GUIDANCE NOTE

Disaster Risk Finance for Adaptive Social Protection
Disaster Risk Finance for Adaptive Social Protection

Diana Cubas, Rashmin Gunasekera, and Thibaut Humbert.
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Countries in the Latin America and the Caribbean (LAC) region are highly exposed to frequent natural hazards leading to disasters. Usually, poor and vulnerable populations are adversely affected by the effects of disasters since they have less ability to cope and recover. Rapid assistance in the immediate aftermath of a disaster is an essential part of strengthening resilience and protecting the welfare of poor and vulnerable households. If ex-ante physical and financial measures are not included in disaster preparedness, there can be considerable delays in post-disaster response, potentially significantly exacerbating the adverse human and economic conditions of the poor and vulnerable, pushing them deeper into poverty.

Social Protection (SP) has an important role in helping the poor and vulnerable populations cope with the impacts of natural hazards as well as building long-term resilience. Ensuring the availability of financing to scale-up Social Protection after disasters is therefore critically important for LAC countries. LAC countries have demonstrated experiences using various risk financing approaches and participating in risk financing arrangements. Despite this, few countries have established mechanisms to guarantee scaled-up SP support following disaster events. This note aims to improve understanding of Disaster Risk Financing (DRF) approaches among SP practitioners and outlines what LAC countries need to prioritize in order to ensure that appropriate financing arrangements are in place to support effective post-disaster SP response.
Acknowledgements

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1. Key Facts

Countries in the Latin America and the Caribbean (LAC) region are highly vulnerable to natural hazards such as tropical cyclones, earthquakes, floods and droughts. The direct costs and indirect impacts of these events to LAC countries are exorbitant, with significant implications for the fiscal health of LAC economies. In 2017 alone, hurricanes Irma and Maria caused widespread damage devastating Dominica and in Antigua and Barbuda. In Dominica, damages estimated US$931 million and losses at US$382 million amounting to 226% of 2016 GDP. In Barbuda, severe impacts were caused to the housing sector estimated in US$ 52.2 million, with 45 percent of houses estimated to be uninhabitable and 28 percent requiring complete replacement affecting families to return to their homes and livelihoods. In Mexico, two high magnitude earthquakes hit the country which caused a combine loss of US$ 8 billion, affecting 1.5 million people and causing 467 deaths. The effects of climate change will continue to intensify causing extreme weather events to become more prevalent and more intense resulting in greater financial losses for countries in the region.

Disasters and climate-related shocks could often affect the poorest and vulnerable disproportionately, keeping them in poverty or pushing the near poor into poverty. People living in low-income communities tend to live in areas that are highly exposed to shocks. Compounding these tenuous living conditions, the poor also lack savings and have limited or no access to finance or insurance. The result of this is disproportionate impact of disasters and climate-related shocks on the poor and increased poverty for vulnerable and near poor persons. In addition, some countries in LAC are socially and economically dependent on agriculture and other climate sensitive sectors such as tourism for trade, income and employment. As a result, those who depend on these sectors for their livelihoods, lose earnings, employment and struggle to recover from climate-related shocks. For instance, after Hurricane Maria in Dominica, the agriculture sector incurred the largest damages and losses of US$179.6 million compared to other sectors, with 80 to 100 percent of the crops destroyed and farmers and fishermen losing half of their cattle, boats and fishing gear.

Social protection systems have an important role in helping poor and vulnerable populations cope with the impacts of shocks and building long-term resilience. They are often used to provide timely and opportune safety nets in time of crises and can help provide long-term solutions for increasing assets, skills, and livelihoods. Social protection programs should be responsive and adaptive to be rapidly scaled-up and be capable of increasing support to existing beneficiaries and other affected non-beneficiaries after a shock. For LAC countries, SP spending is mostly financed from Government recurring budgets, providing predictable and reliable SP benefits to households and individuals in need. SP spending in LAC is also close to the global average of 1.5 percent of GDP and exceeds SP spending levels for most regions. However, traditional social protection systems often cannot cover the economic and social costs brought on by shocks. This is largely due to limited available resources and a lack of dedicated mechanisms, experience, and expertise to effectively allocate, disburse and monitor recovery and reconstruction funds after disasters.

Effective post-disaster SP response requires having funding arrangements in place to mobilize adequate resources for timely and effective response after an event. Disasters can generate fiscal volatility because of the sudden, unexpected expenditures required during and after the event. Governments also require timely access to resources to finance effective emergency and recovery response. This involves having effective administrative and legal systems for the appropriation and execution of funds for the government budget, insurance distribution and settlement. Some countries in LAC have implemented DRF-related social protection programs to increase resilience for the poor. For example, Mexico facilitated use of the National Emergency Fund (FONDEN) to partially finance the former Immediate Temporary Employment Program.
Programa de Empleo Temporal Inmediato or PETI in Spanish) to provide temporary transfers in exchange for labor in community projects to eligible households affected by disasters or other crises. However, most countries in the region have limited or ad-hoc experience with linking DRF measures to implement post-disaster SP programs.

Disaster Risk Financing mechanisms can provide governments with the necessary resources for social protection response in a timely and effectively manner after a disaster. DRF helps governments improve their fiscal resilience and obtain timely resources after a disaster or climate-related shock. There is an implicit responsibility on governments to protect and support the most vulnerable in post disaster situations. Governments can use financial tools to facilitate resilient recovery, particularly to help the poorest and most vulnerable build resilient livelihoods after a disaster. While several countries such as Panama, Guatemala, Jamaica, Grenada do have national DRF strategies, their implementation has been nascent. Integrating Social Protection considerations into broader Disaster Risk Financing strategies can help ensure guaranteed measures for financing scaled-up SP response to households after disasters and help countries move away from ad-hoc and reactionary approaches to financing SP-related response and recovery efforts.

2. Disaster Risk Financing – Concepts and Approaches

Disaster Risk Financing is the practice of arranging financing, developing policies, legal and institutional frameworks and building capacity in advance, to ensure that funding is available and efficiently used for rapid response and recovery to address the economic costs of natural hazards. DRF implements sustainable and cost-effective financial protection policies and operations to help governments improve their financial resilience against climate and disaster risks.

Disaster Risk Financing is an integral part of a wider approach to the Disaster Risk Management and climate change agenda. It aims to increase the resilience of vulnerable countries to the financial impact of disasters by complementing investments in risk identification, risk reduction, preparedness, financial protection and planning for disaster recovery. In this way, DRF helps minimize the costs of, and optimize the timing of, meeting post-disaster funding needs without compromising development goals, fiscal stability, or wellbeing.

This kind of approach provides financial planning that protects countries’ national budgets as well as the lives and livelihoods of their residents from the impacts of disasters. Financial protection helps governments reduce their explicit and implicit contingent liability and limit the volatility on accounts. It also supports governments in channeling emergency support to households through social protection mechanisms, enabling faster and more transparent disaster response and helping livelihoods to become more resilient. Additionally, at a sectoral level, it can support governments to implement sustainable, cost-effective public-private partnerships. For example, agricultural insurance as part of broader agricultural risk management to protect farmers, herders and fishermen.

Governments can optimize their financial coverage by combining different instruments to protect against events of different frequency and severity, either before or after a disaster strikes. Determining the right mix of instruments depends on the financial liabilities the government may face, its fiscal space and risk appetite. International best practices suggest the adoption of a risk layering approach for disaster risk financing protection strategies that combine risk retention (such budget allocations or contingent credit lines) and risk transfer (such as insurance, that passes on the risks of the government associated with certain event to another party) instruments, according to the temporal dimension of post-disaster funding.
needs, the opportunity and fixed costs of different instruments. There are a variety of different risk financing instruments that governments can layer together to develop a financing strategy to finance and remain resilient to a range of disaster impacts. Among them are (Table 1):

- **Contingency Funds/Budget Allocations.** These can be reserve funds designated for financing disaster losses. Funds can be assigned through budget allocations from different sources, such as national or local governments, international agencies or a combination of these. For example, the Government of Mexico established an Emergency Fund (FONDEN), a financial vehicle through which the federal government allocates budget ex-ante for post-disaster response and reconstruction.

- **Contingent Credit Lines.** These provide governments with immediate access to funds from a credit line following a disaster. This type of financing is typically used to complement available funds capitalized in a contingency fund, for responding to recurrent/medium scale disasters. A contingent line of credit is an ex-ante instrument that allows borrowers to prepare for a disaster by securing access to financing before a disaster strikes.

- **Risk Transfers.** Risk transfer instruments include insurance, reinsurance or capital market instruments such as catastrophe bonds. With this type of instrument, the government passes on the risks associated with a disaster event to another party by paying a fixed cost/ premium. For example, The Caribbean Oceans and Aquaculture Sustainability Facility (COAST) is a parametric insurance product aimed to promote the resilience of the fisheries sector against the impacts of weather events and disaster risk. COAST provides coverage for losses caused by adverse weather on fisherfolk and for direct damages caused by tropical cyclones to fishing vessels, equipment and infrastructure. It is envisioned to strengthen the food security of more than 180,000 fisherfolk throughout the Caribbean through protecting livelihoods threatened by extreme weather and promoting sustainable management of fisheries.

- **Budget reallocations.** These are ex-post financial tools that involve moving funds from one budget category to another, without increasing the total amount expended. Budget reallocation often plays a key role for the continuation of relief and the initial stages of the recovery, but can take time due to administrative procedures.

- **Post-disaster credit.** A final risk financing option is for governments to borrow in the aftermath of a disaster to help address damages and losses. This could involve domestic or international bonds or loans from international, bilateral or multilateral lenders.

Another ex-post financial mechanism linked to post-disaster credits is a Contingent Emergency Response Component (CERC) offered by the World Bank as part of its Investment Project Financing (IPF) to client countries. CERCs allow countries to quickly access funds from an existing IPF for emergency response and recovery. CERCs can be included in any World Bank IPF to facilitate rapid reallocation of uncommitted funds to address urgent needs in the event of a crisis or emergency. It is typically embedded during the preparation of the project and can be either designed as a “zero dollar” assignation or with an amount of pre-allocated funding. This type of instrument was used in Dominica to finance direct cash transfers to farmers and fishermen affected by Hurricane Maria through an Agricultural Emergency Response Grant (AERG). The AERG was financed by the CERC of an ongoing World Bank-financed Disaster Vulnerability Reduction Project (DVRP) IPF, by reallocating US$7 million of undisbursed financing from the IPF to finance the AERG cash transfers.
3. The Importance of Disaster Risk Financing to Social Protection

Disaster Risk Financing provides different finance instruments that can allow governments to scale-up Social Protection programs to respond to disasters. Applying DRF principles and tools can enable Social Protection programs to be adaptive to “scale-up” and “scale out” assistance to beneficiaries and affected households following a disaster or shock. Adaptive Social Protection programs are more capable of scaling out to non-beneficiaries who have been affected by a shock and/or scaling up, to increase benefit amounts to existing SP beneficiaries at a critical time of need. DRF allows governments to plan ahead and structure their budget execution and, with the scale-up/out criteria established in advance, provide rapid assistance through post-disaster SP benefits to households identified for support.

Developing a DRF Strategy allows governments to have more predictability and ownership of their risk to manage their losses. With a DRF Strategy, governments can establish clear rules for the amount and timing of payouts under Social Protection. This would allow governments to clarify who is responsible for the risk (e.g. national/subnational government, donors, etc.), increasing response time and minimizing the politics of aid and unnecessary post-humanitarian spending. In the Caribbean, it can also improve the transparency and accountability of post-disaster SP benefits by delivering payments through financial or money markets which are easy to track. Clearly established rules and/or triggers would also provide predictability to vulnerable households providing a better understanding of when, how much, and for how long, post-disaster SP benefits will be provided.

DRF also provides public officials with the risk information and tools necessary to make informed financial decisions on managing disaster and climate-related risks. By quantifying risk and potential financial losses ex-ante, it makes DRF strategies more effective. It also allows stakeholders to understand the costs and benefits of investing in risk reduction.

### Table 1. Common Instruments for Financial Planning

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<th>Ex-ante Instrument (arranged before a disaster)</th>
<th>Ex-post Instrument (arranged after a disaster)</th>
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<td><strong>Risk Retention</strong></td>
<td>- Contingency fund or budget allocation</td>
<td>- Emergency budget reallocation</td>
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<td>- Line of contingent credit</td>
<td>- Emergency tax increase</td>
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<td>- Post-disaster credit</td>
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<td><strong>Risk Transfer</strong></td>
<td>- Traditional insurance/reinsurance Index insurance, reinsurance or derivatives (e.g agriculture index insurance, weather index insurance)</td>
<td>- Discretionary post-disaster relief aid from development partners</td>
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<td>- Capital market instruments</td>
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*Source: Authors’ adaption*
and financing. Disaster risk assessments provide policy makers with the information to quantify potential disaster impacts based on historical data and integrating socio-economic variables to determine the proper financial instruments needed and a budgetary process to transfer additional resources to Social Protection programs to ensure that the resources are distributed to the most affected after a disaster. Typically, these types of models consider exposure, hazard, vulnerability and losses.

A useful example of ex-ante quantification of potential impacts and post-disaster financing needs comes from a residential exposure model which was conducted for Saint Vincent and the Grenadines. The objective was to identify and quantify the effects of disasters on households incorporating social conditions and assess if targeting and response was adequately identifying such effects and responding to household needs. The study assessed the roof and wall type and socio-economic group of the household and evaluated the impact of Annual Average Losses for different groups (Box 1). Results from the study showed that variables such as the socio-economic group, the impact of hurricanes in a particular area and the type of materials and quality of residential construction, are the main factors that lead to an increase in the national average annual loss in the studied period of time (Box 1). Based on the results of the analysis, social protection policy implications are that further attention should be paid to the social groups which experience a higher average annual loss whilst considering that both the poor but not extremely poor and the not poor but vulnerable social groups account for almost 46 percent of the population of St. Vincent and the Grenadines.

**Box 1: Quantifying Potential Disaster Impacts and Economic Damages on Households in St Vincent and the Grenadines**

A probabilistic risk modelling approach was used to identify and quantify the effects of disasters on households incorporating social conditions. First, a modelling of the hazard impacts on the country’s residential buildings was conducted. This included collating existing socio-economic and hazard data and their spatial allocation to estimate risk from the predominant hurricane and earthquake threats. Then, a quantification of the correlation between hazard and social protection was done, including climate impacts, to estimate future potential losses and therefore budget requirements for social policy.

**For the analysis, housing typologies were considered.** The Risk Profile captures the spatial and construction attributes of the total building stock in St. Vincent and the Grenadines, such as geographical location, urban/rural classification, type of occupancy, building materials (e.g., wood, concrete), and replacement value. Three broad types of outer walls were considered: wooden or wood mixed with other materials, concrete block walls or concrete panel walls, and other types of outer wall (e.g. stone, clay brisk). For roof cover, categories included predominantly sheet metal roof (more than 90%), with the rest being either roof shingles, or concrete slab. The average size of a home in St. Vincent and the Grenadines is 78m², with a mean cost of replacement at 379 US$/m². The total replacement value of the country’s housing stock amounted to 1.204 billion USD, which was in line with estimates of the country’s capital stock in housing.

**To consider social vulnerability in the analysis, four social groups were identified based on the 2007 Living Conditions Survey:** (i) extremely poor; (ii) poor but not extremely poor; (iii) not poor but vulnerable; and (iv) not poor and not vulnerable. Houses in the extremely poor segment accounted for 2.78% of the population and lived with less than US$2.5 per day in 2007. The poor but not extremely poor (28%) constituted the second biggest social group in the country. The not poor and not vulnerable (51.6%) lived with more than US$7 per day. The not poor but vulnerable who lived with US$5.6-7 per day, accounting for 18% of the country’s population. While most of the country is formed by the social group not poor and not vulnerable, nearly half of the population (48.45%) lies within the categories of poor or vulnerable.
Combining the exposure with hazard and vulnerability models indicate that Annual Average Loss (AAL) to the building stock from earthquakes is around US$1.0 million or 0.08% of the total exposed value (TEV). Additionally, the Probable Maximum Loss (PML) for a 250-year return period was expected to be 5.1% of the total exposed value. The highest AAL was seen in the Northeast of St. Vincent island and in the Southern Grenadines.

Regarding hurricanes, which are most the prominent hazard in St. Vincent and the Grenadines, the AAL for hurricanes was calculated for various building typologies. Results showed a correlation between the AAL and the socio-structural vulnerability class. The extremely poor group was the most vulnerable, with an AAL of 2% when occupying a structure with wooden outer walls covered by sheet metal. The second highest AAL reaching almost 1.5% was attributed to a wooden structure and roof shingles occupied by a poor but not extremely poor household. The lowest AAL (below 0.25%) was seen in houses built with concrete blocks or panels and a concrete roof (slab) occupied by not poor not vulnerable households.

The analysis showed that there is a strong relationship between the loss potential and a household’s socio-economic group. For the extremely poor segment of the population, the loss ratio reaches up to 50% in a 1000-year and up to 25% in a hundred-year return period. However, it is around 17% and 7% respectively for those who are not poor nor vulnerable.

The AAL for hurricane is nearly five times greater than the earthquake AAL. While Hurricane losses dominate, at high return periods (500 and more years), large earthquakes are nearly as devastating as extremely strong hurricanes.

4. Key Principles for Utilizing Disaster Risk Financing approaches for Adaptive Social Protection in Latin America and the Caribbean

Ensuring appropriate financing systems are in place, helps to ensure more effective use of DRF approaches to guarantee appropriate and timely financing for post-disaster Social Protection. To adequately (in amount and time) mobilize financial liquidities for assisting the population through ASP mechanisms, there needs to be an a) assessment and quantification of the potential impacts of disasters that would trigger the activation of the ASP system and liquidity needs; and b) development of strategies and/or processes to ensure rapid financing for SP response measures. Additionally, measures to incentivize broader insurance coverage will help improve the ability of near poor and other non-poor households to recover quickly and reduce the potential increased safety net burden in post-disaster contexts.

1. Assess and quantify potential SP financing needs ex-ante: While each disaster event may have a myriad of potential impacts, estimating the possible financing needs for post-disaster SP response is critical to helping Governments ensure that appropriate DRF mechanisms are in place. The previous example from St Vincent and the Grenadines in Box 1, illustrated the varied potential costs, given household structures, socioeconomic condition and hazard type. This is one example of ex-ante quantification of potential SP financing needs. Other countries have used historical data to evaluate the impacts of different disaster types on different categories of households. Beyond impacts, governments can also estimate amounts needed to ensure consumption or income smoothing. Essential
to being able to effectively quantify post-disaster SP needs is current and reliable data, particularly household survey and living conditions data; consumer price index data; wage data; risk information; etc. These estimations will help governments understand the possible financing needs for post-disaster SP benefits for timely, adequate and appropriate response.

2. **Develop a DRF strategy that includes SP measures:** As noted previously, a DRF Strategy with clearly established rules for the amount and timing of post-disaster SP benefits can help governments have more predictability and ownership of their risk to manage disaster losses and impacts. While several LAC countries have embarked on developing DRF policies and strategies, many have not gone further to incorporate SP considerations into these policy measures. As such, post-disaster SP benefits are still at risk of ad-hoc budget reallocation and failure to provide timely and adequate benefits. Ensuring that the DRF strategy includes clear rules for the sources of financing for post-disaster SP response; as well as the triggers for delivering post-disaster SP benefits, their amounts, duration and eligibility criteria is important.

3. **Incentivize insurance coverage for households that can afford it:** SP is critical to helping smooth consumption and to restore livelihoods and wellbeing for those who are affected by disasters, particularly those who are poorest and most vulnerable. When disasters strike, they threaten to push the non-poor into poverty, consequently increasing the implicit burden on the social safety net. When those who are not poor also utilize risk financing strategies to protect their assets and livelihoods, they reduce the potential demands for post-disaster SP benefits and ultimately public financial burden of disasters. Strategies that encourage households and individuals to purchase insurance policies and engage in risk-pooling are therefore an important complement to government DRF strategies. This is particularly important for households and individuals at the margins, whose livelihoods are significantly threatened by disaster risk, including farmers, fisherfolk and vulnerable persons living in hazard prone areas. Livelihood Protection Programs (LPP) such as the one developed by Munich Climate Insurance Initiative in the Caribbean uses public private partnerships through micro insurance schemes to reduce the risks identified above.

5. **Assessing the Maturity of Social Protection Systems’ Utilization of Disaster Risk Financing Approaches**

The following graphic is intended to help LAC countries assess how they are using DRF approaches to ensure effective ASP, particularly for post-disaster SP response. Countries at the nascent end of the scale are those that do not incorporate DRF approaches to ensure effective and appropriate post-disaster response. Compounding this, insurance coverage among the non-poor is low, increasing the potential implicit budget on the safety net should a large-scale disaster occur. In these countries, quantification of SP financing needs is largely absent and post-disaster SP response is often ad-hoc and reactionary. For emerging countries, some DRF approaches may be in place, but their links to SP are largely absent or weak. In these countries, household insurance may be reasonable, but not necessarily broad enough to ensure sufficient coverage of the non-poor in the event of a large-scale disaster. At the established level, countries have clear mechanisms in place to quantify post-disaster SP financing needs ex-ante; clear DRF policies and/or strategies with explicit inclusion of SP considerations; employ a mix of contingency financing options; and broad coverage of insurance to the non-poor.
Figure 1. Typology for Assessing System Maturity

**NASCENT**
- Post-disaster SP financing needs are not quantified ex-ante and data to facilitate such assessments may not be current or available.
- Government has no context on its contingent liability.
- Post disaster SP response is ad-hoc and reactionary.
- Individual/household insurance mechanisms are limited or have very low coverage.
- At the macro-level, no parametric insurance or other contingency financing mechanisms in place.

**EMERGING**
- Government gathers risk information/ carries out risk assessments including socio-economic indicators to quantify and understand potential financing needs for post-disaster SP. Data for such assessments is available but may not always be current.
- Government develops a Disaster Risk Financing Strategy, but it may not necessarily include measures for financing SP response.
- A limited mix of contingency financing mechanisms are in place.
- At the macro-level, parametric insurance or other contingency financing mechanisms are in place, but there are no protocols guaranteeing their use for SP response.
- Individual/household insurance mechanisms are available and have reasonable coverage.
- Micro insurance products developed, and pilot programs are in place.
- Developing Public Private Partnerships.

**ESTABLISHED**
- SP financing needs and potential impacts are routinely assessed and quantified, including clear profiles of those who are vulnerable to disasters.
- DRF policies and/or strategies are in place with clear links and protocols for financing SP response.
- Annual budget allocations anchors the DRF policy/strategy.
- A combination of Disaster Risk Financing instruments are in place.
- At the macro-level, parametric insurance or other contingency financing mechanisms are in place, with clear protocols guaranteeing their use for SP response.
- Contingent lines of credit for SP response established ex-ante.
- Individual/household insurance mechanisms are available and have high coverage.
- Micro insurance products are well-developed, provide reasonable coverage.
- Public Private Partnerships are well established.

Source: Authors’, adapted from “Towards Adaptive Social Protection Systems in Latin America and the Caribbean: A Synthesis Note on Using Social Protection to Mitigate and Respond to Disasters and Climate-Related Risks.”
6. LAC Experiences with Using Disaster Risk Financing Approaches for Adaptive Social Protection Objectives

Over the years, LAC countries have harnessed a range of experiences in using DRF approaches to help contribute to ASP objectives, particularly for SP response to disaster events. While some of these experiences have been one-off or reactionary, a few are entrenched in government policy with clearly established institutional and financing arrangements in place. Some notable examples are highlighted here.

**MEXICO: Links between the FONDEN Contingency Financing Mechanisms and the previous Immediate Temporary Employment Program (PET)**

**Development Challenge.** Mexico is ranked as one of the world’s 30 most exposed countries to three or more types of natural hazards. On average, every year, federal and state governments in Mexico spend close to US$1.5 billion on reconstruction of public assets and low-income housing after disasters. In 2010 alone, major floods required over US$5 billion, mostly for local assets.

**Financial solution.** PETi was the emergency component of the cash-for-work program - Temporary Employment Program (PET in Spanish) - which was created in 1997 and managed by the Government of Mexico. PETi provided temporary transfers in exchange for labor in community projects to eligible households in marginalized municipalities or whose livelihoods have been affected by disasters or other crises. For this, the program first selected areas of intervention based on unemployment or marginalization indexes. Municipalities with medium, high or very high marginalization levels or high unemployment were selected for operation of the PET. It also required that the ministries involved share a common beneficiary database (registry) and information system. All implementing ministries received data from the early warning system, which allowed them to prepare an emergency response or scale up in affected localities through PET or other response channels. Each collaborating ministry was responsible for carrying out its portion of the public works program—from targeting to payments to supervision and monitoring—within its own resource envelope. In 2006, a contingency fund (Reserva Inmediata in Spanish) for PETi became mandatory and each agency involved in the implementation of the program was mandated to keep an annual contingency fund (of up to 20 percent), which, if not used, could later be executed through regular programming. This program established a separate emergency response mechanism with a contingency budget to ensure that support reached disaster and shock-affected people in a timely and efficient manner.

**Impact.** From 2000-2010, PET reached approximately 3.2 million beneficiaries. In 2010, approximately US$89 million was disbursed on 12,694 community projects that benefited more than 468,000 people.
CARIBBEAN: Improving Access to Insurance among Vulnerable Individuals through the Climate Risk Adaptation and Insurance in the Caribbean - CRAIC\textsuperscript{12}

Development Challenge. Over the last 30 years, the Caribbean has been impacted by flood and tropical storm damage affecting 1.5 million persons directly and causing over US$5 billion in damage. These disasters severely impair economic growth of countries in the Caribbean because of its reliance on climate vulnerable sectors such as tourism and agriculture.

Financial Solution. The CRAIC project through MCII seeks to address climate change, adaptation and vulnerability by promoting weather-index based insurance as a risk management instrument in the Caribbean. Through the project, in 2011, the Livelihood Protection Policy (LPP) was developed to help vulnerable individuals recover from the damage caused by strong winds and/or heavy rainfall. It is targeted for any individuals and businesses whose lives are impacted by extreme weather such as farmers, fishers, market vendors, construction workers, tourism workers, food vendors, and micro and small enterprises (MSMEs). The LPP provides quick cash payouts after a weather event, enabling policyholders to start rebuilding their lives in the wake of a disaster. The program is currently in its second phase operating in Jamaica, Saint Lucia, Grenada, Belize, and Trinidad and Tobago. Similarly, the COAST product (described above) was launched in 2019 targeting fisherfolk, and provides coverage for losses caused by adverse weather and direct damages caused by tropical cyclones to fishing vessels, equipment and infrastructure.

Impact. In its first phase, payouts were made within 14 days after a disaster, helping policyholders to quickly rebuild their livelihoods after an extreme weather event. In Saint Lucia, the first payouts were made in December 2013 and January 2014. In 2016, 31 policy holders including small farmers and other individuals received payouts due to tropical storm Matthew totaling US$102,000 in payouts and US$3,290 on average per policyholder. In Jamaica, policyholders received a payout following an excess rainfall event in May 2017 and in April 2018. Additionally, through the program, partner governments have recognized the need for self-sustaining risk transfer instruments to reduce social vulnerability and introduced LPP-specific regulations.

HAITI: Expanding Catastrophe insurance for the poorest through FONKOZE CATASTROPHE INSURANCE - KORE W\textsuperscript{13,14}

Development Challenge. With 96 percent of its population living at risk, Haiti is considered one of the world’s most exposed countries to multiple natural hazards, including hurricanes, floods, erosion, droughts, earthquakes, and landslides. Haiti ranked as the third most affected country to climate-related events from 1996 to 2015. Average damages and losses associated with hydrometeorological events alone are estimated at an amount equivalent to almost two percent of GDP annually (1976-2012).

Financial Solution. Fonkoze is Haiti’s largest microfinance institution committed to reach the poorest and to help them take the first steps out of poverty through innovative approaches. Through Kore W, Fonkoze provides catastrophe insurance coverage for its microfinance clients. Coverage is meant to protect small entrepreneurs in the event of earthquakes, rain or other wind events. The product is mandatory for all clients when they take out a loan and the
premium for most clients is 3 percent of the loan’s principal. In the event of a disaster, approved clients are eligible for a US$125 indemnity payout, the cancellation of their loan with Fonkoze, and the right to take out a new loan as soon as they are ready. Kore W operates through MiCRO, a catastrophe (re)insurance company based in Barbados. MiCRO provides index coverage (through Swiss Re), which is triggered in large-scale catastrophes (earthquake, wind and rain), as well as basis risk coverage for smaller events that affect Fonkoze’s clients.

**Impact.** As of 2014, Kore W had targeted approximately 60,000 of Fonkoze’s borrowers. These clients are small-scale traders, all of them women, who are predominantly located in rural areas.

### 7. Final Messages

The financial costs of disasters in LAC countries are debilitating, while the costs to households and individuals, particularly the poorest, threaten overall economic stability and timely recovery. Social Protection programs are critical to helping the poor manage risk and recover from the impact of disasters. SP is also importantly crucial to ensuring that affected households and individuals (beneficiaries and non-beneficiaries) are provided with benefits and services to smooth consumption, restore their livelihoods and well-being. Disaster Risk Financing (DRF) in LAC countries is mostly transitioning from nascent to emerging. However, there is significant compilation of risk analytics and policy dialogue that should accelerate adoption of DRF approaches to support ASP programs in the region. Despite generally having well-established SP systems with sound financing for regular delivery, LAC countries have not been able to systematically guarantee post-disaster SP financing for response that is timely, adequate to needs and appropriate to risks and impacts. Instead, financing of SP response has often been reactionary and ad-hoc. Several key principles should be adhered to, if countries hope to improve the use of DRF approaches for SP. These include assessing SP financing needs, establishing a mix of DRF options, establishing DRF policies and strategies with clear links to SP, and incentivizing broader insurance coverage.

Ultimately, the lessons learnt from overall DRF strategies being implemented in LAC countries highlight the necessity to increase coordination of Government interventions in parallel with greater ex-ante financial planning. These include several activities. Firstly, in the context of DRF, it is important to strengthen public financial management, and the legal and administrative frameworks in which ASP would be inscribed into. Furthermore, increased cost-efficiency by combining ex-ante and ex-post risk financing instruments for ASP can be attained from a financial standpoint. Secondly, the development of analytics such as geospatial, physical and social vulnerability information (e.g. hazard data, social registries, remote sensing and use of satellite data) can be seamlessly integrated to help identify targeted beneficiaries. Thirdly, ASP could take advantage of existing delivery mechanisms already in place in the countries. Finally, ensuring transparency and efficiency of governmental support to the most vulnerable by adopting an ex-ante targeting mechanism. All these activities enhance the interventions’ coordination and the overall system robustness. A crucial element to operationalize an ASP program is to adopt a tailored financing strategy, integrating the activities listed above. Although several of the examples presented in this note reveal promising financing initiatives for strengthening ASP, they have so far lacked coordination and connection between the wider ASP and DRF systems. This disconnection is embodied by the common use of ex-post budgetary reallocations for operationalizing government support to vulnerable populations after shock events. This can lead to inadequate responses, in terms of timing, because of administrative procedures, and in terms of extent, since only limited financial resources can be re-allocated in the wake of a disaster. Consequently, and unfortunately, major disasters have sometimes led to failures with effectively leveraging ASP responses, putting SP systems and affected populations, under further stress.


World Bank. 2013. FONDEN--Mexico’s National Disaster Fund: An Evolving Inter-Institutional Fund for Post-Disaster Expenditures. Disaster risk financing and insurance case study; Washington, DC.


Endnotes


2 Government of Antigua and Barbuda. 2017. Hurricane Irma PDNA.


4 EMDAT Database.


7 Atlas of Social Protection Indicators of Resilience and Equity (ASPIRE).

8 This program has been discontinued.

9 COAST was developed through a partnership between the United States Department of State and the World Bank, the United Nations Food and Agriculture Organization (FAO), The Nature Conservancy, and the Caribbean Catastrophe Risk Insurance Facility (CCRIF).


11 World Bank. 2013. FONDEN--Mexico’s National Disaster Fund: An Evolving Inter-Institutional Fund for Post-Disaster Expenditures. Disaster risk financing and insurance case study; Washington, DC.


13 http://www.impactinsurance.org/projects/lessons/kore-w-catastrophe-insurance
