type of responses at both the sub-regional and country levels, with South America concentrating the largest number and size (in budget) of measures, followed by much smaller responses in Central America and the Caribbean. Overall, the responses to the pandemic led to an unprecedented, if temporary, increase in coverage. The most common goal of this expansion was reaching informal sector workers who are typically excluded from social assistance and social insurance schemes. However, these increases in coverage have not been sustained, and they do not appear to have led to an expansion of permanent social protection benefits.

There is limited data on the adequacy of social assistance responses to the pandemic. Nevertheless, the transfers did deliver important and positive benefits, including temporarily reducing poverty at a larger scale than before. In addition, expanded and new social assistance programs appear to have mitigated the pandemic's effects on inequality, food insecurity, and mental health, among others. Extending coverage to middle-income households may also have improved the adequacy of responses.

The region's social protection response was faster than the global average, at least for a subset of programs (Beazley et al., 2021). Vertical expansions were for the most part the fastest, followed by new programs, although some of the most rapid programs were new. However, speed does not necessarily mean coverage: Timely responses are not always inclusive and are not always timely for everyone. The nature of the financing was important in affecting speed and timeliness, with government-funded interventions faster on average than donor-financed and mixed-financed ones (Beazley et al., 2021). Generally, however, countries in LAC relied on a mix of government and donor financing to fund the response.

System Preparedness and Operational Systems

The pandemic made evident the challenges of using poverty rankings created before the shock. Given the pandemic's evolving nature and the need to cover different groups, LAC countries applied an incremental approach to targeting. This involved, in some cases, quasi universal approaches and, in others, applying new eligibility cut-offs that led to more focused approaches requiring new targeting criteria to identify new populations. The physical constraints and challenges arising from the pandemic meant that governments had to rely on new, and more flexible, targeting mechanisms. This led to important innovations.

Countries leveraged existing social protection beneficiary lists, social registries, and data on "potential beneficiaries" in new and creative ways to quickly expand coverage. They conducted rapid mass registrations, including using electronic registration forms. Given their increasingly broad needs, they had to leverage additional information sources, even when their social registries had broad coverage. Even so, relying on existing program and social registries for the identification of new beneficiaries made interventions more timely than collecting new data (Beazley et al., 2021).

Countries in the region also innovated significantly in making payments. Electronic payment modalities enabled faster responses but might have inadvertently left some potential beneficiaries out. This underscores the importance of contextual factors, such as the availability of mobile phones and internet networks for social protection expansions.

Country Case Studies

Peru

Peru's cash response to COVID-19 had one of the highest coverage rates in LAC. As the crisis unfolded, the social protection reaction evolved from narrowly targeted grants to a quasi-universal approach. However, not all segments of the population were quickly assisted. In addition to the grants being phased in, the delivery period of at least two months for each transfer was long.

Transfer values were, overall, low. Moreover, the cash responses excluded irregular migrants, one of the country's most vulnerable populations.

Despite the large coverage of the existing social registry, the government had to develop a new registry to expand coverage to virtually the entire population and implement new programs. Mobility restrictions and social distancing measures promoted important innovations in the delivery of cash transfers. These included payments through digital wallet and mobile banking, as well as deposits in pre-existing accounts. Nonetheless, in many cases long lines formed at payment points, especially during the first transfers. Peru's pandemic response highlighted the key role of social protection to manage large crises.

Honduras

Although the Honduran government adopted several non-cash-based measures to respond to the pandemic's impacts, the country's cash-based social protection response was limited to the creation of a new voucher (Bono Unico) and the tweaking of rules for the existing conditional cash transfer program (Bono Vida Mejor, or BVM). Targeting for the Bono Unico required both expanding the existing social registry through a self-registration process and developing a new targeting index. Delivery challenges for the BVM led to the creation of the new Government-to-Person (G2P) platform for payments. The implementation of this platform was a leap forward in modernizing the BVM payment mechanism.

Two large, consecutive hurricanes hit Honduras during the pandemic. Although these disasters seem to have had a larger impact on the country than the health crisis, the social protection responses to them appear to have been somewhat smaller. The physical distancing measures stemming from COVID-19 imposed significant constraints on the hurricane response, such as obtaining information about changes in households' conditions. The hurricanes also created challenges for the COVID-19 response, for instance by hindering the development of the new G2P payment platform. However, there were also synergies: Some instruments set up to address the COVID-19 socioeconomic crisis, such as G2P, were subsequently used for the hurricane response.

Financing for social protection was also affected. Multilateral agencies supported the Honduran Government, but mechanisms to allow contingency or emergency financing were lacking. In general, the country's social protection system struggled to coordinate with other responses and was challenged by the compounded shocks.

Bolivia

Bolivia was struck by COVID-19 while already immersed in a political and economic crisis. This worsened the impacts of the pandemic. The government made emergency transfers to a very large portion of the population, using existing social protection programs as the basis for new interventions. Targeting of benefits was incremental, until reaching a quasi-universal approach. But this was not by design. Despite the response's large coverage, it was insufficient to protect people from falling into poverty. Although there was an already established social protection system, the speed of the response was slower than optimal. And although delivery of payments was challenging, innovations during the pandemic led to a significant increase in the use of digital banking systems.

The Government of Bolivia financed responses to COVID-19 from its own budget. Multilateral institutions, including the IDB, provided ad hoc "revolving" funds to replenish that budget. Despite the successful innovation in financing expenditures, however, there were difficulties in rapidly accessing funds.

Key Insights and Lessons

Three major insights for the future management of climate-related shocks emerge from the experience of shock-response in LAC during COVID-19:

First, very large expansions of non-contributory social protection interventions can be undertaken to respond to shocks as part of larger responses to manage complex impacts. Large, successful, shock-responsive social protection interventions are possible, and they can be used as one "layer" in a more comprehensive combination of risk management strategies. This is important because managing shocks related to climate change will require a range of interventions, from emergency response and humanitarian action to health and infrastructure.

Second, the nature of the shock matters, and climate-related shocks might not be of sufficient scale to mobilize similar public support and political will for social protection. The impacts of the COVID-19 shock originated primarily from the public health measures that countries put in place to prevent further contagion. This created economic and political imperatives for response that are unlikely to be as strong in other, more localized, climate-related shocks.

Third, large-scale social protection responses to COVID-19 were required because of the region's relatively low pre-pandemic coverage. It is unclear if this health crisis will generate structural changes in the permanent coverage of social protection systems. The large expansions seen in response to COVID-19 do not appear to be sustained in time. Rather, almost all of them have been temporary. This means that a significant number of people remain vulnerable to new shocks, including growing climate-related ones.

Finally, key lessons and recommendations from the study include:

Focus on designing shock-responsive systems, not programs. During COVID-19, the preferred response was creating new social protection programs rather than relying on existing ones. This is important for "designing" social protection systems that respond to future climate shocks because it demonstrates the need to focus on developing overall social protection system capacity and response flexibility, rather than focusing too narrowly on making existing programs scalable.

Design more adequate social protection responses to climate shocks by understanding and assessing risks in advance. Shocks create new needs that have to be addressed differently in terms of response coverage, generosity, or delivery. Because of the nature of the pandemic, COVID-19 related measures were more compensatory in nature. Generosity and coverage were not necessarily based on an assessment or verification of the impact on people. Potential hazards, patterns of exposure and vulnerability, and their potential impacts must be understood in advance when it comes to climate-related risks. This is particularly true for increasingly complex (drought followed by floods) and/or "new" climate-related disasters such as heatwaves.

Consider, and prepare in advance for shock-responsive targeting methods and systems. The pandemic highlighted that targeting methods need to be adjusted to the nature of the shocks and that ideas about strict poverty targeting are difficult to apply in crises. Disaster situations could make issues such as inclusion errors and verification of eligibility less relevant when large numbers of people and new groups are affected, with either geographical or quasi-universal approaches being more cost-effective and practical. In such cases, program implementers will need to have flexible rules and monitoring mechanisms. Alternatively, when justified, more rigorous targeting methods might be needed (for example, in cases of localized or smaller shocks) that can identify affected people who are outside of regular social protection programs. In such cases, having in place systems that can be dynamically adjusted could be important. Investments should be made in both these areas.

Focus on consolidating and improving shock-responsive information and payment systems put in place during the pandemic. COVID-19 represented a significant leap forward in the utilization of digital registries and payment systems. But challenges of interoperability, continuous updating, and digital exclusion remain. There are important differences between the pandemic and climate-related disasters in which physical infrastructure can be destroyed, however. In the future, the ideal could be a mix of both digital and in-person systems. Layering alternative methods can also allow for wider coverage. Stricter verification parameters for registration and payment methods should be considered when needed to ensure transparency and accountability in disasters.

Invest on improving institutional, contextual, and financing factors in addition to systems and interventions. While social information systems are important, responding to shocks in a timely manner depends on a host of institutional and contextual factors. Taking that into account, key recommendations are:

- ***Ensure institutional collaboration and political support, as these are crucial for preparedness efforts***. Coordination mechanisms between social protection and disaster response are key to addressing future climate-related shocks. So are strong institutional frameworks and political support. This means, for instance, ensuring that social protection systems are embedded in a solid legal framework and that there is more awareness and support for social policy interventions. During the COVID-19 pandemic, it was possible to change, suspend, and alter many program rules, timelines and constraints in ways that would have been impossible in previous disasters. This underscores the importance of both political support and system flexibility.

- ***Recognize that disaster risk financing is the cornerstone of well-prepared, shock-responsive systems.*** COVID-19 demonstrated the importance of having i) contingency funding available before shocks hit; ii) protocols in place to make that funding quickly available; and iii) the political will to do so. Enacting the reforms needed to respond to shocks through social protection is difficult if financing is not committed ahead of time. Program officials, for example, lack the incentives to invest in system preparedness if there is uncertainty about available financing if a climate-related shock does occur. Climate shocks are likely to almost always be of a smaller magnitude and occur more regularly than pandemics. Pre-arranged contingency funding, regulated by spending protocols and rules, is essential.

In summary, social protection systems that are prepared from an operational, institutional, and financing perspective, and that are also flexible and have the political support for use as response mechanisms will likely be more effective in responding to future shocks.

1. Introduction

Climate change constitutes a key poverty and inequality challenge for the Latin American and Caribbean (LAC) region, and in the future will require stronger risk management systems that include social protection. After Asia and the Pacific, LAC is the second most exposed region in the world to natural disasters, most of which are climate-related (United Nations Office for the Coordination of Humanitarian Affairs, 2020). Climate change will exacerbate the frequency and intensity of those disasters as well as of gradual processes such as biodiversity loss, desertification and sea level rise, disrupting livelihoods and increasing poverty and inequality across the region (IPCC, 2018; Hallegatte et al. 2016). To protect those most at risk from the impacts of climate change, governments in the region need to strengthen existing social protection systems. That means, among other things, making those systems more agile and responsive to crises and emergencies arising from climate shocks and responding to changes in their populations' livelihoods and vulnerability (Hallegatte et al., 2016).

Social protection systems in LAC are relatively advanced, but they do not yet consider climate shocks. The region pioneered the use of conditional cash transfer (CCT) programs to combat chronic poverty and promote social and economic inclusion in the 1990s. Social protection systems have advanced significantly in countries such as Argentina, Brazil, Chile, and Uruguay, but are still nascent in many countries in Central America and the Caribbean. These systems are increasingly used as a shock-response mechanism to respond to natural disasters. But before COVID-19 they were not always adapted to be able to respond to evolving shocks related to climate change such as droughts, floods, and deforestation.

The large social protection responses that LAC implemented to address the impacts of COVID-19 present an opportunity to prepare for the challenges arising from increased climate-related shocks. Most countries in the region used existing social protection systems, and in particular cash transfer programs, to provide temporary support to millions of households during the economic crisis caused by the COVID-19 pandemic. There were significant successes, but such efforts were also challenged by the need for rapid responses using systems unprepared for such purposes. Drawing lessons from the recent experiences is key to informing the use of these programs to respond to some of the challenges arising from climate change.

This paper reviews social protection responses to the COVID-19 pandemic in LAC. It does so to provide an overview of opportunities and gaps in improving social protection systems so they can manage growing climate-related shocks. The paper is based on a review of the experiences with non-contributory social protection responses to COVID-19 in LAC in 2020 and 2021, and a limited review of recent experiences responding to climate-related shocks. Using a shock-responsive social protection framework, it provides a synthesis of the successes and challenges arising from shock responses in LAC. The goal is to understand how social protection systems in the region can better respond to climate-related shocks. The paper also offers a series of insights and policy considerations for policymakers.

2. Framework and Methods

2.1. Conceptual Framework

Increasing risks from climate change will generally make climate-related shocks worse, affecting populations in vast and different ways. On one hand, hazards are changing due to human-induced global warming. This has driven changes in weather patterns, the frequency and intensity of extreme weather events, and the physical environment. On the other hand, economic growth, development, and other non-climate related processes are resulting in new patterns of exposure and vulnerability. These concurrent changes create an altered risk landscape, with higher uncertainty and volatility, often increasing risks for the most vulnerable people and societies (Costella et a., 2021). This paper focuses on risks associated with climate change that have the potential to lead to shocks that disrupt lives and livelihoods. They include risks connected to hydro-meteorological hazards (such as extreme events that are increasing due to climate change), and complex risks where climate and other factors combine to exacerbate impacts, such as those that arose from COVID-19 and the concurrent climate shocks of 2020 and 2021.

Social protection includes a range of instruments which aim to manage poverty and other social risks. The International Labour Organization (ILO) defines social protection as a "set of policies and programs designed to reduce and prevent poverty and vulnerability throughout the life cycle" (ILO, 2017). Social protection tends in practice to be conceptually organized around social assistance (non-contributory, tax-financed benefits and services to avert poverty and deprivation); social insurance (contributory schemes financed by individuals, companies, and the state in advance, including work-related pensions and unemployment insurance); and labor market interventions. Social services are also sometimes considered part of a social protection system, especially when a social policy lens is applied.

In this review, we focus on non-contributory social protection, particularly cash-based transfers, as key instruments that provide income support during shocks. The Inter-American Development Bank's (IDB) social protection approach focuses on social assistance and social services as a way to advance social inclusion in LAC. The main elements of the approach include (i) income support to families in structural poverty through efficient mechanisms that enhance human capital accumulation, and to households suffering income loss from transitory shocks; and (ii) services to support the autonomy of people who require the help of others for daily activities, mostly a subset of older people and Persons with Disabilities (PwD) (IDB, 2021). Our review is mainly focused on income support.

Social protection generally aims to operate as a system, although in many countries the elements of such a system are often dispersed. At the "policy level," social protection is embedded in strategy, policy and legislation and is underpinned by specific governance and coordination arrangements and financing streams. At the "program design level," it develops context-specific approaches to defining eligibility and setting benefits and services. Finally, at the "administrative level," it consists of a set of processes/functions, often supported via a digital information system: outreach and communications, identification and registration, enrolment, payment/delivery, complaints and appeals, case management, monitoring and evaluation. Social protection systems do not yet operate fully across these levels in most low- and middle-income countries around the world.

Social protection systems that aim to mitigate the impacts of shocks affecting multiple households simultaneously (covariate shocks) are shock responsive. Shock-responsive social protection aims to address impacts from all types of covariate shocks, not just climate-related ones. But its conceptual framework provides a useful lens of analysis. The experience of shock-responsive social protection systems in general, such as those implemented during the COVID-19 pandemic, can provide lessons for addressing the shock-related impacts of climate change.

Several strategic and programmatic elements are important in the design and implementation of shock-responsive social protection (Beazley et al.,2019; O'Brien et al., 2018;

Holmes et al., 2021; Lindert et al. 2020): i) System response, which includes types of responses and response performance, and (ii) System preparedness, which includes targeting, information, and delivery systems, as well as institutional and financial arrangements that enable a response. Particularly important measures of crisis response effectiveness are timeliness, coverage, and adequacy (Bastagli & Lowe, 2021).

Table 1: Elements of Shock-Responsive Social Protection Systems

System response	**Types of responses**	**Vertical Expansion**	Increasing the benefit value or duration of an existing program or system
		Horizontal Expansion	Coverage expansion: Adding new beneficiaries to an existing program or system
		New programs	Coverage expansion: Creating a new program to reach additional beneficiaries
		Design Tweaks	Adjusting program design features (e.g., conditionalities) temporarily in response to a shock.
		Alignment	Developing a parallel response that aligns with a current or possible future social protection program; or using existing social protection systems to deliver a separate humanitarian intervention
	Response performance	**Coverage**	The total number of people, or the percentage of affected people, being assisted by a program or by all forms of assistance to people in need
		Adequacy	The measure of how well the response is meeting the needs created by the shock (usually focused on the short-term needs created or exacerbated by the crisis)
		Timeliness	Whether assistance is delivered in the time frame when people need support, and before they adopt distress strategies to cope with the shock.
System preparedness[1]	**Targeting and information systems**		The capacity of the system to identify and provide support to people at risk of, or already affected by shocks, even when they might have been displaced by it (targeting mechanisms, registries, databases, etc.), based on information relevant to the response (e.g., early warning systems, other hydrometeorological information, climate vulnerability information)
	Delivery mechanisms		The capacity to transfer cash or in-kind support, including digital payment systems and the portability of benefits, among others.
	Coordination and financing		The capacity to align resources and actors for an integrated response. This includes contingency planning, response coordination, and financing strategies, among others.

Source: Adapted from Beazley et al., (2019); O'Brien et al., (2018); Holmes et al., (2021).

[1] The list of elements included in the table is not exhaustive, and only those that are reviewed to some extent in this study are considered here. For instance, system preparedness can also include important monitoring and evaluation elements, which are key for program efficiency and transparency but were not included in our review.

2.2. Methods and Limitations

This paper analyses how non-contributory social protection (mainly income support) has been used to respond to previous climate-related shocks, how those responses compare with responses to COVID-19, and what the implications are for managing climate-related shocks in the future. To achieve this, we review the social protection responses to climate-related shocks and COVID-19 in LAC against the elements of shock responsive social protection systems (Table 1). Given LAC's increasing climate risk, we then extrapolate the lessons from these previous responses to provide policy and programmatic insights that might support better management of climate shocks through social protection in the future.

The study has been primarily conducted through a review of existing literature and a small set of interviews with key informants, and includes both a regional review and country case studies. As part of our initial review, we consulted key academic and gray literature, news articles, and databases to identify regional climate risks arising from climate change as well as climate-related shocks in 2020-2021, their impacts, and their interaction with COVID-19 impacts. We then reviewed selected documents on social protection responses to climate-related shocks in the region in the years before and, when available, concurrently with the COVID-19 crisis. After that, we reviewed selected literature on social protection responses to the impacts of COVID-19 in the region**.** Finally, we explored three country examples, Peru, Honduras, and Bolivia, to provide an overview of their social protection responses to COVID-19 and, when possible, previous or concurrent climate-related shocks. A database of the literature reviewed has also been produced.

Limitations. This study focuses on evidence from the implementation of non-contributory social protection (mainly cash transfers). It does not include evidence from other types of social protection instruments or from cash transfers implemented by humanitarian or disaster response actors. It is also based on a review of written information and can thus only cover elements that are reflected in that literature. For the section on responses to shocks before COVID-19, limited quantitative information exists in the literature to support an analysis of those responses against our framework. For that reason, we are not always able to quantify responses, coverage, or timeliness. The literature on social protection responses to COVID-19 in LAC also does not appear to have extensively covered issues of coordination and financing, both elements of our methodological framework (Table 1). Therefore, we do not review these issues in separate sections, but when relevant information is available, we include it in a box or paragraph under other related sections.

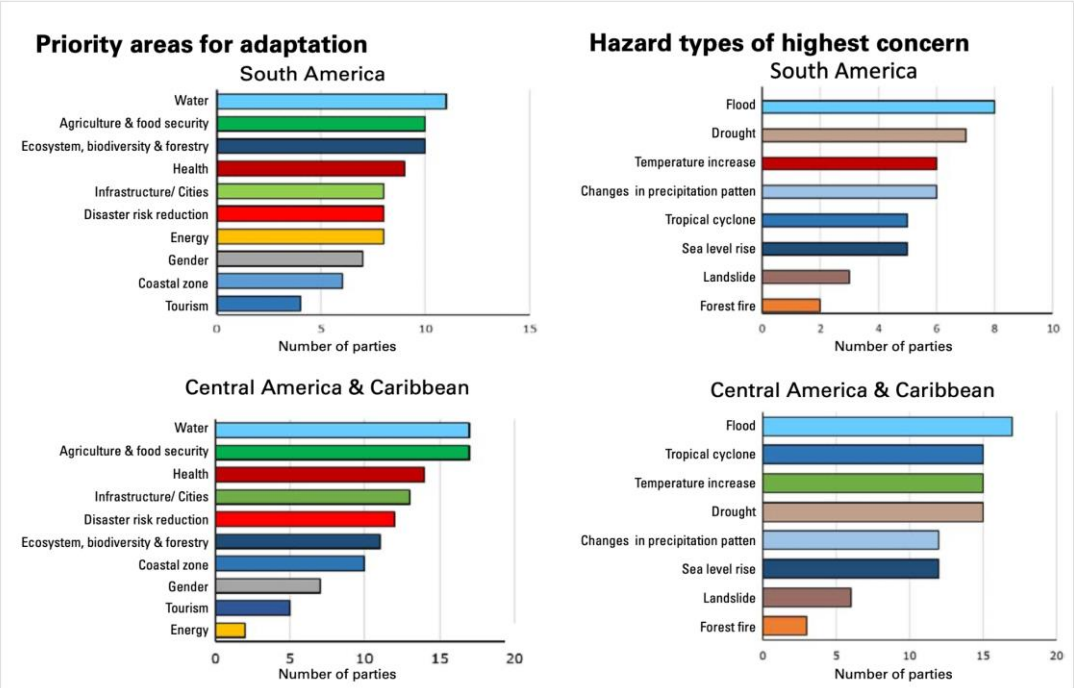
3. Regional Climate Risks and Recent Climate Shocks

3.1 Climate Risks, Impacts, and Future Trends

Latin America and the Caribbean is one of the regions most exposed to climate-related risks, with large shocks occurring regularly. After Asia and the Pacific, the region is the world's second most disaster-prone, with a total of 1205 disasters between 2000-2019 of which 90% were climate related (UNOCHA, 2020). During that period, floods and storms were the region's most common disasters, with floods repeatedly causing damages of over US$ 1 billion. Drought, meanwhile, affected the greatest number of people (53 million) (UNOCHA, 2020). One in 10 disasters were caused by other climate-related hazards such as extreme temperatures (heatwaves and cold waves) or by climate hazards interacting with environmental factors (wildfires and landslides). Many shocks are cyclical, and compound disasters, most notably protracted droughts followed by seasonal flooding, lead to complex and multidimensional humanitarian needs (UNOCHA, 2020).

Climate change is exacerbating the frequency and variability of climate-related extremes and increasing slow-onset events. Key climate change effects in the region include a general rise in average temperatures (0.7°C to 1°C increase since 1970, except in Chile), changes in precipitation patterns, and an increased frequency and intensity of extreme events, including flash floods and landslides. They also include changing discharge patterns in the Amazon River and in the western Andes, rising sea levels (of 2 to 7 mm per year since the 1950s), acidification and increased coral bleaching in the western Caribbean, and the retreat of glaciers (IPCC, 2014 in IDB, 2018). Storms affecting Central America and the Caribbean are becoming more frequent and intense, with an increase in the frequency of category 4 and 5 hurricanes (Oxenford and Monnerau, 2017 in IDB, 2018).

Figure 1: Priority Areas for Adaptation and Hazard Types of Greatest Concern in LAC



Source: NDCs in World Meteorological Organization (2021).

Climate change effects are expected to continue to grow, threatening social and economic outcomes in the region. Some of them are already being widely felt by communities. Rising sea levels, for example, are significantly impacting low lying coastal regions, affecting infrastructure, agriculture, tourism, water supplies and local ecosystems (CAF, 2014). Climate change in the future may lead to decreased productivity; damage to infrastructure, coastal areas, and ecosystems; increased disease burdens; and a reduced availability of water (IPCC, 2014). Climate shocks could cripple island economies, particularly those highly dependent on tourism (IDB, 2018). Heat exposure alone could lead to almost 20,000 additional deaths per year in the region by the year 2050 (World Health Organization, 2014). While climate change effects in some locations could be positive, including increased agricultural production for certain crops (Magrin, et al. 2014 in IDB, 2021), a conservative estimate of costs to the region's GDP from climate change impacts ranges from US$85 billion to US$110 billion annually by 2050 (Vergara, Rios, et al. 2013 in IDB, 2021). It is estimated that climate change could increase poverty in LAC by up to 300% in the worst-case scenarios, undoing years of poverty reduction efforts (Jafino et al., 2020).

Countries in the region are particularly concerned about increasing floods, cyclones, and droughts, along with a wide range of other growing hazards. Countries in South America that have submitted Nationally Determined Contributions (NDCs) describe floods and droughts as their main hazards of concern. For countries in Central America and the Caribbean that have submitted NDCs, those hazards are floods, cyclones, and temperature increases (Fig. 1). Changes in precipitation patterns and sea level rise are also worrisome. Top priorities for adaptation include water; agriculture and food security; health; ecosystems, biodiversity, and forestry; infrastructure and cities; and disaster risk reduction.

3.2 Countries and Regions Most at Risk in LAC

Most countries in the region are highly vulnerable to climate change. According to the Climate Change Vulnerability Index (CCVI),[2] 18 of the 33 countries in LAC are extremely or highly vulnerable, with countries like Honduras, Bolivia, and Peru ranking especially high on the list (Table 2). The DARA climate vulnerability indicator is based on 34 indicators of economic, human, and ecological effects. It suggests that most countries in the region are affected by climate change, and that they will become more vulnerable between now and 2030, resulting in substantial economic costs (IDB, 2018).

Countries in Central America and the Caribbean are at the highest risk of climate impacts, based on both historic and future exposure trends, as well as their capacity to adapt and to transition to a net-zero economy. The DARA index classifies Belize, Haiti, and Jamaica as acutely vulnerable due to climate change (IDB, 2018). The Climate Risk Index (CRI, European Investment Bank, 2021) lists Honduras, Haiti, Nicaragua, and the Dominican Republic as among the top ten countries most affected by climate impacts over the 1997–2016 period. Indeed, the CRI calculates that most LAC countries not only have a high *physical risk score* (the risk of natural disasters as well as more gradual physical changes) but also, as most other countries, a high *transition risk score.*[3] This refers to a country's exposure to risks from the transition to a low or net-zero carbon future, and includes elements such as total greenhouse gas emissions and revenues from fossil fuels. Caribbean countries such as Dominica, Antigua and Barbuda, The Bahamas, Haiti, Grenada, and St. Vincent and the Grenadines score particularly high in terms of physical and transition risks (European Investment Bank, 2021).

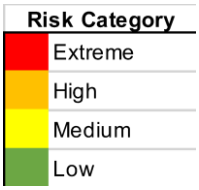
[2] The CCVI evaluates countries' vulnerability to climate change over 30 years (2014-2034), measuring both exposure to climate-related hazards and their capacity to adapt to, or take advantage of, those impacts (CAF, 2014).

[3] The objective of the transition risk assessment is to provide a view on the future decarbonization and its associated risks. It uses three key dimensions for identifying the factors that have a material impact on countries' economic performance: the geography-specific carbon indicators (reflecting risks), their relation to the global climate ambition and the speed of adjustment, and finally the commitment of each country to this global plan as part of its adaptive capacity in the context of the transition.

Table 2: Climate Change Vulnerability Index for the LAC region

Country	Rank	Score
Haiti	1	0.58
Guatemala	2	0.75
El Salvador	3	0.79
Honduras	4	0.92
Dominican Republic	5	1.01
Nicaragua	6	1.19
Jamaica	7	1.50
Paraguay	8	1.58
Belize	9	2.25
Bolivia	10	2.48
Venezuela	11	3.64
Ecuador	12	3.76
Dominica	13	3.85
Cuba	14	3.90
Guyana	15	4.23
Colombia	16	4.30
Mexico	17	4.47
Peru	18	4.98
Panama	19	5.57
Antigua and Barbuda	20	5.64
Brazil	21	5.77
Suriname	22	5.85
Saint Kitts and Nevis	23	6.24
Argentina	24	6.66
Trinidad and Tobago	25	7.22
Costa Rica	26	7.70
Saint Lucia	27	8.25
Uruguay	28	8.33
The Bahamas	29	8.68
Chile	30	9.54
Grenada	31	9.58
Saint Vincent and the Grenadines	32	9.63
Barbados	33	9.77

Source: CAF (2014).



Haiti is unanimously considered at very high climate-related risk in all the mentioned studies, followed by Honduras, the Dominican Republic, Nicaragua, Jamaica and Belize. Countries in South America, including Colombia, Brazil, and Peru, tend to be most at risk of floods (Table 3). Ranking data for forest fires, extreme temperatures, and landslides has not been found in the course of this study. However, Bolivia, Chile and Ecuador mention these as important risks in their NDCs (United Nations, 2021).

Table 3: Ranking of the Three Most Affected Countries by Type of Climate-Related Hazard

Disaster/Position	1st	2nd	3rd
Floods	Colombia	Brazil	Peru
Droughts	Brazil	Guatemala	Haiti
Cyclones	The Bahamas	Jamaica	Mexico
Sea level rise	The Bahamas	Antigua and Barbuda	Saint Vincent and the Grenadines

Source: For floods, droughts, and cyclones, UNOCHA (2020); for sea level rise, World Bank as cited in CAF (2014).

3.3 Climate-Related Disasters in 2020 and 2021

Floods inflicted considerable damage on Brazil, Bolivia, Peru, and Venezuela in 2020. In January 2020**,** floods and landslides caused by the heaviest rains in over a hundred years in the south-east of Brazil[4] left more than 35,000 people homeless and 67 people dead (EM-DAT, 2022). In January 2021, there were floods in Bolivia. In August of the same year flooding in Venezuela led to several deaths and damage to about 800 houses (EM-DAT, 2022). On February 6, 2020, the Peruvian National Emergency Operations Center reported heavy rains and flooding affecting agricultural land and several towns in the Huánuco Department (COEN, 2020).

Drought, extreme temperatures, and related forest fires also struck South America and the Caribbean in 2020. The southern Amazon and the Pantanal suffered their worst drought season in 50 years and the most damaging fire season on record. Twenty-six percent of the area's forest was destroyed (World Meteorological Organization, 2021). Already under water stress, the Caribbean, including Haiti, the Dominican Republic, Puerto Rico, northern Colombia, Panama, and northwestern Venezuela, also suffered severe droughts that threatened crops and food production (World Meteorological Organization, 2021). The World Meteorological Organization (2020) reported that 2020 was the second warmest year on record for South America and one of the three hottest years for Central America, Mexico, and the Caribbean, with major heat waves across the region.

Storms and cyclones caused extreme damage in Central America and the Caribbean in 2020 and 2021. In Central America, two hurricanes, Eta and Iota, made landfall in November 2020, two weeks apart from each other. Guatemala, Honduras and Nicaragua were the worst-hit countries, with damage to 964,000 hectares of crops. Agricultural livelihoods were disrupted, thousands of houses were damaged, and more than 100 roads and bridges were rendered unusable. Hurricane Grace, which made landfall in August 2021, had an especially strong impact in Haiti, as the heavy rains flooded areas hit by an earthquake that had killed thousands of people days before. This made it difficult to continue with rescue operations (National Hurricane Center, 2021). This hurricane also affected Mexico, Jamaica, and the Cayman Islands.

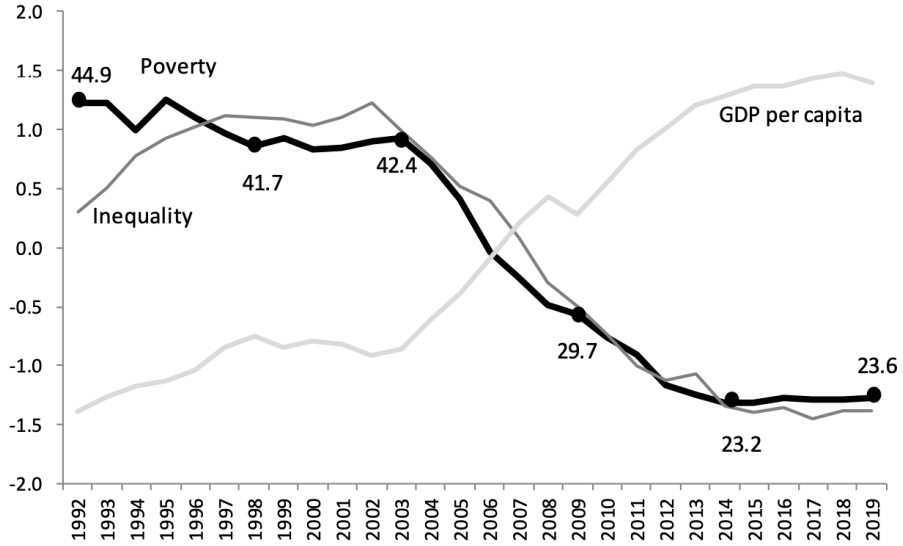
Large climate-related shocks coincided with the COVID-19 pandemic in 2020. The most significant shocks of 2020 were Hurricanes Eta and Iota in Guatemala, Honduras, Nicaragua and Costa Rica, and the intense drought and fire season in Bolivia, Paraguay, Argentina and the Pantanal region of Brazil. These disasters led to water and energy-related shortages, agricultural losses, and displacement, while compromising people's health and safety just as the COVID-19 pandemic was unfolding.

[4] Including Minas Gerais, Espírito Santo and Rio de Janeiro https://www.cbnvitoria.com.br/reportagens/2020/01/cenario-e-de-catastrofe-diz-governador-casagrande-em-iconha-1014202691.html

4. Shock-Responsive Social Protection in LAC: Recent Experiences

Poverty and inequality indicators for LAC have generally improved over the last two decades. But they remain high, and progress has stagnated in recent years. Between 2000 and 2015, poverty and inequality fell considerably in the region. The overall poverty headcount ratio decreased from 42% in 2003 to 23% in 2015, and national Gini coefficients followed the same trend, as shown in Fig. 2 (Gasparini et al., 2021)[2]. The largest reduction in total and extreme poverty occurred in the Andean region, Venezuela excluded. However, there has been a generalized stagnation in these positive trends since 2015, along with a deep socioeconomic crisis in Venezuela and social unrest in several other LAC countries. Poverty in the region is more prevalent in rural areas, among indigenous people and Afro descendants, and among women and households with children (IDB, 2021).

Figure 2: Poverty, Inequality and GDP Per Capita



Source: Gasparini et al. (2021). GDP per capita: IMF Economic Outlook[3].

Overall, social protection systems suffer from relatively low coverage both in their contributory and non-contributory systems. This leaves significant parts of the population vulnerable to transient and chronic poverty in the face of shocks. Coverage of contributory social protection, i.e., social security, is low. The relatively smaller portion of workers in formal employment have limited income protection instruments. In part due to the low coverage of social security policies, social assistance policies in LAC have expanded in recent decades, including cash and in-kind transfers, subsidies, and employment programs. Cash transfers, especially conditional cash transfers (CCTs), are the backbone of social assistance policies in LAC. They tend to be focused on structural poverty, however, and significantly under cover their target population (IDB,

[2] This study excludes three countries in the Caribbean: Cuba, where the access to microdata is difficult; Haiti, where income data from surveys is infrequent and weak; and Puerto Rico which is a part of the United States.

[3] Note: Poverty: poverty headcount ratio with a line of 5.5 dollars a day (2011 PPP). Inequality: mean national Gini coefficients for the distribution of the household per capita income distribution. GDP per capita, constant prices, international dollars PPP 2017. The vertical axis shows the standardized value of each variable (variable minus the mean over the standard deviation). The labels in the poverty line correspond to the values of the headcount poverty ratio. All Latin American countries included, except El Salvador and Guatemala.

2021). This, combined with limited shock-responsive systems, limits their capacity in the face of shocks.

In the next subsection, we review how non-contributory social protection systems in the region have reacted to shocks preceding COVID-19 in recent years. In later sections, we review social protection responses to the pandemic and the innovations, challenges, and successes involved.

4.1. Overview of Recent Climate-Related Shock-Responsive Social Protection Experiences Preceding COVID-19

This section provides a summary of the existing literature on shock-responsive social protection responses in the region before COVID-19, with a focus on non-contributory social protection.[4]

Responses by Social Protection Systems

Social protection systems in LAC were not developed with shock-responsive objectives in mind prior to COVID-19. But they played that role in an ad hoc manner multiple times, including in reacting to climate-related shocks. Beazley et al. (2019) documented an increasing number of cases between 2015 and 2017 where LAC countries used their social protection programs to respond to shocks. Most responses prior to COVID-19 addressed rapid-onset shocks, while slow-onset ones tended to be dealt with only once they reached a state of emergency (Beazley et al., 2019). There does not appear to be extensive documentation of social protection responses to climate-related shocks since the COVID-19 pandemic hit. The reasons for this are unclear.

Vertical expansions were more common than coverage expansions (horizontal and new programs) as a social protection shock response before COVID-19. Vertical expansions are operationally easier, and countries in the region have implemented them frequently in recent years, for instance in Dominica (Hurricane Maria) and Perú (El Niño Costero) in 2017 as well as in El Salvador (drought) in 2018. In some cases, countries have implemented responses to expand coverage on a temporary basis (horizontal expansion). That was the case in Mexico and Peru in the face of climate-related shocks in 2017 and 2018 (Beazley et al., 2019). Horizontal expansions might have been implemented less frequently because they entail significant operational challenges, including the identification of new beneficiaries, the setting up of new payments, and potential tensions associated with adding temporary beneficiaries to an existing program (Beazley et al., 2019).

Alignment between social protection and humanitarian responses has been less common in LAC than in other regions. Governments in LAC tend to take on a large share of disaster response efforts, operationally and financially, than in other areas of the world. In countries of the region with less mature social protection systems, however, the alignment of humanitarian and social protection interventions has played an important role in expanding disaster coverage. For instance, in El Salvador, the World Food Program (WFP) successfully implemented a cash transfer program in 2018 that followed parameters and criteria[5] similar to those of the government's program expansion, in order to complement it and reach more locations (Beazley et al., 2019).

[4] As mentioned in the Limitations section, we do not rely on new research or have not performed a meta-analysis of the literature. Therefore, some statements remain general, and quantification is provided only when data has been reported in the reviewed literature.

[5] To increase response coverage, the Government of El Salvador and WFP developed a social protection response model which combined three different strategies, each of them implemented in different municipalities. 1) Vertical and horizontal expansions of cash transfer programs (Drought Grant, *Bono Sequía*) that consisted of one transfer of US$ 120 per family and reached 15,538 families. 2) Shadow alignment of WFP's cash response that reached 1,989 families with two transfers of US$ 80 each. 3) Food distribution, which had not been delivered by March 2019 (when Beazley et al., 2019 was published) but had the objective of reaching 73,758 families. It was the first time that a cash transfer program in El Salvador was scaled up to provide support to people affected by a natural hazard. There were some delays with the implementation of the vertical and horizontal expansions (*Bono Sequía*), mostly related to the lack of preparedness and the capacity of

Although overall disaster response in the region before COVID-19 was dominated by in-kind transfers, social protection responses relied largely on cash assistance (Beazley et al., 2019). In-kind transfers are more commonly implemented by humanitarian and disaster response agencies, while cash-based transfers (cash and vouchers) are commonly implemented by social assistance ones. Among other social assistance instruments, school meals programs have been used successfully because of their coverage and well-established delivery systems. In Nicaragua, Honduras and Haiti school feeding was expanded vertically (additional food servings and servings for the weekend and holidays), to respond to climate shocks (Beazley et al., 2016).

Preparedness of Social Protection Systems

Targeting, Registries, and Payment Mechanisms

Social protection targeting mechanisms in the region are largely designed to reach the chronically poor. Only a few countries have social protection targeting mechanisms in place for emergency response, i.e., pre-arranged systems to support the registration, eligibility assessment, and enrolment of new caseloads (Beazley et al., 2019). An example of a country with such a mechanism is Chile. Its Basic Emergency Form (*Ficha Básica de Emergencia*, FIBE) consists of a one-page questionnaire used to identify households affected by natural or man-made disasters at the local, provincial, regional, or national levels.[6] It is applied by qualified municipal staff within 24 hours after the occurrence of an emergency (Decree 697, 2015). Few countries have targeting protocols that can be temporarily revised or rules and requirements that can be softened in response to shocks (Beazley et al., 2019).

The prevalence of vertical expansions as a social protection response in the past has led to the exclusion of people affected by shocks. Since shocks usually affect a larger percentage of the population than that covered by existing social protection programs, using only vertical expansions may exclude a significant number of people (Barca & Beazley, 2019). One approach to deal with this challenge is to vertically expand across multiple programs with different targeting criteria, as occurred in Argentina in response to floods, wildfires, and volcanic ash disasters in 2015 (Beazley et al., 2019).[7]

While social registries have become increasingly popular in the region, they were rarely used to inform shock-responses prior to the pandemic. Most registries are informed by periodic household surveys or census swipes. This limits their capacity to capture the effects of sudden crises (Beazley et al., 2019). Systems with on-demand mechanisms, such as those of Colombia and Peru, should be able to absorb additional requests for support arising from a crisis. But even these are not flexible enough. In addition, while social registries typically have higher population coverage than program registries, they have not been designed to identify the population exposed to shocks and therefore do not include relevant variables. One notable exception is the Dominican Republic's Index of Vulnerability to Climate Shocks (*Índice de Vulnerabilidad ante Choques Climáticos*, IVACC),[8]

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the payment provider to accommodate the additional demand. But the experience was, nonetheless, assessed by Beazley et al. (2019) as successful.

[6] FIBE permits an identification of the percentage of the affected population by its socioeconomic qualification section, and an identification of their needs. It is also used as an indicator to assess the level of information update in the administrative databases to identify the number of households with differences in information regarding address and family composition.

[7] The Argentine government responded by vertically expanding core social protection schemes. The benefits of the following schemes were doubled during two or three months for people in the affected areas: family allowances received by active workers, retirees, pensioners and the unemployed; the Universal Child Allowance (*Asignación Universal por Hijo*, AUH) and the Pregnant Women Allowance (*Asignación por Embarazo*, AUE); the Support Program for Argentina's Students (*Becas* PROGRESAR); the unemployment benefit; contributory and non-contributory benefits for retirees and pensioners; and Malvinas war veterans' benefits. By integrating the response and relying not only on social assistance programs but also on other schemes, the government was able to reach most of those affected (Beazley et al., 2016).

[8] IVACC considers the following household characteristics to quantify vulnerability: dwelling characteristics (walls and roofs), income (average household labor income) and proximity to a source of danger (river, ravine, or watercourse). It has a scale of 0-1 where households with values close to 0 are the least vulnerable and those with values close to 1 are

which is part of the social registry known as the Integrated System of Beneficiaries (*Sistema Único de Beneficiarios*, SIUBEN). The IVACC calculates the probability that a given household could be affected by a disastrous event, especially by floods (UNDP/UN Environment, 2018).

Despite the limitations of social registries, their data can still be valuable for a timely response to new cases that arise from shocks. In Ecuador, 66% of the households affected by the earthquake of 2016 were already registered in the social registry (Beazley, 2017). In Peru, 80% were registered before the 2017 floods (Beazley et al., 2019). More than 90% of the households affected by recent emergencies in Chile were previously registered. El Salvador used the social registry data of non-beneficiaries to target the horizontal expansion of the cash transfers in response to the drought in 2018 (Beazley, 2019).

Delivery of emergency benefits has often relied on existing mechanisms, mostly manual delivery, but e-payments have gained ground in recent years. The response to Hurricane Maria, which struck Dominica in 2017, used the existing payment mechanism, the Program of Public Assistance (*Programa de Asistencia Pública*). This consists of manual payments made by the municipal council offices. However, a stronger focus on shock response led to payment mechanism innovations even before COVID-19, with electronic payments gaining significant ground.[9] In Argentina and Peru, for example, new programs using e-payments now cover a third of the population (Rutkowski et al., 2020). E-payments allow governments to reach more people faster, with greater security, and with a lower overall cost of transfers. But they require adequate telecommunications networks and infrastructure and a certain degree of digital literacy among the population (Beazley et al., 2019).

Coordination and Financing

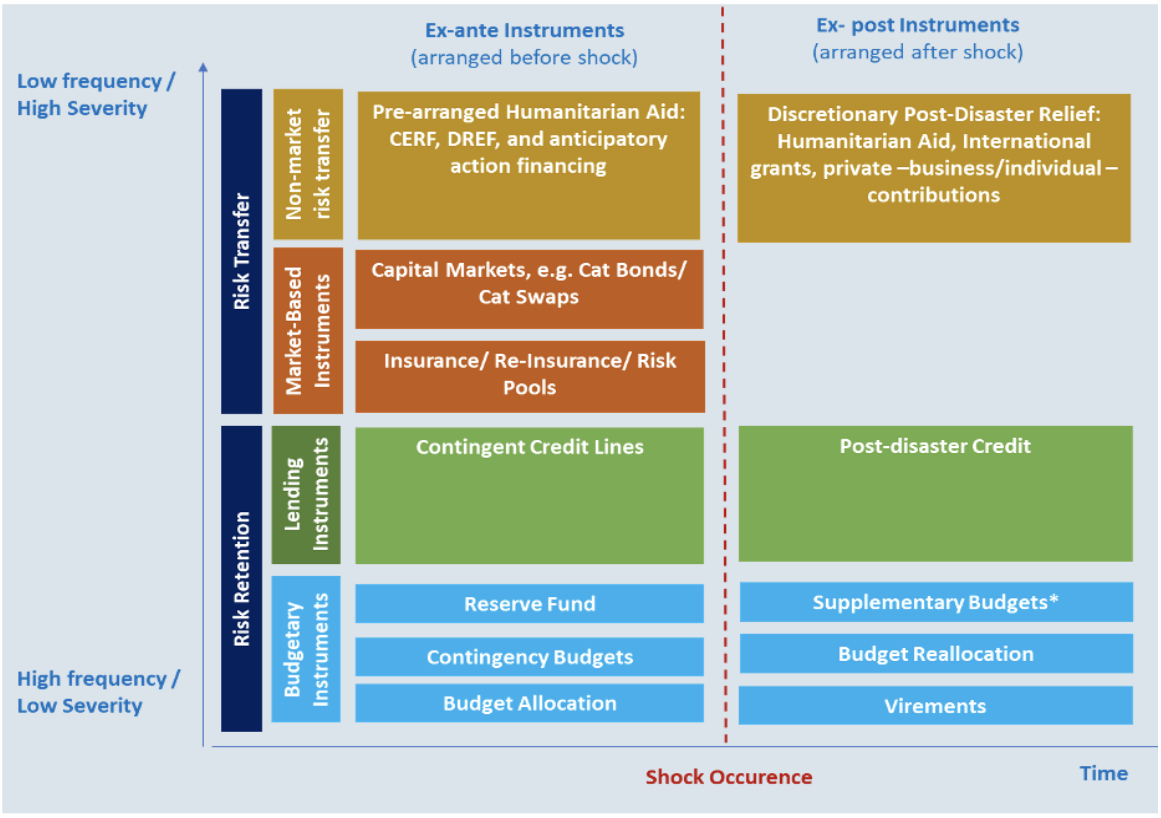
Coordination between social protection and disaster response institutions in most countries has been limited, even when formal coordination structures exist. Social protection agencies are part of disaster risk management coordination groups in many countries. But it is often difficult to translate these agreements into practice when disasters hit. As a result, coordination has been limited, especially when dealing with sudden-onset disasters (Beazley et al., 2019). Moreover, existing disaster risk management strategies and protocols do not establish, with the detail required, the roles and activities that social protection should perform.

Disaster risk financing strategies and instruments are still nascent in the region. Most countries rely on a combination of ad hoc measures to finance disaster response both in general and through social protection. Disaster responses through social protection systems have often required budget reallocations. This puts pressure on public expenditures, especially given the increasing frequency and intensity of natural disasters. Some countries have created national funds to finance activities related to preparedness, response, and recovery. One example is the Fund for Natural Disasters (*Fondo de Desastres Naturales*, FONDEN) in Mexico, which is able to quickly assign federal funds for the rehabilitation of public infrastructure affected by disasters. Contingency credit can offer countries immediate liquidity after an economic shock or natural disaster. El Salvador, for example, has contingency loans with the government of Japan worth US$50 million (Beazley, 2019). Risk pooling and risk transfer solutions are growing in importance. The Caribbean Catastrophe Risk Insurance Facility (CCRIF) retains some of the transferred risks of the participant countries within their own reserves and transfers some of them to the reinsurance markets when this is cost-effective. Overall, experience suggests the need to diversify the combined risk across several risk-informed financial instruments. Figure 3 shows the potential range of instruments countries can use to finance disaster risk.

the most vulnerable. The IVACC index presents the relationship between households and their geographical location (UNDP/UN Environment, 2018).

[9] Electronic payments or e-payments refers here to all payments that are not manual/cash in-hand payments.

Figure 3. Disaster Risk Financing Instruments



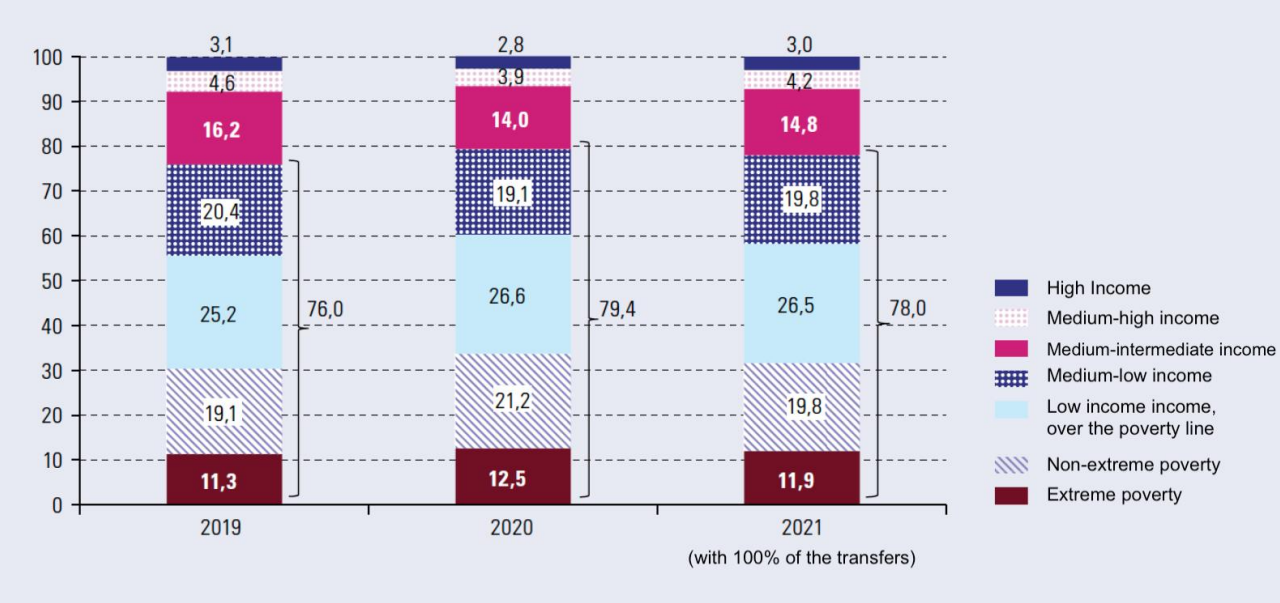
Source: Costella et al. (forthcoming).

4.2. Shock-Responsive Social Protection Responses to COVID-19

In addition to being the greatest health crisis in recent history, COVID-19 led to extraordinary socioeconomic impacts in LAC (ECLAC, 2021). By mid-2021, more than 1,260,000 people had lost their lives in the region as a result of COVID-19. In 2020, GDP decreased on average by 7.3% (Cavallo & Powell, 2021 in Stampini et al., 2021) and socioeconomic gaps widened, with growing inequality, poverty, gender disparity, and informality affecting hundreds of millions of people (see Fig. 4). Income inequality as measured by the Gini coefficient increased by 2.9%; and the number of people in poverty rose by 22 million, including an 8 million increase in extreme poverty (ECLAC, 2021b). At the end of 2020, public debt in Latin America reached an average of 56.3% of GDP, and in some countries of the Caribbean exceeded 100% of GDP (ECLAC, 2021b).

This section reviews the experiences with non-contributory social protection responses to COVID-19 in the region. It follows the framework presented in section 2, first summarizing the findings around types of responses and system performance (coverage, adequacy, timeliness), and then those on overall system preparedness (targeting and information systems, and delivery mechanisms). Findings around coordination and financing are included, when relevant, across the different sections.

Figure 4: Latin America: Population by Income Per Capita 2019, 2020, 2021 (%)



Source: Adapted from (ECLAC, 2021) based on data from the Household Survey Data Bank (BADEHOG). The 18 countries included are: Argentina, Bolivia, Brazil, Chile, Colombia, Costa Rica, Ecuador, El Salvador, Guatemala, Honduras, Mexico, Nicaragua, Panama, Paraguay, Peru, Dominican Republic, Uruguay and Venezuela.

Overview of Social Protection Responses and Types

The COVID-19 crisis was a game changer for shock-responsive social protection in the region. As described in the previous section, the use of social protection to respond to large-scale shocks was growing prior to the pandemic. But it was still infrequent and even more so in preparing the systems to face future crises. The scale and duration of the socioeconomic crisis caused by the pandemic and the measures to contain it, however, represented a monumental challenge for governments. This led to innovative responses throughout LAC. Social protection played a crucial role in cushioning the effects of the crisis. As a result, its shock-responsive function is currently at the forefront of policy debates in the region.

Virtually all countries in the region implemented at least one social protection measure in response to the pandemic.[10] These measures involved the introduction of new programs as well as the modification of existing ones and the use of different types of social protection instruments, from cash transfer programs to subsidies and tax relief, among others. Cejudo et al. (2021) identified 199 income support programs[11] in 33 countries (except for Nicaragua, where no interventions were identified) by March 11, 2021, a year after the official declaration of COVID-19 as a pandemic by the World Health Organization (WHO). Most were (unconditional) cash transfers (111), followed by wage subsidies (26), vouchers (23), credits on utility bills (15), insurance (15), and tax exemptions (9).

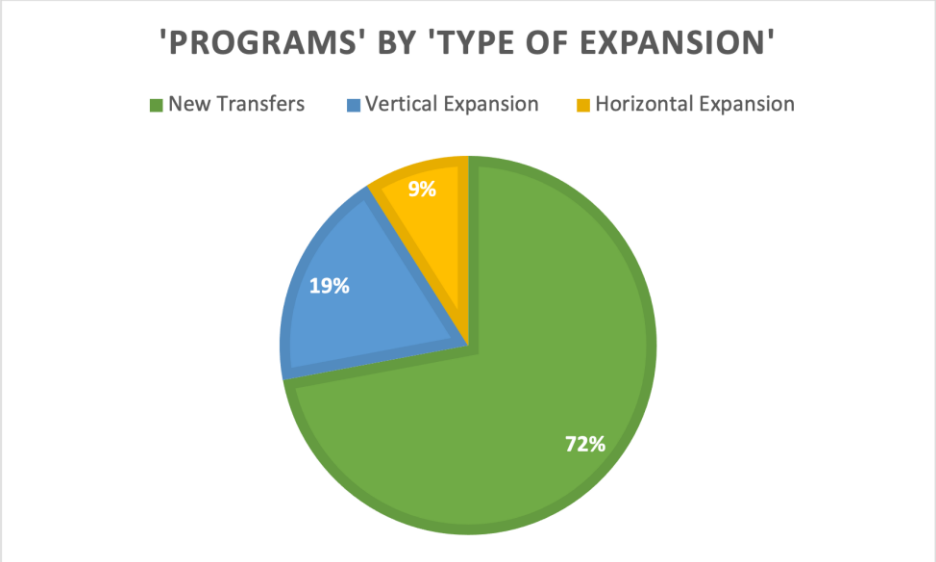
The launch of new programs was the preferred measure, although vertical and horizontal expansions of existing programs were also implemented. Figure 5 shows that forty-five interventions built on existing programs, increasing the value of benefits (vertical expansion, in 26

[10] See Cejudo et al. (2021), ECLAC (2021a) and Gentilini et al. (2021).

[11] Income support programs include new programs, vertical expansions and horizontal expansions that increase the income of both individuals and households, either through direct, new or additional cash transfers; vouchers; payment reductions (of taxes or services); and unemployment or sickness insurance (contributory). It excludes programs that do not alter the net present value of the total income of a household (Cejudo et al., 2021).

cases) or the number of beneficiaries (horizontal expansion, in 19 cases). By contrast, 154 interventions implemented entirely new programs (Cejudo et al., 2021).

Figure 5: Percentage of Cash Transfer Programs Per Type of Innovation



Source: Based on data from Cejudo, et al. (2021).

There were significant differences in the scale and type of responses at both the sub-regional and country level. A comprehensive review of social protection measures by the Economic Commission for Latin America and the Caribbean (ECLAC) identified 430 measures across the 33 countries of LAC.[12] More than half (218) of those were adopted in South America, 109 in the English-speaking Caribbean, and 103 in the group comprising Central America, Mexico, Cuba, Haiti and the Dominican Republic (ECLAC, 2021). Argentina, Brazil, Colombia, and Peru implemented the largest number of cash-transfer measures in the region. Most countries in the Andean and South American sub-region implemented numerous measures and had large coverage (Cejudo et al., 2021; Blofield et al., 2021a). In Central America and the Caribbean, disparities within sub-regions were larger, with countries like Jamaica, Costa Rica, the Dominican Republic, and Guatemala implementing significant measures (in number or scope), and others like Mexico, Nicaragua and Haiti implementing a limited number of measures.

[12] Unlike Cejudo et al. (2021), the 430 measures in ECLAC's review include in-kind transfers and other measures that provide relief to households but do not necessarily increase the net present value of the total income of a household.

Box 1. Financing Social Protection Responses to COVID-19 in LAC

Spending committed to cash and in-kind transfers between March 2020 and March 2021 totaled around US$ 110 billion, with most of it committed by South American countries (US$ 98 billion), followed by the group of countries comprising Central America, Mexico, Haiti and the Dominican Republic (US$ 12 billion), and the English-speaking Caribbean (approx. US$ 500 million) (ECLAC, 2021). By March 2021, countries had spent 1.4% of their GDP on income-support programs (whose definition overlaps with that of non-contributory social protection), with the average amount spent on new interventions at US$175 per capita (Cejudo et al., 2021). Overall, however, these figures were lower than the global averages, where the average spending on social protection measures was 2% of GDP and average transfers were US$ 345, US$ 847 in high-income countries, and US$4 in low-income ones (Cejudo et al., 2021; Gentilini et al., 2021; Stampini et al., 2021). These differences could be explained by methodological variations in the type of interventions considered.

The countries that achieved the highest coverage in the region made large investments in fiscal resources. For example, Chile and Bolivia invested significantly more than any other country (7.7% and 7.4% of GDP, respectively), followed by Colombia (3.3%), Brazil (3.0%) and Argentina (2.4%), while Mexico and Nicaragua invested the least and had low coverage (Cejudo et al., 2021).

Coverage, Adequacy, and Timeliness

Coverage

The responses to COVID-19 led to an unprecedented temporary increase in the coverage of social protection. Stampini et al. (2021) report that in 2020 the average coverage of non-contributory social protection increased to 34% of the population in the 12 countries of LAC with available data. This represented an increase of 9 percentage points over 2019. In 28 countries of the region, according to ECLAC (2021), 18.5% of people lived in a household that received transfers (monetary or in kind) before the pandemic, and this figure rose to 49.4% during the pandemic. A notable example of this large increase in coverage was Guatemala, where over 2.6 million families received three payments through the Family Grant (*Bono Familia*), an unconditional cash transfer. This coverage contrasts with that of the regular CCT program that benefits less than 120,000 families (Stampini et al., 2021).

Countries in South America recorded the highest increases in coverage. In Chile, the two main measures, the Emergency Family Transfer (*Ingreso Familiar de Emergencia*) and the Middle-Class Voucher (*Bono para la Clase Media*) jointly reached 40% of the population, while in Peru a series of four transfers (I Stay at Home Voucher/*Bono Yo Me Quedo*, Independent Voucher/*Bono Independiente*, Rural Voucher/*Bono Rural*, and Universal Family Voucher/*Bono Familiar Universal*) jointly covered 38% of the population (Stampini et al., 2021). In Bolivia, nearly universal coverage of all income groups was achieved with the Family Grant (*Bono Familia*), Family Basket Grant (*Bono Canasta Familiar*) and Universal Grant (*Bono Universal*) jointly reaching 96% of the population with one-time payments in 2020 (Stampini et al., 2021).

The most common goal of coverage expansion was reaching informal sector workers who are typically excluded from social assistance and social insurance schemes. For instance, the only social protection transfer that Honduras implemented, the Single Voucher (*Bono Único*), sought to reach informal workers, a group of 290,000 to 4 million individuals, depending on the scenario (UNDP/UN Environment, 2018). Stampini et al. (2021) show that cash transfers programs in 2020 reached 17% of people in middle- and high-income groups (Table 4). Measures to contain the pandemic had a significant impact on middle-income households, possibly due to the many informal workers among them. This might have resulted in social protection responses that covered a larger portion of the population in that stratum than had often been the case in smaller, more localized disaster response operations.

Table 4: Coverage of Cash Transfer Programs in LAC in 2020 by Income Group

Country	Beneficiaries	Extremely poor	Moderately poor	Vulnerable	Middle and high income	Total population
Argentina	7,163,277	67 %	51 %	22 %	3 %	25 %
Bolivia	10,680,551	100 %	99 %	99 %	90 %	98 %
Chile	9,378,654	74 %	72 %	61 %	32 %	48 %
Colombia	10,594,692	37 %	29 %	18 %	1 %	22 %
Costa Rica	1,314,913	63 %	39 %	28 %	5 %	26 %
Dominican Republic	3,110,313	46 %	37 %	32 %	17 %	30 %
Ecuador	6,105,598	60 %	52 %	29 %	5 %	35 %
Mexico	37,376,585	52 %	34 %	25 %	17 %	29 %
Peru	17,455,837	64 %	64 %	49 %	25 %	52 %
Paraguay	1,296,355	33 %	31 %	20 %	1 %	18 %
El Salvador	101,192	4 %	1 %	1 %	1 %	2 %
Uruguay	909,578	91 %	91 %	63 %	11 %	26 %
LAC-12 weighted	105,487,545	54 %	42 %	31 %	17 %	34 %
LAC-12 unweighted	105,487,545	57 %	50 %	37 %	17 %	34 %

Source: Adapted from Stampini et al. (2021). Calculation based on data from "Harmonized Household Surveys from Latin America and the Caribbean" (IDB).

However, coverage increases have not been sustained and not led to an expansion of permanent social protection benefits. While many governments significantly expanded their social protection floors, the gains have not been sustained, by, for instance, providing longer-term cash transfers to individuals that were covered by the emergency programs (Blofield et al., 2020). Moreover, most governments did not sustain increases in the coverage of existing CCT programs in the year following the onset of COVID-19 (Blofield et al., 2021a). This is unsurprising, given that increases were not designed to endure. In some countries, such as Colombia and Costa Rica, coverage even appears to have declined to below pre-pandemic levels (Blofield, 2021a).

Adequacy

There is limited data on the adequacy of social assistance responses to the pandemic. Adequacy should focus on the coverage and generosity of benefits to meet the short-term needs created or exacerbated by the crisis. They should not focus on indicators related to chronic poverty which may be used in a routine social protection program (Holmes et al., 2021). However, the impacts of the pandemic on different populations are hard to quantify, and there do not appear to have been many assessments of the generosity of payments. Rubio et al. (2020) showed that the generosity and coverage varied widely across countries in the early phase of the pandemic, with Chile standing out as the country with the most generous benefits across a larger share of its population. Table 5 shows the value of cash transfers in selected countries of LAC.

Nevertheless, social assistance transfers had important positive benefits, including temporarily reducing poverty at a larger scale than before the pandemic. Overall, the LAC cash transfer response reduced the incidence of poverty by two percentage points in 2020, as compared to an estimated one percentage point in 2019[13] (Stampini et al., 2021). For example, Emergency Assistance (*Auxilio Emergencial*) in Brazil, transferred 600 *reais* (about US$ 107) to each beneficiary household for the first five months and 300 *reais* (US$ 53.30) for the next four months, representing around 120 percent and 60 percent of the national poverty line, respectively. This was thought to

[13] This is a simple "back-of-the-envelope" calculation based on comparing income with and without transfers in the available household surveys (Stampini et al., 2021).

have contributed to poverty and inequality declines in 2020 (Blofield et al., 2021b; ECLAC, 2022). The effect of cash transfers on poverty in 2020 was limited by the short duration of the support provided in most countries (Stampini et al., 2021).

Table 5: Value of Emergency Cash Transfers in Selected LAC Countries

Country	Program	Value of Transfer Per Capita (in USD)	Number of transfers	Coverage (% of the population)*
Argentina	*Ingreso Familiar de Emergencia*	93	3	25 %
Bolivia	*Bono Universal & Bono contra el Hambre*	73 & 145	1	98 %
Brazil	*Auxilio Emergencial*	48 per family or 29 per person	3	24.8%
Chile	*Bono Emergencia COVID-19*	63 per family	1	4 %
Colombia	*Ingreso Solidario*	43	3	12 %
Jamaica	*PATH*	64	1	12.4%
Paraguay	*Ñangareko*	33	1	10 %
Peru	*Bonos Yo me Quedo en Casa, Independiente, Rural, Familiar Universal*	100, 200, 200, 200	2, 1, 1, 2	15 %
Uruguay	*Tarjeta Uruguay Social*	28	1	26 %

* Coverage reached by adding these new programs.
Source: Beazley et al. (2021), Blofield et al. (2021), Gallego et al. (2021), Rubio et al. (2020) and Stampini et al. (2021).

Expanded and new social assistance programs also appear to have mitigated the effects of the COVID-19 pandemic on inequality, food insecurity, and mental health, among others. Lustig et al. (2020) suggest that in the absence of any mitigating measures inequality in (primarily) urban areas of Argentina would have increased from a pre-pandemic Gini coefficient of 0.44 to 0.47. With the expanded social assistance, inequality appears to have risen to 0.45 instead. Bottan et al. (2020) found that becoming eligible for Bolivia's quasi-universal social pension, Dignity Pension (*Renta Dignidad*), during the pandemic increased the probability that households had a week's worth of food by 25% and decreased the probability of going hungry by 40%. This illustrates the program's positive effect on hunger relative to pre-pandemic years. In Colombia, the unconditional cash transfer program Solidary Transfer (*Ingreso Solidario*) had a positive impact on beneficiary rent and education expenditures, improved mental health, and increased financial inclusion and the use of mobile payment mechanisms (Gallego et al., 2021).

Moreover, it is possible that extending coverage to middle-income households may have improved the adequacy of responses. Social Protection responses to COVID-19 involved a significant effort to reach groups that tend to be middle-income. This met the needs created by the pandemic, such as having to cover informal workers. Lustig et al. (2020) analyzed the early pandemic impacts on poverty and the offsetting power of social assistance measures in Argentina, Brazil, Colombia, and Mexico. They found that increases in poverty were larger for households that were in the middle-income strata before the pandemic. They also observed that, by implementing

well-targeted and large social assistance responses, Argentina and Brazil were able to offset the impacts almost completely. The extent to which these effects persisted beyond the initial stages of the pandemic is, however, unclear.

Timeliness[14]

Globally, the responses were relatively slow, but LAC's responses were faster than the average. The 53 countries analyzed by Beazley et al. (2021) took on average 83 days to pay beneficiaries from the day the first set of "stay at home" restrictions[15] were implemented. For the LAC countries included in the analysis, it took on average only 60 days. Using this as a basis, LAC's response was the third fastest, after the Middle East and North Africa (MENA) and East Asia and the Pacific (EAP). It was slightly faster than the responses in South Asia, and much faster than the 132 days it took on average for Sub-Saharan Africa to start delivering payments.

Table 6: Timeliness by Type of Intervention and Time Proxy (Selected LAC Programs)

Country	Total coverage expansion (%pop)	Main program	Approach to registration	Approach to payments	Timeliness of first payment (days)	Type of response
Peru	68	*Bono Yo me Quedo en Casa*	Social registry, administrative data, on-demand	Manual and electronic	8	Horizontal expansion
Chile	61	*Bono de Emergencia COVID-19*	Social registry, beneficiary registry data	Manual and electronic	24	Horizontal and vertical expansion
Brazil	34	*Auxílio Emergencial*	Social registry, administrative data, on-demand	Electronic	27	Horizontal and vertical expansion
Dominican Republic	26	*Programa Quédate en Casa*	Social registry, administrative data	Electronic	17	Horizontal and vertical expansion

Note: Total coverage expansion refers to the overall coverage expansion achieved in each country by all new and expanded cash transfers.
Source: Adapted from Beazley et al. (2021).

Vertical expansions were generally faster, followed by new programs, although some of the fastest programs in LAC were new. Vertical expansions were the 'fastest' to start paying, followed by new programs, and then horizontal expansions (Beazley et al., 2021). Vertical expansions are easier to implement since they do not entail identifying and reaching new beneficiaries. New programs might have benefited from political factors, like strong resistance to expanding coverage of already established programs (Beazley et al., 2021). Table 6 provides examples of some of the fastest major programs in the region, including what type of expansion they undertook. New programs introduced as "emergency programs" often piggybacked on existing social protection identification, targeting, payment, and delivery systems (Beazley et al., 2021).

The drivers of timely response include not only social protection capacity, but also the approach to service delivery, legislation, funding, and contextual factors (Fig 6). Countries that were able to mount a fast response in LAC (for instance, those in Table 6) had strong preexisting social protection programs with wide coverage and a relatively robust social registry. They also used

[14] This section builds from Beazley et al. (2021).

[15] The stay-at-home declaration seems to be the best proxy available for the timing of when households might begin to need additional social protection support due to reduced income generating opportunities.

flexible approaches to registration, including self-registration, and electronic payments, and had a solid legal and funding framework for social protection. Finally, contextual factors such as connectivity, ID coverage, and financial inclusion are higher in those countries than in others in the region.

Figure 5: Drivers of Timely Responses

Source: Beazley et al. (2021).

Speed, however, does not necessarily mean coverage, and timely responses are not always inclusive and are not always timely for everyone. For instance, the COVID-19 Emergency Voucher (*Bono de Emergencia COVID-19*) was the program most quickly implemented in Chile, but the Family Emergency Transfer (*Ingreso Familiar de Emergencia*, IFE) program had the largest coverage (Beazley et al., 2021). *The Bono de Emergencia COVID-19* reached households already registered within the social protection system, covering 24% of Chile's population. It started paying one month after the stay-at-home declaration. The IFE, by contrast, targeted informal workers and vulnerable households affected by the pandemic and started payments officially on May 25, 2020. It eventually reached 8.27 million individuals, or one out of every three people in the country (Candia, 2020 in Beazley et al., 2021; MSDF 2020). Ultimately, the "timeliness" of an intervention entails reaching people at the time when they need support. This might be at different stages and for longer periods of time after a crisis.

Box 2: Drivers of Timeliness: Examples from Brazil and Argentina

The speed of Brazil's emergency social cash transfer program (*Auxilio Emergencial*) can be attributed to a combination of using previously existing program databases and social registry and of setting up a new self-targeting and demand-driven mechanism to identify beneficiaries.

Brazil's *Auxilio Emergencial* was passed by Congress at the end of March, and funding was quickly made available. The first beneficiaries started receiving their payments within one week. By November 2020 around 68 million direct beneficiaries had been reached (Yamasaki & Rodupoulos, 2021). The program targeted low-income households identified through the social registry (*Cadastro Unico*), including beneficiaries of the existing conditional cash transfer program Bolsa Familia and low-income informal workers identified through an open registration (via a web-based platform). The eligibility of those informal workers was verified by cross-checking formal employment and social security and tax databases, among other information sources, leveraging interoperability and data-sharing agreements. The application website for these households was opened just a few days after Congress approved the program.

Argentina announced in March extra payments to all those covered by the country's non-contributory social protection systems, including the child benefit program (*Asignación Universal por Hijo*, AUH), the income-support program for people with disabilities, and non-contributory pensions. The government also established a new Emergency Family Income (*Ingreso Familiar de Emergencia*, IFE) cash transfer program. Eligibility included all those in the existing non-contributory programs, as well as the unemployed, the self-employed in lower-income categories, and domestic workers excluded from other programs. Altogether, it provided three transfers of ARG $10,000 (US$148) at an estimated fiscal cost of 1.14 percent of GDP.

Argentina's government relied on self-targeting by allowing households and individuals to apply for the transfers themselves. This allowed the program to more rapidly and effectively reach those who needed it. By the end of April 2020, over 7.8 million people had received the IFE transfer, and by June, almost 9 million recipients had. Delivery was slowed due to the difficulty reaching 2.4 million beneficiaries without bank accounts.

Sources: Beazley et al. (2021); Blofield, et al. (2021b).

Financing of the response was an important factor affecting speed and timeliness, with government-funded interventions being, on average, faster than donor-financed and mixed-financed ones (Beazley et al., 2021). For instance, the government of Chile financed the emergency response directly from the treasury. In particular, a fund of US$ 2 billion was set apart to finance measures targeted at supporting the income of the most vulnerable people as part of the second phase of the emergency economic plan starting in April 2020. Some financing was available quickly as a result of emergency declarations. Brazil financed the large-scale expansion of its social assistance programs by accessing supplementary budget funds that became available when a state of emergency was declared due to the pandemic. A "war budget" was created via a constitutional amendment, which allowed the government to spend 600 billion *reais* (approximately US$ 107 billion) without it being considered part of the deficit and having to respect the standard fiscal framework rules (Beazley et al., 2021).

Box 3. A Note on Contingency Planning

The effect of contingency planning measures for shock-responsive social protection on the timeliness of COVID-19 responses could not be assessed due to a lack of information. Countries with scalable frameworks and contingency plans, like the Dominican Republic, developed these mechanisms for other types of shocks (more recurrent and predictable), and such plans were not used in the response to the pandemic. Whether the capacity created as part of these preparedness actions improved responses to the pandemic has still not been assessed.

Source: Beazley et al. (2021).

Generally, however, countries in LAC relied on a mix of government and donor financing to fund the response to COVID-19. In the Dominican Republic, for example, the response was financed with a combination of sources: the country's own resources, the issuing of public bonds to

international markets, a contingent financing line with the World Bank (available since 2018), and financial assistance from the International Monetary Fund. In Bolivia, the social programs and vouchers were paid from the government's general budget, which comes from tax collection and revenue from the sales of national commodities. However, multilateral institutions, including the IDB, provided ad hoc "revolving" funds to replenish the government's budget.

System Preparedness and Operational Systems

Targeting

Given the evolving nature of the pandemic and the need to cover different groups, countries in the region applied an incremental approach to targeting, in some cases towards quasi-universal approaches. Countries had to reach new groups of vulnerable populations, and as the pandemic became more complex, support had to be expanded further. For example, both Peru and Bolivia ended up providing quasi-universal coverage by expanding target groups (more on this in section 5). Regular targeting mechanisms for social assistance based on poverty proxies had to be adjusted. Some of the more rigorous targeting design issues, such as inclusion errors and the need for a verification of poverty status, became less relevant.

Some countries, however, applied eligibility cut-offs. This led to more focused targeting approaches that required new targeting criteria to identify the new populations. The Colombian government set the number of recipients— three million—from the start and identified them through existing registries. Individuals were not able to self-identify and apply, and even a share of the identified recipients were not, as of late 2020, located. The total number of beneficiaries in Colombia thus remained much smaller than in other countries such as Argentina and Brazil (Blofield, et al., 2021b). In Honduras, the *Bono Unico* (Single Voucher) could only cover 260,000 individuals out of a potential target group of up to 4 million people in need. So, it was targeted by developing a new Multi-Dimensional Vulnerability Index.

Countries took diverse approaches to providing support and targeting irregular migrant populations. Vera Espinoza et al. (2021) suggests that migrants and refugees faced the greatest difficulties in effectively accessing social assistance transfers in Colombia, Peru, Ecuador and Mexico. This was the result of the documentation requirements as well as ambiguous, imprecise or restrictive program eligibility rules. In Peru, irregular migrants were formally excluded from social protection benefits. Humanitarian actors supported migrants there through humanitarian cash transfers, but it was difficult to identify them at the beginning of the pandemic given the restrictions on social mobility (Grasset & Khattak, 2021). In Colombia, irregular migrants were not eligible for normal social protection benefits, but the government and WFP created a new program exclusively aimed at providing support for them. The program, however, faced multiple challenges in reaching the migrants, including identifying and making payments to them. By contrast, Brazil and Uruguay had the highest levels of inclusion, with both pre-existing and new transfers effectively guaranteeing access to migrants and refugees (Vera Espinoza et al., 2021). This was in part due to normative factors. For instance, in Brazil, the Basic Social Protection System (PSB), which includes health, social assistance, and security for low-income families and/or in conditions of social vulnerability, is universal and guarantees protection regardless of immigration status (MDS, 2016 in Vera Espinoza et al., 2021).

Due to physical constraints and challenges arising from the pandemic, governments had to rely on new, more flexible targeting mechanisms. The need for social distancing and for rapid responses meant that countries had to rely more extensively on self-targeting and demand-driven approaches, rather than narrowly targeted ones. Overall, countries innovated significantly by either creating new targeting mechanisms or by using mechanisms they had never used before. For instance, Argentina and Brazil relied on self-targeting and demand-driven mechanisms to more rapidly and effectively reach a large share of households, even when those households were not included in the existing social protection administrative registries (Blofield, et al., 2021b). In Guatemala, beneficiaries of the *Bono Familia* were selected based on their electricity consumption in February 2020. All payments took place via virtual debit cards; other mechanisms were

implemented to include poor households without electricity (Stampini et al., 2021). Chile postponed personal visits to households to verify the information provided. This was done to cope with the demand and also, presumably, to limit physical contact.

The pandemic also made evident the challenges of using poverty rankings from before the shock. Such rankings are based on data that may no longer reflect the wellbeing of households and on algorithms designed for other purposes, typically to identify the chronically poor (Beazley et al., 2021). For instance, in Chile the socioeconomic classification used to identify vulnerable households relies on a more medium to long-term classification. For that reason, it might not be appropriate for identifying short-term variations in incomes. Moreover, the use of the poverty ranking to select recipients for the emergency vouchers in Peru was problematic, leading to the implementation of a near universal approach (see Section 5.1).

Information Systems

Countries leveraged existing beneficiary registries for social protection, but in new ways (Barca & Beazley, 2020). To select the beneficiaries, as well as to deliver the support, the countries of the region used information generated before the pandemic, such as that in program registries. In Bolivia, information was obtained from program registries, like the Pension Fund Administrators (AFPs), the *Renta Dignidad* program's database, the Single Student Registry (*Registro Unico de Estudiantes*, RUDE) and the information system of the single registry of Persons with Disabilities (Berner & Van Hemelryck, 2020).

Countries also leveraged social registries and data on "potential beneficiaries" (Barca & Beazley, 2020)**.** For coverage expansions (horizontal expansions and new programs), countries were able to rely on some of the existing social information systems. For example, by relying on the available data in existing programs, Chile was able to pay the IFE to beneficiaries of other programs within two weeks of having approved the program by law (Beazley et al., 2021). More generally, it was able to launch a fast and broad response relying on databases from existing programs and through data and socioeconomic classifications in the existing social registry, the Households Social Registry (*Registro Social de Hogares*, RSH), that already covered 73% of the population (MSDF 2020 in Beazley et al., 2021).

Countries had to leverage additional information sources even when their social registries had high coverage. Even where coverage was extensive, social registries lacked or contained out-of- date information on newly vulnerable households (Beazley et al., 2021). For that reason, countries innovated in the use of administrative records that, although not developed for social policies, had information on people or households such as contact, location, banking, labor or socioeconomic data (Cejudo et al., 2021). For example, Peru's social registry covered 75% of the population, but still excluded many affected households (typically informal workers from urban settings). It also had outdated data. The use of other databases and on-demand registration to complement information in the social registry allowed the government to create a near-universal social registry encompassing 33 million people, from a pre-COVID-19 base of 25 million people in the social registry. That accounted for over 99% of the population (Beazley et al., 2021).

Countries conducted rapid mass registrations, including through electronic registration forms. The capacity to register people quickly was also fundamental, even for countries relying substantially on pre-existing data (Beazley et al., 2021). Both Argentina and Brazil allowed people to apply online for benefits (see Box 2). In Colombia, Costa Rica, Panama and Peru, they could apply to the different programs offered through an open application form (Berner & Van Hemelryck, 2020). In Haiti, the monetary transfers made by the Economic and Social Assistance Fund (FAES) and the Ministry of Social Affairs and Labor (MAST) included a mobile phone application option (Berner & Van Hemelryck, 2020).

Relying on existing data for the identification of new beneficiaries made interventions more timely than collecting new data through demand registration, community-based targeting (CBT), or mixed modalities. However, global experience revealed that when the coverage of social registries was low, expanding programs or coverage still took significant time due to the need to

complement existing information with other methods (Beazley et al., 2021). This underscores the importance of having social registries with high coverage and high interoperability, features not yet common in LAC (Berner & Van Hemelryck, 2020).

Box 4. Coordination Around Information Systems

Coordination across government agencies became crucial for effective and timely responses during the pandemic., Peru, for example, had universal foundational ID coverage. But interoperability and data sharing across government databases and with non-government entities still proved challenging due to a lack of protocols and varying data quality. The government, however, made extensive use of cross-government databases in other ways. These included exchanging data with the entities responsible for ID and civil registration, people with disabilities, migration, and the state bank to identify the household member best equipped to receive the payment electronically or, in the case of in-person payments, with the lowest COVID-19 risk.

In Brazil, 8 million people with incomes above the determined threshold were found to have received the benefit from *Auxilio Emergencial* (Blofield, Giambruno & Filgueira, 2020 in Beazley et al., 2021). These problems in the implementation strategy have been linked to the lack of collaboration among different levels of government and the centralization of delivery in only two agencies (IEA, 2020 in Beazley et al., 2021).

Overall, the ability to exchange data beyond the social protection sector (leveraging broader information systems, interoperability and data-sharing agreements) was key to timely and high coverage responses. This highlights the importance of pre-existing protocols and systems for data sharing across government agencies, as well as the use of a national ID as a unique identifier.

Source: Beazley et al. (2021).

Finally, it is important to consider that social information systems are key to quickly expanding access to programs but can also face challenges related to exclusion and other issues. Digital systems can lead to exclusions. For example, Brazil was able to reach around 38 million people previously left out of the social protection system through the intensive use of identification processes enabled by digital technology. However, it might still have missed about 7 million people who, despite satisfying the eligibility criteria, did not have access to the technology (IEA, 2020 in Beazley et al., 2021). Other challenges are also important. These include data sharing and using data for purposes different from those it was collected for, which can violate data protection and security principles and laws. In the Dominican Republic, the implementation agency for the cash transfer program was able to access the phone numbers of new beneficiaries not previously registered by sending their ID numbers to the Dominican Institute of Telecommunications. This underscored the importance of a foundational ID for rapid response, but also raised potential privacy and data use issues (Beazley et al., 2021).

Payment Mechanisms

In response to COVID-19, countries in LAC innovated significantly in how they made payments. An example is the Dominican Republic where, to limit transmission of the virus, new beneficiaries who lacked smart cards normally used by social protection programs were remotely issued a PIN so they could access their funds. To further ensure a timely response, an agreement was established with only one bank, though there were agreements with four different banks for regular transactions. In Brazil, an important innovation was made for payments from *Auxilio Emergencial* through the creation of the Digital Social Savings (*Poupança Social Digital*, PSD), a digital bank account accessed via an intuitive application. The PSD made it possible to conduct purchases via a virtual debit card, avoiding the difficulties of distributing physical cards (de Arruda et al., 2022). Table 6 shows examples of different types of payments for selected countries in LAC.

Table 7: Examples of Cash Payment Types in Different LAC Countries

Country	Financial service provider	Payment instrument	Beneficiary payment point
Uruguay	Banco de Previsión Social	Transfers to bank accounts, mobile money cards, digital wallets	Decentralized payment points.
Peru	Banco de la Nación	Transfers to bank accounts, digital wallets and mobile bank	Cashier, bank agents
Honduras	BANHPROVI	G2P	Cash distribution, bank agents
Dominican Republic	BanReservas	Transfers to bank accounts	Bank agents, payment cards and RAS (network of social supply)
Bahamas	The National Insurance Board, Island Pay, Suncash	Transfers to bank accounts, checks and digital wallets	Bank agents, digital wallets, directly through their employer

Source: Categories from Beazley et al. (2020); Data from Beazley (2020); Beazley & Irizarry (2021); Banco de Previsión Social (2021); Rossel & Gutiérrez (2021); The National Insurance Board of the Bahamas (2020).

Electronic payment modalities enabled faster responses but might have also led to exclusion errors. In LAC and around the world, electronic payment modalities have been associated with faster responses, particularly for vertical and horizontal expansions (as opposed to new programs). That is because they can more easily take advantage of electronic payment systems that are already operating (Beazley et al., 2021). However, digital solutions can also lead to the exclusion of the poorest and most marginalized groups, as for instance in Peru, where the lack of internet access and banking services in rural areas made delivery more difficult (Beazley et al., 2021; Beazley & Irizarry, 2021).

Contextual factors, such as the availability of mobile phones and internet networks, are important both for coverage expansions and vertical ones. Data suggests that good internet and mobile access were drivers of fast responses even when electronic payments were not already used in the country for existing cash transfer programs. The quality of trade- and transport-related infrastructure was also correlated with timely coverage expansions (Beazley et al., 2021).

5. Responses to COVID-19 and Climate Shocks Through Social Protection: Three Country Studies

This section presents experiences from country-level social protection responses in Peru, Honduras and Bolivia to COVID-19 and climate shocks.

5.1. Peru

Social Protection Overview and Climate Vulnerability

Peru has a relatively developed social protection system and, in recent years, has invested significantly in the sector, although shock responsive systems were nascent before COVID-19. The Peruvian government used the years of economic growth before 2019 to develop and expand its non-contributory social protection system. The cash transfer program *Juntos* had 735,850 beneficiary households by the third quarter of 2017, representing around 45% of families living in poverty nationwide. Pension 65 (*Pensión 65*) reaches 538,566 beneficiaries, which represents 93% of the program's target population and 72% of the potential population, i.e., all older adults living in extreme poverty (MIDIS, 2017 in Beazley, 2017). The country has used its social protection system to respond to climate-related shocks in the past. But we did not find any evidence of social protection responses to the climate-related shocks of 2020-2021, which coincided with COVID-19.

Peru faces significant environmental challenges that exacerbate the risks of shocks and has used its social protection systems to respond to climate-related disasters, such as El Niño in 2017. Peru is susceptible to natural disasters including floods, droughts, and landslides, whose frequency, severity, and impacts are compounded by the El Niño Southern Oscillation. The country used its social protection system to respond to the impacts of El Niño Costero in 2017. That phenomenon produced intense rains, which, in turn, caused landslides and floods that affected more than 1.8 million people and cost approximately US$ 4 billion (Beazley & Irizarry, 2021). The government vertically expanded *Juntos* (for poor households) and *Pensión 65* (for adults over 65) through an emergency scheme called One Strength Voucher (*Bono Una Sola Fuerza*) (Beazley & Irizarry, 2021). The response reached 325,948 households that were beneficiaries of *Juntos* and 247,329 beneficiaries of *Pensión* 65 in state-of-emergency districts (Martinez & Murrugarra, n.d.). However, the transfers took place at the beginning of September, approximately six months after the peak of the emergency. The beneficiaries of *Bono Una Sola Fuerza* received only one payment of approximately US$ 60.

This emergency shed light on the insufficient preparedness of the existing social protection programs to provide assistance when experiencing greater demand. After these events, the National Institute of Civil Defense and WFP offered recommendations for a more responsive social protection system. These included improving targeting, adjusting transfer amounts depending on the socioeconomic condition of the households, and improving coordination and response strategies (Burbano et al., 2018). Other challenges identified included: the fact that Disaster Risk Management (DRM) was not institutionalized in the Ministry of Development and Social Inclusion (MIDIS) and its programs, the lack of financing for responses to emergencies and disasters, the lack of guidelines for action by MIDIS in the event of emergencies and disasters both within plans established by the National Disaster Risk Management System (SINAGERD) and its own social protection programs, and a weak institutional capacity at all levels for disaster response (Beazley & Irizarry, 2021).

A series of strategic changes were made towards more responsive social protection systems. SINAGERD assigned MIDIS as an entity of first response in emergency and disaster situations. This measure represented a substantive change in both entities' functions and responsibilities in the face of emergencies and disasters. Simultaneously, a temporary working group was created to develop the technical and regulatory support for a National Strategy for Adaptive Social Protection in Emergencies and Disasters. A draft of this strategy, which considers the multiplicity of elements that constitute threats to wellbeing, health and safety, was developed but has not yet been put into practice (Beazley & Irizarry, 2021).

Social Protection Responses to COVID-19[16]

COVID-19 was a significant challenge for Peru, in part due to high pre-pandemic vulnerability and inequity. Peru had the fifth highest number of COVID-19 cases in LAC (Stata Research Department, 2022). The country had late control over the sources of transmission (for example, local markets), overcrowding in households, and high informality levels. As a result, a large share of the population disregarded confinement measures to continue earning an income (Díaz-Cassou et al., 2020). GDP dropped 30.2% during the second trimester of 2020, a significantly higher decline than in other countries of the region (14.1% in Chile; 15.7% in Colombia and 18.7% in México) (Díaz-Cassou et al., 2020). COVID-19 also compounded the existing challenges associated with the high influx of migrants from Venezuela.

Type of Responses

Peru responded to the socioeconomic crisis caused by the COVID-19 pandemic with a series of social protection strategies and programs. The main one consisted of various temporary cash vouchers that were implemented in stages, increasing coverage progressively. These vouchers were: *Bono Yo Me Quedo en Casa* (aimed at people living in poverty in urban areas), *Bono Independiente* (for informal workers), *Bono Rural* (for people in poverty living in rural areas), and *Bono Familiar Universal* (for anyone without formal private or public employment who earned less than S/. 3000/US$ 800 per month). Other social protection responses – beyond the focus of this report – were also implemented, from energy subsidies to public works. These vouchers were financed from the contingency reserve, the emission of treasury bonds, and through a World Bank loan.

Coverage

Peru's cash response had one of the highest rates of coverage in LAC. Its incremental and quasi-universal approach allowed it to reach 68% of households in the country, one of the highest increases in coverage in the region (33 percentage points) (Stampini et al., 2021). This increase was mostly achieved through the *Bono Yo Me Quedo en Casa*, *Bono Independiente*, *Bono Rural* and *Bono Familiar Universal* (see Fig. 6) (Beazley et al., 2021). Nonetheless, the cash responses excluded irregular migrants, one of the most vulnerable populations in the country, composed largely of Venezuelan migrants living in situations of extreme vulnerability.

Adequacy

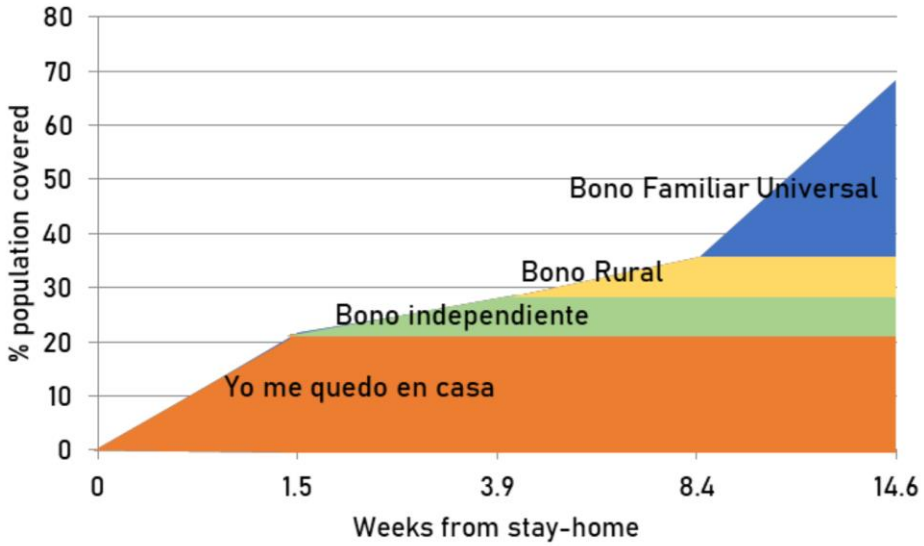
Transfer values were, overall, low. The emergency transfers covered almost the entire monthly cost of the basic food basket used to measure extreme poverty, at the time calculated at S/. 781 (approximately US$ 208) per household by the National Institute of Statistics and Information (INEI). However, when the transfers are calculated for the duration of the COVID-19 measures in 2020, they represent only 30.4% of this basic food basket. In addition, many households received fewer transfers (e.g., the approximately 4 million households that joined the *Bono Familiar Universal* directly), so the amount received for the pandemic period in 2020 was even lower.

[16] This section summarizes information from Beazley & Irizarry (2021). When additional information has been used, it is cited in the text.

Timeliness

Peru's cash transfer response was one of the fastest in the world. Peru's first response (*Bono Yo Me Quedo en Casa*) was announced on March 16, 2020 and started to pay the first beneficiaries within a week, targeting the poor in urban areas and those not already benefiting from existing social assistance programs. The identification process reportedly took only a few days, since it relied on the social registry (General Household Registry, *Padrón General de Hogares*, PGH), which had a large-scale coverage of around 75%. It reached 2,700,000 beneficiaries, 25% of the population, with two payments in April and May 2020. The use of multiple payment modalities (described below) might have also contributed to this timely response (Beazley et al., 2021).

Figure 6: Coverage Expansion by Population Through COVID-19 Vouchers in Peru



Source: (Beazley et al., 2021).

However, just because the response was timely overall does not mean that all segments of the population were quickly assisted. The emergency grants were implemented in a phased manner. For example, *Bono Familiar Universal* beneficiaries who were not in the PGH or whose information was out of date and had been excluded received the first transfers between June and August 2020.

In addition to the vouchers being phased in, the delivery period for each transfer was long. For example, the Ombudsman's Office highlights that the first transfer of *Bono Yo Me Quedo en Casa* was made on March 23, 2020. However, as of June 5, 10% of the beneficiaries had not yet received the subsidy. The first transfer of the *Bono Independiente* was made on April 10 and as of June 27, 12% of beneficiaries had not collected it. The first transfer of *Bono Rural* was made at the beginning of May, and as of June 5, only 39.8% of its beneficiaries had received payment (Ombudsman, 2020 in Beazley & Irizarry, 2021). As for the *Bono Familiar Universal*, it was designed to be implemented in two months.

Operational Systems: Targeting and Registries

As the COVID-19 crisis unfolded, the social protection responses evolved from narrowly targeted vouchers to a quasi-universal approach. The response was not conceived as an incremental strategy towards a quasi-universal approach, but that was the end result. As a first response, Peru created the *Bono Yo Me Quedo en Casa*, aimed at people in poverty living in urban areas. However, the coverage of this voucher excluded many segments of the population also affected by the crisis. Thus, the government created *Bono Independiente* to assist informal workers, and *Bono Rural* for the population in poverty residing in rural areas.

The *Bono Familiar Universal* was launched to address the insufficient coverage of the first three vouchers and to consolidate all the cash responses in a single program. *Bono Familiar Universal* followed a strategy of exclusion-by-design; that is, all Peruvian citizens were eligible except those with formal private or public employment and monthly incomes above S/. 3000. Instead of establishing an inclusion criterion for eligibility, as in the previous transfers, this program applied an exclusion criterion using registries from the National Superintendency of Tax Administration (SUNAT) and other databases. This approach can be described as 'targeting out' (Beazley et al., 2021).

The reliance on the existing social registry PGH was key in Peru's rapid response. Collecting new information and registering all households potentially eligible for the grants would have taken a long time because of the magnitude of the crisis and the health measures and mobility restrictions. The PGH had information on 77% of the population, which is why it was considered an essential tool of rapid assistance. Its use allowed the first transfers of the *Bono Yo Me Quedo en Casa* to be delivered at the onset of the pandemic, before the end of March 2020, of the *Bono Independiente* in April and of the Bono Rural at the beginning of May (Beazley & Irizarry, 2021).

However, the use of the PGH also faced several challenges, and it was not reliable as a unique source of information. A large share of PGH's information covered urban areas, which were highly affected by the crisis. The information was also outdated. Although it can be theoretically updated through local governments, updating on demand was limited in practice. That was because of beneficiaries' barriers (e.g., information) and disincentives (e.g., to report changes that could exclude the household from a program) (Beazley & Irizarry, 2021). In turn, the capacity of the Local Registration Units (ULEs) to update information was also very limited on the whole. As a result, much of the information contained in the PGH had not been updated since the last census in 2012. This raised questions about the use of outdated information that failed to reflect families' current circumstances (Beazley & Irizarry, 2021).

To expand coverage and implement the *Bono Familiar Universal*, Peru's government developed a new registry, covering virtually the whole population. The National Registry of Households (*Registro Nacional de Hogares*, RNH) was created leveraging data from different existing registries and collecting additional information through a web portal. It consolidated data from the PGH, the population census, and the Single Identification Registry of Individuals (*Registro Único de Identificación de las Personas Naturales*). On the web portal, potential beneficiaries entered their National Identity Document (DNI) number, and the system automatically verified if they were already registered or not. People could then upload or update contact information as well as information on their household members, their annual household income, and their electricity service provider. Registration through the web portal was available for a few weeks, and around 3 million households eventually registered.

Payments

Mobility restrictions and social distancing measures promoted important innovations in the delivery of cash transfers. The delivery mechanisms evolved and diversified over the months, with the *Bono Familiar Universal*, one of the last transfers to be implemented in response to COVID, relying on a large range of payment mechanisms:

1. *Bank transfer*: those who already had an account in the state-run *Banco de la Nación* or in a private entity received payments by bank transfer. Information was exchanged with banking entities to obtain the beneficiaries' bank account numbers.
2. *Mobile units*: in urban areas, older adults and people with disabilities received home delivery payments, while in rural areas the money was taken to pre-established places where beneficiaries collected it.
3. *Digital wallet*: those who already had an active digital wallet account and did not have a bank account (they had not been assigned to payment mechanism 1) received payments through the affiliated wallet.

4. *Mobile banking*: Some people not assigned to mechanisms 1 to 3 were paid through mobile banking. They received a code through an SMS message, which allowed them to withdraw the money at any ATM in the MultiRed network (without the need for a bank account or card).
5. *Face-to-face*: this mechanism was intended for all households that did not have savings accounts or an identified cell phone number and, therefore, were not assigned to any of the previous mechanisms.

These mechanisms were implemented in phases.

Payments through mobile telephony (digital wallet and mobile banking), as well as deposits in pre-existing accounts, were innovations in the delivery of social protection benefits. These mechanisms sought speed in transfers and a reduction in payment options that could lead to overcrowding at payment points. The private sector's role in transfer delivery was another innovation. Bank transfers for both the *Bono Independiente* and the *Bono Rural* could only be done in *Banco de La Nación*, as the supreme decree that established these transfers excluded private banks from the information exchange. This contrasts with the later decree that established the *Bono Familiar Universal*, that allowed for transfers to private banks. The role of private providers was also essential for digital wallets. This payment mechanism was implemented for the *Bono Familiar Universal*, and some modalities were also available for the *Bono Rural* and the *Bono Independiente*.

Despite the different payment channels, there were many instances in which crowds and long lines formed at payment points, especially in the first transfers. A problematic aspect of the *Bono Familiar Universal* payment mechanism was that both the modality and the household recipient were unilaterally assigned by the government, based on information crosschecks (Ombudsman, 2020 in Beazley & Irizarry, 2021). Thus, despite the wide range of payment options, households could not choose the mechanism or recipient that best suited their needs. The inability of households to choose their own recipient, added to the errors already mentioned in capturing the composition of households and the quality of the data, created many problems (such as the designation of incarcerated people as recipients of the vouchers).

The delivery of the first vouchers also presented significant challenges. The Ombudsman's Office received more than a thousand complaints regarding the *Bono Yo Me Quedo en Casa*, mostly related to shifts in collection points (Ombudsman's Office, 2020 in Beazley & Irizarry, 2021). One of the difficulties for cashing the transfers, for example, was the assignment of bank branches in locations distant from the address of the beneficiary. Lack of internet access and banking services also made delivery in rural areas more difficult.

Social protection played a key role in mitigating the economic impacts of the pandemic in Peru and was a crucial policy tool in managing the crisis. There is an awareness today of the role that shock-responsive social protection can play in the face of emergencies. This creates a favorable context in Peru for encouraging future investments in system strengthening and preparedness.

5.2. Honduras

Social Protection Overview and Climate Vulnerability

Before the pandemic, Honduras had the second lowest level of expenditure on social assistance programs in Latin America and the Caribbean (less than 0.5% of GDP in 2018, the last data available). Compared to the rest of Central America and LAC, Honduras has fewer beneficiaries in, and a lower value of benefits for, the two poorest quintiles (and especially the poorest). But it has a higher percentage of beneficiaries in richer quintiles, who receive on average more benefits than this population group in the region and the sub-region (Díaz-Bonilla et al., 2021).

Since 2014, Honduras has operated the non-contributory conditional cash transfer SP program *Bono Vida Mejor* (BVM). This program reached 400,000 households in 2021. It is

targeted to women and households in extreme poverty and is intended to create opportunities in education, health, and nutrition. It seeks to coordinate with other social programs for employment and income. The program transfers L 10,000 (about US$ 413) per year, provides grants for health and nutrition, and includes complementary programming. Impact assessments show that it was effective in contributing to human capital accumulation because it improves demand for and outcomes of health and education services, offering relief in poverty conditions (IDB, 2022). Beneficiaries of BVM are selected using information from the Unique Registry of Participants (RUP) database, which is managed by the National Social Sector Information Center (CENISS) and collects demographic and socioeconomic information on 3.5 million Hondurans in more than 1 million households. This represents approximately 40% of the population of Honduras, particularly those in extreme poverty (Pinilla-Roncancio & Ham, 2020).

Honduras faces significant climate risks, which will likely worsen with climate change. Honduras is highly exposed to several climate-related hazards, including hurricanes, tropical storms, floods, droughts, and landslides, that devastate crops and infrastructure. It is also highly vulnerable, with high levels of poverty (50.9% of the population lives on US$ 5.5 PPP/capita/day, compared to about 24% for LAC), inequality (with a GINI coefficient of 52.1), and violence (World Bank, 2021). People in poor rural areas depend on rainfed agriculture as their principal livelihood and are concentrated in the Dry Corridor,[17] where food insecurity has become a recurrent issue. Climate change will increase the frequency and severity of water scarcity and climate-related hazards and put additional strain on the Honduran government's capacity to address ongoing development barriers.

COVID-19 and multiple climate-related shocks in 2020 had significant economic impacts on the country. Before the pandemic, the economy of Honduras was growing above the average rate for Central America and for LAC as a whole, with a 2.7% annual growth in GDP per capita. COVID-19 and two hurricanes (Eta and Iota) created an unprecedented economic crisis in 2020, with GDP decreasing by 9%. The main impacts of COVID-19 on the economy were due to the disruptions of coffee (59.7% of production goes to Europe and 21.8% to North America) and *maquila (*foreign-owned, duty- and tariff-free factories*)* exports, tourism, private investment and the decrease of remittances (Veliz López, 2020). In addition, hurricanes Eta and Iota caused about US$ 1.86 billion in damages (approximately 8% of GDP) and affected more than 4 million people, or half the population.

The impacts of storms Eta and Iota were severe. The two storms combined led to over 400 dead or missing and left 2.5 million people in need. They put 92,000 people in shelters and damaged 62,000 houses. Eta left the soil so saturated that Iota produced extreme floods, affecting the same population (IDB & ECLAC, 2021). The hurricanes also had significant environmental impacts, producing waste of all sorts, polluting water sources, and causing structural damage. They harmed tourism infrastructure and disturbed the flow of tourism, already depressed because of COVID-19. The Ministry of Agriculture and Livestock (SAG) reported losses of up to 80% in the agricultural sector. The breaches to riverbank walls led to unsafe conditions that made it impossible to ensure a successful harvest, affecting subsistence farmers and the informal workers who depend on seasonal crops.

Social Protection Responses to COVID-19

Honduras's government adopted several non-cash-based measures to respond to the pandemic's impacts. These included freezing the price of the basic food basket, providing credit facilities for housing, and offering credits to producers to guarantee the availability of domestic food. They also included solidarity credits for entrepreneurs, food assistance for a month for 3.2 million people in need, and a direct subsidy for small producers in the Dry Corridor (La Gaceta, 2020). The government assigned a budget of approximately US$ 4 billion to confront the pandemic. However,

[17] The Dry Corridor is a tropical dry forest on the Pacific Coast of Central America, extending from southern Chiapas in Mexico to Guanacaste, Costa Rica.

the National Anticorruption Board reported that these funds were not managed with transparency (France 24, 2020).

Honduras' cash-based social protection response to COVID-19 was limited to the creation of a new voucher and the tweaking of the rules of the existing CCT. At the start of the pandemic, the government launched a new social protection program aimed at independent workers, formally employed workers without insurance and unemployed people, called the *Bono Unico*, a one-time, e-voucher transfer of L 2,000 (US$ 80) that sought to reach 260,000 people. The voucher could be used to purchase personal protective equipment (PPE), as well as food and medicine (GOAL, 2021 in CaLP, forthcoming). The *Bono Vida Mejor* was not expanded in any way, either to cover more beneficiaries or to provide more benefits. However, *Bono Vida Mejor* temporarily suspended the monitoring of co-responsibilities in 2020 and 2021, allowing beneficiaries to receive the voucher without necessarily complying with the education, health, and nutrition requirements.

Targeting for the *Bono Unico* required both expanding the existing social registry through a self-registration process and developing a new targeting index. The RUP was expanded to include people affected by the pandemic, and people could self-register through a website. While the *Bono Unico* aimed to reach 260,000 individuals, the number of people in need because of the pandemic was estimated to range from 290,000 to 4 million (Pinilla-Roncancio & Ham, 2020). CENISS created a Multi-dimensional Vulnerability Index to identify recipients of the *Bono Unico*.[18] The Index was applied to households that met the initial eligibility criteria in the RUP (Pinilla-Roncancio & Ham, 2020). Both the creation of the self-registration mechanism and the multidimensional poverty index were important innovations that could be employed in the future.

Given the use of existing registries, responses through *Bono Unico* might have been more targeted to people that were already in poverty. Urban and coastal areas affected by the pandemic were not sufficiently covered by RUP and by *Bono Unico*, because the RUP prioritizes rural areas with their higher poverty incidence.

Delivery challenges during the pandemic led to the creation of the new Government-to-Person (G2P) platform for payments by *Bono Vida Mejor*. Since its inception, the BVM has paid transfers via mobile, automatic teller machines that distribute cash at large-scale events. This brings together households from different communities at a predefined location, facilitating access to hard-to-reach communities where banking services are limited or nonexistent. As this mechanism could lead to disease transmission from the gathering of large crowds, it was rarely used during the pandemic. Instead, the government, using the State-owned Honduran Bank for Production and Housing (BANHPROVI), implemented a G2P payment platform integrating multiple channels (banks, credit unions, etc.) (IDB, 2021). In the short term, this solution allowed funds to be distributed in cash, in a single payment. In the medium term, it can be used as an electronic wallet that also promotes financial inclusion.

The implementation of the new payment platform was a leap forward in the modernization of the BVM payment mechanism. This G2P payment system demonstrated the possibility of scaling up various payment channels by integrating them into a single platform. It also demonstrated the need to broaden platform coverage by expanding it to include correspondent agents (such as

[18] The algorithm for the Index is composed of four dimensions with 15 indicators in them. The high-risk population dimension seeks to identify households where there is at least one member with characteristics leading to a high vulnerability of contagion by COVID-19, such as the elderly, those with chronic diseases, or those that have been out of the labor market due to health problems. The second dimension, encompassing health, food, housing and services, aims to capture characteristics that increase the risk that households and their members will not fully comply with the mobility restrictions and mandatory isolation imposed by the government. The economic resilience dimension includes information on property ownership, access to financial services, and access to telephone communication services. Finally, the livelihoods and employment security dimension seeks to identify people living in households whose members have vulnerable employment characteristics, such as temporary jobs, work in sectors identified as high risk, and jobs without security or with members whose occupation makes them vulnerable to the negative consequences of mandatory isolation and quarantine measures. Each dimension has the same weight within the index. Each indicator within the dimension also has the same weight. Households whose index is above the established threshold of 35% are considered vulnerable (Pinilla-Roncancio & Ham, 2020).

neighborhood groceries, pharmacies, etc.) and diversifying delivery, through such means as electronic wallets and payment cards, to reach groups in different parts of the country (IDB, 2021). Going forward, BANHPROVI plans to develop its own platform to ensure greater sustainability and response capacity, as well as to reduce its transaction costs. It will also expand coverage by setting up its own correspondent agents through grocery stores, pharmacies, and other businesses, in locations lacking financial services. In addition, BANHPROVI and the SSIS have agreed to implement a payment card for households without cell phones.

The pandemic affected data collection for BVM (IDB, 2021). The interaction between social workers (*Gestores Sociales*) and BVM participants to update information on households was limited by the confinement restrictions. The information collected in 2019 on BVM households became outdated due to the suspension of operational processes and routine verification during the pandemic. As a result, changes in their post-crisis socioeconomic conditions were not registered.

Social Protection Response to Hurricanes and Double Shocks

Although the hurricanes seem to have impacted Honduras on an even larger scale than the pandemic, the social protection responses were smaller in terms of coverage. As with the COVID-19 response, a new voucher was created in response to the hurricanes, and adjustments were made to *Bono Vida Mejor*. In December, one month after Eta and Iota, Honduras' government created a social protection grant called Emergency to the Affected (*Emergencia a Damnificados*) to provide financial support to affected households and promote economic activity in the area. It aimed to reach 60,000 households in the most stricken areas with a one-time cash transfer of US$ 200 (UNOCHA & UNCT Honduras, 2021). *Bono Vida Mejor* payments were also advanced and a lump sum for four months' worth of the payment was provided to existing beneficiaries in hurricane-affected areas.

The greatest challenge for the registries in responding to the hurricanes was obtaining information about changes in household conditions. The self-registration website was available for people in shelters to sign up. But a large share of the population might have been excluded because of a lack of digital access (Key Informant Interview - KII). The targeting method was also based on households and not on geographic location. To adequately respond to disasters affecting certain areas, however, geographic targeting could be integral to the response (KII).

COVID-19 imposed significant constraints on the response to the hurricanes. The need for social distancing limited the number of people who could travel in a vehicle and limited the capacity of the shelters, making their operations more complex. At the same time, people failed to prioritize pandemic safety measures amid the floods, and the use of masks and social distancing became less common than before. This situation led to a significant increase in COVID-19 cases, exposing humanitarian actors and greatly affecting their response capacity (Equipo de Evaluación y Coordinación de Desastres de las Naciones Unidas - UNDAC, 2020).

The hurricanes also imposed challenges to the COVID-19 response, for instance hindering the development of the new G2P payment mechanism. By the end of 2020, BANHPROVI had substantial payment capacity. It enabled 20,000 daily transactions through the 254 banking agents integrated on the platform via a real-time connection. However, the two hurricanes delayed the launch of the platform's integrated payment channels, limiting the coverage, particularly in rural areas.

However, there were also synergies in the instruments that were initially set up to respond to COVID-19 and were subsequently used for hurricane response. For instance, it appears that the self-registration and the G2P payment mechanisms set up to respond to the pandemic were also used to respond to the hurricanes (KII).

Financing for social protection was also affected. Social protection programs are financed from the Fund for the Reduction of Poverty (*Fondo de Reducción de la Pobreza*, FRP). As a result of the economic crisis caused by the pandemic and the hurricanes, the FRP in 2020 experienced a

reduction in its budget—15% of which has been funded, since its creation, from sales tax revenue. This reduction deepened in 2021 to only 55% of the 2019 allocation. Combined with challenges to the payment mechanism, this resulted in payments to only 61% of the BVM households scheduled for 2020, with the largest shortfall in rural areas where payments reached only 55% of scheduled households (IDB, 2021).

Multilateral agencies supported the Honduran government, but mechanisms allowing for contingency or emergency financing were lacking. The Honduran government asked the IDB and the World Bank for resources to cover the FRP funding deficit. While the IDB reformulated loans and approved new ones to replace the financing, it did not have a mechanism that allowed for rapid delivery of contingency funding. Ultimately, the IDB financed a COVID-19 response operation. It has now developed a new operation to strengthen the overall social protection system, including expansions of mechanisms such as the G2P payment platform. These operations helped replenish the FRP and were done in coordination with the World Bank (KII).

In general, the social protection system in Honduras struggled to coordinate with other responses and was challenged by the double shocks. It appears that there were significant coordination challenges both in the response to the COVID-19 emergency and to the hurricanes, particularly among government ministries (KII).

5.3. Bolivia

Social Protection Overview and Climate Vulnerability

Bolivia suffered some localized climate-related shocks in 2020 and 2021, but no information has been found on the use of social protection to respond to them. In February 2020, floods in La Paz affected 7511 people, causing several deaths and damaging houses. The frequency of floods increased the following year, with floods in the cities of Sucre, Cochabamba and Santa Cruz in January; in Santa Cruz in February; in Omereque, Cochabamba Department in April; and lastly in Larecaja Province in November (EM-DAT, 2022). No relevant information was found on social protection responses to these floods.

In addition to these extreme weather events, the country was immersed in a political and economic crisis that worsened the impacts of the COVID-19 pandemic when it struck. The economy had been decelerating since 2019, and there was a political crisis due to changes in the executive (Borges, 2021). The result of this combination of economic and political turmoil made Bolivia one of the countries with the highest Covid-19 mortality rates worldwide (Borges, 2021).

Social Protection Responses to COVID-19

To respond to COVID-19, the government used existing social protection programs as the basis for new emergency transfers to a large portion of the population. When the pandemic hit, the country already had in place universal cash transfers for the elderly, public school students, and new and expectant mothers. Piggybacking off existing programs' administrative and financial infrastructure, the government was able to quickly respond with emergency transfers to most of the population (UNICEF & Fundación ARU, 2020). The new transfers cost BOB 3.7 billion (US$ 536.5 million or about 1.3% of 2019 GDP) and had widespread coverage, but the amount transferred was insufficient given the magnitude of the crisis (Blofield et al., 2020).

The COVID-19 response in Bolivia initially consisted of four grants and subsidies that were paid throughout 2020. These were:

1) Family Basket (*Canasta Familiar*) was a one-time payment of BOB 400 (US$ 58) for *Renta Dignidad* program beneficiaries (all citizens over 60, regardless of income) who were not receiving a contributory pension, mothers enrolled in the *Bono Juana Azurduy* (for pregnant mothers and mothers of children under 2) and people with disabilities.

Payments began on April 3, and the total cost of the program was BOB 430 million (US$ 62.4 million).

2) Family Grant (*Bono Familia*) was another one-time only payment of BOB 500 (US$ 73) aimed at parents of children and adolescents enrolled in public schools. It started on April 29, and on May 18 was extended to private school students, given that children from lower middle-income households in informal sectors also attend these schools (Supreme Decree 4210, 2020). Including this expansion, the total cost was BOB 800 million (US$ 116 million) (Borges, 2021).
3) Universal Grant (*Bono Universal*) was a grant that attempted to reach all those not covered by other COVID-19 related programs. It consisted of a one-time payment of BOB 500 (US$ 73) to all Bolivians over 18 not receiving a formal salary or who had not received other cash transfers during the pandemic. The program cost BOB 2 billion (US$ 290 million) and reached 3.69 million Bolivians.
4) Grant Against Hunger (*Bono Contra el Hambre*) covered beneficiaries of *Bono Juana Azurduy* and *Bono Universal*, people with disabilities and independent workers (Supreme Decree 4392, 2020). People in formal employment or receiving the *Bono Familia* were not eligible. Payments began in December 2020 and by February 2021 3.8 million Bolivians had received the transfer at a cost of BOB 3.8 billion (US$ 562.2 million) (Min. Economía, 2021 in Borges, 2021).

The Government also implemented several measures to alleviate the pandemic's impacts. These included: (i) a prohibition on service interruptions for water, electricity, and gas; (ii) a two-month suspension of principal payments on bank loans, including personal, family, and small-business ones; and (iii) an exceptional extension for withholding, risk premiums, commissions, and contributions to the solidarity fund. The first two measures covered close to 3.5 million beneficiaries at an expenditure of approximately BOB 1.73 billion (about US$ 248 million). The government also subsidized the cost of utilities, covering the full cost of electricity bills up to BOB 120 (US$ 17) and between 20%-50% of larger bills, and 50% of household water and gas consumption through June 2020. These subsidies benefited 2.6 million households, costing the government BOB 490 million (US$ 71.1 million) (Min. Economía, 2020a in Borges, 2021).

Despite the responses' large coverage, it was still not enough to stop people from falling into poverty. A joint study by UNICEF and Fundación ARU (2020) estimated that, despite the government's assistance, 8% to 20% of vulnerable households with children and pregnant women could fall into poverty and 6% to 11% of middle-class households could become economically vulnerable.

Although there was an already established social protection system, the speed of the responses was slower than optimal. Several factors influenced the lack of a rapid response, such as the fact that 80% of the employed population belonged to the informal sector. The government eventually recognized most informal households that lost their income due to the pandemic and opened the way for them to apply for aid. But these households had to wait two months before receiving cash assistance. Before the pandemic Bolivia also relied on physical transfers, a payment modality that had to be avoided to prevent the spread of the virus. The government announced plans at the end of July 2020 to provide a second transfer to these households, but this plan was hampered by executive-legislative conflict (ECLAC, 2021).

Targeting of benefits was incremental until it reached a quasi-universal approach, but this was not by design. The first social protection response was built on existing programs, such as *Renta Dignidad* and *Bono Juana Azurduy*, and targeted the same households (i.e., it was a vertical expansion). This helped with the deployment of transfers as the beneficiaries were already included in the program registries. However, these programs missed many households that were severely affected by the pandemic. The additional grants aimed to expand coverage to these new groups. For example, *Bono Familia* aimed to support households with children and was expanded to cover children both in public and private education. Households in the higher quintiles might have received the benefit. But some errors of inclusion were considered acceptable for the sake of speed, especially considering potential small cost-savings when introducing a complex targeting

mechanism (KII). *Bono Contra el Hambre* used a quasi-universal approach in which everyone was eligible except if they had formal employment or had received the *Bono Familia*.

There were gaps in coverage related to the eligibility requirements of each cash transfer program. For example, depending on when they turned 60, and the date the program actually was implemented, people were eligible or not to receive the *Renta Dignidad* grant. Another example of these gaps is that some people were eligible for grants depending on the date they were employed.

Delivery of payments was a challenge, but innovations during the pandemic led to a significant increase in the use of digital banking systems. Due to the physical limitations created by the pandemic, the usual delivery mechanisms for existing social protection benefits (i.e., cashier payment) had to be changed. The deposits were made to personal accounts, and beneficiaries started to open online bank accounts and to use cards and electronic payment methods.

Bolivia's government financed responses to COVID-19 from its own budget, although there were difficulties in rapidly accessing the funds. All the social programs and grants implemented by Bolivia's government were paid from the government budget, which comes from tax collection and the revenue from the sales of commodities. However, since the start of the health crisis, sales of commodities fell, with sales of gas declining by 14% in 2020 with respect to 2019. In addition, tax revenue on sales also fell by 1% due to the severe economic contractions of 2020 (IDB, 2021).

Multilateral institutions, including the IDB, provided ad hoc "revolving" funds to replenish government spending. Given the need to act quickly, an emergency loan from Bolivia's Central Bank was the main source of funding for the response (BCB, 2020; Peñaranda U., 2020 in Borges, 2021). With a total amount of BOB 7 billion (US$ 1.01 billion), the emergency loan had to be repaid quickly, and the government used undisbursed balances from existing loan operations from the IDB (US$ 450 million), the International Monetary Fund (US$ 327 million) and World Bank (US$ 250 million) to do so. These funds were later "reimbursed" by new operations prepared by the multilateral institutions, effectively functioning as ad hoc contingency financing. This helped the country maintain its reserves.

There were delays despite the successful innovation in financing expenditures and the speed with which the IDB was able to prepare the new operations. The government appears to have been overwhelmed by the emergency at the beginning, and it was a challenge to manage the funds made available by the different institutions involved in providing financing. Some of the IDB operations were completed within weeks, but it took several months for Bolivia's Congress to approve them (KII).

Bolivia was able to mount a relatively successful response to the pandemic despite economic and political challenges. This might lead to long term improvements in shock-responsive social protection. The response benefited from the existing systems and innovations around financing, among others. Looking forward, Bolivia might want to consider how to consolidate those gains. As a country highly exposed to climate-related shocks, it could make significant investments in shock-responsiveness as part of future social protection. However, it is unclear to what extent the government might consider expanding into such areas and what the current capacities are to build upon. We recommend an exploratory study to assess these questions.

6. Key Insights and Lessons19

This section presents the three major insights that emerge from the experience of shock-response in LAC during the COVID-19 pandemic that are relevant for managing climate-related shocks in the future. It also makes some recommendations, based on that experience, for designing and strengthening social protection systems and interventions so they are responsive to climate shocks.

6.1 Key Insights

First, the experience with COVID-19 demonstrates that it is possible to undertake very large expansions of social protection to respond to shocks, as part of larger responses to manage complex impacts. Even though most social protection systems in LAC were not prepared to respond to shocks, the nature of the shock and the existing political circumstances made those large responses both necessary and possible. Moreover, social protection was one of the many tools governments in the region deployed to deal with the socioeconomic impacts of the pandemic. As such, it was used in combination with other sectoral approaches to address complex impacts across public health and commerce, among other areas. Therefore, not only are large, successful, shock-responsive social protection interventions possible. They can also be used as one "layer" in a more comprehensive combination of risk management strategies. This is important because managing climate change-related shocks will require a range of interventions, from emergency response and humanitarian action to health and infrastructure. Social protection can fulfill an important role as part of these climate-risk management strategies.

There is increasing awareness of the role of social protection in the region. But the nature of the shock matters, and climate-related shocks might not be of sufficient scale to mobilize similar public support and political will. COVID-19 is very different from climate-related shocks that occur more frequently in LAC (as well as other regions in the world). The impacts of the COVID-19 shock originated primarily from the public health measures countries put in place to prevent further contagion. The impacts of these measures affected almost everyone. This created economic and political imperatives that are unlikely to be as strong in the case of other, more localized shocks. Even if shocks originating from climate-related hazards were, in very exceptional cases, of a similar magnitude, it is unclear if government policies would also add to the socioeconomic impacts, as they did during COVID-19.

Finally, the social protection responses to COVID-19 were needed at such a large scale because of the region's relatively low pre-pandemic coverage. It is still unclear if COVID-19 has generated structural changes in the permanent coverage of social protection systems. While the rapid implementation of large responses and the protection of new groups is commendable, the need for such responses also demonstrates the fragility of previous systems. Many people were outside formal social assistance or social insurance systems, as they were in informality or just above the poverty line. The increased demand during the COVID-19 shock would have been unnecessary if a larger social protection floor had been in place. This underscores the gaps in existing "regular" social protection systems and their inability to be used as emergency response mechanisms. If social protection coverage and the overall provision of a social "floor" can be increased in the region, there may be less of a need for large responses when future climate-related shocks hit. On the other hand, the large expansions seen in response to COVID-19 do not appear to be sustained in time, with almost all responses being temporary. Limited fiscal space is in fact likely to lead to a contraction of the system. This means that a significant number of people remain vulnerable to new shocks, including increasing climate-related extremes.

[19] A workshop was held in May 2022 with IDB specialists in social protection, climate change and disaster risk management fields to identify potential policy and program recommendations derived from these insights.

6.2 Policy Recommendations

Based on the findings from this study, we offer the following recommendations for designing systems and interventions responsive to climate shocks.

i) **Focus on designing shock-responsive systems, not programs.** While vertical and horizontal expansions might appear operationally easier, that might not be the case if the systems are not in place in advance of a shock. More importantly, there are political-economy reasons why countries prefer to create new programs: It is easier, for example, in such cases to communicate new eligibility rules or to limit benefits in time. Indeed, during COVID-19, the preferred type of response in the region and around the world was to create new social protection programs rather than use existing ones. This is important from the perspective of 'designing' social protection systems to respond to future climate shocks. It demonstrates the need to focus on developing overall social protection system capacity and response flexibility rather than narrowing the focus by making one or more existing programs scalable. Preparedness (i.e., building systems in advance), scenario modeling and contingency planning are important at a system level, also keeping in mind the importance of other contextual and political factors at the time of the shock (more on this below).

ii) **Design more adequate social protection responses to climate shocks by understanding and assessing risks in advance.** Shocks create new needs that have to be addressed differently, whether in the coverage, generosity, or delivery of the response. In general, COVID-19 measures were more compensatory in nature: Generosity and coverage were not necessarily based on assessments or verification of how people were affected. In a shock, it is generally very difficult to know with sufficient certainty who the affected populations are, how they are affected, and how the way they are affected changes over time. This might be somewhat easier in more localized shocks where the impacts on physical factors (infrastructure, assets) are clearer. However, the less "visible" the impacts of a shock (for instance, on health, income, or mental health), the more difficult it is to define what type of response is "adequate." Potential risks have to be understood in advance (not only hazards, but also patterns of exposure and vulnerability) and what their impacts might be, particularly for increasingly complex shocks (drought followed by floods) or "new" climate-related disasters, such as heatwaves.

iii) **Consider and prepare targeting methods and systems in advance so they are shock-responsive.** The pandemic highlighted that targeting methods have to be adjusted to the nature of the shocks and that conceptualizations around strict poverty targeting are difficult to apply in crises. Moreover, it showed that large coverage expansions of non-contributory benefits to new groups, including those not in the bottom income quintile, are feasible if they can be justified. A key lesson is that disasters present challenges to traditional targeting approaches and therefore require the rebalancing of priorities. There are two policy and programmatic consequences from this. First, disaster situations could make issues, such as inclusion errors and verification of eligibility (traditionally very important for the poverty targeting of social programs in the region) less relevant when large numbers of people and new groups are affected, with either geographical or quasi-universal approaches being more cost-effective and practical. In such cases, program implementers need to have the flexibility in program rules and monitoring that allow for such approaches. Its absence and the fear of repercussions might disincentivize them from making rapidly needed modifications. Second, when justified, more rigorous targeting methods could be required (for instance, for more localized or smaller shocks) to identify affected people who are outside of regular social protection programs. In these cases, having in place systems that can dynamically adjust could be important. There should be investments in both these areas.

iv) **Focus on consolidating and improving shock-responsive information and payment systems put in place during the pandemic**. The experience with COVID-19

represented a significant leap forward in the utilization of social registries and other social information systems, as well as in the diversification of payment mechanisms. Countries were forced to innovate, particularly in terms of digital registries and payment systems that helped reach many people quickly without the need for physical contact. These advances have generated large opportunities for the future. Nevertheless, there are important differences between the pandemic and climate-related disasters in which physical infrastructure can be destroyed (thus preventing registration or payment efforts). In such cases, alternative methods need to be available. There are many areas in need of further improvement, such as interoperability and continuous updating, among others. In the future, given the risk of the digital exclusion of some population groups, the best solution could be a mix of both digital and in-person systems. Layering alternative methods can also allow for wider coverage. Moreover, many of the systems put in place during the pandemic had relatively softer verification parameters compared to before the pandemic. To ensure transparency and accountability in disasters, ways in which registration and payment methods can take stricter verification parameters into account will have to be considered.

v) **In addition to systems and interventions, also invest in improving institutional, contextual, and financing factors.** While social information systems are key, responding to shocks in a timely manner also depends on a host of institutional and contextual factors. Studies on interventions in responding to COVID-19 clearly show that factors such as the institutionalization of social protection, the availability of funding, and other contextual factors, such as physical and economic infrastructure, are key enablers of timely responses. It is key that these are taken into account for future responses to climate-related shocks. In particular:

- ***Institutional collaboration and political support are crucial to preparedness efforts***. The coordination mechanisms that exist and that are most likely to be used for disaster response in the region were not employed during COVID-19 and have not been improved. For future climate-related shocks, coordination mechanisms between social protection and disaster response agencies will be key. That includes coordination of data and information systems, and the harmonization of support to affected populations. Limited reviews of coordination issues point to an important gap in lessons learned from COVID-19 in this area. Including these in future assessments of the role of social protection in responding to climate shocks is of vital importance. Finally, strong institutional frameworks and political support are essential. That means, for instance, ensuring that social protection systems are embedded in a solid legal framework. It also includes the need for more awareness and support for social policy interventions. During the responses to COVID-19, it was possible to change, suspend, or alter many program rules, timelines and constraints in a way that would have been impossible in previous disasters, illustrating the importance of political support as well as system flexibility.

- ***Recognize that disaster risk financing is the cornerstone of shock-responsive systems that are well prepared in advance.*** COVID-19 demonstrated the importance of having: i) contingency funding available before shocks hit; ii) protocols in place to make that funding available quickly; and iii) the political will to do so. Given the exceptional nature of the crisis, financing was not a significant constraint in the responses to COVID-19. For preparedness for future climate-related shocks, financing will be key**.** If it is not committed in advance, it will be very difficult to enact the reforms needed so that countries can respond to shocks through social protection. For instance, if there is no certainty that the financing will be available in the event of a climate-related shock, program officials will lack the incentives to invest in system preparedness. Climate shocks are likely to almost always be of a smaller magnitude but to happen more regularly. It is essential in anticipating them to have pre-arranged contingency funding regulated by spending protocols and rules to remove political interference. Multilateral agencies, such as the IDB, can also invest

in developing innovative financing mechanisms so that they can be ready to support countries when shocks hit.

Systems that are prepared from an operational, institutional, and financing perspective and that are flexible and have political support as response mechanisms will likely be more effective at responding to future climate-related shocks.

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