

# Adaptive Social Protection Human Capital & Climate Change



## Identifying Policy Priorities for Indonesia

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# Contents

01

Executive Summary

09

**SECTION 1** Introduction:  
The Interconnectedness  
of Climate Change, Human  
Capital, and Poverty

15

**SECTION 2** The Importance  
of Social Protection in  
Addressing Climate Risk,  
Contributing to Human Capital  
Outcomes, & Supporting  
Indonesia's National  
Development Priorities

24

**SECTION 3** The Development  
of Indonesia's Social  
Protection System

32

**SECTION 4** Stress Testing  
Indonesia's Social  
Protection System

60

**SECTION 5** Conclusions &  
Recommended Priorities for  
Government Action



# Figures

|            |   |    |
|------------|---|----|
| FIGURE 1.1 | POVERTY EXPOSURE TO FLOODS <sup>5</sup>   | 12 |
| FIGURE 2.1 | CHANGE IN FOREST COVER LOSS IN PKH PARTICIPATING VILLAGES   | 20 |
| FIGURE 2.2 | PERCENTAGE OF ECONOMIC INCLUSION PROGRAMS, BY TYPE OF NATURAL RESOURCE MANAGEMENT OR CLIMATE CHANGE ADAPTATION INTERVENTION | 21 |
| FIGURE 2.3 | PERCENT DISTRIBUTION OF ECONOMIC INCLUSION PROGRAMS AND BENEFICIARIES BY REGION   | 22 |
| FIGURE 2.4 | LINKS BETWEEN SOCIAL PROTECTION INSTRUMENTS AND CLIMATE ADAPTATION AND MITIGATION   | 23 |
| FIGURE 3.1 | EXPANSION OF PKH COVERAGE: NUMBER OF BENEFICIARY HOUSEHOLDS (2007-20)   | 27 |
| FIGURE 3.2 | COVERAGE OF MAIN SOCIAL PROTECTION PROGRAMS BY DECILE (RURAL VS URBAN)  | 30 |
| FIGURE 3.3 | COVERAGE OF TARGET HOUSEHOLDS BY MAIN SOCIAL PROTECTION PROGRAMS BY REGION (2019) <sup>29</sup> (%)                         | 31 |
| FIGURE 3.4 | PKH BENEFICIARY INCIDENCE IN THE POOREST 20 PERCENT (2014-19) (CONDITIONAL CASH TRANSFERS)                                  | 32 |
| FIGURE 4.1 | SHARE OF POPULATION (PERCENT) VULNERABLE TO POVERTY (BY RURAL AND URBAN AREAS OF ISLAND REGION) (2011-19)                   | 39 |

# Tables

|           |  |    |
|-----------|--|----|
| TABLE 4.1 | SUMMARY SCORES (PART 2 OF THE STRESS TEST) | 40 |
|-----------|--|----|



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# Acronyms

|          |  |
|----------|--|
| ASP      | ADAPTIVE SOCIAL PROTECTION   |
| BAPPENAS | <i>BADAN PERENCANAAN PEMBANGUNAN NASIONAL</i> (NATIONAL DEVELOPMENT PLANNING AGENCY)                       |
| BPBD     | <i>BADAN PENANGGULANGAN BENCANA DAERAH</i> (LOCAL DISASTER MANAGEMENT AUTHORITY)                           |
| BKF      | <i>BADAN KEBIJAKAN FISKAL</i> (FISCAL POLICY AGENCY)   |
| BKKBN    | <i>BADAN KEPENDUDUKAN DAN KELUARGA BERENCANA NASIONAL</i> (NATIONAL POPULATION AND FAMILY PLANNING AGENCY) |
| BNPB     | <i>BADAN NASIONAL PENANGGULANGAN BENCANA</i> (NATIONAL DISASTER MANAGEMENT AUTHORITY)                      |
| BPS      | <i>BADAN PUSAT STATISTIK</i> (CENTRAL STATISTICS BUREAU)   |
| BPJS     | <i>BADAN PENYELENGGARA JAMINAN SOSIAL</i> (SOCIAL SECURITY ADMINISTRATION AGENCY)                          |
| BST      | <i>BANTUAN SOSIAL TUNAI</i> (CASH SOCIAL ASSISTANCE)   |
| CCT      | CONDITIONAL CASH TRANSFER  |
| CFW      | CASH-FOR-WORK  |
| CMEA     | COORDINATING MINISTRY FOR ECONOMIC AFFAIRS   |
| DRF      | DISASTER RISK FINANCE  |
| DRM      | DISASTER RISK MANAGEMENT   |
| DRTF     | DISASTER RESPONSE TASK FORCE   |
| DTKS     | DAFTAR TERPADU KESEJAHTERAAN SOSIAL (INTEGRATED SOCIAL WELFARE DATABASE)                                   |
| DUKCAPIL | DIREKTORAT KEPENDUDUKAN DAN CATATAN SIPIL (DIRECTORATE OF POPULATION AND CIVIL REGISTRATION)               |
| EAP      | EAST ASIA AND THE PACIFIC  |
| EWS      | EARLY WARNING SYSTEMS  |
| FDS      | FAMILY DEVELOPMENT SESSION   |
| GBV      | GENDER-BASED VIOLENCE  |
| GDP      | GROSS DOMESTIC PRODUCT   |



# P. V

|         |   |
|---------|---|
| GHG     | GREENHOUSE GAS  |
| GOI     | GOVERNMENT OF INDONESIA   |
| ID      | IDENTIFICATION  |
| JADUP   | JAMINAN HIDUP (LIVING SUPPORT ASSISTANCE)   |
| MHEWS   | MULTI HAZARD EARLY WARNING SYSTEM   |
| MOECRT  | MINISTRY OF EDUCATION, CULTURE, RESEARCH, AND TECHNOLOGY  |
| MOF     | MINISTRY OF FINANCE   |
| MOHA    | MINISTRY OF HOME AFFAIRS  |
| MOM     | MINISTRY OF MANPOWER  |
| MOPWPH  | MINISTRY OF PUBLIC WORKS AND PUBLIC HOUSING   |
| MOSA    | MINISTRY OF SOCIAL AFFAIRS  |
| MOV     | MINISTRY OF VILLAGES  |
| NDRF    | NATIONAL DISASTER RESPONSE FRAMEWORK  |
| NGO     | NONGOVERNMENT ORGANIZATION  |
| NIK     | <i>NOMOR INDUK KEPENDUDUKAN (16-DIGIT UNIQUE IDENTIFICATION NUMBER)</i>   |
| P3KE    | <i>PENSASARAN PERCEPATAN PENGHAPUSAN KEMISKINAN EKSTREM (TARGETING THE ACCELERATION OF EXTREME POVERTY ALLEVIATION)</i>   |
| PBI-JKN | <i>PENERIMA BANTUAN IURAN - JAMINAN KESEHATAN NASIONAL (NATIONAL HEALTH INSURANCE -RECIPIENT CONTRIBUTION ASSISTANCE)</i> |
| PDHA    | POST-DISASTER HOUSEHOLD ASSESSMENT  |
| PENA    | <i>PAHLAWAN EKONOMI NUSANTARA (ARCHIPELAGO ECONOMIC HEROES PROGRAM)</i>   |
| PFB     | <i>POOLING FUND UNTUK BENCANA (POOLING FUND FOR DISASTERS)</i>  |



# Executive Summary



**C**limate change, and its associated impacts, threatens to reverse decades of global progress in improving people’s health, human capital accumulation, and poverty reduction. Climate change impacts, such as heatwave intensity and extreme weather patterns, increase the risks of infectious disease, vector-borne infections, undernourishment, morbidity, and mortality (IPCC 2014). Globally, climate change generates hidden environmental, health, and poverty costs estimated at almost US\$12 trillion per year (Food and Land Use Coalition 2019). Climate change is also expected to increase the frequency and severity of natural hazards and disasters (Hallegatte et al. 2016). These shocks have disproportionate impacts on the poor (Hallegatte et al. 2018) who routinely engage in negative coping methods such





as selling assets, removing children from school, and reducing consumption. Climate change has also caused adverse impacts on social infrastructure which is critical for delivery of education, health, and social services. These impacts can be direct—through floods and heat stress—or indirect—through increased water and air pollution, and diseases. Climate adaptation and mitigation efforts are, therefore, essential to facilitating continued progress in health, human capital accumulation, and poverty reduction.

**At the same time, individuals and households with more human capital and are better positioned to withstand climate change impacts.** Several studies have established a correlation between higher human capital with faster disaster preparedness and recovery. For instance, evidence from the 2004 Indian ocean tsunami in Indonesia found that those with higher levels of education were better able to minimize dips in spending and were in better psychosocial health than those with less education five years after the event. A recent Welfare Tracking (WelTrAC) survey following the 2018 Central Sulawesi earthquake and tsunami in Indonesia (Purnamasari et al. 2021), found that high school graduates experienced employment recovery faster than lower educated groups, while tertiary-educated household heads demonstrated faster welfare recovery compared to lower educated households.

**These challenges are particularly pressing for Indonesia, where the poor are disproportionately affected by climate shocks.** Indonesia has high exposure to covariate (community-level) shocks that stem from climate change. There were 3,622 disasters caused by natural hazards in 2019 alone (The Jakarta Post 2019), approximately 90 percent of which were hydrometeorological phenomena which are expected to worsen due to climate change. Over 110 million people in approximately 60 Indonesian cities are exposed to negative impacts of climate change (World Bank 2019), with the country's urban poor being most vulnerable. Of the 76 million flood-exposed people in Indonesia, 40 million live in poverty at less than US\$5.50 per day (14.3 percent of the population), and 16 million (5.7 percent) on less than US\$3.20 a day. Indonesia is also among ten countries with the highest number of poor people exposed to floods (Hallegatte et al. 2017). Furthermore, studies have found that, in the face of climate-related shocks, Indonesian



households protected their food expenditures at the expense of nonfood expenditures, including on health and education (Skoufias 2012), and reduced food consumption (Purnamasari et al. 2021). A worrying projection that climate change could have direct impacts on global stunting rates has direct implications for Indonesia, where the stunting rate is 21.6 percent (Government of Indonesia 2022). Finally, previous research found that damage to 22,323 hectares of plantation or forest was associated with a 1.69 percent decrease in secondary school enrollment (Rush 2018).

**The disproportionate impact of climate change on poor households, and those vulnerable to poverty, signals the importance of social protection as a critical interlocutor to help address the pressing threat of climate change and climate shocks.** Social protection serves an important connector role in helping to build human capital of the poorest and most vulnerable households so they can adapt to climate risk and contribute to mitigation efforts. A notable example of social protection’s potential in this regard for Indonesia comes from a recent evaluation which found that villages that participated in the country’s flagship conditional cash transfer (CCT) program (*Program Keluarga Harapan: PKH*) experienced a 30 percent reduction in forest cover loss. This was due to, inter-alia, PKH’s consumption substitution impacts that enabled households to substitute deforestation-sourced consumption goods with market-purchased goods (Ferraro et al. 2020). More recently, provision of government and nongovernment assistance played a significant role in increasing the probability of faster, long-term recovery in employment and restoring household welfare following the 2018 Central Sulawesi earthquake, tsunami, and liquification (Purnamasari et al. 2021).

**This background paper outlines the important relationship between human capital development and climate change adaptation; and the needs and opportunities for improving the adaptiveness of Indonesia’s social protection system.** While the paper signposts the importance of education and health and nutrition interventions for mitigating the impact of climate change on human capital, it focuses on social protection, given its importance for addressing the disproportionate impacts of climate change on the poor and vulnerable. The paper: (i) outlines the importance of social protection for addressing climate risk among households as part of a broader



suite of human capital policies; (ii) provides a brief overview of the development of Indonesia's social protection system; (iii) stress tests the adaptiveness of Indonesia's social protection system to respond to climate shocks; and (iv) recommends critical priorities to help ensure that the system is better positioned to help poor and vulnerable households cope with, and adapt to, climate risk.

**Given these pressing challenges, an Adaptive Social Protection Stress Test of Indonesia's social protection System (Sen et al. 2022) was carried out to assess its adaptiveness to respond to climate shocks, the results of which are presented in this report.**

The application of the Stress Test, developed by Bodewig et al. (World Bank 2021), assessed the readiness of Indonesia's social protection system to build resilience to shocks and to respond to heightened needs through a detailed assessment of four building blocks: (i) programs and delivery systems; (ii) data and information; (iii) finance; and (iv) institutional arrangements and partnerships (Part 2 of the Stress Test). In addition, recent analysis by Ali and Setiawan (2022) which examined levels and sources of vulnerability to poverty and shocks, was leveraged to assess the scale of need for social protection support in an average covariate crisis in Indonesia (Part 1 of the Stress Test).

**Indonesia has made considerable progress in the development of its social protection system and by leveraging its social protection programs and services to respond to household vulnerabilities and risks.** Notable achievements include, *inter-alia*, provision of a suite of core, poverty-targeted, and post-shock social assistance programs; expansion of the flagship CCT program (PKH) to 10 million households; and establishment of an integrated social welfare database (*Data Terpadu Kesejahteraan Sosial: DTKS*) of the poorest 40 percent of the population (used to identify potentially eligible households for several social protection programs). Importantly, PKH has also been found to have a positive effect on deforestation in villages where households participate in the program (Ferraro et al. 2020).

**For Part 1 of the Stress Test, the estimations revealed that 12.16 percent of the rural population (11.4 million households) and 4.26 percent of the urban population (6.6 million households) were likely to need social protection support in an average crisis.** Ali and Setiawan (2022) decompose Indonesian households'



vulnerability to falling into poverty over a defined time period into two components: (i) *poverty-induced vulnerability*—when the average expected consumption of a household falls below the poverty line in the absence of shocks; and (ii) *risk-induced vulnerability*—when the average expected consumption falls above the poverty line, but during shocks (both idiosyncratic (i.e. household-level) and covariate (i.e. community-level)), consumption is expected to fall below the poverty line. Overall, the analysis found that for Indonesia, the share of risk-induced vulnerability at the national level rose from 80 percent of total vulnerability in 2011 to 90 percent in 2019. The study found that about one in ten Indonesians were vulnerable to falling into poverty due to covariate shocks in 2019, and covariate risk-induced vulnerability was about six times and 8.3 times higher than poverty-induced vulnerability in rural areas and urban areas respectively. These findings have implications for Indonesia’s capacity to scale up social protection. Although the current DTKS covers more than 22 percent of the population, no single social safety net program has covered more than 20 percent of the population.

**Overall, the ‘Stress Test’ to assess the capacity of Indonesia’s social protection system to respond to climate shocks has found the country to be operating at an *Emerging Level of 3.26 (on a scale of 1 <Latent> to 5 <Advanced>)*.**\* When assessed across four building block areas, the country received a score of 3.47 for Programs and Delivery Systems; 3.08 for Data and Information; and 3.25 for both Financing, and Institutions and Partnerships. Indonesia performed well on: (i) having a range of regular and shock-responsive social protection programs; (ii) national identification and electronic payment delivery; (iii) the ability to quickly issue post-shock payments to existing beneficiaries; and (iv) having Early Warning System (EWS) platforms covering all relevant natural hazards. The country also has a clear disaster risk financing strategy encompassing various shocks—supported by strategies, policies, and laws governing social protection and Disaster Risk Management (DRM), with clear assignment of roles.

**Despite this, the Stress Test also found that lingering gaps to social protection effectiveness hamper the system’s ability to effectively build adaptive capacity of the poorest and most vulnerable to sufficiently prepare for, and respond to, the impacts**

\*The specific scores and corresponding levels are (1) Latent; (2) Nascent; (3) Emerging; (4) Advanced; and (5) Established.



**1** There have been recent efforts to address some of these challenges since the application of the Stress Test, which are noted later in the report.

# 1

**of climate shocks and climate change.**<sup>1</sup> Social registries (under Data and Information) were identified as the area in need of most improvement, with a score of 2.9—given the need to ensure improved dynamism and recency of data; improve its use for post-shock responses; and ensure more effective links to an EWS to better predict needs and define thresholds for action. Other major gaps included: (i) a lack of deliberate program interventions or linkages to improve climate resilience among social protection beneficiaries; (ii) delays with providing post-shock benefits for non-beneficiary affected households (who could number up to 18 million households during a covariate shock); (iii) limited adequacy of post-shock benefits; (iv) a lack of integrated post-disaster household assessment to inform social protection responses; and (v) a need for improved capacity to model the potential costs of different shocks over time.

**Given these findings, the recommended priority areas of focus for government include:**

**Close lingering social protection coverage gaps to ensure poor and vulnerable are adequately protected by benefits and services for improved climate resilience and adaptive capacity.** Gaps in social assistance and social insurance coverage reveal that the burden on the social protection system to scale-up to non-beneficiaries (i.e. horizontal expansion) during large covariate shocks is likely to be high. Furthermore, these coverage gaps mainly apply to existing poor who currently do not receive core social assistance benefits. In addition, to the extent that those facing risk-induced vulnerability to covariate shocks can be supported by benefits and services for which they are eligible, this will also help address their vulnerabilities and make them more resilient to the impact of future shocks.

# 2

**Improve direct activities in social protection programs and linkages to other sector programs, to build adaptive capacity of beneficiary households.** The Stress Test found few systematized approaches, deliberate interventions, or complementary benefits in existing social assistance programs to improve climate resilience among beneficiaries. This can be done by: (i) scaling up education and information on climate change and shock preparedness to beneficiaries; (ii) ensuring that social protection programs (especially cash-for-work and housing-related benefits) have direct



adaptation and resilience-informed design; and (iii) improving access to complementary benefits and assistance offered by other ministries and agencies for which social assistance beneficiaries could be prioritized.

### 3

**Improve the use of social registry systems for shock response and to support climate policy.** Specifically: (i) improve the dynamism and quality of regular data updating for social registry systems that support targeting and ensuring such principles are foundational in any future registry systems; (ii) expand social registry coverage of the population in both poor and disaster-prone areas (such as was done through nationwide socioeconomic registration);<sup>2</sup> (iii) ensure that the data collected is useful for responding in a shock; (iv) facilitate improved access to social registry data by humanitarian agencies in case of a shock; (v) improve data privacy; and (vi) strengthen disaster protection of social protection information systems. In addition, it would be important for Government to develop a disaster victim's database to streamline data sharing of post-disaster assessment data of affected households. Optimally, these actions could be linked to the future development of an Integrated Social Protection Information System to facilitate dynamic data updates for eligibility determination; integrated view of benefit and services delivery; and more on-demand access to the population for social protection benefits and services.

### 4

**Improve mechanisms for faster horizontal expansion and delivery of post-disaster social assistance benefits.** This includes: (i) expanding social registry coverage to a larger share of the population; (ii) leveraging technology more effectively to identify non-beneficiary households in affected areas; (iii) establish an integrated post-disaster household assessment (PDHA) process that is deployed rapidly, is interoperable with other relevant social protection information systems, and coordinated across agencies.

### 5

**Improve gender-sensitivity and attention to vulnerable groups in post-shock social protection operations.** This includes: (i) improving assessment and information sharing on affected households with vulnerable members; (ii) ensuring direct messaging to women in affected households; (iii) providing post-disaster benefits directly to women, people with disability and the elderly to improve their agency and/or ensuring measures to monitor and respond to their needs;

and (iv) ensuring that temporary shelters are accessible and have better measures to prevent gender-based violence.

---

## 6

**Develop an integrated tool linked to Early Warning Systems (EWS) data to quantify post-shock social protection needs and estimate optimal post-shock benefit levels.** A key finding of the Stress Test was that post-disaster financial planning for social protection was largely based on a retrospective view of the previous year's costs. Better quantification of potential post-shock needs before shocks occur, could help improve this process. This would optimally be complemented by establishing triggers linked to EWS that could facilitate automatic scale-up of social protection depending on established metrics.

---

## 7

**Continue to build on progress with electronic payment delivery and facilitate broader choice among payment mechanisms, particularly for the post-shock response.** Key actions include (i) ensuring more beneficiary-responsive payment modalities; (ii) addressing the gaps that result in payment delays during shock times for both regular social protection benefits and emergency transfers; and (iii) build on ongoing efforts include the plan to develop a Central Mapper for Government-to-Person (G2P) payments, essentially a repository of unique individuals linked to a particular payment information (such as bank account) for the purpose of routing payment transactions, to improve monitoring, accountability and speed of payments. These actions would optimally be supported by, and linked to, an integrated beneficiary database to facilitate onboarding and monitoring.

---

## 8

**Fully operationalize ongoing reforms to strengthen the social protection system's adaptability to climate risk.** These ongoing reforms include the creation of a Disaster Pooling Fund, which will improve government's risk layering and financial protection in the event of future shocks with direct linkages to social protection responses. On the policy front, Bappenas is finalizing an ASP Roadmap and its associated regulations that will recommend integration of social protection and climate change action and provide a guide for leveraging social protection to address risks from natural and climate-related hazards, particularly for poor and vulnerable populations.



**Although the focus of this paper is social protection, it is equally important to ensure continued investments in education and health to support climate resilience objectives for a comprehensive and integrated human capital approach to addressing climate risk.** These could include efforts to: (i) protect social infrastructure in health and education to ensure business continuity in the face of shocks; (ii) continued priority to stunting reduction given the possible climate change impacts on stunting; and (iii) facilitating improved education completion outcomes, particularly length of schooling, given previous study findings that those with higher education attainment are better able to withstand the impacts of shocks.





# 01

P.13–18

## Introduction: The Interconnectedness of Climate Change, Human Capital, and Poverty

C

**limate change and human capital development are mutually impacting.** Understanding the relationship between them is, therefore, critical to ensuring effective climate change mitigation and adaptation and facilitating meaningful human capital development for more sustainable poverty reduction outcomes.

**Climate change and its associated impacts cause adverse impacts on people’s health, human capital accumulation, and overall wellbeing (World Bank 2017).** For health outcomes, climate change impacts, such as heatwave intensity and extreme weather patterns, increase the risks of infectious disease, vector-borne infections, undernourishment, morbidity, and mortality (IPCC 20104). Globally, climate change generates hidden environmental, health, and poverty costs estimated at



almost US\$12 trillion per year (Food and Land Use Coalition 2019). Climate change is expected to increase the frequency and severity of natural hazards and disasters (Hallegatte et al. 2016). Past climate shocks have demonstrated that losses disproportionately affect the poor (Hallegatte et al. 2018) who routinely engage in negative coping methods such as selling assets, removing children from school, and reducing consumption to address the impacts of climate shocks. Climate change has also caused adverse impacts on social infrastructure.<sup>3</sup> These impacts can be direct—through floods and heat stress—or indirect—through increased water and air pollution and diseases. Climate adaptation and mitigation efforts are, therefore, essential to facilitating continued progress in health, human capital accumulation, and poverty reduction.

**Indonesia has high exposure to covariate (community-level) shocks<sup>4</sup> that stem from climate change.** Indonesia experiences frequent natural disasters, with 3,622 total disasters occurring in 2019 alone (The Jakarta Post 2019). Of these, approximately 90 percent are hydrometeorological phenomena, including tornadoes, flooding, and landslides—all of which are expected to worsen due to climate change. High population density in hazard-prone areas, coupled with strong dependence on the country’s natural resource base, make Indonesia vulnerable to climate variability. Over 110 million people in approximately 60 Indonesian cities are exposed to negative impacts of climate change (World Bank 2019)—with the country’s urban poor being most vulnerable. Of the 76 million flood-exposed people in Indonesia, 40 million live in poverty on less than US\$5.50 per day (14.3 percent of the population), and 16 million (5.7 percent) on less than US\$3.20 a day. The country’s reliance on agriculture-based livelihoods heightens the risk of poverty for those exposed to climate-related shocks such as variation in precipitation and increases in temperature. Finally, the country’s location on the so-called Ring of Fire exposes its population to high risk of earthquakes, volcanic eruptions, tsunamis, and landslides. This finding has been reinforced in other analyses that show higher exposure of the poor people to floods in Indonesia compared to select countries in East Asia (Hallegatte et al. 2020) (Figure 1.1).<sup>5</sup>

<sup>3</sup> The New Zealand Social Infrastructure Fund defines social infrastructure as a subset of the infrastructure sector that typically includes assets that accommodate social services. (LINK)

<sup>4</sup> Covariate shocks affect many households in a region or community at the same time. Examples include droughts, floods, earthquakes and other natural disasters, spikes in food prices, and epidemics. These are experienced simultaneously by most if not all other households in a community and are, therefore, difficult to insure. This makes a strong case for provision of insurance by government as it can spread risk across communities and create risk-sharing mechanisms across geographies.

<sup>5</sup> The authors looked at poverty exposure bias for floods with a 10-year return period (or 10 percent annual probability of occurrence) in select countries in Latin America and the Caribbean, Africa, and Asia.

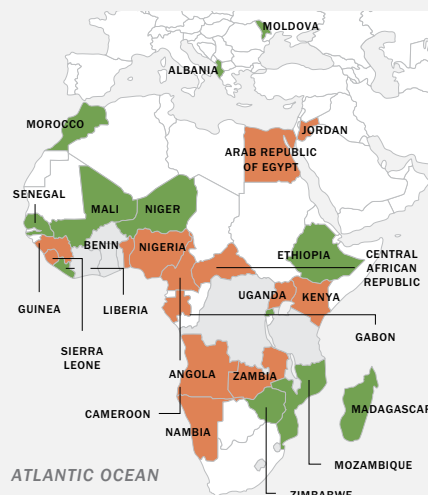


● POOR PEOPLE MORE EXPOSED   ● POOR PEOPLE ARE LESS EXPOSED   ● NOT SIGNIFICANT   ○ NO DATA

A. LATIN AMERICA AND THE CARIBBEAN, NATIONAL



B. AFRICA AND EUROPE, NATIONAL



C. ASIA, NATIONAL



Source: Hallegatte et al. 2020.

**Such covariate shocks make many vulnerable to falling into poverty or deeper into poverty.**

Indonesia is among the 10 countries with the highest number of poor people exposed to floods (Hallegatte et al. 2017).<sup>7</sup> Past research in Indonesia (Pritchett et al. 2000; Chaudhuri et al. 2002; World Bank 2006; Wai-Poi 2014; World Bank 2019; and World Bank 2020) has documented a high aggregate level of poverty risk and ‘churning’ of households around the poverty line, even as the poverty headcount rate fell through 2019. This vulnerability to poverty matters as even short spells of lowered consumption during large shocks such as those that stem from climate change can reduce productivity in the long run due to adverse impacts on human capital investments at the household level and/or reliance on adverse strategies of coping with income shocks—for example, sale of productive assets (see Alderman et al. 2006; Gubert and Robilliard 2007; Rosenzweig and Binswanger 1993; and Klasen and Waibel 2014). Furthermore, vulnerable households may anticipate shocks and, as a result, adopt conservative or risk-averse production and investment strategies that lead to low consumption (Elbers et al. 2007). Regardless of whether the adverse coping strategy is adopted ex post or ex ante, productivity is reduced in the long run which, in turn, lowers the chances of securely escaping poverty.

<sup>6</sup> Data for 52 countries: all households.

<sup>7</sup> The other countries include India, Bangladesh, Arab Republic of Egypt, Vietnam, Democratic Republic of Congo, Nigeria, Mexico, Iraq, and Sudan.



**Climate change impacts also threaten Indonesia's progress on human capital development.** For instance, Skoufias et al. (2012) found that rice-farming households residing in areas that experienced low rainfall following the monsoon's onset in Indonesia experienced a 14 percent reduction in their per capita expenditures and, in the face of weather shocks, these households protected their food expenditures at the expense of nonfood expenditures—including on health and education—thereby directly reducing investment in human capital with potential longer-term effects on poverty reduction. More recently, a Welfare Tracking survey found that one of the most common coping strategies for households in the bottom 40 percent affected by the Central Sulawesi earthquake, tsunami, and liquification, was to reduce food consumption (Purnamasari et al. 2021).

**One worrying projection is that climate change could have direct impact on global stunting rates, with direct implications for Indonesia where the stunting rate is 21.6 percent (Government of Indonesia 2022).** Expected agricultural impacts from climate change are expected to increase undernutrition and result in an additional 7.5 million children with severe stunting by 2030 globally (Hales et al. 2014). Education outcomes are also threatened by increased climate change and increased frequency and severity of shocks. For instance, previous research found that damage to 22,323 hectares of plantation or forest was associated with a 1.69 percent decrease in secondary school enrollment (Rush 2018). That study also found that higher poverty incidence exacerbated the negative impact of disasters on school enrollment. These impacts point to the importance of introducing mechanisms to mitigate against the education and health impacts caused by climate change and further reinforce the disproportionate reductions in human capital faced by poorer households.

**Stronger human capital is important to improving resilience to climate change and climate shocks.**<sup>8</sup> Several studies have established a correlation between higher education outcomes and disaster preparedness and recovery. For instance, evidence from the 2004 Indian ocean tsunami in Indonesia found that those with more education were better able to minimize dips in spending following the tsunami, compared to the spending cuts made by those with

<sup>8</sup> For example, studies have found that educated individuals were more likely to survive and had a lower risk of injuries from the 2004 Indian ocean tsunami and communities and countries with higher average levels of education also experienced much lower losses in human lives from climate-related disasters.



less education (Frankenberg et al. 2013). That study also found that more educated males had a higher probability of surviving the tsunami and, five years after the event, those with more education were in better psychosocial health than those with less education.

**One study in Thailand and the Philippines found that formal education increased the propensity to prepare for disasters, and that the highly educated exhibited higher levels of disaster preparedness due to their comparatively better abstraction skills in anticipating the consequences of disasters (Hoffmann and Muttarak 2017).** These findings have been recently reinforced for Indonesia in the WelTrAC survey that found that high school graduates experienced employment recovery faster than lower educated groups and that tertiary-educated household heads demonstrated a higher probability of, and faster, welfare recovery by October 2019, compared to lower educated households (Purnamasari et al. 2021).<sup>9</sup> As Indonesia embarks on more aggressive climate mitigation strategies, education, health, and social protection policies will be essential complements to ensure that these efforts result in net positive gains for human capital, wellbeing, and climate resilience—particularly for those whose livelihoods and incomes depend on carbon-intensive industries and those who are more vulnerable to climate change impacts due to poverty.

**Ensuring sustainable development outcomes in the context of a changing climate, therefore, requires integrated climate change adaptation and mitigation efforts, combined with climate-sensitive poverty reduction and human capital development policies.** Previous analyses have advocated that without measures to facilitate poverty reduction and human capital development, deliberately coupled with targeted climate resilience measures, climate change could force more than 100 million people globally into extreme poverty by 2030 (Hallegatte et al. 2016). To be most effective, designing and implementing solutions to end extreme poverty and to stabilize climate change as an integrated strategy was, therefore, necessary (Hallegatte et al. 2016). The same holds true for Indonesia which faces dual challenges of climate change risk and barriers to effective poverty reduction and shared prosperity.

**This background paper outlines the important relationship between human capital development and climate change**

<sup>9</sup> For the WelTrAC study, welfare was measured using data on households' assets and other socioeconomic and demographic characteristics using a Proxy Means Test (PMT) approach to estimate households' wealth using a consumption regression and categorizing households into welfare quintiles. Variables included demographic structure of households, occupation and education of household members, and the ownership of assets (Purnamasari et al. 2021).



**adaptation and the urgent need to improve the adaptiveness of Indonesia's social protection system to address these challenges.**

While the paper signposts the importance of education and health and nutrition interventions for mitigating the impact of climate change on human capital; it focuses on social protection, given its importance for addressing the disproportionate impacts of climate change on the poor and vulnerable. The subsequent sections of the paper: (i) outline the importance of social protection for addressing climate risk among households as part of a broader suite of human capital policies; (ii) provide a brief overview of the development of Indonesia's social protection system; (iii) stress tests adaptiveness of Indonesia's social protection system to respond to climate shocks; and (iv) draws on this analysis to recommend critical priorities to be addressed if Indonesia's social protection system is to better help poor and vulnerable households cope with, and adapt to, climate risk.



# 02

P.15–23

## **The Importance of Social Protection in Addressing Climate Risk, Contributing to Human Capital Outcomes, & Supporting Indonesia's National Development Priorities**



**I**ndonesia has set forward an ambitious Vision 2045, which aims to have the country achieve high income status by its 100th anniversary of the country's independence. The Vision is supported by National Medium-Term Development Plans (*Rencana Pembangunan Jangka Menengah Nasional*: RPJMNs) which cover medium-term priorities over subsequent five-year periods. The current RPJMN 2020-2024, outlines the country's roadmap "to create an independent, advanced, just, and prosperous Indonesian society," through accelerating development in various sectors supported by qualified and competitive human resources.

**Human capital development features strongly in the current RPJMN, with improvement in human resources as one of seven development priorities and a recognition that human capital development is critical to inclusive and equitable development.** As such, the RPJMN outlines objectives for improving the implementation of social protection, improving health coverage and implementation, and increasing the quality of and equity in the education sector. Human capital targets in the RPJMN include obtaining an average length of school enrollment of 9.18 years for persons 15 years of age and over; a maternal mortality rate of 183 per 100,000 live births; a reduction in stunting prevalence to 14 percent; and enabling at least 66.7 percent of college graduates to obtain work within one year of graduation.<sup>10</sup>

**Social protection is a critical contributor to Indonesia's ambitious national development priorities.** The RPJMN's 2024 targets include, inter-alia, facilitating access to social protection for 98 percent of the population and ownership of productive assets among 98 percent of the population. More specifically, the RPJMN aims to improve the effectiveness of social assistance programs and delivery systems toward a comprehensive social protection scheme (Major Project Number 18) and expanded coverage and institutional strengthening of the National Social Security System (*Sistem Jaminan Sosial Nasional*: SJSN).

**Social protection also plays an importing cross-cutting role in the RPJMN's priorities for addressing climate risk.** For instance, Major Project Number 13 outlines objectives to improve the quality of life

<sup>10</sup> The RPJMN's Major Projects numbers 15 and 17 relate to targets for the health and education sectors respectively.





and speed up recovery and economic conditions for communities affected by disasters, with the Ministry of Social Affairs (MoSA) among the responsible agencies for this major project. Importantly, the RPJMN also includes targets for reducing greenhouse gas emissions (GHGs), with a final target of 29 percent by 2030. Finally, the Government of Indonesia (GoI) has announced an ambitious target to eliminate extreme poverty by 2024.<sup>11</sup> The plan includes targets to lower the extreme poverty rate to 3-3.5 percent in 2022 through measures in 212 regencies/municipalities. The government plans to expand these measures to 514 regencies/municipalities with an extreme poverty rate target of 2.3-3 percent by 2023. Social protection will, therefore, be critically important to the country's national development priorities given these ambitious and time-sensitive targets.

**The disproportionate impacts of climate shocks on poor households, and their threat to push nonpoor households into poverty, requires interventions that include poverty reduction and resilience building as central areas of focus in climate policy.**

These impacts have been documented widely. For instance, Hallegatte et al. in their notable 2016 Shockwaves report, flagged the disproportionate impacts that climate change has on the poor, primarily due to: (i) their higher exposure to, and impact from, these climate shocks or trends; (ii) their higher vulnerability relative to their income or wealth; (iii) their comparatively lower levels of support from family and community networks; and (iv) less access to financial tools or social safety nets to help prevent, prepare for, and manage these impacts (Hallegatte et al. 2016). In Indonesia and other East Asia and the Pacific (EAP) countries, wealthier households were found to be more likely to take proactive ex ante climate change adaptation measures, while poorer households were most likely to react to shocks ex post (Francisco et al. 2011). As with other countries, Indonesia's poor have fewer assets and lack access to savings to help them mitigate the impact of climate shocks on their wellbeing. For instance, only 24.64 percent of households in the poorest 40 percent in Indonesia saved at a financial institution in 2021, compared to 43.83 percent in the top 60 percent of the income distribution.<sup>12</sup>

**24.6%**

of households in the poorest 40 percent in Indonesia saved at a financial institution in 2021



<sup>11</sup> [\(Link\)](#)

<sup>12</sup> Susenas 2021.



**Social protection is important to addressing climate risk as part of a broader suite of human capital policies.** It serves as an important connector role in helping to build human capital of the

**13** Results at 95 percent confidence interval, 10 to 50 percent. The study included 7,468 rural forested villages exposed to PKH between 2008 and 2012 across 15 provinces—with 266,533 households in these villages receiving transfers by 2012. The study found that approximately one-half of the avoided losses were in primary forests and that the economic value of the avoided carbon emissions alone compared favorably to program implementation costs.

**14** Results include a decline in stunting among PKH beneficiaries by 9 to 11 percentage points; an increase in primary school enrollment by 4 percentage points; an enrollment rate of around 93 percent; and an increase in junior secondary school enrollment by about 8 percentage points.

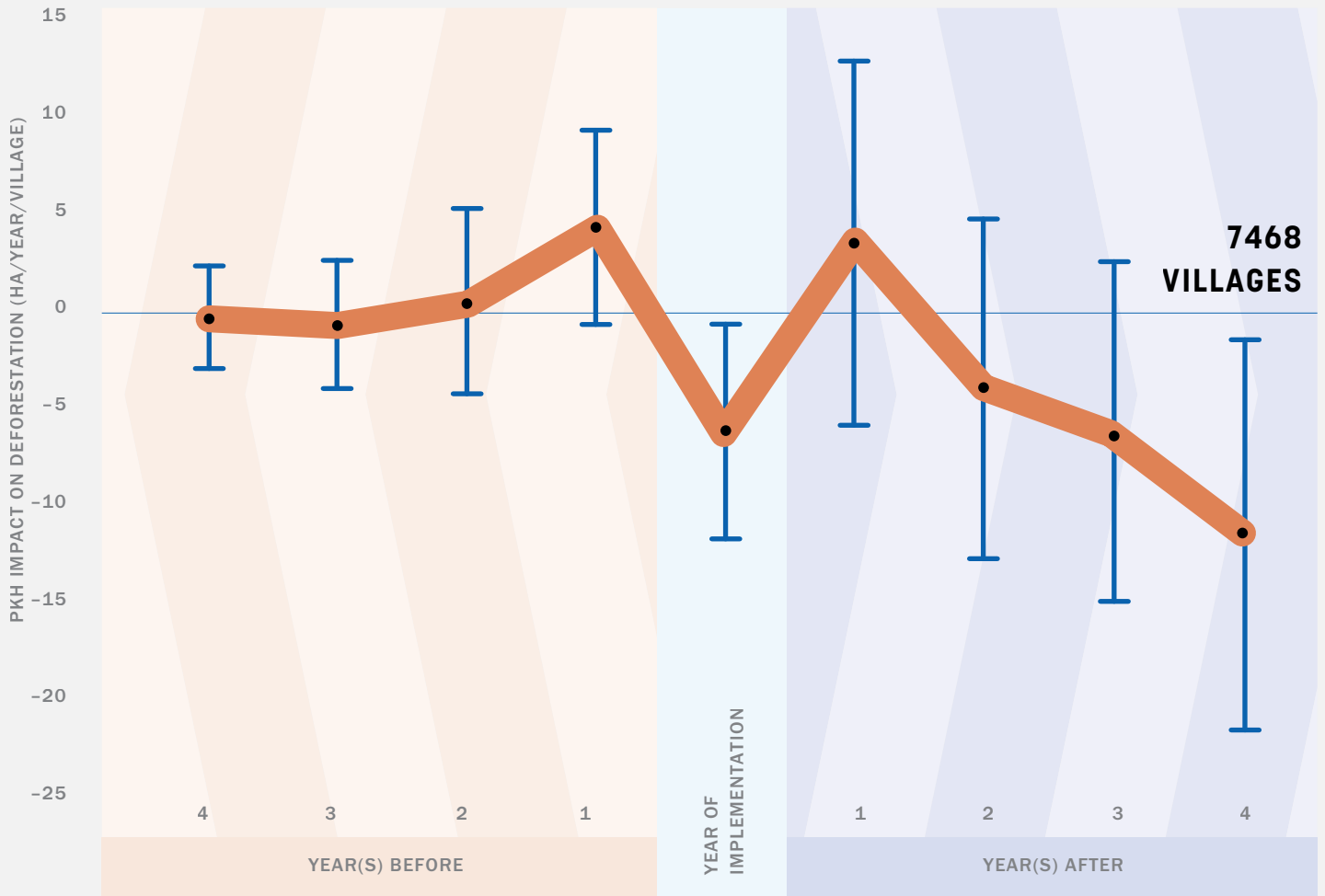
**15** The study found that 98.4 percent of prosperous-independent graduate household members 7-12 years of age continued attending school after they left PKH. This did not differ much from active beneficiary household members. In addition, graduate household members 13-18 years of age were attending school at even higher rates (87.1 percent) compared to active beneficiary household members (83.5 percent). For health, 92 percent of former PKH beneficiaries who gave birth in 2020 reported checking their pregnancy at least four times during the pregnancy—as one of the PKH conditions—and 94.2 percent who gave birth in 2020 delivered their babies in healthcare facilities.

poorest and most vulnerable households. In addition, numerous studies have demonstrated that social protection programs have contributed to mitigation efforts; helped households adapt to climate risk; and have been critical to preparedness, coping, and recovery from climate shocks among households.

**A notable example of social protection’s potential in this regard for Indonesia comes from a recent evaluation which found that villages that participated in the country’s flagship conditional cash transfer (CCT) PKH program experienced a 30 percent reduction in forest cover loss (Ferraro and Simorangkir 2020) (Figure 2.1).**<sup>13</sup> Among the factors attributed to the correlation were longer exposure to the program and higher PKH participation density per hectare of forest, which was associated with larger reductions in forest cover loss. Notably, the study found no discernible impacts in villages before they were exposed to the PKH program. The factors attributed to the relationship in the study included PKH’s consumption smoothing impacts which helped beneficiary households substitute deforestation for cash; and consumption substitution, where households were able to substitute deforestation-sourced consumption goods with market-purchased goods. More recently, the WelTrAC survey following the 2018 Central Sulawesi earthquake, tsunami, and liquefaction in Indonesia found that provision of government and nongovernment assistance played a significant role in increasing the probability of faster, long-term recovery in employment and restoration of household welfare (Purnamasari et al. 2021).

**Social protection has been proven to facilitate improved human capital among the poorest in Indonesia and, therefore, serves as an important contributor to facilitating improved resilience to climate change impacts.** Social protection programs, particularly CCTs, have been critical to linking poor households to education and health services and facilitating human capital outcomes among those most vulnerable. For instance, results from PKH impact evaluations have shown that the program has had positive impacts on improved consumption patterns, education enrollment, and positive health behaviors such as maternal and neo-natal practices (World Bank 2020).<sup>14</sup> In addition, recent analysis showed that these behaviors are sustained by PKH graduates after their exit from the program (Syamsulhakim and Khadijah 2021).<sup>15</sup> These human capital impacts,





Source: Ferraro and Simorangkir, 2020.

supported by social protection initiatives, also help to contribute to Indonesia’s broader development objectives for an improved, more skilled, and healthy human resource base that contributes to a growing economy through participation in more productive sectors.

**Social protection also has strong potential to support climate adaptation and mitigation through complementary benefits; climate-sensitive economic inclusion; and by leveraging social protection interventions and delivery systems more deliberately for shock preparedness, response, and recovery.** Safety net programs in particular are increasingly providing non-social protection linkages to beneficiaries to provide a more comprehensive suite of benefits and services to facilitate poverty reduction. These can help further climate adaptation objectives—for instance, in the housing sector, where complementary benefits can support climate-smart and climate-resilient housing for the poor<sup>16</sup> and in the energy sector to facilitate diversification away from fossil fuels and harmful energy sources.

16 Examples of climate-smart housing projects in EAP include those implemented in Cambodia and Vietnam.



## P. 21

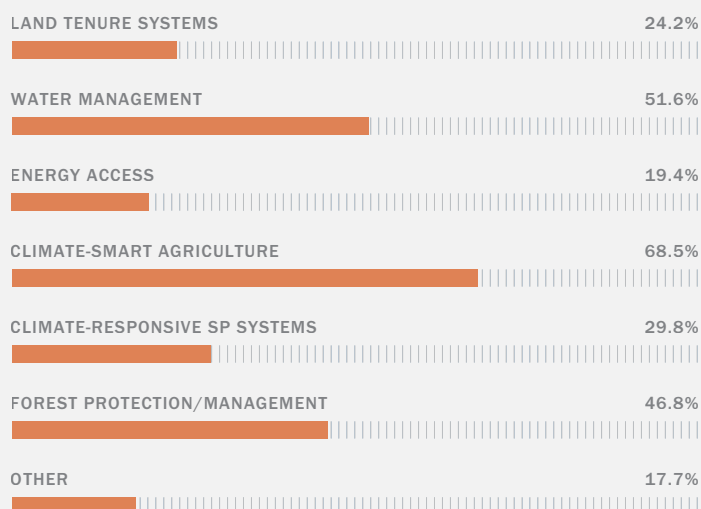
**17** Defined by Andrews et al. (2021) as “a bundle of coordinated multidimensional interventions that support individuals, households, and communities to increase their incomes and assets. Economic inclusion programs therefore aim to facilitate the dual goal of strengthening resilience and opportunities for individuals and households who are poor.”

**Economic inclusion<sup>17</sup> interventions have also become a more salient feature of social protection provision across the globe, including in Indonesia.** These have strong potential to facilitate preparedness, behavior change, and diversification away from harmful livelihood practices and towards more climate-sensitive sources of livelihoods. This is playing an increasingly important role among the objectives of economic inclusion interventions, with the 2021 State of Economic Inclusion report (Andrews et al. 2021) noting that 55 percent of all programs surveyed had a focus on climate change mitigation. The types of these interventions are illustrated in Figure 2.2.

FIG 2.2

**PERCENTAGE OF ECONOMIC INCLUSION PROGRAMS, BY TYPE OF NATURAL RESOURCE MANAGEMENT OR CLIMATE CHANGE ADAPTATION INTERVENTION<sup>18</sup>**

### A. Overall



### B. by entry point



Source: Andrews et al. 2021.

**18** Note: Panel a shows the percentages of all programs supporting natural resource management or climate change adaptation or both (N = 124). Panel b shows the percentages of these programs by entry point (N = 43 Social Safety Net programs and 81 Livelihoods and Jobs programs). Financial inclusion programs are excluded from this analysis because they are few in number. Programs may include more than one type of intervention.



**"Economic inclusion interventions have also become a more salient feature of social protection provision across the globe, including in Indonesia."**

**19** Useful guidance on how these delivery systems can be effectively leveraged for shock response can be found in Bowen et al. 2020 and Williams and Moreira 2020.

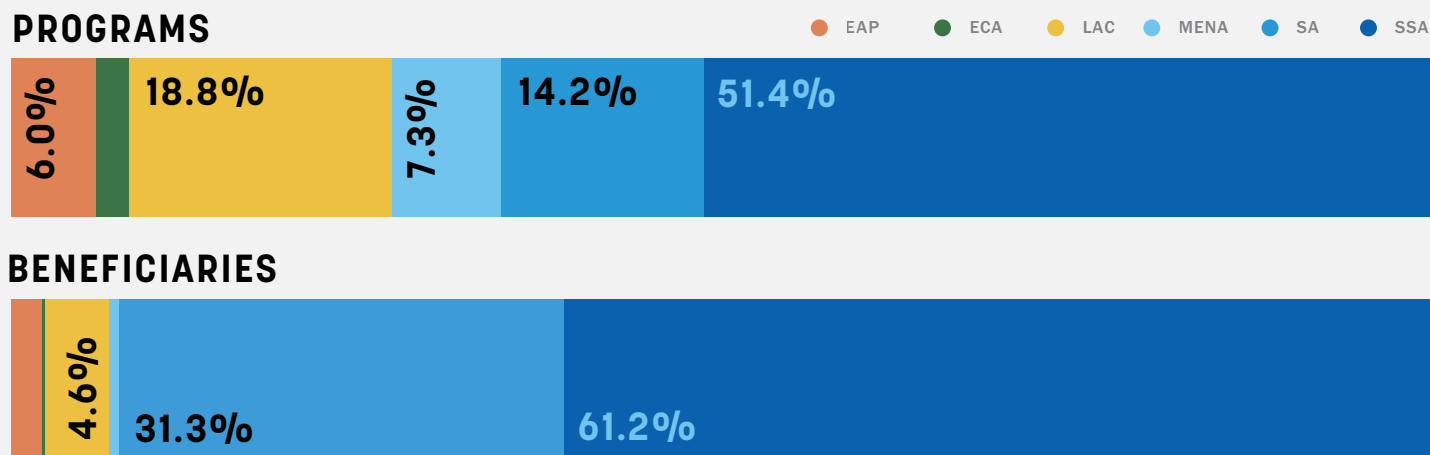
**20** While not the focus of this note, a separate background note will assess the labor market demands for green skills in Indonesia as an input to the Country Climate and Development Report.

Where implemented, these interventions could have positive results on beneficiary households' preparatory and adaptive capacity. For example, an evaluation for Nicaragua demonstrated the utility of economic inclusion in improving resilience to climate shocks, where provision of vocational training or a productive investment grant in addition to a cash transfer to beneficiaries who were vulnerable to drought, provided full protection against drought shocks two years after the end of the intervention, relative to the control group who only received a cash transfer (Macours et al. 2012). Despite this potential, economic inclusion appears to be operating at limited scale in the region (Figure 2.3).

Beyond economic inclusion and complementary benefits, social protection interventions such as public works can play an important role in supporting mitigation projects at the community level and contribute to disaster recovery efforts after climate shocks. Previous analysis for Indonesia found that access to credit and public works projects in communities can help households cope with weather shocks and, therefore, help play a strong protective role during times of crisis (Skoufias 2012). Social protection delivery systems such as social registries and payment mechanisms can help ensure faster, more effective response to poor and vulnerable households affected by climate shocks.<sup>19</sup> Finally, active labor market programs and jobs interventions are critical social protection measures for climate resilience.<sup>20</sup> A summary view of how social protection can contribute to both adaptation and mitigation efforts is summarized in Figure 2.4 (Rigolini 2021).

FIG 2.3

PERCENT DISTRIBUTION OF ECONOMIC INCLUSION PROGRAMS AND BENEFICIARIES BY REGION



## Social protection and labor protects & prepares people for:

| SOCIAL PROTECTION INSTRUMENT              | ADAPTATION  | DECARBONIZATION & MITIGATION   |
|---|---|--|
| Cash transfers                            | Adaptive Social Protection (ASP) helps households build resilience and cope with shocks by facilitating savings, food security and livelihood adaptation and diversification. ASP also provides post-shock support to mitigate impacts and avoid damaging coping strategies.        | Payments for Environmental Services (PES) help manage critical ecosystems, and cash transfers can reduce deforestation. Social protection measures cash transfers are also a central element of Just Transition policies and post-carbon/energy subsidy reforms. |
| Public works                              | Public works promote food security, shock coping and livelihood diversification at the household level, and the creation of adaptive assets at the community level through better management of land and natural resources. They also support post-disaster reconstruction efforts. | Public Works contribute to carbon capture through reforestation and restoration of ecosystems.   |
| Livelihoods / Economic Inclusion          | Multidimensional programs with livelihoods and economic inclusion components support medium and long-term resilience building through food security, higher productivity, savings and diversification of livelihoods.   | Livelihoods and Economic Inclusion programs support Just Transition policies and enhance resilience to labor market disruptions caused by Green transitions in both rural and urban settings.  |
| Training and Active Labor Market Programs | Training and ALMPS support reskilling and job transitions in urban and rural areas for household whose livelihoods are affected by climate shocks.  | Training and ALMPs support post-carbon "Just Transitions" in energy, coal, agriculture, transport and other sectors. They also prepare the workforce for new post-carbon jobs and enhance resilience to labor market disruptions caused by Green transitions.    |

Source: Rigolini 2021.



**The design of social protection programs is also critical to ensuring their potential for addressing these challenges.** The mere presence of varied social protection benefits and services is not sufficient to ensure that program objectives and spillover effects for climate resilience can be achieved. Program design, benefit and service delivery processes, and monitoring and evaluation are all essential elements to ensuring that: (i) programs identify and include who they are intended for; (ii) beneficiaries receive the benefits and services intended for them; (iii) these benefits and services are adequate to address the risks faced and appropriate to need; and (iv) outcomes are evaluated and delivery is monitored and adjusted as needed. Furthermore, as delivery often requires coordination within and across sectors, institutional arrangements and coordination mechanisms also need to be clearly defined and adhered to.<sup>21</sup> This is even more crucial when leveraging social protection benefits and services to help facilitate improved climate resilience and adaptive capacity.

<sup>21</sup> For more detailed guidance and country experiences on social protection delivery systems, please refer to Lindert et al.



# 03

P.24–29

## The Development of Indonesia's Social Protection System

**T**

**he decade to 2021 has been characterized by significant progress in the reform of Indonesia's social protection system to address risks to chronic and transient poverty.** What exists today is now a suite of contributory and non-contributory programs offered across the lifecycle, supported by social protection delivery systems. Central to

Indonesia's social protection system is social assistance which today includes a set of core, mostly poverty-targeted, permanent programs, including the flagship PKH CCT program which saw a significant expansion of coverage and in 2020 it covered approximately 10 million households (Figure 3.1).

**PKH is the second largest CCT in the world after Brazil's Bolsa Familia program.** Other social assistance programs include a cash transfer for poor and vulnerable students (*Program Indonesia Pintar: PIP*); a food assistance voucher program (*Program Sembako/ Bantuan Pangan Non-tunai: BPNT*); the subsidized health insurance premium (*Penerima Bantuan Iuran - Jaminan Kesehatan Nasional*); cash-for-work (*Padat Karya Tunai: PKT*) programs managed by the





Ministry of Villages (MoV) and Ministry of Manpower (MoM), and a recently piloted program for Social Rehabilitation of Uninhabitable Houses (*Rehabilitasi Sosial Rumah Tidak Layak Huni: RS-Rutilahu*) offered by MoSA.<sup>22</sup>

**Indonesia has also recently scaled up efforts to improve linkages between poor households and economic empowerment programs.** The most notable is the Archipelago Economic Heroes (*Pahlawan Ekonomi Nusantara- PENA*)<sup>23</sup> economic inclusion intervention provided by MoSA. The program provides grants, business mentoring, and facilitation for beneficiaries of MoSA social assistance programs and other vulnerable groups and individuals who experience social risks. An integrated social welfare database (*Data Terpadu Kesejahteraan Sosial: DTKS*) of nearly 29 million poor and vulnerable households<sup>24</sup> has been put in place as a common mechanism to identify potential beneficiaries for these centrally financed poverty-targeted social assistance programs. Overall social assistance spending has seen increases in recent years largely due to increased spending on COVID-19 social assistance responses. Social assistance spending was 1.5 percent of GDP in September 2021 (1.6 percent in 2020) (World Bank 2021), which is close to the global average of 1.54 percent.<sup>25</sup>

**22** The program is managed by MoSA and aims to improve the quality of housing for the poor through repair and/or rehabilitation of uninhabitable housing conditions with a priority on roofs, floors, walls, and toilet facilities. It has a community-based approach, with work done by groups of between five to 15 heads of households. It has been piloted in several areas including Indramayu Regency, West Java Province. The program had 958 beneficiaries in West Java Province in 2021, with nominal assistance provided of Rp 20 million per beneficiary. ([LINK](#))

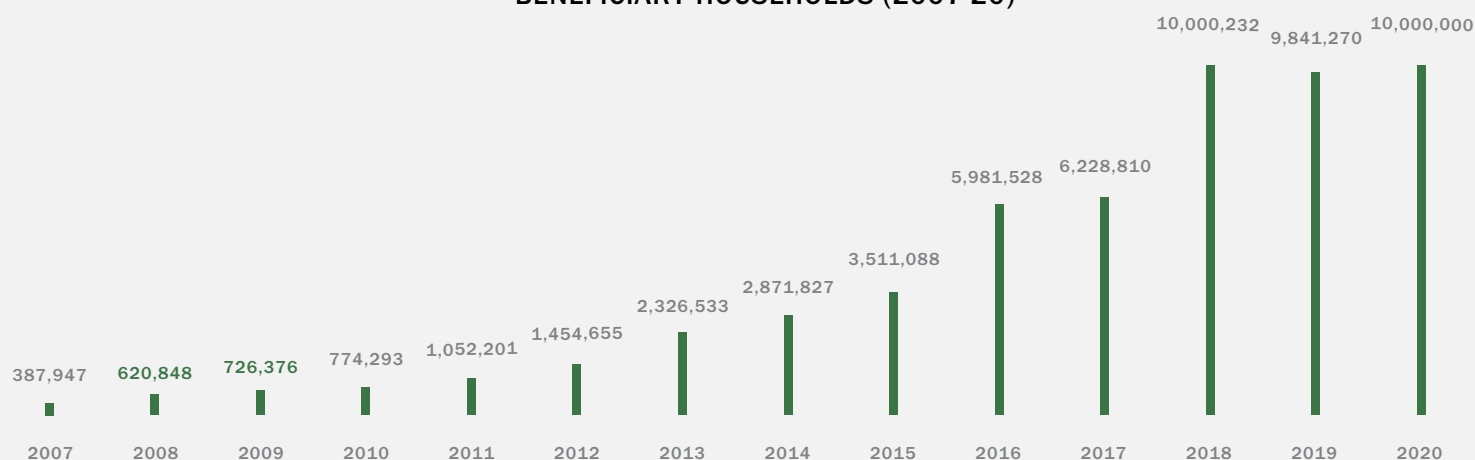
**23** PENA was launched in December 2022. Previous iterations of this program include Prokus and Kube. PKH-CCT and Sembako food voucher program beneficiaries sign an agreement that they would withdraw from these programs once they receive PENA. <https://kemensos.go.id/diluncurkan-desember-2022-pena-telah-graduasi-1800-an-penerima-bantuan-sosial>

**24** DTKS coverage for 2020, hence some indicators may not reflect the latest situation of DTKS.

**25** Global average from the Atlas of Social Protection Indicators of Resilience and Equity (ASPIRE) prepared by the World Bank.



## EXPANSION OF PKH COVERAGE: NUMBER OF BENEFICIARY HOUSEHOLDS (2007-20)



Source:  
Administrative data  
from MoSA.

**Beyond core/regularly provided social assistance programs, Indonesia also provides a suite of emergency non-contributory transfers which are important social protection responses to disasters—often those caused by climate shocks.** These include various in-kind transfers provided by MoSA including emergency food assistance, evacuation equipment, household items and necessities (*Bantuan Isi Huntara dan Huntap*); a Living Support Assistance cash transfer (*Jaminan Hidup: Jadup*); a cash transfer to compensate heirs of disaster victims; and cash assistance for house renovation. The National Disaster Management Authority (*Badan Nasional Penanggulangan Bencana: BNPB*) also provides in-kind transfers for disaster recovery, including assistance for housing renovation, temporary shelter (*Huntara*), permanent housing (*Huntap*), and household items for persons in temporary shelter. The Ministry of Public Works and Public Housing (*MoPWPH*) also provides a Housing Stimulus Assistance Program (*Bantuan Stimulan Perumahan Swadaya*) and assistance for house renovation which is jointly implemented with the respective local disaster management authority (*Badan Penanggulangan Bencana Daerah: BPBD*). These benefits have been routinely provided in past emergencies, including in response to the 2018 Central Sulawesi disaster and to numerous localized shocks.<sup>26</sup>

**The COVID-19 crisis has taken a severe toll on lives, livelihoods, and the Indonesian economy; and the government responded quickly to protect the poor, vulnerable, and newly poor through a suite of emergency social protection measures.** By January 2022, over 4.26 million confirmed COVID-19 cases were recorded; 144,136 persons had died;<sup>27</sup> 1.8 million Indonesians became unemployed

<sup>26</sup> Recent examples include the provision of compensation by MoSA to heirs of flood victims in Jakarta in 2020; and MoSA provision of in-kind supplies to flood victims in Sumatra in January 2022.

<sup>27</sup> Data as of January 10, 2022. (LINK)



between February 2020 and 2021; a further 3.2 million people exited the labor force; and 2.8 million people fell into poverty as of September 2020 (World Bank 2021a). To protect purchasing power amidst widespread income losses, the GoI launched an array of social assistance, jobs/skills, and social insurance measures. The benefit level of *Program Sembako*<sup>28</sup> food assistance program was increased by 33 percent for nine months and its coverage expanded from 15.2 million to 20 million families while PKH families received double benefits for three months which was also extended to an additional 800,000 families.

**A new unconditional cash transfer program was introduced to cover approximately nine million additional households registered in the DTKS but who were not receiving PKH or Program Sembako benefits.** Spending on social assistance expanded to 1.6 percent of GDP in 2020 and 1.5 percent of GDP in 2021, essentially doubling the pre-COVID level of spending on core social assistance programs. World Bank simulations estimate that these packages of social support have helped minimize the scale of the increase in poverty caused by the pandemic's economic impact. The poverty rate could have risen to 11.4 percent but peaked at 10.6 percent under the new package and revised growth assumptions (World Bank 2021). Despite this strong effort, the poverty headcount was 10.1 percent in February 2021, compared to 9 percent in September 2019.

**While not a core focus of this report, Indonesia provides a range of livelihoods and employment programs to help improve jobs and income outcomes.** These are implemented by various government agencies, including the Ministry of Finance (MoF), Ministry of Cooperatives, Small and Medium Enterprises, MoM, Ministry of Education, Culture, Research, and Technology (MoECRT), and MoSA. Beyond training programs, there are also a host of credit programs, including those that link training with credit provision, largely managed by MoF and the Ministry of Cooperatives, Small and Medium Enterprises. In addition, the government has introduced multiple emergency livelihood measures following the start of the COVID-19 pandemic for people suffering from expected income losses. Notably, this includes a newly launched training program (*Kartu PraKerja*) under the Coordinating Ministry for Economic Affairs (CMEA) which provides online training and stipends to recently unemployed workers.

<sup>28</sup> Program Sembako is Indonesia's primary food assistance safety net program, (previously BPNT). The program is managed by MoSA and aims to boost food security and improve nutrition. Program Sembako's benefits are provided via vouchers redeemable at distribution points called e-Warongs. The program covered 15.6 million households in 2020.



**Indonesia has also made significant progress towards rationalizing SJSN and expanding its coverage, particularly health insurance coverage through JKN.** The increase of JKN coverage—from 130 million to over 220 million people in the five years to 2022—is a major achievement. The expansion of social insurance coverage for employment-related risks, however, has been much slower, partly due to the absence of contribution subsidies for informal sector workers. In mid-2020, the Gol introduced the much-needed job loss guarantee (*Jaminan Kehilangan Pekerjaan*) as a new scheme under SJSN. The scheme provides a cash transfer, access to labor market information, and access to training opportunities for formal sector employees during unemployment shocks.



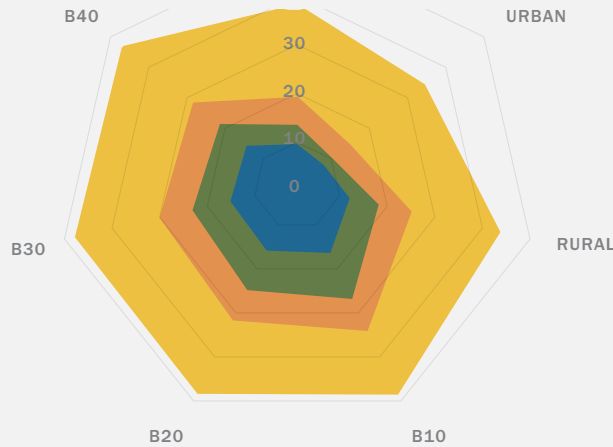
**Despite progress in reducing poverty, inequality, and vulnerability, there remain lingering gaps to inclusion and effectiveness of social protection in Indonesia.** The development of the country's social protection system has contributed to concrete achievements in poverty reduction in recent decades, with the country recording

a sustained decline in poverty, from 19.1 percent of the population in 2000 to 9.2 percent in 2019 (World Bank 2020). As noted in the previous section of this report, evaluations of the PKH program have found positive impacts on welfare, consumption of protein-rich food, and improvements in healthy behaviors among beneficiaries (World Bank 2020).

**Although, Indonesia was able to reduce extreme poverty to the single digits prior to the COVID-19 crisis, the pace of poverty reduction has stalled since 2018.** An estimated 25 million Indonesians lived below the poverty line prior to the crisis, and vulnerability was also high, with 20 percent of the population living above the poverty line but below 1.5 times the poverty line.

FIG 3.2

COVERAGE OF MAIN SOCIAL PROTECTION PROGRAMS BY DECILE (RURAL VS URBAN) <sup>29</sup>



Source: World Bank calculations using Susenas (March 2021).

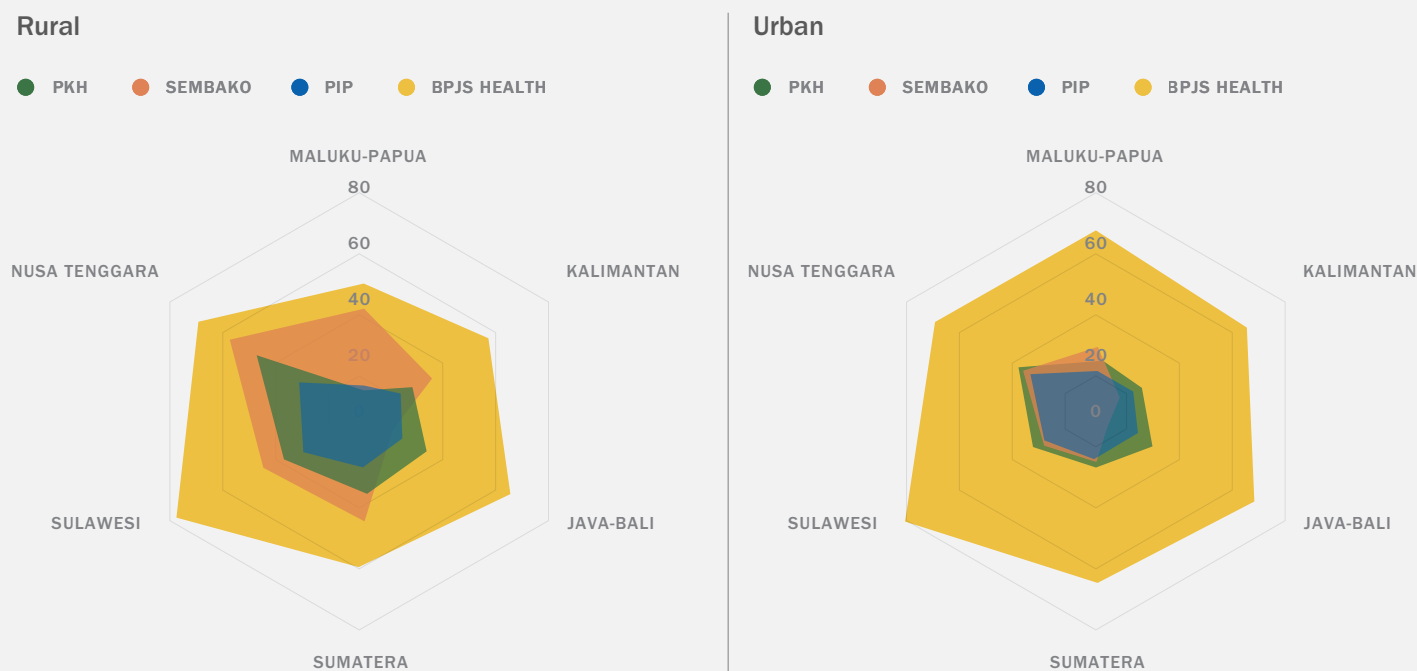
**"Despite progress in reducing poverty, inequality, and vulnerability, there remain lingering gaps to inclusion and effectiveness of social protection in Indonesia."**

Inequality, as measured by the Gini coefficient, rose from its lowest value of 30 points in 2000 to 38 in September 2019. For social assistance, programs such as PKH and PIP have understandably prioritized targeting of households with children, but other vulnerable groups such as the elderly and people with disability have not been adequately covered by the social assistance system.



<sup>29</sup> PBI here refers to the subsidized health insurance premium waiver under BPJS Health.





Note: Coverage is reported for the following groups: (i) PIP in the bottom 20 percent of households; (ii) PKH in the bottom 10 percent; (iii) *Program Sembako* in the bottom 30 percent; and (iv) the Social Security Implementation Agency (*Badan Penyelenggara Jaminan Sosial*: BPJS) Health in the bottom 40 percent.

Source: Authors' calculations using Susenas (2019).

**Furthermore, despite their “de-jure” design, the “de-facto” coverage of several social assistance programs differ in reality, with many eligible households with children not receiving all the benefits they are eligible for.** Overall, the country’s main social assistance programs reach about 61.39 percent of the poorest two quintiles.<sup>31</sup> Recent analyses have found that exclusion errors are high, with none of the main social assistance programs covering more than 60 percent of the poorest 10 percent of the eligible population (See Figure 3.2), with regional variations (Figure 3.3) (Susenas 2020). A troubling development has been that coverage expansion has been accompanied by reduced beneficiary incidence among the poorest 20 percent, reaching 39 percent in 2019 (Figure 3.4).

**Reforms are needed to improve the coverage, adequacy, and sustainability of social insurance schemes.** The social insurance system continues to face challenges with expanding coverage, particularly among informal sector workers. For protection from short-term risks, only 28 percent of the working-age population is actively contributing, while only one in ten among the working-age population contributes to the pension scheme.<sup>32</sup> The total replacement rate for retirement savings is still below the International Labour Organization’s

**30** BPJS Health here refers to PBI - the subsidized health insurance premium waiver under BPJS Health.

**31** Susenas. 2020. Includes PKH, *Program Sembako*, PIP, PBI, and local social assistance programs. When using international poverty lines, these programs cover 70.49 percent of the population below US\$1.90 and 65.66 percent below US\$3.20 per day.

**32** This is below the developing country average of ~ 30 percent of the working-age population covered for retirement income protection.

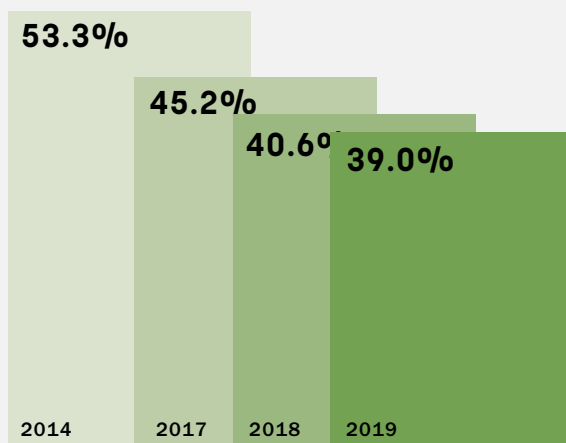


international standard of 40 percent. Finally, as Indonesia starts experiencing demographic ageing, pension coverage will have to be addressed swiftly and will require a move towards retirement schemes that respond to the persistent challenges caused by high informality.

**The design of Indonesia’s social protection system has direct implications for the country’s ability to effectively contribute to climate change adaptation and mitigation efforts.** The subsequent section will, therefore, summarize the findings of an Adaptive Social Protection (ASP) Stress Test of Indonesia’s social protection system to assess its adaptiveness to respond to climate shocks and to support climate resilience objectives. These findings will help inform strategic recommendations to improve the social protection system’s performance to better help poor and vulnerable households cope with, and adapt to, climate risk.

**"The design of Indonesia’s social protection system has direct implications for the country’s ability to effectively contribute to climate change adaptation and mitigation efforts."**

FIG 3.4 PKH BENEFICIARY INCIDENCE IN THE POOREST 20 PERCENT (2014-19) (CONDITIONAL CASH TRANSFERS)



Source: World Bank, 2021 based on analysis of household survey data.



# 04

P.32–40

## Stress Testing Indonesia's Social Protection System

G

iven the issues identified in the previous section, a **Stress Test of Indonesia's social protection system (World Bank 2021b)** has been carried out to assess its adaptiveness to respond to climate shocks. The application of the Stress Test focused on an assessment of the system's readiness to build resilience

to shocks and to respond to heightened needs through a detailed assessment of four building blocks: Programs and Delivery Systems, Data and Information, Finance, and Institutional Arrangements and Partnerships (Part 2 of the Stress Test). In addition, recent analysis (Ali and Setiawan 2022) which examined levels and sources of vulnerability was leveraged to inform possible sources of risk and required social protection needs to respond to households affected by covariate shocks in Indonesia (Part 1 of the Stress Test).

**Overall, the ASP Stress Test has found that Indonesia has made considerable progress in the development of its social protection system and leveraging programs and services to respond to the vulnerabilities caused by climate change and climate shocks.**

**"Indonesia has made considerable progress in the development of its social protection system"**





Despite this, the Stress Test also found that lingering gaps to social protection effectiveness hamper the system's ability to effectively build adaptive capacity of the poorest and most vulnerable to sufficiently prepare for, and respond to, the impacts of climate shocks and climate change. The results of the Stress Test are summarized in this report but detailed separately in a summary presentation and annotated Stress Test Report (World Bank 2022).

## The Adaptive Social Protection (ASP) Stress Test

The ASP Stress Test is a new tool developed by the World Bank which aims to, inter-alia: (i) outline a risk profile of a country and connect it more deliberately to its social protection system; (ii) assess how existing national capacities could be scaled up before and after a shock; and (iii) identify gaps and guide investment priorities to build capacity for crisis management.

**Part 1** of the Stress Test examines the main sources of risk that are likely to require social protection scale-up, and provides an estimate of the number of people in need of support in the aftermath of different types and intensities of shocks; the degree to which they are covered by existing programs; and the extent to which the social protection system needs to increase support to existing beneficiaries (vertical expansion) or new beneficiaries (horizontal expansion).

**Part 2** of the Stress Test assesses the social protection system's readiness to build resilience, and respond to, shocks through a detailed assessment of four building blocks: *Programs and Delivery Systems, Data and Information, Finance, and Institutional Arrangements and Partnerships*. Part 2 assigns a score from 1 to 5 for each building block subcomponent and produces an overall average score to identify strengths and priority areas for attention.

The Stress Test combines both qualitative and quantitative assessment. While the tool, *in-principle*, examines social protection as a whole, there is a focus on noncontributory social assistance, namely cash transfers.



## 3.1 Approach & Caveats

# T

**he application of the ASP Stress Test for Indonesia was an intensively consultative process.**

First, the initial proposals for country scores were drafted through consultation with various World Bank Global Practices,<sup>33</sup> given the inter-sectoral nature of the topic at hand.

Secondly, the scores proposed for Part

2 of the Stress Test went through detailed consultation with various government agencies working on the related sectors. The proposed scores and associated references were shared via an annotated Stress Test with Bappenas (National Development Planning Agency, Directorate of Poverty Reduction and Social Welfare and Directorate of Spatial Planning and Disaster Management); MoSA (Family Social Security; Directorate of Social Protection for Natural Disaster Victims: PSKBA; and the Center for Social Welfare Data and Information: Pusdatin); BNPB; and the Fiscal Policy Agency: (BKF) at MoF.<sup>34</sup> In addition, detailed consultative meetings to discuss the scores were held with the Directorate of Poverty Reduction and Social Welfare, Bappenas; and Directorate of Social Protection and Security (Perlindungan Jaminan Sosial: Linjamsos); and PSKBA. Written feedback was also provided by BNPB. These consultations formed the basis to finalize the Stress Test scores.

**The Stress Test leveraged a range of information sources including household survey and administrative data; regulations and laws; program manuals; and analytic reports.**

In addition to the consultations, data sources for the Stress Test included household survey data (namely Susenas); program-level administrative data; regulations and legislation covering social protection, DRM, and Finance, particularly Disaster Risk Finance (DRF); program manuals and operational guidelines; and recent analytic studies and reports on ASP, social protection, DRM, and DRF in Indonesia. Given the nature and scale of recent events, the social protection responses to the 2018 Central Sulawesi earthquake and tsunami and COVID-19 pandemic served as the main references for assessing ASP shock response capacity, together with the documentation of social protection responses to these shocks and assessment of their effectiveness.

**33** These included Urban, Disaster Risk Management (DRM), Resilience and Land; Finance, Competitiveness and Innovation; Poverty and Equity; and Social Sustainability and Inclusion.

**34** PSKBA: *Perlindungan Sosial Korban Bencana Alam*; Pusdatin: *Pusat Data dan Informasi*; BKF: *Badan Kebijakan Fiskal*.



**The consultative nature of the Stress Test was particularly important for Part 2 of the Stress Test, as application of the tool is partially qualitative in nature.** Part 2 of the Stress Test included a questionnaire with over 35 questions on each of the four ASP building blocks. In addition, two questions were added to Part 2 of the Stress Test for Indonesia to gain further insight on the linkages between social protection programs and building climate resilience among beneficiaries and to assess the shock-preparedness of social protection information systems.<sup>35</sup> The Programs and Delivery Systems building block focused on Indonesia’s regular and disaster responsive social protection programs—primarily social assistance—which have been outlined previously in this report. The building block on Data and Information looked at the country’s various EWS and registries with a focus on the DTKS social registry.

**There are some important caveats to the findings for Part 2 of the Stress Test.** A key caveat is that the overall aggregate score in Part 2 of the Stress Test is primarily indicative and is recommended to be used to identify areas of focus for strengthening the social protection system, rather than being used as a benchmark across countries. An important caveat to the scoring process is that scores are based on existing regulations, policies, programs, and systems. While the narrative acknowledges where there are plans and reforms underway, these do not impact scores unless they are already operational or enacted. A final caveat relates to the Building Block on Data and Information. The DTKS registry is currently undergoing reforms to its design which are expected to change its coverage, intake process, and a shift from household to individual registration. As such the findings for these related questions apply primarily to the DTKS’ design as of end 2020 and should be reapplied once the reform to the system is completed. Finally, several important policy and program reforms were initiated following the application of the Stress Test. These are flagged where applicable in the subsequent sections of this report.

<sup>35</sup> The added questions were as follows: (i) Do social protection programs support improved resilience to climate risks among beneficiaries and their communities? and (ii) What mechanisms are in place for the protection of data and information in times of disasters?



## 3.2 Part 1 of the Stress Test Results:

### Possible Social Protection Needs Generated by Climate Risk in Indonesia<sup>36</sup>

**F**or Part 1 of the Stress Test, the team drew on analysis done by Ali and Setiawan (2022) which decomposed households' vulnerability to poverty over a defined time period into two components. The first is 'structural' or poverty-induced vulnerability which occurs when the average expected welfare of a household falls below the poverty line in the absence of shocks. This situation could arise when, for example, physical assets and human capital endowments are too low to allow consumption above the poverty line. The second component is risk-induced vulnerability, which occurs when the average expected welfare level of a household falls above the poverty line, but during shocks consumption is expected to fall below the poverty line. Finally, the share of risk-induced vulnerability that is due to idiosyncratic (household-level) and covariate (community-level) shocks is estimated. It is important to note that, although risk-induced vulnerability due to covariate shock in the analysis includes climate shocks, the estimations do not distinguish between this and other types of covariate shocks such as food price shocks and epidemics.

**This analysis was then applied to assess the need for social protection scale-up to address climate risk in Indonesia, using the Multilevel Approach detailed by Bodewig et al. 2021.** Specifically, for this approach, the Stress Test estimates the number of people that the social safety net needs to cover by calculating the total of poverty-induced vulnerability and covariate-risk\*risk-induced vulnerability. These results are detailed at the end of this section of the report.

**Shocks have been the dominant source of vulnerability to poverty across Indonesia.** Between 2011 and 2019 in urban areas, and

<sup>36</sup> For more details on this analysis, see Ali and Setiawan (2022).



in rural areas to a lesser extent, vulnerability to poverty was mainly driven by high consumption volatility, while low expected mean of consumption played a small role (Ali and Setiawan 2022). More precisely, 6 percent of rural Indonesians had an expected per capita consumption in 2019 that was below the poverty line (that is, structural or poverty-induced vulnerable) and 38 percent were vulnerable because of high consumption volatility (that is, “risk-induced” vulnerable). In contrast, only 2 percent in urban areas faced “structural” or poverty-induced vulnerability and 20 percent faced risk-induced vulnerability. Risk-induced vulnerability was about six times higher than structural-induced vulnerability in rural areas, and the ratio was even higher in urban areas. The contribution of risk-induced vulnerability grew over time: at the national level, the share of risk-induced vulnerability rose from 80 percent of total vulnerability in 2011 to 90 percent in 2019. Nevertheless, in both urban and rural areas, on aggregate, both risk- and poverty-induced vulnerability fell between 2011 and 2019.

**Nationally, about one in ten Indonesians were vulnerable to falling into poverty due to covariate shocks in 2019.** Some 15 percent of rural and 9 percent of the population in urban areas were vulnerable due to covariate shocks, while 42 percent of rural and 22 percent of urban Indonesians were vulnerable to idiosyncratic shocks in 2019. As expected, given the nature of covariate of shocks, vulnerability due to covariate shocks in most regions exhibited surges and reversals from year to year, especially in urban areas (Figure 4.1). Urban Sulawesi was a case in point—covariate vulnerability declined sharply between 2011 and 2012, increased until 2018 and then declined sharply to one of the lowest levels in the country in 2019. Urban and rural Nusa Tenggara stood out as they experienced an overall *increase* in covariate vulnerability during the period of observation (despite some fluctuation from year to year), while rural Kalimantan—a much richer part of the country—showed no progress at all.

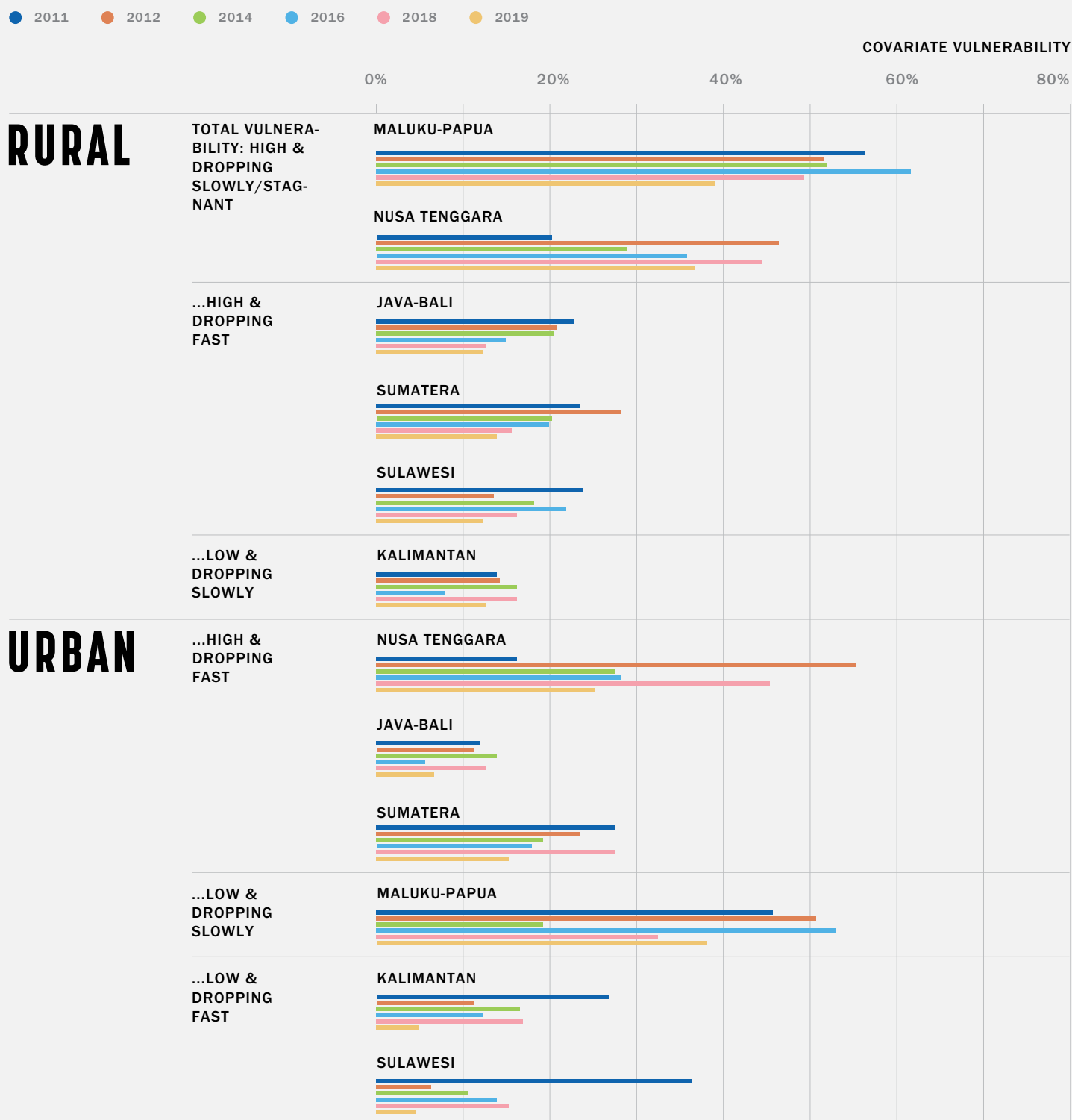
**Using the data from this analysis and applying the methodology in Part 1 of the Stress Test, the estimations revealed that 12.16 percent of the rural population (11.4 million households) and 4.26 percent of the urban population (6.6 million households) were likely to need social protection support in the event of a shock.** The findings have implications for the country’s capacity for



scale-up. Although the current social registry has covered more than 22 percent of the population, not a single social safety net program has covered more than 20 percent of the population. Some of these gaps are detailed later on in this report.

FIG 4.1

SHARE OF POPULATION (PERCENT) VULNERABLE TO POVERTY (BY RURAL AND URBAN AREAS OF ISLAND REGION) (2011-19)



Source: Authors' calculations using Susenas 2011, 2012, 2014, 2018, and 2019; and PODES 2011, 2014, and 2018.

## Part 2 of the Stress Test Results: Assessment of Indonesia's Social Protection System's Adaptability



# T

**he Stress Test of Indonesia's social protection system has found that the country is operating at an emerging level for most metrics.**

On a scale ranging from 1 (Latent) to 5 (Advanced),<sup>37</sup> the country scored 3.26 overall which corresponds to an Emerging level. Each building block

also averaged scores in the Emerging level, ranging from 3.08 and 3.47 (Table 4.1). When disaggregated further, a similar picture emerged, with little variation across variables. The building block areas that performed comparatively better included *Programs* and *Payment Systems*, while *Social Registries* was the only category with a Nascent score (of 2.9).<sup>38</sup> The results confirm previous findings that, while the country has made considerable advancements in the development of its social protection system and its adaptability to climate and other shocks, there remain several areas for enhancement of effectiveness, preparedness, and responsiveness. The specific findings demonstrate areas of focus that the GoI may wish to prioritize to operate on a more established and advanced level. These findings are detailed in the subsequent sections of this report and in the recommendations presented in the conclusions.

**37** The specific scores and corresponding levels are (1) Latent; (2) Nascent; (3) Emerging; (4) Advanced; and (5) Established.

**38** The assessment and score for Social Registries primarily focused on the DTKS social registry managed by the Ministry of Social Affairs. There have been subsequent efforts to improve the coverage and timeliness of data for social registry purposes, which are acknowledged later in this report.



| Building Block                       | Dimension                  | Latent 1 | Nascent 2 | Emerging 3 | Established 4 | Advanced 5 |
|--------------------------------------|----------------------------|----------|-----------|------------|---------------|------------|
| Programs and delivery systems (3.47) | Programs                   |          |           | 3.60       |               |            |
|                                      | Delivery systems           |          |           | 3.14       |               |            |
|                                      | Payments                   |          |           | 3.67       |               |            |
| Data and information (3.08)          | Early warning systems      |          |           | 3.25       |               |            |
|                                      | Social registries          |          | 2.9       |            |               |            |
|                                      | Financing                  |          |           | 3.25       |               |            |
| Institutions and partnerships (3.25) | Government leadership      |          |           | 3.00       |               |            |
|                                      | Institutional arrangements |          |           | 3.50       |               |            |
| Overall: 3.26                        |                            |          |           |            |               |            |

BUILDING BLOCK

1

Programs & Delivery Systems

OVERALL SCORE

3.47

1 Programs

SCORE 3.6

**39** Overall, Indonesia received an Advanced Score (4) on both social assistance and livelihood programs and an established score (5) on overall coverage of social protection programs (73.21 percent) (including social assistance, labor markets, and social insurance). Nevertheless, close to one-quarter of the population remains uncovered.



**Indonesia’s mix of regular social assistance programs, disaster responsive social assistance programs, and livelihood programs is one of the strengths of the country’s social protection system.**<sup>39</sup> These programs were outlined earlier in this report and have been successfully leveraged to help poor households smooth consumption, provide support to those affected by climate shocks, and help build resilience of the most vulnerable. In particular, the suite of disaster-responsive social assistance programs provides a useful complement to regular social assistance, which can help facilitate scale-up in post-shock periods.



**"In terms of overall program coverage, Indonesia performs well"**

**These programs are supported by regulations that outline the roles and responsibilities of ministries such as MoSA in the provision of both regular and post-shock social assistance.** For instance, PKH and *Program Sembako* fall under MoSA Regulation No. 1/2018, MoSA's disaster-responsive social assistance programs are regulated under Regulation No. 4/2015, while PIP falls under MoEC Regulation No. 9/2018 (Lubis et al. 2021). In terms of overall program coverage, Indonesia performs well when assessed on the Stress Test—with 73.21 percent covered by social protection programs.<sup>38</sup> Despite this performance, there remain important gaps in beneficiary incidence and coverage gaps among vulnerable groups—as detailed previously in this report. Furthermore, fragmentation and duplication are still challenges, with some programs having similar goals or target populations, but implemented by different ministries, as is the case for different cash-for-work programs and some disaster-response programs (Lubis et al. 2021).

**One area that could benefit from attention under the Programs metric relates to improving post-shock benefit adequacy.** Specifically, the Stress Test found that while the amount of the social protection benefit provided during shocks covers a significant proportion of the consumption impact, there is room for improvement. One important measure of this was to review the adequacy of regular program benefits to existing beneficiaries during shock times. For poor families with children who receive regular assistance through PKH and *Program Sembako*, for example, the temporary enhancements due to the pandemic, if received in full, are likely to cover a reasonable proportion of the consumption impact. This is because the combined value of these two main programs going to the poorest 15 percent was considered “adequate” in normal pre-COVID times, as it provides transfers sufficient to bring the median recipient household above the poverty line.

**The poorest 15 percent of households entitled to receive PKH should receive an average 21 percent of median consumption in direct cash transfer (World Bank 2020).** Adding on PIP, Program Sembako, and PBI-JKN to PKH would render a very adequate package of protection for the poorest 15 percent of households with children, at an average 49 percent of median consumption. For the same group, however, PIP and *Program Sembako* benefits each constitute

40 Susenas. 2020. This includes social assistance programs, BPJS Kesehatan, BPJS Ketenagakerjaan, and severance pay. It is 73.55 percent with company health insurance included.



an average of 7 and 10 percent of median consumption respectively. Neither PIP nor Program Sembako or a joint payment from both programs would provide an adequate package of assistance (World Bank 2020). The population beyond the poorest 20 percent, therefore, receives a minimal package of protection and households without children are less likely to receive benefits due to eligibility rules of the main social assistance programs.

**Consideration could be given to improving the adequacy of post-shock social assistance benefits.** For the 2018 Central Sulawesi disaster, findings from the WelTrAC household survey revealed that overall household welfare had not fully returned to its pre-disaster level more than one year after the disaster (Purnamasari et al. 2021). For COVID-19 social protection responses, a World Bank High Frequency (HiFy) survey found that 63 percent of PKH and *Program Sembako* beneficiaries reported that their needs were only partially met one year after the pandemic in March 2021, while 5 percent reported that their needs had not been met at all (World Bank 2021c). Furthermore, while 55 percent of pre-pandemic program beneficiaries felt that social assistance benefits and their own income were covering basic needs prior to the pandemic, only 40 percent of them reported the same level of adequacy in March 2021 (World Bank 2021c). Finally, households in the bottom 40 percent were more likely to report that their monthly basic needs were not covered.

**The question related to providing more direct linkages to help beneficiaries of social assistance programs improve their resilience to climate change impacts<sup>41</sup> that was added for Indonesia revealed that there was limited documentation or systematic implementation of interventions to help social assistance beneficiaries build their adaptive capacity.** The Stress Test score reflected that, to some extent, social protection programs are risk informed and credited programs that have direct activities that seek to improve resilience among beneficiaries or their communities. Notably, PKH Family Development Sessions (FDS) complement cash transfers by providing training and mentoring recipients on key topics and have helped foster improved resilience on a range of human capital metrics.

**Another social protection program with significant potential for climate resilience is cash-for-work (CfW).** In 2018, the Gol

<sup>41</sup> Indonesia received a score of 2 (Nascent) on this metric.



introduced the Village CfW (*Padat Karya Tunai*: PKT) policy to address unemployment and under-employment in rural areas. The policy mandates that villages allocate 30 percent of their Village Fund toward CfW interventions—50 percent of which must be used for wages (World Bank 2021d). Common agendas for CfW activities from Village Funds include clean water source development and drainage development (Effendi et al. 2020).

**The government is working to better integrate climate resilience into village development by establishing an integrated information management system (InfoDesa) that will draw on data collected by public agencies and integrate them into a single platform.** Data to be integrated in this platform will include village poverty status, income, health, nutrition, education, infrastructure, exposure to disasters and climate-related hazards, community assets at risk, land and forest fire hotspots and related GHG emissions. Linkages to existing real-time databases (for example, for disaster early warning, weather forecasts) and indexes (climate vulnerability and food security) which are relevant for village-level planning will also be included (World Bank 2019a). Despite these developments, there are few systematized approaches evident in existing social assistance programs (including CfW) that include deliberate programs linkages to improve climate resilience among beneficiaries. This has, therefore, emerged as a priority area of focus for improved ASP implementation in Indonesia.

**42** Indonesia received a score of 5 (Advanced) on the percent of the poorest 40 percent with a government-authorized/recognized ID. The score for grievance redress and inclusion of other vulnerable (elderly and people with disability) was 3 (Emerging); while the score for inclusion of women was 2 (Nascent).

**43** Calculated from Susenas March 2020 based on National ID number (Nomor Induk Kependudukan: NIK) ownership. Those who already have a NIK may not have a valid national ID, but they are recorded in MoHA's Population Administration Information System (SIAM).



## 2 | Delivery Systems

SCORE **3.14**



**In delivery systems, Indonesia performs well on *identification (ID) coverage among the poorest and modalities to enroll beneficiaries in times of shocks*.**<sup>42</sup>

According to Susenas 2020 data, 94.97 percent of the poorest 40 percent have a government authorized/recognized ID.<sup>43</sup>

This should help limit challenges with identity verification and payment delivery in post-shock response. There remains potential for improving ID among the poor and, among its priorities, the Ministry of Home Affairs (MoHA) is focusing on ensuring adequate ID coverage among poor and vulnerable families,

**"only around 25 percent of the adult disaster-affected population had any prior knowledge of how to evacuate during a disaster"**

and in the more remote and isolated areas in Indonesia (World Bank 2020). Prior to COVID-19, enrollment in times of shocks was not automatic, with no reliance on DTKS and significant emphasis on self-enrollment which often includes lengthy bureaucratic processes before approval, enrollment and payment. In contrast, pandemic-related social protection support has relied primarily on expansions of regular programs and the use of other (multiple) mechanisms including self-enrollment (for example, support for small businesses).<sup>44</sup> The use of automatic enrollment and other multiple mechanisms leveraged to enroll beneficiaries during the pandemic have informed an Established score (4) on this metric, but there remains room for improvement to ensure these mechanisms are appropriately leveraged for disasters—particularly those caused by natural hazards. For example, DTKS has not been used for enrollment for post-disaster benefits.

**The 2018 National Disaster Response Framework (NDRF) recognizes the importance of both internal and public communication to disaster response and includes public communications to reach the affected population.** There is also a Guideline on a Disaster Response Media Center (BNPB Regulation No. 8/2013) which explains the organization and procedures for the “Media Center” applicable to BNPB and BPBD when establishing an emergency response command center at national and local levels to provide information to all stakeholders during emergencies. A Disaster Response Command System (BNPB Regulation No. 03/2016) includes provision of information on the distribution of non-food items. In practice, however, there is scope for enhancement in the implementation of these regulations and the effectiveness of these communications mechanisms is uncertain. For instance, the WelTrAC survey found that only around 25 percent of the adult disaster-affected population had any prior knowledge of how to evacuate during a disaster and this knowledge came mainly from self-learning using e-media. Only 15 percent reported receiving information from local government (Purnamasari et al. 2021). The NDRF is a very high-level document and, as it is not operational in nature, BNPB plans to formulate Standard Operating Procedures (SOPs) under the framework.

**At the program level, PKH’s implementation guidelines outline that direct socialization should be carried out by human**

44 A notable example is Kartu PraKerja which set up an on-demand application process that worked well and quickly to enroll applicants although, given its online set-up, there were issues with access for those with limited online literacy and access.



**resources, mass media, and online media, however, beneficiaries rely extensively on facilitators and, to some extent group leaders, for information (Microsave Consulting 2021).** While some modifications to communication to address the COVID-19 social distancing requirements have been implemented, their effectiveness remains unclear. A recent survey found that, although 84 percent of PKH beneficiary respondents were aware about the new (monthly) PKH disbursement schedule briefly introduced during the pandemic, awareness about other PKH modifications was low—with only 5 percent aware of the increased benefit amounts for certain categories of beneficiaries (Microsave Consulting 2021).

**On whether the delivery of post-disaster assistance is informed by a post-disaster household assessment (PDHA),<sup>45</sup> Indonesia received a Nascent score (2).** The process is fragmented, largely uncoordinated, links between the various agency needs assessment instruments and delivery of assistance is uncertain, and there is need for an integrated tool for needs assessment which is currently carried out by different government agencies. The PSKBA (MoSA) uses a Social Assistance Data Collection Form for Victims of Natural Disasters that collects data on household members, their NIK, and living conditions. MoSA Regulation No. 28/2012 regulates matters related to disaster preparedness cadets (*Taruna Siaga Disaster/Tagana*). These are social volunteers or social welfare workers active in disaster management and who are also tasked with identifying disaster victims and recording material losses. On the DRM side, BNPB/BPBD collect data during emergencies using a ‘Delivery of Disability Compensation Aid for Disaster Victims’ needs assessment form intended to provide complete and reliable data on the identification and verification of cash and non-cash needs of disaster victims who experience disability (BNPB Regulation No. 15/2010). There are also needs assessments carried out by nongovernment organizations (NGOs). The fragmentation was found to be evident in the aftermath of the 2018 Central Sulawesi disaster with needs assessments carried out by several agencies, including BPBD and NGOs, who collected data to provide shelter, living support, and compensation to heirs. The planned disaster victims’ database could help streamline these processes. It would be useful to ensure that the database’s development is accompanied by improving integration and data sharing of post-disaster assessment data to affected households.

**45** Post-Disaster Household Assessments (PDHAs) are instruments which are deployed to collect information from households affected by shocks to assess their needs and determine what assistance will be provided. These instruments differ from Post Disaster Needs Assessments which are high-level and not granular at the household level. The management of PDHA processes in countries vary from DRM and social protection agencies. Humanitarian agencies also have their own PDHA instruments in times of crisis. For more lessons on this instrument, see Williams 2020.



**"PKH and Program Sembako transfers are prioritized to women in families which may foster empowerment of women in beneficiary households"**

**While there are multiple ways to register complaints which can be used by beneficiaries and non-beneficiaries, implementation during emergencies is unclear, in part due to shock-induced disruptions.**<sup>46</sup> Mechanisms include MoSA's Contact Center which includes multiple access methods and Ombudsman complaints which was leveraged during the COVID-19 pandemic. Nevertheless, during the pandemic, as few as one percent of PKH beneficiaries reported that they were aware of the PKH helpline number (Microsave Consulting 2021). BNPB also deploys complaints handling mechanisms in times of shock, however, following the Central Sulawesi disaster, the complaint handling system was found to be inadequate and was marked by slow responses, a lack of clear procedures, and complicated tiered complaint resolution processes (Lubis et al. 2021).

**Social protection shock responses could be reviewed to ensure there are adequate and appropriate design features to ensure inclusion of women and other vulnerable populations such as elderly and people with disability.**<sup>47</sup> On design features to ensure inclusion of women, the country received a Nascent score (2). Although the GoI has strengthened gender inclusion in social protection and DRM, more so for some local governments facing high disaster risk, there is need for more explicit efforts to improve access and outreach to women in shock response programs. Gender mainstreaming is obligatory for all government ministries and agencies through Presidential Instruction No. 9/2000 on Gender Mainstreaming in National Development. BNPB has also enacted a Gender Mainstreaming in Disaster Management Regulation No. 13/2014 to ensure gender mainstreaming in disaster management. Several other regulations and policies on gender equality and social inclusion as part of disaster management have also been developed since 2000. An evaluation from the 2018 Central Sulawesi disaster, however, flagged challenges experienced by women, including limited access to information on facilities and services available, and acts of gender-based violence (GBV) in and around the temporary housing (Global Facility for Disaster Reduction and Recovery – GFDRR 2019). At the program level, PKH and *Program Sembako* transfers are prioritized to women in families which may foster empowerment of women in beneficiary households. Leveraging these programs for response to climate shocks, therefore, has an added benefit of improving gender outcomes in ASP responses.

<sup>46</sup> Indonesia's score on this metric is 3.

<sup>47</sup> The score for design features to ensure inclusion of women is 2 and the score for design features to ensure inclusion of other vulnerable is 3.



**In Indonesia there are limited platforms, regulations, policies, awareness materials, and implementation on DRM that accommodate people with disability.** Government Regulation No. 42/2020 on Accessibility to Settlements, Public Services, and Disaster Protection for People with Disability (a recent implementing rule of Law No. 8/2016) is an umbrella regulation covering accessibility in DRM. BNPB Regulation No. 14/2014 also includes considerations for people with disability in DRM, but its framework is general. Furthermore, while the expansion of social assistance has been concentrated mostly on poor households with children, other groups—such as the elderly and people with disability—are not adequately covered (World Bank 2020). When program top-ups have been provided to beneficiary households with a member with disability, it is unclear if there is any agency given to the beneficiary with disability. Finally, a MoSA survey of 251 beneficiaries across five provinces found that about 30.5 percent of them reported that they do not have sufficient help nor ability to provide for the elderly and members with disability in their households (Ministry of Social Affairs 2020).

### 3 | Payment Systems

SCORE **3.67**

**48** Following the application of the Stress Test, MoSA initiated changes to the delivery mechanism for the BPNT/Sembako food assistance in 2022 switching from a fully e-voucher distribution mechanism to a current mixed modality with partial cash distribution at post offices. The reform has not been confirmed as a permanent model and was later expanded to include PKH. The PKH benefit was also paid in cash at the end of 2022 and for the first payment period covering January to March, 2023. The PKH March-May 2023 payment was paid in a mixed approach at both Banks and cash at post offices in some locations. [\(LINK\)](#)



**Indonesia performed best on the Payment Delivery metric for the Stress Test with an Established score (4) with electronic payment mechanisms largely used to transfer benefits to beneficiaries—for both regular social protection benefits and post-disaster benefits.** In 2017, the GoI initiated reforms to transform all social assistance payment modalities to a bank account-based electronic payment model to support a financial inclusion agenda (Lubis et al. 2021). PKH, PIP, and Program Sembako now utilize “cashless” mechanisms.<sup>48</sup> The Family Welfare Card (*Kartu Keluarga Sejahtera*) payment instrument has electronic money and/or savings features and is used by various programs, including PKH. MoSA’s direct cash assistance for disaster victims (governed by MoSA Regulations No. 10/2020 and No. 4/2015) is also almost always provided through cash transfer to bank accounts as well.

**Some emergency social protection programs use digital payment methods—payments for the COVID-19 cash transfer program (*Bantuan Sosial Tunai: BST*) were largely made through the post office, while the *BLT-Dana Desa* cash transfer under the Village Fund is distributed in cash by village governments.** Indonesia also received an Advanced score (4) for the speed with which the payment system can scale, largely due to progress with delivering rapid emergency social protection benefits in response to the COVID-19 pandemic and ability to deliver vertical expansion benefits to existing beneficiaries rapidly. One survey, for example, found that about 95 percent of respondents reported receiving PKH funds on time during October-December 2020 (Microsave Consulting 2021).

**Consideration could be given to facilitating broader choice among payment mechanisms and by simplifying administrative processes that delay post-disaster payments, particularly to non-beneficiaries.** Although there is very good process on electronic payments, the absence of options in many instances limits beneficiary choice and may complicate post-shock payment delivery. Being able to select among payment delivery options helps implementers to adjust payment delivery in the event that the regular payment delivery systems are interrupted during a shock—particularly during large-scale disasters that adversely affect payment infrastructure.





The WelTrAC survey for the 2018 Central Sulawesi disaster revealed that, while regular social assistance programs continued to work relatively well post-disaster albeit with some delays in the normal payment schedules, disaster-response assistance experienced protracted delays. Compensation for heirs and *Jadup* assistance were received on average between eight and 12 months after the disaster; while households that were eligible for house repair compensation waited 20 months on average (Purnamasari et al. 2021). This varies drastically with the time frames set out in program regulations—for example, *Jadup* should be distributed a maximum of 90 days after the disaster (Lubis et al. 2021). Finally, capacity of the payment system to handle a horizontal expansion of the main program received a score of 3, given limitations for ensuring rapid expansion to non-beneficiary households. This is largely due to enrollment challenges (as bank account information and verification are also required), but also due to flow of funds required for horizontal expansion—some of which are discussed in the Financing and Institutional sections of this report.

BUILDING  
BLOCK

2

Data &  
Information

OVERALL  
SCORE

3.08

4 | Early Warning Systems

SCORE 3.25

**I**ndonesia performs well on the availability of Early Warning Systems (EWS), which collectively are capable of monitoring one or more hazard. On availability of EWS and their multi-hazard capabilities, the country received an Established score (4). Notably, there are approximately 33 EWS platforms and systems, covering all relevant natural hazards managed mostly by government, while some are managed by universities. RAs recent analysis found that no single EWS covers all elements required for an effective EWS (Deltares, The Netherlands and Indonesia 2020),



development of a Multi Hazard Early Warning System (MHEWS) could be given priority. BNPB developed a Master Plan for MHEWS in 2019, which aims to support the government in realizing a people-centered, inclusive, end-to-end EWS that reaches all community groups. The Grand Design remains to be endorsed in the form of a Law/ President Regulation. When completed, it will serve as a guide for creating an integrated and efficient platform for early warning with relevant agencies for increased coordination and dissemination of disaster risk information (Deltares, The Netherlands and Indonesia 2020). The MHEWS’ design covers a broad range of climate and natural hazards but could be expanded to include early warning for biological hazards or pandemics.<sup>49</sup>

**On whether government undertakes vulnerability and risk assessment to assess the impact of shocks based on EWS data, Indonesia is operating at an Emerging level.** While government capacity to carry out vulnerability assessment is high, whether these are informed systematically by EWS remains uncertain. BNPB’s *InAware* EWS helps monitor natural hazards and assesses their potential threats to people and critical assets, while an *InaRisk*<sup>50</sup> risk and vulnerability assessment assesses the scope of natural hazards, affected populations, infrastructure, and potential losses. Establishment and maintenance of the system received a score of Nascent (2) on whether there was an agreed trigger to initiate shock response or to scale up social protection systems in shock response based on EWS data. Shock response or scale-up primarily relies on real time disaster data, usually captured in rapid assessments. Finally, while there are protocols in place for scale-up, there is no agreed trigger to initiate a social protection shock response.

**5 | Social Registries**

SCORE **2.9**

**Indonesia has several registry systems and databases with information on households and individuals.** These include the country’s civil registry Population Administration Information System (Sistem Informasi Administrasi Kependudukan: SIAK) – managed by the Directorate of Population and Civil

<sup>49</sup> Indonesia’s *InaRisk* disaster risk information platform does, however, include an additional layer of COVID-19 information and advisories.

<sup>50</sup> Supported by UNDP.



Registration (*Dukcapil*), the Social Security Administration Agency (BPJS) registry, and the DTKS social registry, among others. These databases primarily fulfil sector- and program-specific functions but have also been recently used to provide social protection-related COVID-19 assistance. The scores in this section of the Stress Test are informed by the design of all these registries, but focus on DTKS, given that it is a social registry with the broadest coverage at the time of the assessment, and is used for targeting multiple social protection benefits and services. Despite this, it is important to note that the assessment of DTKS in this section is primarily based on the design and coverage of the system up to 2020, as MoSA is currently undertaking reform of DTKS, the full details of which were not available at the time of carrying out this assessment.

**There are also additional developments in this space following completion of the Stress Test, with two databases currently being developed and/or adopted to target poverty alleviation programs.**

In 2022, the Coordinating Ministry for Human Development and Cultural Affairs (*Kementerian Koordinator Bidang Pembangunan Manusia dan Kebudayaan: Kemenko PMK*) adopted the database of the National Population and Family Planning Agency (*Badan Kependudukan dan Keluarga Berencana Nasional: BKKBN*), which was updated in 2021, and leveraged it as the data for the Acceleration of Extreme Poverty Alleviation (*Pensasaran Percepatan Penghapusan Kemiskinan Ekstrem: P3KE*) to target extreme poverty programs, in conjunction with DTKS.<sup>51</sup> Additionally, Bappenas, funded by different resources, piloted and later scaled-up, a national socioeconomic registration (*Registrasi Sosial Ekonomi: Regsosek*) to support the government's plan to build a population social registry including data on household social conditions and welfare.<sup>52</sup> Nationwide data collection was conducted in November 2022 by the Central Bureau of Statistics (*Badan Pusat Statistik: BPS*) to cover the total population.

**Indonesia performs strongly on coverage of the social registry relative to need, and registry coverage extends to most disaster-prone areas.** The DTKS comprises 40 percent of households with the lowest socioeconomic conditions nationally, including in disaster-prone areas. The 2015 update was implemented in 34 provinces, 511 regencies/cities, 7,074 subdistricts and 82,190 villages across

<sup>51</sup> Based on Presidential Instruction No. 4 year 2020 (Inpres Nomor 4 Tahun 2022).

<sup>52</sup> [LINK](#)



Indonesia. When using the results for Part 1 of the Stress Test to estimate possible need, it appears that DTKS coverage, *in principle*, may fully cover the needs for rural and urban households likely to be affected by shocks.<sup>53</sup> The estimations revealed that 12.16 percent of the rural population and 4.26 percent of the urban population were likely to be in need. When assessing the gap between these estimates and the rural and urban populations, DTKS was found to have no gap and fully covered those in need based on these estimates. Indonesia, therefore, received a score of 5 (Established) for rural and urban coverage relative to need. On coverage in disaster-prone areas, the country received a score of 4.

**While disaster prone areas may be broadly covered in the DTKS system, a large share of the population in these areas may not be included.** At the household level, high exclusion errors may signal that the right households do not receive assistance despite being in DTKS and are, therefore, not in receipt of social protection benefits. Despite expanded coverage of PKH, the findings on reduced beneficiary incidence signal that this is a possible challenge. In fact, although the DTKS was, *in principle*, assessed to fully cover those in need based on the results from Part 1 of the Stress Test; when this need is compared to safety net coverage, gaps emerge.

**For instance, based on the estimations, Program Sembako falls short of covering everyone in need by 4 million households, while PKH appears to fall short by 8.2 million households.** It is, however, important to note that while this population may not be the primary target group for these two programs, it is an indicator that the potential need for scaling-out through horizontal expansion in severe post-shock contexts is likely to be large. Finally, identification and targeting for post-disaster social assistance benefits in the past have not relied on DTKS, and the Stress Test has found some limitations with the data collected on their sufficiency for scaling-out during shock times. These would need to be addressed if DTKS or another social registry system is utilized in the future for supporting post-shock horizontal expansion and identification of beneficiaries for post-disaster social assistance benefits. On the DRM side, most of the disaster-prone areas are included in *InaRisk* according to BNPB, however, the completeness of data for indicators in each disaster-prone area varies.

<sup>53</sup> Based on estimates of the share of population and number of people that the safety net needs to be able to expand to as the total of the poverty-induced vulnerability and the covariate-risk\* risk-induced vulnerability from the analysis presented in Part 1. (Stress Test Tool and Guide 2021).



**Areas for improved performance on social registry, include the recency of the data in the registry and whether it is sufficient for post-shock targeting.** Due to DTKS' previous update mechanisms, just over one-half (57.53 percent) of the records in the system are over three years old,<sup>54</sup> resulting in a score of 2 (Nascent) on this metric. Beyond the impact this has on the registry being able to effectively perform its targeting functions for regular social protection programs, this has implications for the system's ability to effectively identify and expand to affected households in post-shock contexts. A dynamic data updating process for local government to update information on existing registrants exists, but performance is mixed in terms of the completeness, timeliness, and quality of data provided. There are efforts to improve these standards and to incentivize local governments. Some of these update processes may be revised under ongoing DTKS reforms.

**Finally, DTKS also received a Nascent score (2) on whether its data allows targeting, identifying, contacting, and paying beneficiaries during shock response.** While DTKS is used by several major social protection programs for beneficiary selection, it has not been systematically used to select beneficiaries for post-disaster benefits. For disaster-affected households already in DTKS, data collected includes name, address, ID number, family card number, and socioeconomic characteristics (Lubis et al. 2021). While the system includes only the bottom 40 percent population, it still has not been leveraged to facilitate rapid expansion to these households in affected areas. Furthermore, DTKS is not yet interoperable with other systems, such as *InaRisk* (Purnamasari et al. 2021). There does not appear to be data sharing with humanitarian partners. BNPB notes that while humanitarian agencies have access to government registry systems, they use their own beneficiary lists both during the emergency response and early recovery. This was also confirmed by the qualitative study on the social protection responses to the Central Sulawesi disaster which noted that several NGOs collected their own data on disaster victims (Lubis et al. 2021).

**In relation to data privacy, it is uncertain if DTKS has all protocols in place to ensure adequate disaster protection for the system and its data in times of shock.** Indonesia received a Nascent score (2) on data privacy, but there are efforts underway to improve performance



## P. 55

on this metric. Notably, data protection is regulated in different laws and regulations,<sup>55</sup> and a draft Personal Data Protection Bill was subsequently ratified in October 2022. The Stress Test Assessment was only able to confirm that DTKS had one of the recommended five mechanisms<sup>56</sup> in place to protect data and information in times of disasters, namely an off-site location in Surabaya.

**55** For example: the Law No. 11/2008 on Electronic Information and Transactions, Law No. 23/2006 on Population Administration and the Ministry of Health Affairs Regulation No. 269/2008 and Law No. 29/ 2004 on Medical Practice which regulate health and medical records. Law No. 27/2022 on Personal Data Protection (PDP Law) establishes responsibilities for processing personal data and rights for individuals, including defining data and entities covered by the law as well as accountability measures.

**56** These mechanisms include: (i) ensuring offline functionality for key business processes for the system such as intake and verification; (ii) establishing a Disaster Recovery and Business Continuity Plan; (iii) identifying a disaster recovery site independent of the principal system site which can be used for post-disaster operations; (iv) establishing back-up registry information off-site and virtually (for example, cloud storage) to mitigate against data losses in post-disaster environments; and (v) ensuring effective communication and training on post-disaster protocols ex ante to system users and staff. This question was added by the Indonesia team for the Stress Test assessment.



BUILDING  
BLOCK

3

## Financing

OVERALL  
SCORE

3.25

T

**he Stress Test rated Indonesia as Established (5) when it comes to having a clear disaster risk financing strategy for a wide range of shocks with supporting legal and financial instruments in place, and that also mentions Adaptive Social Protection.**

A National Disaster Risk Financing and Insurance Strategy, launched in October 2018, aims to protect state finances and the population through sustainable and efficient risk financing mechanisms that meet disaster-related expenditures in a planned and timely manner, and that deliver well-targeted and transparent assistance following shocks (World Bank 2020b).

**The Strategy also includes the piloting of a public asset insurance scheme, developing a dedicated Pooling Fund for Disasters (*Pooling Fund untuk Bencana: PFB*) to manage budgetary allocations for disasters, and strengthen fiscal coordination and transfer mechanisms.** Specifically, the Pooling Fund is expected to help manage disaster-related contingent liabilities. The PFB will collect, accumulate, and distribute special disaster funds and protect against budgetary pressures arising from disasters through proactive efforts which include fund accumulation and risk transfer through insurance (Ministry of Finance 2022). Indonesia also counts on several established mechanisms to finance disaster responses, including: (i) an On-Call Fund (*Dana Siap Pakai*) which provides rapid funding during a declared state of emergency; (ii) the Contingent Fund (*Dana Darurat*); and (iii) the Special Allocation



Fund (*Dana Alokasi Khusus*) which is often used in post-disaster situations for state budget allocation to finance recovery. Several laws and regulations also provide policy oversight and guidance on DRF and budget allocation.<sup>57</sup>

**Indonesia has made progress in ensuring financing and disbursement mechanisms for social protection responses to climate shocks, with room for improved timeliness.** Social assistance for disaster victims is subject to budgetary allocations for several technical ministries. This process has some challenges. For instance, while PSKBA at MoSA is tasked with preparing an annual budget projection for social assistance for disaster victims, these projected figures are often not enough to respond to actual needs and have been experiencing increases each year (Lubis et al. 2021). There are currently five different and overlapping budget procedures for disaster-related expenditures. The budget process is also denoted by slow disbursement and limited flexibility.

**There are notable developments that should help address outstanding issues—importantly, the government has established the PFB to help ensure sufficient and well-planned funding for disaster-related expenditures, including health-related and natural disasters.** The PFB will help protect the state budget against pressures caused by disaster impacts, through fund accumulation and risk transfer mechanisms. It is expected to improve the government's risk layering and financial protection during future shocks. A noteworthy aspect of the pooling fund is that it will be linked to the social protection system to facilitate faster social assistance payments for disaster victims, through possible pre-arranged disbursement channels and linking them to financial solutions to help funds reach the right beneficiaries. The ASP Roadmap is also expected to address ASP financing challenges, particularly related to improving mechanisms for rapid financing for social protection shock response scale-up. On these metrics, the Stress Test found that Indonesia performs at an Emerging level.

**The government's ability to analyze and model the potential cost implications of different shocks over time was found to be operating at a Nascent level (2).** Prior assessments have noted that there has been progress, however, there is currently no centralized planning for disaster-related spending and government primarily

<sup>57</sup> These include: (i) Law No. 24/2007 that requires the government to allocate an adequate fund for disaster management in the State Budget, as well as allocate the On-Call Fund in the budget; (ii) Government Regulation No. 21/2008 that regulates budget allocations and reallocations to finance disaster related expenditures; (iii) Regulation No. 22/2008 on Disaster Financing and Aid Management; and (iv) Law No. 33/2004 on Fiscal Balance Between the State and Subnational Governments.





relies on the national budget and international assistance to cover disaster losses (World Bank 2020b). In addition, consolidated information on disaster spending, and information on spending on disasters, is spread across the 542 separate budgetary systems with split oversight by MoF and MoHA.

BUILDING  
BLOCK

4

## Institutions & Partnerships

OVERALL  
SCORE

3.25

### 6 Government Leadership

SCORE 3.00

**58** There is: (i) direct conditional cash assistance for the poor affected by disaster; (ii) disaster aid distributed for schools affected by natural/social disasters; (iii) support for social recovery of disaster-affected economies; (iv) an increase in mitigation capacity and community preparedness in the disaster-prone area and for victims/communities of disasters; (v) social protection for communities in disaster-prone areas and disaster-affected communities; and (vi) Increased economic capacity and livelihoods for affected communities (Indonesia National Disaster Management Plan 2020-2024, pp 170-171).



**I**ndonesia performs at an Emerging level on ensuring government strategy, contingency planning, and effective leadership of social protection responses. A strong point of the system is that updated strategies and policies exist, with some recognition of the role of ASP in DRM (and vice versa). Notably, laws governing social protection and DRM in Indonesia clearly articulate the right to ensuring basic needs are met and to guaranteeing social protection to the population and disaster victims. For example, Article 26, Section 1, Point A of Disaster Management Law No. 24 /2007 states that “everyone has the right to social protection and security, especially for disaster-prone community groups.” Social protection laws also mention the rights of those affected by shocks, with Article 14, Section 1 of Law No. 11/2009 stating that “social protection is intended to prevent and reduce the risk of shocks and social vulnerability of a person, family, group, and/or community so that their basic needs can be fulfilled.” ASP is stated as a priority focus and action area under the National Disaster Management Plan 2020-2024, which also includes indicators to track progress.<sup>58</sup> The National Disaster Risk Finance and Insurance Strategy 2018 also recognises the role of ASP in DRM, particularly related to the pooling fund.

**One area for further consideration is improving the alignment of Social Protection and DRM laws.** On contingency planning and links to risk assessment, contingency arrangements are to some extent covered in policy and frameworks, however, they are not adequate. There is no single contingency plan or response plan, but several including the 2018 NDRF. All cities and regencies are expected to have updated risk assessment and contingency planning for each relevant hazard at the district level and hazard-specific contingency plans in high-priority districts, however, according to BNPB, more than 50 percent of districts do not have a contingency plan. Finally, improved contingency arrangements for PKH could be achieved with the completion and operationalization of emergency response guidelines that are planned to be developed. While there is clear guidance on inter-agency post-shock coordination, previous assessments have noted challenges with on-the-ground coordination arrangements (Lubis et al. 2021).

**"MoSA has a clear role in the National Disaster Management Plan 2020-2024 to plan for the needs of displaced persons and volunteers"**

**7 Institutional Arrangements**

SCORE **3.5**

**Institutional arrangements received the second highest score on the Stress Test for Indonesia.** This is a credit to the country’s clear assignment of responsibilities and roles for the main shock types and fair performance on coordination mechanisms linking DRM and social protection responses

to climate and other shocks. Notably, BNPB has a clear leadership role to oversee and coordinate disaster management activities at all stages of the DRM cycle and this is supported in law. BNPB provides guidance on disaster management, ensures communications with stakeholders, and coordinates disaster management activities. In addition, BPBDs have been established in all 34 provinces and most of Indonesia’s 514 districts and cities.

**MoSA has a clear role in the National Disaster Management Plan 2020-2024 to plan for the needs of displaced persons and volunteers, including preparing community social protection instruments for those affected by disasters that also facilitate**



**community social resilience.** A Disaster Management Steering Committee chaired by BNPB comprises 19 members including ten Echelon I government officials or equivalent, including MoSA. Indonesia also has seven National Disaster Response Task Forces (DRTFs), one of which is a Displacement and Protection DRTF, coordinated by MoSA and whose key function is to coordinate the delivery of emergency food, temporary shelter, and emergency assistance to families.<sup>59</sup>

**In the area of coordination arrangements, further consideration could be given to the overlap of roles within the local Social Affairs Offices (*Dinas Sosial: Dinsos*) and BPBD—including in the provision of basic assistance and shelter.** For instance, program rules specify that house renovation assistance should be provided by two institutions: MoSA and BPBD (in cooperation with MoPWPH). A further area of misalignment is that the established benefit amounts by MoSA and BPBD differ according to their program regulations. Various agencies also implement their own assessment of disaster victims with limited coordination, as was the case for the Central Sulawesi disaster.

<sup>59</sup> National Disaster Risk Framework. 2018.



# 05

P.60–40

## Conclusions & Recommended Priorities for Government Action

### *Concluding Observations:*

**T**his paper has provided an outline of how climate change, human development, and poverty interact and are mutually reinforcing. Evidence from numerous studies has demonstrated the debilitating impacts that climate risk has on poverty and human capital accumulation. These include asset losses, loss of livelihoods and income sources, consumption impacts, undernourishment, stunting, strain on non-food expenditures including on health and education, risks of infectious disease, and vector-borne infections, to name a few. Conversely, households less vulnerable to poverty and with higher human capital can better withstand the impacts of climate shocks and climate risks than poor households and those with less human capital. The evidence reinforces the importance of placing people at the center of climate policy and ensuring that integrated climate change adaptation and mitigation efforts are deliberately combined with climate-sensitive poverty reduction and human capital development policies.



**Social protection is an important interlocutor for addressing climate risk, poverty and improving human capital and, in recent years, Indonesia has made considerable progress in the development of its social protection system and leveraging its social protection programs and services to reduce poverty, improve human capital, and respond to the vulnerabilities caused by climate risk.** Notable achievements include: (i) expansion of PKH to cover 10 million households; (ii) establishment of a social registry (DTKS) for the bottom 40 percent by welfare that covers 29 million households; (iii) provision of a suite of core, poverty-targeted social assistance programs; (iv) a suite of post-shock social assistance benefits; and (v) introduction of interventions to improve socioeconomic empowerment and economic inclusion among social assistance beneficiaries. Evaluations of Indonesia's CCT have revealed important human capital outcomes among beneficiaries in health and education, and recent analysis has shown that these positive behaviors are sustained by those who graduate from the program after their exit (Syamsulhakim and Khadijah 2021). The program has also been found to have a positive effect on deforestation in villages where households participate in the program (Ferraro and Simorangkir 2020). This signals strong potential for the country's social protection system to better support climate change adaptation and mitigation efforts—particularly among the poorest and most vulnerable households.

**"To build on its achievements, Indonesia's social protection system could expand to cover a larger share of those in need"**

**Addressing lingering gaps to effectiveness will enhance the social protection system's ability to effectively build adaptive capacity of the poorest and most vulnerable, and to sufficiently prepare for, and respond to, the impacts of climate shocks.** To build on its achievements, Indonesia's social protection system could expand to cover a larger share of those in need. Recent analyses have found that exclusion errors are high, with none of the main social assistance programs covering more than 60 percent of the poorest 10 percent of the eligible population and, while PKH coverage has expanded significantly in recent years, it has been accompanied by reduced beneficiary incidence among the poorest 20 percent.

**Many poor households without children and other vulnerable categories of beneficiaries are not eligible for several of the core poverty-targeted social assistance benefits.** Results from



Part 1 of the Stress Test illustrate that, based on current coverage of PKH and *Program Sembako*, there will be significant need for horizontal expansion to include everyone in need due to risk-induced vulnerability caused by covariate shocks. There are also issues with coverage of near-poor and informal sector workers who are at risk of falling into poverty due to climate shocks and longer-term climate change impacts. This implies that the need for scaling-out through horizontal expansion in the post-shock response is large, as many in need do not receive the main poverty-targeted social assistance household benefits and are also not be covered by contributory social protection programs. Beyond coverage, gaps with linkages to, and scale of, economic inclusion shows there is room to improve efforts to strengthen resilience of social assistance beneficiaries.

**"There are also issues with coverage of near-poor and informal sector workers who are at risk of falling into poverty due to climate shocks and longer-term climate change impacts"**

**The application of the ASP Stress Test for Indonesia has recognized that progress and highlighted the gaps to ensuring performance at an established level.** It has found that Indonesia is operating at an EMERGING level for most metrics. On a scale ranging from 1 (Latent) to 5 (Advanced), the country scored 3.26 overall which corresponds to an EMERGING level. Each building block also averaged scores in the Emerging level, ranging from 3.08 to 3.47 (see Table 4.1). When disaggregated further, a similar picture emerged, with little variation across variables. The building block areas that performed comparatively better included **PROGRAMS** and **PAYMENT SYSTEMS**, while **SOCIAL REGISTRIES** was the only category with a Nascent score of 2.9. The results confirm previous findings that the country has made considerable advancements in the development of its social protection system, and its adaptability to climate and other shocks, with several areas for ensuring improved effectiveness, preparedness, and responsiveness.

**It is important to acknowledge that while the scores present a static view of the country's performance on social protection system adaptability, there are considerable reforms underway, particularly at the policy level, which are not yet fully operational, but will likely facilitate improved performance on many of these metrics.** A major development in this regard is the creation of a PFB that will improve performance under the Finance building block through direct linkages to support ASP objectives, thereby helping to protect the state budget against pressure due to disasters and



improving the government's risk layering and financial protection in the event of future shocks. Additionally, following the application of the Stress Test there have been efforts to improve the coverage and timeliness of data for social registry purposes, including national socioeconomic registration (Regsosek) to support the government's plan to build a population-wide social registry; and leveraging BKKBN and DTKS data to target extreme poverty programs for the Acceleration of Extreme Poverty Alleviation (P3KE).

**On the social protection policy front, Bappenas is finalizing an ASP Roadmap that and its associated regulations which will recommend integration of social protection and climate change action and provide a guide for leveraging social protection to address risks from natural and climate-related hazards, particularly for poor and vulnerable populations.**

### 3.1 Recommendations to Support Improved Climate Resilience

**T**

**his report and the specific findings of the ASP Stress Test have identified areas of focus that the Gol may wish to prioritize to enhance the performance of its social protection system and, by extension, human capital for improved climate resilience outcomes.** This section outlines possible areas of focus

that have been prioritized based on the scores emerging from the ASP Stress Test and major gaps to social protection effectiveness. The report also proposes recommendations for education and health, recognizing the importance of deliberately pairing targeted climate resilience measures with interventions to build human capital.

**1**

**Close remaining social protection coverage gaps to ensure poor and vulnerable people are adequately protected by social protection benefits and services for improved climate resilience and adaptive capacity, including expansion of social insurance coverage to mitigate the impact of idiosyncratic shocks such as job loss or health shocks, and closing social assistance coverage**



**gaps where they persist.** Rationale: Gaps in social assistance and social insurance program coverage illustrate that the burden on the social protection system for horizontal expansion during large covariate shocks is likely to be high. These coverage gaps mainly apply to existing poor who currently do not receive core social assistance benefits. Furthermore, to the extent that those facing risk-induced vulnerability to covariate shocks can be supported by benefits and services for which they are eligible, this will help build their human capital and resilience to future shocks. Part 2 of the Stress Test also found that while post-shock payments can be made with little delay for those already enrolled in social protection programs; enrollment and payment of new beneficiaries in the post-shock response face significant delays and the process is complicated by fractured mechanisms to assess and enroll these beneficiaries. The Gol efforts to increase coverage of SJSN employment programs are a critical element of broader risk management, and thus also can play an important role in the context of climate change.

## 2

**Improve direct activities in social protection programs and linkages to other sector programs to build adaptive capacity of beneficiary households.** Rationale: A major finding of this report is that there are few systematized approaches evident in existing social assistance programs that include deliberate interventions or complementary program linkages to improve climate resilience among beneficiaries. In addition, although there are resilience-building interventions offered by some core programs—particularly PKH through FDS sessions, and economic inclusion for social assistance beneficiaries through PENA and other programs—their focus has not yet included climate adaptation and resilience as priorities.

**A Scale up education and information on climate change and shock preparedness to social protection beneficiaries.** Completing and rolling out an FDS session on disaster preparedness for social assistance beneficiaries would be a ‘quick win’ in this regard, particularly if it is complemented with additional messaging on climate adaptation geared towards the poor. This should also be complemented with broader communications efforts to other social assistance beneficiaries and poor households. In this regard, a family-based training module on integrating disaster-risk reduction,





child protection, and family-based social protection programs, developed by PSKBA, BNPB, and Save the Children will also have an important role to play.

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- B Ensure programs (especially CfW and housing-related social assistance benefits) have direct adaptation and resilience-informed design.** To the extent that the government is already investing in housing-related social assistance, it would be important to assess whether these interventions (particularly for permanent housing) include appropriate disaster-resilient design, clean energy, and sustainable utility usage. This would, of course, require multi-sector engagement in program design and supervision. CfW is perhaps the social protection program type most used to support climate resilience and disaster response in several countries. Leveraging CfW more deliberately in support of these objectives in Indonesia has immense potential for improving both household and community resilience. This could be facilitated through deliberately prioritizing mitigation subprojects at the community level (for example, mangrove restoration and forest replanting), complementing housing benefits with clean energy solutions; and deploying CfW more readily to disaster-affected households to support recovery.
- 
- C Improve links and access to complementary benefits and assistance offered by other ministries and agencies for which social assistance beneficiaries could be prioritized.** Although climate policy is not a primary focus of social protection, the sector can play an important intermediary role in linking poor households to benefits, services, information, and training aimed at improving climate resilience—similar to how CCTs have successfully helped the education and health sectors achieve improved outcomes among the poorest. Some potential linkages include improving those to training, credit, and grants that encourage livelihood diversification, sustainable livelihoods, and green jobs; inputs for climate-smart agriculture; and climate-resilient housing support offered by the housing sector. In addition, as government seeks to reduce GHG emissions, social assistance beneficiaries whose livelihoods rely on these sectors could be specifically targeted for compensatory benefits and support to use alternative energy sources.



## 3

**Improve and pre-position social registry systems for shock response and to support climate policy.** It would be important for Indonesia to: (i) improve the dynamism and quality of regular data updating of systems to support targeting (including DTKS), and ensuring such principles are foundational in any future registry systems; (ii) expand social registry coverage of the population in both poor and disaster-prone areas (such as was done through nationwide socioeconomic registration (i.e. Regsosek)); (iii) ensure that the data collected is useful for responding in case of a shock; (iv) facilitate improved access to social registry data by humanitarian agencies in shock times; and (v) improve data privacy of social protection systems. In addition, it would be important for Government to complete a planned disaster victim's database and streamline processes for integration and data sharing of post-disaster assessment data to affected households. Optimally, all these actions could be linked to the future development of an Integrated Social Protection Information System, which could leverage shared digital public infrastructure to create end-to-end, digitalized processes supported by data exchange across existing government administrative databases. Such a model could facilitate dynamic data updates for eligibility determination; integrated view of benefit and services delivery for monitoring purposes; and more on-demand access to the population for social protection benefits and services. While it is unclear if adequate disaster protection mechanisms are in place, these should be ensured for all registry systems. The measures include: (i) ensuring offline functionality for the system's business processes; (ii) establishing a disaster recovery and business continuity plan; (iii) identifying a disaster recovery site independent of the principal system site that can be used for post-disaster operations; (iv) establishing a back-up registry information off-site and virtually (for example, cloud storage) to mitigate against data losses in post-disaster environments; and (v) ensuring effective communication and training on post-disaster protocols ex ante to system users and staff. Finally, as Indonesia pursues climate policies to facilitate reduced carbon emissions, which could include subsidy reforms, social registries could have a critical role to play in helping to identify potentially affected households whose livelihoods and incomes will need to be protected during the transition. Rationale: Indonesia's Stress Test scores on social registry require a dedicated focus to improve the use of these systems for climate resilience



goals. Despite covering the bottom 40 percent of the population, DTKS has not systematically been used to identify and target households in past climate shocks. Shortcomings to data updates may be addressed by ongoing DTKS reform efforts but require deeper assessment to know if they include adequate information for targeting in shock times.

# 4

**Improve mechanisms for faster horizontal expansion and delivery of post-disaster social assistance benefits.** Rationale: A key finding of the Stress Test was the delays experienced in identifying, enrolling, and delivering benefits to previously unenrolled households in post-shock times, particularly those caused by large-scale natural hazards. Even delivery of post-disaster social assistance benefits took much longer than the maximum timeframes set out in their regulations. In addition, the scale of horizontal expansion need is likely to be high given coverage gaps and data shortcomings in existing registry systems. It would, therefore, be imperative for the government to consider possible options for improving timeliness in this regard. Some options include:

- A **Expand social registry coverage to a larger share of the population** (*see related recommendation above*);
- B **Leverage technology more effectively for identification of non-beneficiary households in affected areas;**
- C **Establish an integrated PDHA process that is deployed rapidly, linked to social protection and other relevant information systems, and whose data is shared across agencies to identify eligible households for post-shock benefits;**
- D **Simplify business processes related to determining eligibility for support;** and
- E **Include horizontal expansion in ex ante estimations of need and link the initiation of business processes for horizontal expansion to established triggers** (*see related recommendation below*).





# 5

## **Improve gender-sensitivity and attention to vulnerable groups in post-shock social protection operations.**

Possible measures include: (i) improve assessment and information sharing on affected households with vulnerable categories; (ii) ensure direct messaging to women in affected households; (iii) explore the feasibility of providing post-disaster benefits directly to women, people with disability and the elderly to improve their agency and/or ensuring measures to monitor and respond to their needs; and (iv) ensure that temporary shelter support includes more effective measures to prevent GBV and ensure accessibility. Rationale: A main finding of the Stress Test was that social protection shock responses were not deliberately designed to ensure gender sensitivity and inclusion of particular vulnerable groups, such as people with disability and the elderly. It would, therefore, be important to address this, particularly in post-disaster social assistance benefits.



6

**Develop an integrated tool to quantify post-shock needs and estimate optimal post-shock benefit levels and explore opportunities to link EWS data more systematically with social protection scale-up planning.** This would optimally be complemented with establishing triggers for social protection scale-up linked to EWS that could facilitate automatic scale-up depending on established metrics. These could be importantly informative to the PFB. Such systems will help make Indonesia's social protection system more prepared and better able to rapidly respond to the poorest in times of shocks. Rationale: A key finding of the Stress Test was that post-disaster financial planning for social protection was largely based on a retrospective view of previous year's costs. Better ex ante quantification of potential post-shock social protection needs could help improve this process.

7

**Complete ongoing and planned ASP-related reforms for improved performance.** Rationale: This report has flagged numerous important reforms currently planned or underway that will likely improve adaptability. A 'quick win' on this agenda would be for these reforms to be completed and operationalized as soon as possible, with effective measures in place for routine monitoring and adjustments as needed. These include the PFB and ASP Roadmap.

8

**Strengthen operational processes to improve communications on disaster preparedness to poor and vulnerable households.** These efforts should also include messaging to help ensure thorough understanding of post-shock assessment and enrollment processes, and adaptations to program design in emergencies. These communications efforts should also extend to informing beneficiaries and the public on grievance redress in post-shock response.

9

**Continue to build on progress with electronic payment delivery and facilitate broader choice among payment mechanisms, particularly for the post-shock response.** Expanded choice would ensure more beneficiary-responsive payment modalities and provide beneficiaries with options that are more relevant to their needs, particular in post-shock contexts. Additionally, it would be important for Government to address the gaps that result in payment delays during shock times for both regular social protection benefits and emergency transfers. Related ongoing efforts include the plan to develop a Central Mapper for G2P payments, essentially a repository



of unique individuals linked to a particular payment information (such as bank account) for the purpose of routing payment transactions, would improve monitoring, accountability, and speed of payments. This would optimally be supported by and linked to an integrated beneficiary database that facilitates onboarding and monitoring for social programs. Rationale: While Indonesia has done well to rely on electronic and banking payment mechanisms for most regular and post-shock social protection benefits, these often feature reliance on a single payment mechanism with limited flexibility for adjustment. This has implications for post-disaster environments, particularly since payment delivery systems are often interrupted during shocks. Enabling broader choice and back-up payment delivery arrangements, with appropriate fiduciary controls, will help government be better able to avoid payment delays in large-scale climate shocks.



**Reduce lingering misalignment and overlap of roles between Social Protection and DRM agencies, both in program regulation, and operationally on-the-ground.** Rationale: While Indonesia performs well on several institutional metrics in the Stress Test, this is complicated by lingering misalignment and coordination challenges between Social Protection and DRM agencies. Notably, the Stress Test found an overlap of roles between local Dinsos and BPBD—including in the provision of basic assistance and shelter—and misalignment in the established benefit amounts provided by MoSA and BPBD according to their program regulations.

**Although the focus of this paper is social protection, it is equally important to ensure continued investments in education and health to support climate resilience objectives for a comprehensive and integrated human capital approach to addressing climate risk.** As noted previously, climate change, human development, and poverty interact and are mutually reinforcing and require deliberate and integrated strategies. Although the recommendations in this paper have focused on social protection, it would be equally important for the Gol to invest in deliberate education and health investments to mitigate potential sectoral impacts and to build human capital for improved resilience to climate change impacts. These could include:

- A **Protect social infrastructure in health and education to ensure business continuity in the face of shocks;**
- B **Continue to give priority to stunting reduction given the possible climate change impacts on stunting; and**
- C **Facilitate improved education completion outcomes, particularly length of schooling, given previous study findings that those with higher education attainment are better able to withstand the impacts of shocks.**



# Appendix

## Programs Included in the Adaptive Social Protection Stress Test<sup>59</sup>

| Program Name  | Program Type/Brief Description   | Responsible Ministry/ Agency            |
|---|--|---|
| Regular / Foundational SA Programs  |  |   |
| <b>ASLUT: Asistensi Sosial Lanjut Usia Terlantar</b> (Social Assistance for the Elderly)                                    | Cash transfer to poor elderly, 60 years of age and above, with a physical condition that makes them reliant on other people, have no other source of income, and are not PKH recipients.           | MoSA                                    |
| <b>ASPDB: Asistensi Sosial Penyandang Disabilitas Berat</b> (Assistance for Persons with Severe Disability)                 | Cash transfer to people 2 to 59 years of age who are unable to fulfil personal needs, have no other source of income, cannot be fully rehabilitated, and require assistance to perform activities. | MoSA                                    |
| <b>BPNT/PROGRAM SEMBAKO: Bantuan Pangan Non Tunai/Sembako</b> (Non-Cash Food Assistance)                                    | Food voucher social assistance for poor families in the poorest 25% of households included in the DTKS social registry.  | MoSA                                    |
| <b>PBI-JKN: Penerima Bantuan Iuran - Jaminan Kesehatan Nasional</b> (Contribution Assistance for National Health Insurance) | Subsidized health insurance premiums for poor and vulnerable households, and free use of all available health care services and facilities.  | Ministry of Health, BPJS Kesehatan      |
| <b>PIP: Program Indonesia Pintar</b> (Smart Indonesia Card)   | Cash transfer to enrolled students or school-age children from the poorest 25% of households.  | MoECRT<br>Ministry of Religious Affairs |
| <b>PKH: Program Keluarga Harapan</b> (Family Hope Program)  | Flagship conditional cash transfer to poor households in the poorest 20% of households included in the DTKS social registry.   | MoSA                                    |
| <b>PKT: Padat Karya Tunai</b> (Cash-for-Work)   | Cash-for-work social assistance – operated by various ministries.  | MoV<br>MoM<br>MoPWPH                    |
| <b>PROKUS: Program Kewirausahaan Sosial</b> (Social Entrepreneurship Program) <sup>60</sup>                                 | Grants and mentoring to PKH beneficiaries and other poor and vulnerable individuals.   | MoSA                                    |
| <b>RS-RUTILAHU: Rehabilitasi Sosial Rumah Tidak Layak Huni</b> (Social Rehabilitation of Uninhabitable Houses)              | Cash transfer to poor households that aims to improve the quality of their housing through repair and/or rehabilitation.   | MoSA                                    |

<sup>60</sup> The Stress Test primarily focused on social assistance programs. Social Insurance and labor market programs were also considered, although not assessed in detail and are, therefore, not included in this summary list.





| Program Name  | Program Type/Brief Description   | Responsible Ministry/ Agency |
|---|--|------------------------------|
| <b>Emergency Social Assistance Programs</b>   |  |                              |
| Emergency Assistance ( <i>Bantuan Isi Huntara dan Huntap</i> )  | Emergency in-kind assistance, including evacuation equipment, household items, and necessities.  | MoSA                         |
| Compensation for heirs of disaster victims  | Emergency cash transfer.   | MoSA                         |
| Housing Stimulus Assistance Program ( <i>Bantuan Stimulan Perumahan Swadaya</i> )                     | Cash assistance, often complemented with cash-for-work, to help improve the quality of uninhabitable houses  | MoPWP                        |
| Huntara: Assistance for temporary shelter   | In-kind assistance for housing renovation and temporary shelter.   | BNPB                         |
| Huntap: Assistance for permanent housing  | In-kind assistance for permanent housing.  | BNPB                         |
| Jadup: <i>Jaminan Hidup</i> (Living Support Assistance)   | Emergency cash transfer.   | MoSA                         |
| <b>COVID-19 Social Protection Response Programs</b>   |  |                              |
| <b>BST: <i>Bantuan Sosial Tunai</i></b> (Cash Social Assistance)                                      | Unconditional cash transfer for households listed in DTKS, but who were not receiving any existing benefits.   | MoSA                         |
| <b>BLT-DANA DESA: <i>Bantuan Langsung Tunai - Dana Desa</i></b> (Village Fund Direct Cash Assistance) | Unconditional cash transfer targeting rural households affected by COVID-19 who were not covered by <i>Program Sembako</i> , PKH, BST, and <i>PraKerja</i> programs at the time. | MoV (Village Fund/Dana Desa) |
| <b>KARTU PRAKERJA: Pre-Employment Card</b>  | Cash transfer plus training targeting jobseekers, 18 years of age or older, and not in formal education nor receiving PKH, <i>Program Sembako</i> , or BST at the time.          | CMEA                         |



## P. 75      **References**

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