

Design of Shock-Responsive Social Protection Programmes

The frequency of natural hazards is on the rise, driven largely by climate change, and pushing millions of people into poverty each year. For families and communities, disasters due to natural hazards cause the loss of income and employment, depletion of assets, and increased health expenditures. This highlights the pressing need for effective and collaborative disaster risk reduction and poverty alleviation strategies.

Social protection, and particularly cash transfers, can help address urgent needs of the population after a shock. Providing immediate cash assistance can help households in effectively managing sudden income loss, mitigating food insecurity, and decreasing dependence on detrimental coping mechanisms. In this respect, understanding and quantifying the impact of shocks on affected populations is paramount for delivering an effective response and designing appropriate social protection schemes.



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The Development Analytics team has partnered with a number of UNICEF offices, to model and estimate the human impact of shocks ranging from disasters such as earthquakes and floods to the COVID-19 pandemic for countries including Türkiye, Azerbaijan, Bosnia and Herzegovina, Tajikistan, Georgia and St Lucia. Following the estimation of the shock's impact, we simulate the poverty-mitigating potential of different cash transfer schemes responding to the shocks. By doing this, we support policymakers with an evidence base for fine-tuning social protection interventions, ensuring that they are both responsive and adaptive to the evolving needs of the affected communities.

How would this research study be useful?

- Estimating the impact of various shocks after they occur or the potential impact of hypothetical shocks (i.e. earthquakes, floods, or other hazards) on the poverty levels of the population and children by designing simulation models reflecting possible shock channels.
- Evaluating the effectiveness of the different cash transfer targeting scenarios that can be implemented after the shocks, presenting their benefits as well as

their cost, by leveraging available data resources and without the need to collect data.

- Creating interactive tools to empower policymakers, humanitarian agencies, and governments to engage with data directly, enabling them to simulate various outcomes independently of predefined targeting scenarios crafted by technical experts.

What kind of datasets are needed to carry out such a study?

In order to carry out this type of a study, a household survey containing details on expenditure or income, alongside information on region or sub-region the household is located in is indispensable. This systematically collected data from a sample of the country's population is representative nationally (and at times regionally) and enables us to produce country level estimates. Through rigorous data analysis, our team endeavours to utilize household surveys in informing policy decisions and shaping interventions aimed at designing shock responsive social protection schemes.

What are the previous project references of Development Analytics related to this topic?

Development Analytics has carried out several research projects providing insights on the poverty-increasing impact of shocks and different cash transfer approaches to alleviate these shocks' poverty impact in various country contexts. Development Analytics has an expert team in quantitative and qualitative research techniques and a demonstrated record of projects over the last 20 years with many international multilateral and bilateral agencies. Projects to date include:

- **Developing Costed-Contingency Actions and Undertaking an Analysis of Disaster Financing Mechanisms to support the operationalization of Shock-Responsive Social Protection: A focus on Azerbaijan, Bosnia and Herzegovina, and Tajikistan**

Azerbaijan, Bosnia and Herzegovina, and Tajikistan face the risk of various natural hazards and all three countries are at high risk of flooding. Floods cause direct damage to homes, crops, and income sources. And each year thousands of people are impacted by them in the study's countries.

To enhance the scalability of timely cash assistance during emergencies, we are supporting UNICEF with the evidence base of projected impacts of floods and possible cash transfer approaches that can be implemented in the aftermath. We are currently developing separate ISPS tools for UNICEF country

offices, estimating the impact of floods on the level of poverty in each of the countries and the impact of cash transfers on alleviating this poverty impact.

This country- and risk-specific ISPS aims to support policymakers in gaining valuable insights into the scope of such a disaster and devise cash assistance strategies to be implemented after the shock. By making use of the ISPS the countries' readiness and preparedness will be enhanced for floods before they hit, empowering the policymakers in their planning efforts for emergency response.

- **Developing a Shock Responsive Social Protection Model for Children in Türkiye in the Aftermath of the Earthquakes using the Interactive Social Policy Simulator (ISPS)**

On February 6, 2023, Türkiye was struck by two devastating earthquakes, affecting 11 out of 81 provinces and a population of 14 million people, including 1.7 million Syrian refugees, resulting in unprecedented loss of life, widespread destruction of homes and infrastructure, and significant economic damage.

To support UNICEF in showcasing the calamity of the disaster and the potential positive impact of cash transfers to international donors, in the weeks following the earthquake we provided UNICEF a microsimulation model. Through the model, we estimated the potential impact of the earthquakes on household poverty and child poverty considering different shock channels. We further estimated the poverty-alleviating impact of different cash transfer modalities along with their total costs. We have designed an interactive social policy simulator (ISPS) for the study to allow UNICEF to see the results of cash transfer scenarios interactively by choosing from various targeting and transfer level options.

The study's findings were utilized by UNICEF to craft a business case, showcasing the tangible benefits of cash transfer programs in the short term. Additionally, these outputs facilitated technical preparations and advocacy efforts by UNICEF with government bodies, donors, and International Financial Institutions (IFIs) in the medium term.

- **Microsimulation Model for Estimating the Impact of COVID-19 on Child Poverty for different UNICEF country offices**

The COVID-19 pandemic, in addition to the well-known health-related challenges, has serious socio-economic impact on households.

Since mid-2020, to support UNICEF offices in estimating the impact of the shock and understanding the poverty alleviating impact of cash

transfers we designed microsimulation models for **Georgia, St Lucia, and Türkiye**. In this capacity, our team worked with UNICEF country offices and designed interactive social policy simulators (ISPS) for each country context to allow UNICEF offices to see the results of cash transfer scenarios interactively by choosing from various targeting and transfer level options.

The tools provided valuable insights for informed decision-making. As a result of our policy simulation work in Georgia, a child cash transfer grant was implemented by the Government.

- **Estimating the Impact of Removing Fuel Subsidies in Madagascar and Recommendations for Child-Friendly Reallocation**

Fuel subsidies are regressive, benefiting the already better-off households. In Madagascar, the government decided to eliminate fuel subsidies gradually in June 2014.

To show the potential impact of fuel subsidy reallocation as child benefits, we assisted the UNICEF Madagascar office with a microsimulation study, assessed the impact of reallocating this budget as child benefits on the poverty rate.


If you're interested in reaching out to us to explore conducting a study in your country that estimates the poverty impact of a shock and leveraging evidence-based approaches supporting the design of timely cash assistance during emergencies, please click to register your interest and discuss the specifics with us. Following your registration, we'll reach out to coordinate a suitable date and time for a meeting to understand your research needs and the details of such a study.

[Register your Interest](#)


We look forward to being in touch !

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