

## Closing the Gap:

# Building Resilience to Natural Disasters and Man-Made Shocks through Social Safety Nets



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**Social safety nets and the broader social protection are widely recognized as one of the instruments to build resilience of the poor and those in vulnerable situations, and ultimately to reduce poverty.**

Social safety nets programs increase resilience in the short term by improving the capacity of vulnerable households to cope with idiosyncratic and covariate shocks such as natural disasters, man-made crisis and economic shocks<sup>1</sup> by providing cash, food, insurance, and other means to smooth income. Social safety nets have also the potential to play a significant role in minimizing the impacts of natural disaster and man-made conflicts once they occur if programs are scaled up or introduced rapidly. When combined with complementary interventions, social safety nets increase resilience in the long term by promoting human capital development and income generating activities (World Bank 2012).

**The Sustainable Development Goals (SDGs) provide a clear framework on the role of social protection to help achieve the long-term goal of sustainable development.**

SDG1 proposes to end poverty in all forms by 2030 by ensuring substantial coverage of social protection among the poor and vulnerable, increasing access to basic services, building the resilience of those in vulnerable situations, and reducing their exposure to climate-related

1. Natural disasters (slow and rapid onset shocks), man-made crises (conflicts) and economic shocks (price fluctuations, financial crisis). Slow onset events refer to natural disasters that are often chronic in nature or emerge gradually over time, such as droughts, environmental degradation, or pollution. Rapid onset events refer to earthquakes, cyclones, hurricanes, typhoons, and floods that arrive rapidly with little or no warning.

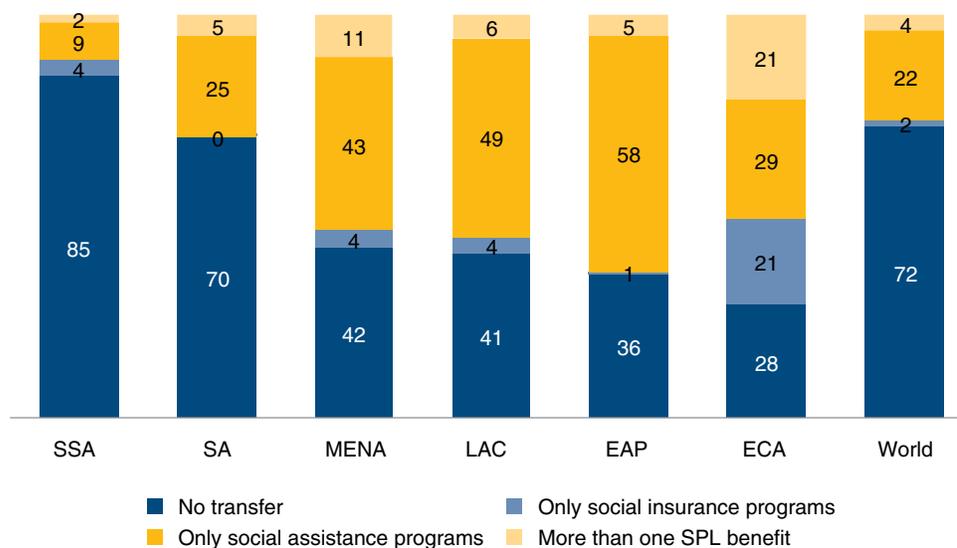


extreme events and other economic, social, and environmental shocks and disasters (SDG1, targets 1.3 and 1.5). Building social protection systems more *inclusive* and equitable, and that help make the poor and vulnerable more resilient to shocks (both idiosyncratic and covariate), are among the long-term challenges to eradicating poverty.

**A significant body of evidence shows that social safety nets help improve resilience at the household level.**

Cash transfers, food, and public works transfers enable recipient households to be resilient to shocks by increasing their savings as buffers to bad times, reducing distress sales of assets, and reducing the need to turn to child labor, for example. Impact evaluations have found significant impacts on the probability that beneficiaries of cash transfer programs will save; positive results have been found in such programs as the Ghana Livelihood Empowerment Against Poverty (LEAP), the Hunger Safety Net

**Figure 1.** The coverage gap for social protection is particularly acute in Sub-Saharan Africa and South Asia  
Share of population in the bottom income quintile receiving social protection benefits (percent)



Source: World Bank Atlas of Social Protection Indicators of Resilience and Equity (<http://datatopics.worldbank.org/aspire/>), accessed February 2016. Most recent household survey available per country between 2000 and 2014. SPL = Social Protection and Labor.

program in Kenya, and the Zambia Child Grant Program. Distress sales of livestock and assets halved between 2010 and 2014 among the beneficiaries of Ethiopia’s Productive Safety Net Program (PSNP), compared to a control group: in 2010, 54 percent of Public Works households reported making a distress sale of assets in order to meet food needs and 26 percent did so in order to obtain cash for non-food emergency cash needs. By 2014, these percentages had fallen to 25 and 13 percent respectively. Brazil’s Bolsa Família delayed the entry of children into the labor market. Children in beneficiary families of the Programa de Asignacion Familiar (PRAF) in Honduras are less likely to work. Children in the Philippines’ Pantawid conditional cash transfer program households work six fewer days per month than a control group. Public works are considered particularly suited for post-conflict and other fragile contexts, as they can provide immediate short-term employment and rebuild infrastructure damaged during the conflict. The short-term impacts of a cash-for-work program in Sierra Leone, for example, were found to increase income spent on food, health services, and hygiene products and on asset accumulation in terms of small livestock.<sup>2</sup>

2. Handa and others 2013; Merttens and others 2013; Seidenfeld and others 2013. Berhane and others 2015. De Brauw and others 2012; Galiani and McEwan 2013; Orbeta and others 2014. Rosas and Sabarwal 2016.

**Progress has been made in the past decade in terms of introducing more social safety net programs and scaling up existing programs to expand the coverage of the poor.**

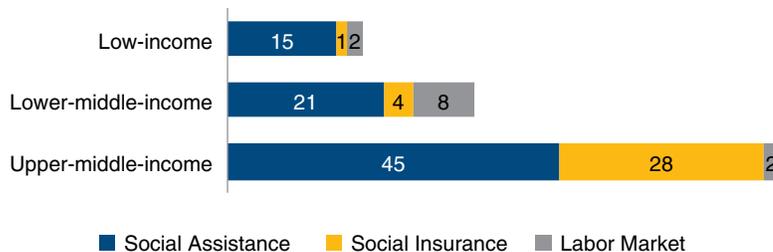
As of 2015, every country in the world had at least one social safety net program in place. The number of countries implementing cash transfer programs has almost doubled in Sub-Saharan Africa. The number of countries with conditional cash transfers increased dramatically from 27 in 2008 to 64 in 2014, while the number of countries with public works programs grew from 62 in 2011 to 94 in 2014 (World Bank 2015a).

**However, most poor people have no access to social protection systems, especially in low-income countries.**

Only one out of five people receive any type of social protection benefit in low-income countries, compared with three out of four in upper-middle-income countries (figure 1). The coverage gap is particularly acute in Sub-Saharan Africa and South Asia, where most of the world’s extremely poor people live. In Sub-Saharan Africa, only 15 percent of people in the bottom income quintile have access to a social protection benefit (figure 2).

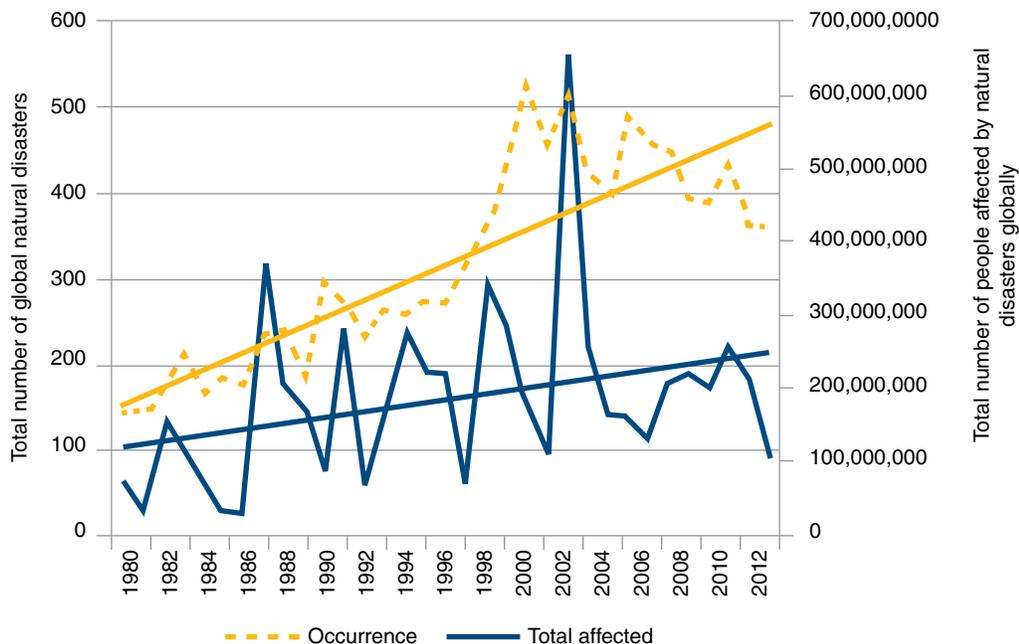


**Figure 2.** Coverage of social protection is lowest in the poorest countries  
Share of population receiving social protection benefits (percent)



Source: World Bank Atlas of Social Protection Indicators of Resilience and Equity (<http://datatopics.worldbank.org/aspire/>), accessed February 2016. Most recent household survey available per country between 2000 and 2014.

**Figure 3.** The frequency and severity of natural disasters is increasing



Source: CRED/OFDA International Disaster Database.

**In addition, the frequency and severity of natural disasters has been increasing (figure 3), putting further pressure on social protection systems to expand their coverage to those who become vulnerable because of such shocks.**

The number of natural shocks increased from 150 in 1980 to 500 in 2012; the number of affected people increased from 100 million to 285 million during the same period. Projections pose even greater cause for concern. The percentage of the world's poor living in fragile situations is expected to grow from 43 percent today to 62 percent by 2030 (CRED/OFDA International Disaster Database). These trends just add to the millions of people affected every year by regular shocks such as seasonal hunger and predictable starvation related to cycles of food growing and harvesting.



**Urbanization trends and climate changes exacerbate the effects of natural disasters and add to a sense of urgency to create greater resilience to the increased impacts of increased risks, especially among poor households.**

Population densities have increased in metropolitan areas, as a result of rapid rates of urbanization. The poorest households typically cluster in informal settlements or other structures characterized by poor infrastructure that are not resilient to natural disasters. Consequently, one natural hazard has the potential to exponentially affect more people than was previously the case. For instance, the rapid urban growth rate of Kathmandu Metropolitan City<sup>3</sup> worsened the effects of the April 2015 earthquake in Nepal, which had an epicenter located approximately 77 km northwest of Kathmandu. Climate change is projected to increase the frequency and severity of natural disasters and exacerbate “slow-onset” disasters like droughts and floods that can have devastating effects on livelihoods reliant on agriculture, and on overall food security.

**Conflicts, protracted crises, and forced displacement also are increasingly affecting more and more people.**

Globally, one in every 122 humans is now either a refugee, internally displaced, or

3. Four percent between 2010 and 2015, according to UN DESA (2015).

seeking asylum. The number of refugees and internally displaced people at the end of 2014 had risen to a staggering 59.5 million, compared to 51.2 million a year earlier and 37.5 million a decade ago (UNHCR 2015).

**Natural disasters and man-made crisis have both the potential to create new “transient” poor and further deprive the existing poor, increasing the demand for social protection.**

Without appropriate, timely, and predictable response mechanisms, poor and near-poor households are often compelled to resort to negative coping strategies after a disaster strikes, exposing them to further hardship. While natural disasters may push vulnerable households (those just above the poverty line) back into transient poverty, they have a disproportionate effect on the chronic poor, who are less equipped to respond to the loss of assets caused by shocks. Evidence shows that when disasters hit, poor people are more likely to be affected and to lose relatively more than nonpoor people (Halligatte and others 2015).

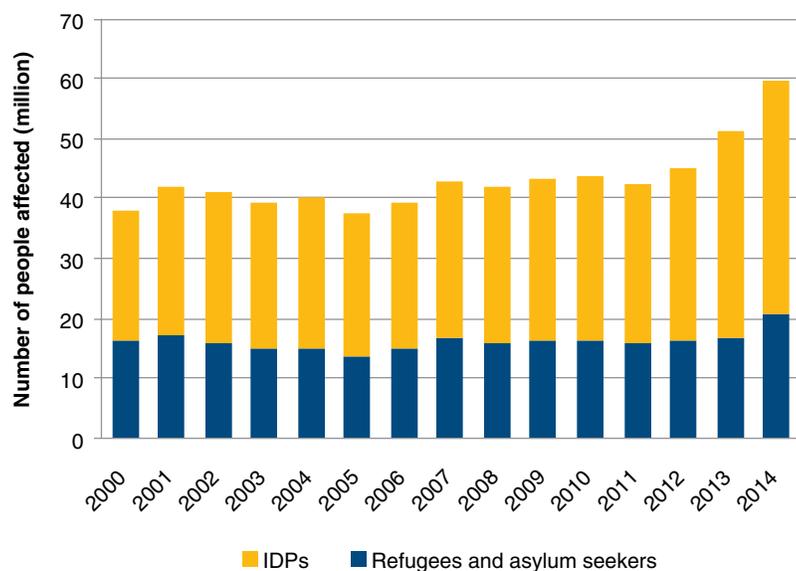
**How responsive social safety nets differ from “conventional” safety nets?**

Social safety net systems respond and adapt to covariate shocks by combining regular and predictable social safety net programs with scalable (or rapid response) built-in mechanisms that allow existing programs to expand and include newly eligible beneficiaries or access new geographical areas because of the shock.

Building in responsiveness to a social safety nets program means allowing it to “scale -up” after a disaster (and in some cases, such as droughts, before a disaster) to either reach more beneficiaries in the same or different geographical areas than the program may reach while operating in a “steady state,” and/or to provide additional grant money during the crisis; it can then scale down when the need subsides (figure 5).

Four building blocks can help provide the foundation for a “scalable” social protection system: flexible delivery systems; interoperable information systems; predictable financing for contingent liabilities; and ex ante coordination mechanisms and capacity investments (World Bank 2015b).

**Figure 4.** The number of people displaced by man-made conflicts has hit an all-time high



Source: UNHCR (2015). IDPs = internally displaced persons.

**The first building block suggests that countries should have at least one program with appropriate delivery systems capable of scaling up and adjusting after a disaster.**

Such delivery systems include ex ante registries of potential beneficiaries vulnerable to shocks (not just of actual recipients); and targeting mechanisms to identify people correctly, to enroll the right people in need of a response, and to deliver the right kind of support to people in the right places. Examples of such programs with built-in mechanisms to scale up rapidly when a disaster strikes include the Char Livelihoods Program (CLP) in Bangladesh, Bolsa Familia in Brazil, the PSNP in Ethiopia, the Temporary Employment Public Works Program (PET) in Mexico, the Floods Emergency Cash Transfer Program in Pakistan, and the Pantawid Pamilyang Pilipino Program (4P) in the Philippines (Box 1).

**The second building block calls for sufficiently rapid and credible “alert systems” in place to facilitate effective preparedness and timely response.**

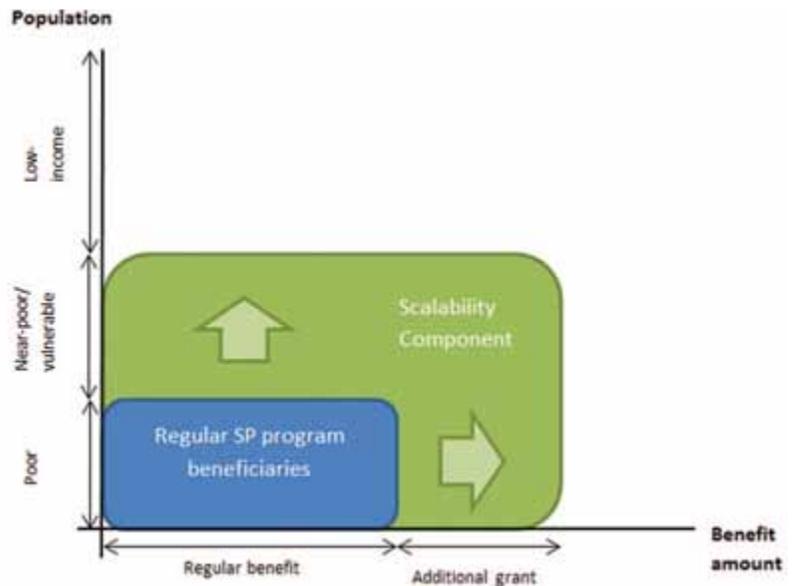
Early warning information systems (hazard mapping, market monitoring, meteorological monitoring, conflict mapping, climate variance mapping, geo-spatial data, and the like) can provide vital information about the nature, location, depth, penetration, appropriateness and type of a response to a shock. However, these information streams often work in silos, without coordination.

In the Horn of Africa, for example, studies show that it typically take nine months for food assistance to arrive after Early Warning Systems trigger an alert. When Ethiopia’s scalable component of the Productive Safety Net Program was triggered in 2011, it took two months for assistance to reach households, and the Program rapidly expanded its coverage from 6.5 million to 9.6 million (Box 2).

**The third building block highlights the fundamental importance of having predictable financing schemes arranged in advance of disasters, which can mobilize funds to finance rapid scaling up of social protection programs.**

To be responsive to shocks, social protection systems can draw upon special financial instruments such as reserve funds, insurance products, contingency finance, and

**Figure 5.** SP programs have the capacity to scale up after disaster to reach more people and deliver more assistance



Source: World Bank 2015b.

**Box 1. Responding Rapidly to Disasters in Brazil, Pakistan and Philippines**

In response to typhoon Yolanda in 2014, the government of the Philippines released \$12.5 million between November 2013 and February 2014—three months after the disaster struck—in emergency cash transfers to 4P beneficiaries, leveraging by humanitarian actors. In particular, the existing 4P delivery platform and national targeting systems were used by WFP and UNICEF to top-up benefit amounts to 4Ps households in affected areas. Emergency support was provided for two months and included a negotiation to lift conditionalities of the regular program (Bowen 2015).

In Pakistan, in response to the 2010 and 2011 floods, government provided cash payments to millions of affected households. The Citizen’s Damage Compensation Program (CDCP) made a one-time payment of Rs. 20,000 (\$204) to beneficiaries by issuing 2 million prepaid VISA-branded “Watan” cards. The government partnered with a private bank, United Bank Limited, to deliver the cash to beneficiaries via debit cards. The CDCP was later extended to support recovery, delivering two additional payments of Rs. 20,000 per recipient, totaling \$409 million per payment period.

Similarly, the Bolsa Familia program in Brazil provided in-kind and cash benefits to 162,000 families in 279 municipalities within 10 days of the massive floods that hit in January 2011. Its central registry helped identify the affected families.





## Box 2. Rapidly Scaling Up PSNP in Ethiopia

Ethiopia's Productive Safety Net Program (PSNP) is a large national social safety net program. It responds not only to chronic food insecurity among Ethiopia's poor, but also to shorter-term shocks (primarily drought, given that rain is largely unpredictable, and 80 percent of its population depends on rain-fed agriculture).

The PSNP incorporates a number of features to respond to climate change, such as: public works activities geared toward improving climate resiliency; a federal contingency budget to help poor households and communities better cope with transitory shocks; and the use of targeting methods to identify the communities most vulnerable to climate change. In response to the drought in 2011, PSNP extended the duration of its regular support for 6.5 million beneficiaries, providing an extra 3 months of assistance to an additional 3.1 million people living in PSNP areas.

humanitarian aid, for governments to turn to when domestic capacity is exhausted (Box 3). In response to cyclone Pam in March 2015, the Pacific Catastrophe Risk Assessment and Financing Initiative (PCRAFI), a regional financial instrument, provided Vanuatu with a rapid \$1.9 million payment that supported the immediate response.

### The fourth building block calls for a high degree of institutional coordination and capacity before, during and after the disaster.

In this regard, formal partnership agreements could be agreed ex ante among the relevant national agencies, public and private service providers, and development partners. Given the large number of players, it is advisable to have clear rules on who does what. Innovations from Lebanon and Jordan show considerable progress in introducing ways to establish common programming platforms among

different agencies, including joint payment mechanisms and single cards (Box 4).

### It may be more cost-effective to invest in social safety net systems with a scalable (or rapid response) mechanism built in before crises hit.

Simulations show that providing regular cash transfer to support 20 percent of the poor population in Niger, for example, would cost \$102 million per year, as compared with an annual average of \$218 million spent on humanitarian response, on average, between 2010 and 2013 (Del Ninno and others 2015). The Sahel Adaptive Social Protection Program, launched in March 2014, provides

## Box 3. Ensuring Contingency Funding in Mexico

Mexico's Temporary Employment Program (PET) is a public works targeting marginalized groups and those whose livelihoods have been affected by natural disasters. In 2003, an emergency financing mechanism was added to PET to ensure PET's timely and efficient functioning in response to natural disasters. The Immediate Temporary Employment Program (Programa de Empleo Temporal Inmediato [PETi]) requires that all ministries that implement PET allocate a percentage of PET funding to a contingency budget (the average is 20 percent). This set-aside is used to channel additional funds from PET's annual budget and the Mexico's Fund for Natural Disasters (FONDEN), if necessary.

## Box 4. Coordinated Delivery to Support Syrian Refugees

During the recent huge influx of refugees in Lebanon in 2015 and in Jordan in 2016, multiple agencies successfully experimented with common payment mechanisms for delivering cash to beneficiaries of humanitarian assistance. They pooled funds from multiple agencies and projects—including, for example, a Multipurpose Cash Assistance Program—in a bank-managed Common Cash Facility. Humanitarian assistance was delivered to more than 100,000 refugee families in Jordan in the form of a prepaid card, using iris-based systems. By agreeing on a common payments system, different agencies can set up multiple "wallets" stored on one beneficiary card. This simplifies the experience for the beneficiary, forces alignment of payment delivery mechanisms across agencies, drives cost and process efficiency, and leverages greater bargaining power, especially with financial service providers. The use of common delivery arrangements has led to a savings of 20 percent of the card costs.

## Box 5. Sahel Adaptive Social Protection Program

Social protection can also help build the long-term resilience of the poor and vulnerable to climate change and disasters before disasters strike. The Sahel region, for example, is extremely prone to risk. A multidonor initiative integrates the tools and techniques of social protection, climate change adaptation, and disaster risk reduction to increase access to effective social protection for poor and vulnerable populations in six Sahel countries: Burkina Faso, Chad, Mali, Mauritania, Niger, and Senegal. The aim is to increase household and community resilience leveraging existing social protection programs through—for example—predictable transfers coupled with livelihood diversification strategies and building of community assets for vulnerable and marginalized households. The program provides technical assistance and financing to develop, operationalize, and implement sustainable systems that will enable these countries to provide cost-effective adaptive social protection over the long term, and enable households to better withstand current and future shocks and invest in human capital development.

technical assistance and financing to develop, operationalize, and implement SP systems resilient to climate change and other shocks before they occur (Box 5).

### **The efficacy of social protection in crises depends on several factors, including the level of development of the social protection system, the predictability of natural disasters, and the magnitude of shocks.**

Most natural disasters are predictable to a greater or lesser extent. The more predictable disasters are, the more appropriate it is for government social safety net programs to be used as a means of responding to the shock, as well as preventing it. However, even when early warning mechanisms work well, the magnitude of the shock and its impacts may require complementary humanitarian interventions even in the presence of relatively advanced social safety net programs, such as in the Philippines. Protracted crisis may require long-term investments in the basic “nuts and bolts” of social protection systems, as in Afghanistan, Haiti, and Mali.

### **Country level of income also matters.**

The estimated cost in 2030 of providing safety net support to bring all households vulnerable to drought to the poverty line range from less than 0.5 percent of GDP in countries with relatively high GDP per capita (such as Mauritania) to almost 5 percent of GDP in countries with relatively low GDP per capita and extensive drylands populations (such as Niger). It is clear that poorer and vulnerable countries like Niger will need a proportional larger amount of resources and therefore may be more in need of humanitarian aid,

especially during a drought (Del Ninno and others 2015).

### **Social protection programs can be a key component of strategies to increase resilience and reduce vulnerability.**

While the current abilities and capacities of many countries are insufficient to adequately respond to disasters, investing domestic resources in social protection systems that build households resilience before shocks occur and have the capacity to respond to shocks as they hit is a strategic priority. Emergency interventions could build on and link to existing social safety net systems to strengthen a country’s capacity to deliver social safety nets and to provide effective support to households over time and through shocks of different magnitudes.

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## Building Partnerships Where Social Safety Nets and Disaster Risk Management Intersect

RSR (Rapid Social Response Program) is a partnership among the Russian Federation, Norway, the United Kingdom, Australia, Sweden, and the World Bank. Established originally as a response mechanism to the Food, Fuel and Financial Crisis of 2008–2010, RSR has been supporting the building of social protection and labor systems through nearly 170 small technical assistance and pilot projects in 79 low-income countries. These small RSR projects often have catalyzed larger IDA- and IBRD-financed projects, which have enabled the provision of better and more efficient social protection and labor services to poor and vulnerable populations.

RSR projects typically undertake system diagnosis, and the strengthening of specific system components, such as: 1) beneficiary identification and registries; 2) determination of eligibility; 3) effective appeals and grievances procedures; 4) payment systems to minimize the risk for error, fraud and corruption and increase efficiency; 5) appropriate evaluation arrangements; 6) communication and outreach; 7) information systems for better service management; 8) administrative processes and clarifying rules.

Other popular project objectives are: a) coordination of legal and policy level frameworks, b) integration of individual programs into coordinated, national systems through harmonization and use of common components, platforms or architecture; c) increased cross-national learning and knowledge-sharing for SPL service delivery such as South-South & Peer-to-Peer learning.

In 2015, RSR entered into a strategic partnership with the Global Facility for Disaster Reduction and Recovery (GFDRR) to help countries strengthen the disaster-preparedness of their social protection and labor systems. The first batch of four projects was approved in March this year. Those are: i) Disaster Responsive Social Protection in the Pacific: Fiji, Tonga and Vanuatu; ii) Strengthening Jamaica's Social Protection System for Disaster Preparedness and Response; iii) Developing an Emergency Cash Transfer for Increased Household Resilience to Disasters in the Philippines; and iv) Building Blocks for Disaster-Responsive Social Protection Systems in Dominica and Grenada.

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