

Adaptive Social Protection in the Context of Natural and Climate-Related Risks

Concept Note

Prepared by ASP Expert Team within the GIZ Social Protection Programme

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List of Abbreviations

ASP	Adaptive Social Protection
BBB	Build Back Better
BMZ	German Federal Ministry for Economic Cooperation and Development
CCA	Climate Change Adaptation
COP	Conference of the Parties
DRFI	Disaster Risk Financing and Insurance
DRM	Disaster Risk Management
DRR	Disaster Risk Reduction
DSWD	Department for Social Welfare and Development
EbA	Ecosystem-based Adaptation
GAP	Gender Action Plan
GFDRR	Global Facility for Disaster Reduction and Recovery
GIZ	Deutsche Gesellschaft für Internationale Zusammenarbeit GmbH
HEVAs	Hazard, exposure and vulnerability assessments
LNOB	Leave no one behind
MCII	Munich Climate Insurance Initiative
M&E	Monitoring and Evaluation
MIS	Management Information Systems
MoF	Ministry of Finance
MSMEs	Micro, small and medium-size enterprises
NAP	National Adaptation Plan
NSSP	National Social Protection Policy
RAN-API	National Action Plan for Climate Change Adaptation
RPJMN	National Medium-Term Development Plan 2020–2024
ODI	Overseas Development Institute
SDG	Sustainable Development Goal
SFDRR	Sendai Framework for Disaster Risk Reduction
SIKS-NG	Social Welfare Information System – Next Generation
SP	Social Protection
SPF	Social Protection Floors
SPIAC-B	Social Protection Interagency Coordination Board
SPP	Social Protection Programme
UDB	Unified Data Base
UNDRR	United Nations Office for Disaster Risk Reduction

UNDP	United Nations Development Programme
UNEP	United Nations Environment Programme
UNFCC	United Nations Framework Convention on Climate Change
UNICEF	United Nations Children's Fund
UNU-EHS	United Nations University – Institute for Environment and Human Security
USP	Universal Social Protection
VSL	Village Savings and Loans
WFP	World Food Programme

1. Background

Worldwide, climate and extreme weather events as well as other natural hazards, such as earthquakes and volcanic eruptions, have severe adverse effects on people, economies and the environment. The direct impacts of disasters, such as loss of life, damage to productive assets, and disruption and destruction of infrastructure, are usually the most direct and visible. However, the indirect long-term impacts on peoples' well-being are often more severe, as they can pose life-threatening challenges and reverse development gains. The poorest groups are often the most heavily affected, as they are generally more vulnerable when exposed to natural hazards. Therefore, developing countries and emerging economies are particularly confronted with challenges arising from natural and climate-related disaster risks.

Indonesia is one of the world's most disaster-prone countries, being at risk due to both natural hazards and those linked to extreme weather events, the latter likely to be exacerbated in future decades through climate change. With over 60% of Indonesia's 7,024 districts located in the Pacific Ocean's Ring of Fire and currently 127 active volcanoes, the country faces high seismic, tsunami and volcanic risks. Many areas are also highly exposed to flooding¹. Other important hazards include wildfires, landslides and droughts. Over the past 30 years, natural hazards have triggered an average of 289 significant disasters annually in the country².

High disaster risk manifests itself in severe negative effects on the lives, livelihoods and assets of the population. During the period 2005–2013, disasters caused 1,760 fatalities, 26,000 injuries, and the destruction of around 67,000 houses on average³. Besides, disasters have increased transitory poverty and pushed many people back into poverty. This is often related to negative coping strategies to overcome disaster impacts, such as selling productive assets, reducing basic food consumption levels, and making other harmful choices related to health, education and the environment. Although providing some degree of relief in the short-term, those strategies may have harmful effects on peoples' livelihoods and well-being in the longer term, making it particularly hard for both the poor and near-poor to recover between increasingly frequent disasters⁴.

Negative coping strategies are not limited to the level of individuals and groups, but also apply to state-level response mechanisms. Countries facing disasters are often forced to divert finance for longer-term development into short-term disaster response measures, thus undermining sustainable development. This type of reactive crisis response puts a high burden on public sector resources. Over the last 30 years, the government has spent on average USD 300 to 500 million annually on post-disaster reconstruction. Recovery costs during major disaster years reach 0.3% of national GDP⁵ but are significantly higher at the subnational level. The country has also suffered severe economic losses through the direct impacts of disasters. Over the last 15 years, earthquakes, wildfires, floods and tsunamis have caused losses of around USD 16.8 billion. About half of the average annual losses may be attributed to natural disasters (earthquakes, tsunamis and volcanic eruptions) while the other half resulted from extreme weather and climate-related events (cf. Figure 1).

¹ World Bank (2019)

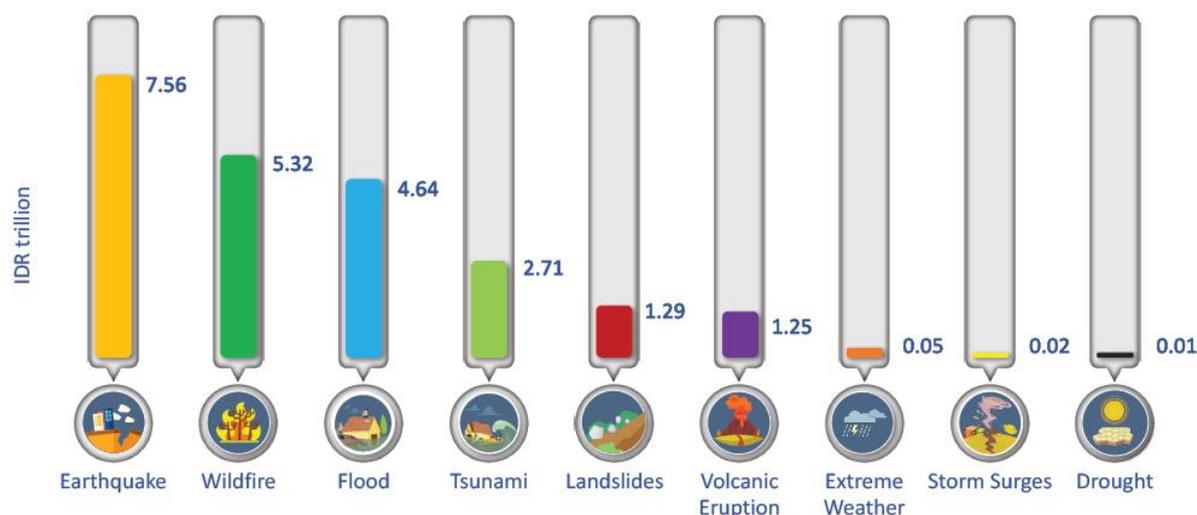
² GFDRR (2019)

³ UNDRR (2015)

⁴ World Bank (2013); Hallegatte et al (2016)

⁵ GFDRR (2019)

Figure 1: Annual average economic loss by disaster type in Indonesia 2000–2016



Source: Ministry of Finance Indonesia (internal, 2018).

Climate change increases the frequency, intensity and duration of extreme weather events and climate-related hazards with increasingly negative impacts on Indonesia’s people and economy. The impacts of climate change are already being felt, predominantly in the context of hydro-meteorological hazards, namely more frequent and severe floods, droughts, and landslides. Heat waves are another extreme, potentially exacerbated by climate change. Rising sea levels and changing weather patterns due to climate change may also lead to increased uncertainty in water availability and additional challenges in food production as well as disruptions in transportation systems and other critical infrastructure. Ultimately, the country’s social and economic development is at risk, affecting both rural populations and the growing number of urban inhabitants⁶.

In order to tackle the risks caused by natural and climate-related hazards and their consequences, the Indonesian government has adopted a series of strategies and plans, such as the National Action Plan for Climate Change Adaptation (RAN-API) and the National Disaster Management Plan (Renas PB). Recently, new social protection programmes that address the risks of poor and near-poor groups in the event of a disaster, such as Jaminan Hidup, have emerged.

Despite these efforts, existing sector strategies do not necessarily address the specific needs of poor and near-poor households comprehensively. Currently, out of a population of around 270.2 million about 26.42 million Indonesians live below the poverty line⁷. Consequently, poor and near-poor households tend to become poorer or fall back into poverty in the event of disasters. Given appropriately designed sector strategies, these households could be stabilized through, among other things, disaster risk reduction measures and social programmes that tackle risks before, during and after disasters, i.e. throughout the disaster risk management cycle.

In Indonesia, many different stakeholders are engaged in the social protection (SP), disaster risk management (DRM) and climate change adaptation (CCA) sectors, with policies, strategies and intervention mechanisms that do not yet sufficiently interact. Consequently, they do not yet address vulnerability and exposure to disaster risk in a coherent and coordinated

⁶ MoFA (2018)

⁷ World Bank (2020)

manner. One promising approach is Adaptive Social Protection (ASP), which aims to overcome stand-alone approaches and to better align and coordinate different social protection interventions in the context of natural and climate-related risks. This approach has been recognized by the Indonesian government, which has incorporated ASP into its National Medium-Term Development Plan 2020–2024 (RPJMN).

2. What is Adaptive Social Protection?

Social protection refers to a set of policies and programmes aimed at preventing or protecting people against poverty, vulnerability, and social exclusion throughout their lifecycles, with a particular emphasis towards vulnerable groups⁸. Social protection aims to reduce poverty and vulnerability and diminishing people's exposure to risks, and enhancing their capacity to protect themselves against hazards and interruption or loss of income⁹. In Indonesia, important natural hazards persist, while the cumulative impacts of climate change are increasing the severity and complexity of individual and collective risks. Consequently, a more integrated and comprehensive approach is needed. **Adaptive Social Protection** can help diverse stakeholders to tackle these challenges.

ASP embraces key elements of the SP, DRM and CCA sectors and builds on their interfaces. It aims to integrate the relevant policies, strategies, programmes, and mechanisms of these key sectors in a comprehensive approach. ASP aims to reinforce peoples' resilience to multiple covariate risks induced by natural and climate-related hazards. In the long run, ASP can contribute to human well-being by empowering individuals, households, and communities (including small entrepreneurs), enabling them to protect their lives, to maintain their quality of life, and to build better lives before and after disasters occur.

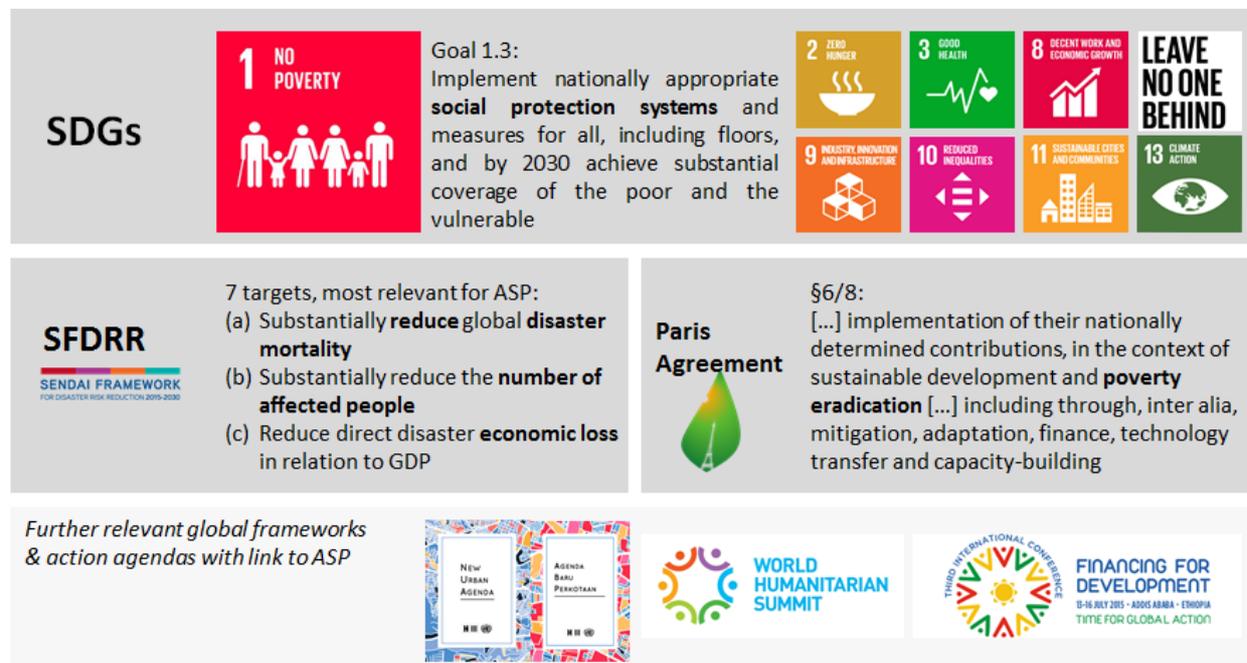
The rationale behind the ASP concept is to help individuals, households and communities living in areas exposed to disasters to adapt their lives and livelihoods to these conditions (adaptive capacity), to manage potential risks (ex-ante anticipatory capacity), and to cope with their negative impacts (ex-post absorptive capacity) by combining key concepts and instruments of SP, DRM and CCA. Those capacities can ultimately help to strengthen the resilience of individuals, households, and communities to deal with the adverse impacts of disasters and other shocks.

The need for an integrated approach such as ASP to meaningfully tackle current and future global challenges is also reflected in a range of international agreements adopted over recent years. These include, but are not limited to, the Sustainable Development Goals (SDGs), adopted by the United Nations in 2015, the Sendai Framework for Disaster Risk Reduction 2015–2030 (SFDRR), the Paris Agreement of 2016 and the outcomes of the World Humanitarian Summit of the same year (cf. Figure 2).

⁸ ISPA (2016)

⁹ Ortiz (2001)

Figure 2: ASP links to global agendas and frameworks



Source: Diverse sources.

3. The added value of ASP

More integrated and concerted government strategies and policies can help to realize synergies between SP, DRM and CCA sectors, maximize the effectiveness and efficiency of public service delivery and public spending for avoiding negative effects across sectors. This integrated approach aims to create scalable systems that can effectively support hazard-affected people before, during or after shocks happen, protect people from diverse risks and transform their livelihoods while increasing the efficiency and effectiveness of social protection interventions. Hence, ASP contributes to reducing poverty caused by natural and climate-related hazards. More specifically, ASP can provide the following benefits:

- **Increased efficiency and effectiveness of sectoral programmes:** By linking SP, DRM and CCA as key sectors, ASP has the potential to jointly achieve the common goals of each of these sectors in a coherent approach, using existing capacities and facilitating mutual benefits between them while reducing duplications and conflicting interventions and utilizing scarce human, technical and financial resources in a more sustainable manner. For instance, using DRM and CCA databases and analysis can provide information about risks and vulnerabilities in specific geographic areas that can be linked to social assistance programmes to help identify vulnerable populations and provide them more effective and timely assistance. Social protection programmes can target and scale up assistance as required before, during and after shocks, channelling humanitarian and social protection resources through one integrated, government-led system, saving time and money.¹⁰
- **Increased benefits for the poorest and most vulnerable:** Integrated approaches to the SP, DRM and CCA sectors can help individuals, households and communities – including operators and owners of micro, small and medium-size enterprises (MSMEs) and small-scale farmers living in disaster-prone areas to strengthen their adaptive, anticipatory

¹⁰ O'Brien et al (2018); WFP et al (2019)

absorptive capacities. SP programmes can, for example, support income diversity, adding value to DRM and CCA mechanisms such as public works afforestation programmes, and provide access to drought-resistant seeds that reduce the impact of drought and improve livelihoods. Together, these can comprise a form of Ecosystem-based Adaptation (EbA) that helps build resilience against longer-term climate change effects.

- **Increased long-term climate and disaster resilience:** Natural and climate-related hazards can affect individuals, households and communities in diverse ways. A stronger integration of SP, DRM and CCA, including knowledge sharing between these sectors, can reduce people's multiple vulnerabilities to the impacts of disasters¹¹. Adequately designed and implemented public works programmes can stabilize peoples' incomes before, during and after shocks (as a key objective of SP) and at the same time build up resilient infrastructure before and after disasters (as a key developmental objective).
- **Better preparedness to improve coping strategies:** At the household level, the provision of assistance in a timely and integrated manner can help prevent individuals from resorting to negative coping strategies when impacted by shocks and to rebuild and diversify their livelihoods. At the government level, for instance, Disaster Risk Financing and Insurance (DRFI) mechanisms, such as national contingency funds and disaster insurance, can provide quick access to external credit and insurance solutions for governments. If linked to early warning systems and pro-poor clauses in contingency plans, these mechanisms can help governments to deliver sufficient resources to the affected population to recover quickly after disasters. This reduces the negative consequences of slow recovery, such as reduced economic activity and tax revenue. At the same time, they help to reduce budget reshuffling at the cost of other sector budgets – thereby hampering planned development objectives – and can avoid the need for governments to take up emergency loans at high interest rates from international markets.
- **Sustained positive impacts of SP contributing to poverty alleviation:** The impact of disasters undermines development gains and poses a serious threat to poverty reduction¹², as the poor and near poor are more exposed and lack resources to address the negative impacts of disasters and climate change. By linking SP with DRM and CCA instruments, these negative effects can be reduced, cushioned and transformed, and the long-term benefits of SP measures can be better sustained¹³. Scalable social assistance linked to disaster risk financing and sustainable, climate-sensitive economic activities, for instance, cannot only help governments assist people when they need it most, improving preparedness and response capacity. It can also help households adequately plan for, respond to and recover from shocks in a productive way, protecting investments made by government and other partners and helping them to avoid adverse coping mechanisms that further exacerbate poverty.
- **Multiple benefits for national governments:** Linking SP to CCA and DRM instruments can potentially provide a range of benefits to governments. SP can have significant long-term secondary benefits, such as increased labour productivity, reducing the impacts of shocks on businesses and supporting natural resource management for community-based ecosystems. ASP can help increase peoples' empowerment, provide economic opportunities, reduce climate change-induced migration, help governments to improve coordination in the mobilization and use of scarce resources, improve disaster recovery, and reduce the need for humanitarian aid.

¹¹ IDS (2012)

¹² Hallegatte et al (2017)

¹³ Kuriakose et al (2013)

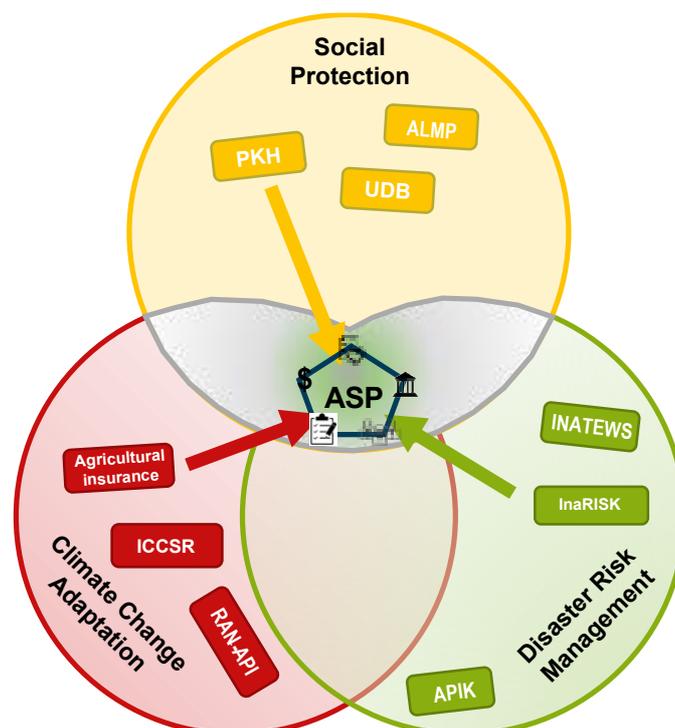
4. The ASP framework for Indonesia

To overcome existing challenges and maximize the benefits of ASP in the Indonesian context, policies, strategies, programmes and measures in all three key sectors (SP, DRM and CCA) may play equally important roles in a coherent and integrated framework.

4.1 Integrating SP, DRM and CCA

Many risks and challenges can be more effectively addressed through identifying suitable interfaces and seizing synergies between all three sectors. ASP is an approach that is supportive to existing schemes as well as newly created ones. Figure 3 illustrates how different mechanisms of these three sectors can be integrated into ASP. (A description of exemplary sector mechanisms can be found in Annex 2.)

Figure 3: Combining and integrating SP, DRM and CCA in a comprehensive ASP approach



Source: Own figure.

While designing and applying the ASP approach, cross-cutting issues such as gender equality and inclusiveness (following the principle of “Leave No One Behind”) are to be considered. This will ensure that ASP implementation is sustainable in the sense of supporting the achievement of the targets set in Indonesia’s international and national commitments.

The ASP framework presented here focuses on combining the relevant elements of SP, DRM and CCA before, during and after disasters. Its overall aim is to identify the most promising measures of the three sectors and combine them flexibly in order to strengthen the resilience of Indonesia’s population before, during and after disasters.

4.2 Introducing a Risk-layering Approach

The expected impact of shocks, i.e. risk is determined by the severity and frequency of hazards as well as the level of exposure and vulnerability. Based on the interaction of hazard, vulnerability and exposure, different levels of risk can be observed. In order to identify the most appropriate measures for managing these different levels of risk, a risk-layering approach can be useful. This approach can help to cluster risks into a low-risk layer (frequent and low-severity events with low exposure and vulnerability), a medium risk layer (moderate frequency and intensity with moderate exposure and vulnerability) and finally a high-risk layer (very low frequency of high severity with high vulnerability and exposure).

4.3 Applying the DRM Cycle

Potential measures to tackle risks in each layer may include diverse sectoral instruments along the five phases of the DRM cycle (see below). In practice, the application of these instruments is often overlapping, possibly even simultaneous.

The potential contributions of ASP to each phase of the DRM cycle may be summarized as follows:

Phase 1 – Disaster prevention: The prevention of disasters requires various measures that help avoid the potential adverse impacts of hazardous events. It starts with risk analysis, including the assessment of the exposure and vulnerability of geographic regions and populations towards risk. It considers the implications of disasters for the state, communities and households with a view to reducing vulnerability and exposure.

In this phase, ASP can contribute to building **resilience** at the household and community level (including enterprises) by:

- Stabilizing the income of individuals, households and small entrepreneurs in advance of shocks, diversifying their livelihoods and making them more resilient to disasters through tailor-made social assistance programmes, such as conditional and unconditional cash transfer programmes including so-called cash+ programmes that provide training, productive assets and inputs to the programme beneficiaries.
- Supporting sustainable natural resource management, climate-smart agriculture and building up resilient infrastructure, which in turn has a preventive function for households and communities potentially affected by future shocks through, for example, watershed focused public works programmes.

During this phase, ASP can also strengthen the **resilience capacity of government** by:

- Supporting and improving risk analyses through the collaborative use and integration of the Management Information Systems (MIS) of SP, DRM and CCA programmes.
- Providing an ex-ante analysis of the potential impacts of hazards and risks to the long-term objectives of SP systems (e.g. poverty alleviate and reduction of inequalities) and taking measures to address them (e.g. developing building codes for resilient housing and infrastructure, supporting green and pro-poor economies, sustainable agriculture and climate-sensitive land planning).
- Assessment of existing SP, DRM, and CCA mechanisms with a view to enhancing their effectiveness and efficiency. With this, protection gaps can be identified for specific target groups and regions groups and then addressed on a hazard-by-hazard basis.

Phase 2 – Preparedness: This phase builds on the prevention phase and sets the ground for the government and other stakeholders to understand, develop and coordinate an effective response and recovery system before disasters hit. It should be ensured that the response and recovery efforts of relevant organizations are inclusive and coordinated.

In this phase, ASP can contribute to building **resilience** at the household and community level by:

- Preparing community infrastructure prior to disasters (ex-ante) for potential disasters, for example through public works programmes.
- Channelling tailor-made information and sensitization measures related to disaster preparedness to poor, vulnerable and marginalized groups using established communication channels of SP programmes, such as community workers or facilitators working directly with programme beneficiaries.

In addition, ASP can strengthen the **resilience capacity of the government** by:

- Developing effective early warning systems and forecast-based early action and financing mechanisms to activate early actions prior to shocks and preparedness for response actions after disasters¹⁴.
- Developing contingency and preparedness plans that ensure adequate benefits and services for the poor and vulnerable in affected areas.
- Building up the absorptive capacity of SP systems ex-ante by designing adequate frameworks and building up the necessary institutional structures to use their different elements for fast delivery in case a shock occurs e.g. through targeting mechanisms, payment mechanisms and information channels.

Phase 3 – Residual risk retention and transfer (residual risk management): The risk retention and transfer phase takes into consideration the fact that, even when all the necessary steps have been taken to reduce risk and adapt to climate change, there is some risk that remains unmanaged. Such risk is commonly referred to as residual risk. Under such circumstances, the government must provide emergency response for disaster-affected communities and finance resilient recovery activities. It further bears the loss of potential tax revenue due to disturbances in economic activities and provides temporary support in disaster-affected areas. It implies setting aside funds and/or transferring disaster risk through insurance schemes to cover losses that may occur.

In this phase, ASP can contribute to avoiding negative coping strategies and indirectly build up **resilience** at the household and community level by:

- Managing remaining disaster risks at individual, household and enterprise levels through disaster risk financing instruments such as savings, emergency loans, credit guarantees by the government and housing loans for the affected populations.
- Transferring the remaining risks of household groups and businesses to the **insurance and reinsurance** industry and developing insurance products for specific target groups e.g. business associations.

In addition, ASP can strengthen the DRM capacities of the government and contribute to **government resilience** by:

- Taking decisions regarding risks to be retained or transferred to third parties according to the risk-layered approach and transferring risks at medium and high-risk layers to the (re)insurance industry for designing suitable insurance products.
- Establishing financial instruments for pre-disaster and post-disaster financing by the government. These financial mechanisms can be, for instance, capital market contingent credit lines, and derivatives or contingency funds.

Phase 4 – Response: Effective and efficient response activities rely on the earlier phases and previously developed disaster risk-informed preparedness strategies and actions defined in

¹⁴ ODI (2018)

contingency and preparedness plans. This includes the development of the response capacities of all actors including e.g. individuals, communities, civil society organizations, the private sector, and government agencies.

In this phase, ASP can help ensure quick access to financial resources for relief activities and contribute to building up **resilience** at the household and community level by:

- Using existing schemes such as social assistance through **cash transfer schemes** including provision of food and assets to individuals and households during and/or after a disaster in a timely manner.

ASP can strengthen the financial capacities of the government by:

- Using DRFI mechanisms designed and established prior to disasters through dedicated financing arrangements for response activities based on quick disbursement of financial resources e.g. through the Disaster Pooling Fund.

Phase 5 – Recovery and reconstruction: Recovery supports the efforts of the people and their government to further strengthen their own resilience. Recovery programming should be realistic, appropriate and time-bound while ultimately contributing to longer-term development. *Build Back Better (BBB)*, for instance, is an essential concept of resilient recovery that aims to reduce vulnerability and improve living conditions while promoting more effective and sustainable reconstruction.

In this phase, ASP can contribute to building **resilience at** the household and community level by:

- Restoring the incomes of individuals, households and small enterprises in the aftermath of shocks, promoting disaster prevention mechanisms, and making them more resilient to future shocks by providing thereby training, productive assets and inputs to cash transfer beneficiaries.
- Rebuilding or retro-fitting resilient infrastructure and community assets through **public works programmes** while applying the BBB concept.

In addition, ASP can strengthen resilience capacity of **governments** by:

- Supporting long-term sustainable and climate-adaptive policies for promoting the livelihoods of poor and vulnerable persons, implementing activities according to the NDC and other national action plans.
- (Re-)assessing delivery systems for pre- and post-disaster mechanisms, in particular SP programmes and DRFI instruments. This includes coordination between government agencies across national level entities and down to local level and with other relevant stakeholders e.g. private sector, civil society, communities, and international development organizations.

Below are two examples of international good practices.

Philippines' Listahanan & Pantawid Pamilyang Pilipino Program¹⁵

Vulnerability to recurring natural hazard-induced disasters (particularly typhoons, floods, droughts and storm surges) and the effects of climate change are high and increasing in the Philippines. Eight out of the ten most exposed cities in the world to natural hazard-induced disasters are in the Philippines. Typhoon Haiyan in 2013 was the country's biggest environmental shock in its history, affecting over 16 million people and causing over 6,000 deaths.

In response to the risk posed by recurrent natural hazards, the Government of the Philippines has implemented several measures that facilitate an integrated, multi-sectoral approach to risk management and shock response. The Department for Social Welfare and Development (DSWD) is the lead ministry responsible for both social protection and disaster risk management. Approximately 5% of the national budget is allocated to DRM, of which 70% is for preparedness and mitigation, and 30% is for response. The government has mandated all agencies to utilize the national social registry known as Listahanan for their programming, which as of 2016 included the data of 75 to 80% of households nationwide. The flagship national social assistance programme, Pantawid Pamilyang Pilipino Programme (4Ps), which provides conditional cash transfers to support poor children, reaches 4.4 million of the country's estimated 20.2 million households, including a high proportion of poor households, particularly in disaster-prone areas.

The Government has taken a series of measures to integrate sectors to improve risk management. By combining information from the social registry with hazard data and maps from the early warning system, the government was able to identify and locate poor and vulnerable households likely to be exposed to and unable to cope with natural hazards. The DSWD also passed a resolution waiving the conditionality of the Pantawid programme for three months in affected areas if a "state of calamity" was declared. Therefore, when Typhoon Haiyan hit, Pantawid transfers automatically switched to becoming unconditional, and enabled World Food Programme (WFP) and United Nations Children's Fund (UNICEF) to deliver additional emergency cash through Pantawid to regular beneficiaries (a vertical top up), while WFP also implemented parallel cash assistance through International non-governmental organisations to reach non-Pantawid beneficiary households affected by the disaster (alignment). The Pantawid programme proved to be a cost-efficient way of reaching disaster-affected households. Given its adaptive design and high coverage in affected areas, the Pantawid programme is proving effective at addressing regular, seasonal and unanticipated needs and building longer-term resilience of households to the effects of climate change and extreme weather-related events.

The Rural Resilience Initiative (R4) in six countries¹⁶

R4 is run by WFP in collaboration with the Governments, the private sector and technical partners in six countries – Malawi, Ethiopia, Senegal, Zambia, Kenya and Zimbabwe. It aims to provide an interconnected package of social protection-style interventions to households to build resilience: **climate-smart asset creation and natural resource management linked to conditional cash and food transfers, index-based insurance, and Village Savings and Loans (VSL) schemes.** Interventions are designed to be interlinked and complementary. For instance, beneficiaries can contribute additional labour on assets to "pay" for their insurance premium, which is initially subsidized by WFP and gradually transferred over to the beneficiary once their household income rises. Insurance is provided through a satellite-based rainfall index that automatically pays out in the event of a drought. Meanwhile VSL groups are used to build up household income to invest in assets, insurance and unlock credit. Since 2011, across the six R4 countries, over USD 2.4 million has been made in insurance pay-outs as compensation for weather-related losses, and 45% of R4 participants contributed a portion of their own cash to pay for insurance premiums, totalling USD 128,000. In

¹⁵ Smith et al (2017)

¹⁶ WFP and Oxfam (2019)

Malawi, the R4 programme now forms part of a wider push towards shock-responsive social protection led by the Government under its National Social Protection Policy (NSSP II), including the trial of scalable cash transfer programmes and links to an integrated social registry.

5. Developing a comprehensive ASP approach along four Building Blocks

Based on international learning and good practice, Indonesia's ASP Roadmap will be structured around the following four “**building blocks**” which highlight the priority intervention areas to develop an integrated ASP systems and programmes.

5.1 Building Block 1: Institutional arrangements

This building block foresees that capacities and resources for coordination and implementation within Government and other ASP actors at national and decentralized levels will be effective and well managed. The Government will own the ASP agenda, exercising good leadership and accountability while creating an enabling environment for ASP.

ASP requires that SP, DRM and CCA actors come together, making effective collaboration and coordination a basic principle of ASP. Roles and responsibilities should be clarified under a common vision for ASP, with cross-cutting, regular and inclusive participation and decision making of all three sectors institutionalized horizontally across sector ministries and external partners as well as vertically at national and sub-national levels. ASP implementation in a transparent and accountable manner requires the government to identify and adopt ASP priorities and objectives in national and sectoral policies, strategies, programmes, and measures. Following an integrated ASP approach will involve a review of sector laws and policies and re-designing ASP-enabling laws and regulations at all government levels, where needed.

5.2 Building Block 2: Data and information

The aim of this building block is to ensure that ASP programmes are designed and implemented in an evidence-based manner using integrated information management systems and the results of ASP-relevant risk and vulnerability analyses.

For robust ASP programme design and implementation, data need to be analysed and improved in terms of quantity and quality. Hazard, exposure and vulnerability assessments (HEVAs) will enable the government to identify, quantify, and prioritize risks and vulnerabilities induced by natural and climate-related hazards in specific geographic areas. This includes integrating poverty data with disaster risk and vulnerability, preferably to be added in expanded social registries for quickly identifying households vulnerable to shocks. One of the most important links between ASP systems and programming at national level are updated integrated Management Information Systems (MIS) and data sharing platforms that include, for instance, information from early warning systems, climate change data, and post-disaster assessments for effectively taking pre-disaster decisions by all relevant ASP stakeholders. This building block considers the design of a monitoring and evaluation (M&E) system to measure the effects of ASP ideally in terms of process and impact.

5.3 Building Block 3: Programmes and their delivery systems

This building block looks at how integrated programmes and measures in all key sectors can provide sufficient and equitable support to those most in need of assistance before, during and after shocks occur.

It relates to a wide range of programmatic design and delivery considerations. Options should include, integrate and link instruments of all three sectors in a way that ensures scalability and flexibility to adapt to changing conditions and identification of measures to finance them. The final selection of instruments should be based on a gaps analysis that compare the hazards and vulnerabilities faced by the population, government priorities, and evidence showing which combination of mechanisms can achieve the highest impact with limited financial resources in the target regions. Such an ASP mix of instruments considers existing programmes in a way that complements identified or newly developed mechanisms while reinforcing their coherence. In the context of ASP, it is necessary to review targeting systems for reaching the poor and vulnerable, particularly in disaster-prone areas, as poverty-targeting alone is not always an adequate response to hazardous events. Integrated vulnerability mapping helps the government to anticipate disasters and provide support quickly after they occur. It also helps to take the gender perspective into account and mainstream a broad-based inclusive approach. Groups that are socially excluded through discrimination tend to have limited access to SP, DRM and CCA measures and are often disproportionately impacted by natural and climate-related disasters. Hence, ASP also means strengthening existing delivery systems. Especially after disasters, ASP measures should reach affected populations and regions effectively and efficiently through a wide range of instruments. The delivery capacity of each programme should be carefully assessed in the design phase, as there can be significant differences across programmes and geographic areas.

5.4 Building Block 4: Adaptive Financing

This building block identifies and mobilises sustainable disaster risk financing and insurance options that meet the needs of public and private ASP stakeholders before, during and after hazards occur.

It addresses the financing needs of national and sub-national governments, private households, and private enterprises (both formal and informal) taking disaster-related risk factors into account. At the government level, fiscal risks due to hydro-meteorological hazards, including extreme weather events and climate change impact can threaten the viability of policies and programmes for social protection and other key sectors. To meet the challenge of disaster-related financing gaps, national and local governments should optimize their mix of available financial instruments for sustainable revenue mobilization and expenditure management. In the face of serious fiscal constraints, governments can strengthen traditional approaches (tax reform, programme budgeting, disaster insurance etc.) but also adopt new and innovative approaches, such as Catastrophe Bonds, Social Impact Bonds, and Disaster Pooling Funds, promoting thereby impact investment and joint ventures with private investors to strengthen the resiliency of the government's resource base. Adaptive financing for private households and the private sector involves first and foremost enhanced financial inclusion. Households and small businesses should have easy and effective access to cash and savings accounts, lending services and insurance schemes adapted to their needs before, during and after disasters. New technologies can play a key role in this area. Adaptive financing also considers the human and technical capacities required to adapt financial systems to the ASP approach. Public and private investment decisions should be based on reliable data and robust analyses of expected costs and benefits, while also taking societal goals such as poverty alleviation and the reduction of inequalities into account.

The above-mentioned building blocks cut across all three key ASP sectors. Care will be taken to ensure that they are mutually reinforcing while minimizing duplication of efforts. Each building block will address cross-cutting issues, including gender equality and inclusion (leaving no one behind), within its specific sphere of intervention. Within each building block, specific needs in the areas of monitoring, evaluation and reporting will be identified. To the

greatest extent possible, M&E and reporting functions will be integrated into a consolidated ASP coordination and communication system, ensuring thereby high standards of transparency and accountability.

Annexes

Annex 1 Key features of SP, DRM and CCA

	Social protection	Disaster Risk Management	Climate Change Adaptation
Key goal	Preventing and protecting all people against poverty, vulnerability, and social exclusion throughout their lifecycles	Prevent new disaster risks, reduce existing disaster risks, and manage residual risks	Enhancing adaptive capacity, strengthening resilience and reducing vulnerability to climate change
Core disciplinary grounding	Development and welfare economics	Physical and (increasingly) social sciences	Social development and physical/climate sciences
Dominant focus	Implementation of measures to manage risks across the life cycle	Prevention and management of risk of disasters	Enabling processes of climate change adaptation
Main shocks & stresses addressed	Multiple (e.g. sickness, accidents, unemployment, old age, poverty, food insecurity)	Natural hazard-induced disaster, including such related to climate change impacts	climate-related
International coordination & key global agendas	Social Protection Interagency Coordination Board (SPIAC-B), ILO Social Protection Floors (SPF), Universal Social Protection (USP) 2030, Sustainable Development Goals (particularly Goal 1.3)	UNDRR, Sendai Framework for Disaster Risk Reduction	UNFCCC, Nairobi Work Programme, Paris Agreement

Source: Own compilation.

Annex 2 Description of sectoral and cross-cutting programmes and measures

A range of programmes and measures can be utilized through an ASP approach to help manage risks and enhance the well-being of those exposed and vulnerable to shocks induced by natural hazards. These instruments are part of the respective policies and strategies (e.g. National Action Plan for Adaptation, RAN API). To provide an **exemplary overview of the range of these programmes and measures**, selected ones are listed and described below. Partly, these programmes and mechanisms already cover aspects of more than one of the ASP sectors, in the table they are listed according to their origin.

<i>Programme type</i>	<i>Selected examples from Indonesia</i>
Social Protection	
Social Assistance	Family Hope Programme/Program Keluarga Harapan (PKH); food assistance programme/Bantuan Pangan Non Tunai (BPNT); Unified Data Base (UDB); multi-purpose emergency cash transfer programme/Jaminan Hidup (JADUP)
Cash+ programmes	Cooperative Business Groups Programme/Kelompok Usaha Bersama (KUBE)
Public works programmes	Village Funds
Single & social registries, and Management Information Systems	UDB; Social Welfare Information System (SIKS-NG)
Disaster Risk Management	
Early Warning Systems	Multi-hazard early warning system (MHEWS)
Social resilience building	Community volunteers for disaster response (TAGANA) Disaster-resilient village/desa tangguh bencana (DESTANA) Disaster resilient family programme/program keluarga Tangguh bencana (KATANA)
Climate Change Adaptation	
Community-based Adaptation	Climate Village Programme (ProKlim), Agriculture Insurance, Climate Health Village, oil/diesel subsidies for farmers/fishers
Disaster Risk Financing and Insurance	
Public Financial Management (PFM) provisions for disaster-related contingency funding	Contingency budget lines at national and sub-national levels, improved fiscal forecasting, public assets insurance, disaster pooling fund
Sector-specific insurance schemes	Insurance for paddy farming, cow livestock, capture fishing and small fish cultivation
Cross-cutting	
SP information systems and links with other information systems used by DRM & CCA	Satu Data
Gender issues	In 2018 Indonesia completed the Public Expenditure and Financial Accountability (PEFA) Supplementary Framework for Gender

	Responsive Budgeting (GRB). Other laws and regulations see cross-cutting issues below.
Inclusion and the principle of Leaving No One Behind (LNOB)	Asistensi Sosial Penyandang Disabilitas Berat (ASPDB) for persons with disabilities

Social Protection

Social Assistance

In the field of **SP**, social assistance – also called social transfers or social safety nets - refers to the provision of regular benefits in the form of cash, in-kind transfers or vouchers often targeted at those individuals and households living under a defined threshold of income or assets. Often cash transfers are conditional, i.e. eligible households only receive the transfers if they comply with certain pre-defined requirements (e.g. regular school attendance of children or regular health check-ups). Such transfers can focus on a specific risk (for example, families with children), or on specific categories of poor, vulnerable and marginalized groups. They are usually funded through taxation¹⁷ or through development partner support.

In the context of **DRM**, cash (also referred to as cash-based transfers) and/or food and voucher transfers are used by governmental, non-governmental or international actors to provide timely life-saving and livelihoods support to a population affected in response to disasters – regardless of their social or economic background. They typically comprise of transfers that should meet some or all of basic needs.¹⁸

One of the major social transfer programmes in Indonesia is the **Family Hope Programme (Program Keluarga Harapan – PKH)** that provides regular cash transfers to households with children and/or pregnant women, conditional on household members accessing specified health and education services. The programme covers approximately 10 million households and is implemented in all provinces and districts of Indonesia. Another important programme is the **food assistance programme Bantuan Pangan Non Tunai (BPNT)**, which provides electronic food vouchers to 10–15 million poor families. Both programmes use the **Unified Data Base (UDB)** for targeting and case management. Recently, the Government of Indonesia introduced the **multi-purpose emergency cash transfer programme Jaminan Hidup (JADUP)** that aims at disbursing rapid assistance in the form of cash to affected people after a disaster.

Cash+ Programmes

As poverty is broader than a mere deficit in income or consumption, other types of initiatives in addition to cash transfers are often needed. In the past decade, cash+ have been developed and introduced as part of comprehensive anti-poverty programmes, combining social transfers (cash, food or assets) with other inputs and services. These programmes are variously referred to as cash+, cash plus, graduation model programmes, integrated social protection programmes and productive inclusion programmes, the latter if directly linked to objectives related to employment and labour market policies. Their general aim is to sustainably move extremely vulnerable households out of poverty and away from the need for social transfers in the long run by enhancing their livelihoods and productive capacities¹⁹. Cash+ programmes usually combine cash transfers with the provision of (a) productive assets and inputs for agriculture, livestock, fisheries and aquaculture, forestry and productive uses of other renewable natural resources – either provided in-kind or through the use of vouchers and/or (b) technical training and activities, such as training on sustainable farming and pastoral

¹⁷ Roelen et al (2018)

¹⁸ ibid.

¹⁹ Roelen et al (2017)

practices, including input use, business skills, agricultural value chain development, access to markets or finance.

Existing Cash+ programmes in Indonesia include the **Cooperative Business Groups Programme (Kelompok Usaha Bersama – KUBE)**. It is targeting poor households registered in the UDB, among others those exiting from the cash transfer programme **PKH** and supports them with seed capital to set up sustainable businesses. The business groups are also supported by KUBE facilitators.

Public works programmes (Cash and Food-for-work, public employment)

Public works programmes support poor and vulnerable population groups with the capacity to work by providing them with cash- (or in some cases food-) transfers in exchange for labour. In the context of **SP**, these programmes are usually publicly financed with the objective to provide a predictable source of income for poor and vulnerable households and at the same time building up public assets and infrastructure at local level.

In the context of **CCA**, these programmes can be linked to objectives of strengthening the resilience of people and communities, such as constructing resilient infrastructure, environmental conservation or rehabilitation²⁰. In the context of **DRM**, these programmes are usually used on a temporary basis either to prepare community irrigation facilities or afforestation ahead of disasters or in the aftermath of a disaster. Income provision for poor and vulnerable population groups is a subordinated objective.

Indonesia does not implement a national-level public works programme. However, some 90 percent of financing from the **Village Funds** is allocated to small-scale local infrastructure projects (mostly road building), meaning that they have a strong public works rationale. The extent to which they can be classified as social protection programmes varies, however, with some villages placing much more emphasis on employing unemployed individuals (especially youths) than others.

Social Insurance

Social insurance is a type of contributory social protection programme that provides protection against various economic shocks (e.g. loss of income due to sickness, old age, unemployment). It is a form of 'risk transfer', where the risk of a certain shocks is transferred from the individual or institution to a third party (an insurer or reinsurer), in return for the payment of a premium (the amount the individual pays to be covered by an insurance policy). Insurance allows for the 'pooling' of risk, meaning that participants facing similar risks with similar eligibility criteria can group together, enabling them to access more cost-effective insurance solutions than if they entered into such transactions alone. Social insurance contributions are normally shared between employers and workers, sometimes with supplementary contributions from or subsidies by the government.

Indonesia has a range of social insurance programmes designed to cover different demographic groups (such as those under BPJS Health Insurance, including the JKN (social health insurance), the BPJS Employment Schemes, and civil service pensions), though the system as a whole is relatively young, and coverage remains patchy. Discussion around the use of social insurance for ASP in Indonesia is limited, though there are examples of its use to address the effects of natural hazards in other country contexts (e.g. vertical expansion of national insurance schemes in Grenada in response to Hurricane Ivan (in 2004) and Jamaica (Hurricane Dean, in 2007).

²⁰ Ziegler (2016)

Information systems

Different programmes have different beneficiary databases and management information systems (MISs) with different categories of information. Databases can either contain data only on beneficiaries (known as a beneficiary registry), or also non-beneficiaries (a social registry). They can either serve one programme, or multiple programmes.

Social registries are databases that capture large amounts of demographic and socio-economic data on vulnerable households across the country (whether or not they are on a programme already) using one commonly agreed questionnaire. By so doing, they aim to support outreach, intake, registration, needs assessment, potential eligibility for a social programme. If integrated, they are also designed to help provide an overview of programme coverage and they potentially reduce the costs of parallel information collection processes. Sometimes different databases are linked up to help provide this information (such as social insurance and assistance programmes and external databases such as health, employment, tax and civil registration).

Social registries are increasingly being used to highlight vulnerable households in geographic areas that are prone to disasters. To deliver rapid assistance in anticipation of, or after a shock, registries need to be comprehensive in terms of the types of data collected and population targeted, ideally including information that allows programmes to locate households quickly (e.g. Geographic Information System data, addresses, etc.). This information needs to be updated regularly to reduce targeting errors. Social registries are a key feature in the design of ASP to enable programmes to enable multi-year and seasonal or crisis-based activities to function side-by-side and in a responsive manner.

In Indonesia, the **Unified Data Base (UDB)** provides socioeconomic information of approximately 40 percent of Indonesia's households that are considered as poorest. For household data collection and updating, mass registration rounds were carried out in 2008, 2011 and 2015. The questionnaire used for data collection involves a range of non-monetary variables to compute a weighted welfare index. The UDB is meant to serve as a single source of beneficiary data for all social assistance programmes and can also be used by local governments to identify beneficiaries for local poverty reduction programmes.

From 2017 onwards, it was decided that data in the central UDB should be updated on a continuous basis with the support of local governments (514 districts and around 75,000 villages). This should replace the en-masse registration rounds. The new system currently being developed and tested is called the **Social Welfare Information System – Next Generation (SIKS-NG)**. It aims at enabling dynamic inclusion of eligible households into social protection programmes.

Disaster Risk Management

Early Warning Systems

An Early Warning System helps to predict the occurrence of a given hazard right before it happens at a specific location in order to initiate preventive action to reduce losses and damages. Early warning consists of various systems and processes, ranging from hazard monitoring, forecasting and prediction, to the assessment and communication of the expected risk, to finally initiating and executing preparedness measures²¹. Early warning operates on various time scales, from very short-term, such as tsunami warnings, which may be issued only a few minutes before the event, to medium-term (i.e. one to a few days such as storms warnings) and even longer term, seasonal drought warnings. The number of efforts to develop multi-hazard early warning systems, which cover multiple events, is growing.

²¹ UNDRR (2017)

Early warning is supposed to be followed by early action to reduce potential impacts before disaster strikes. In the recent developments, efforts have taken place to strengthen early warning – early action system²², as well as applying tools like Forecast-Based Early Action (FbA) to use forecast and early warnings to trigger earlier funding and support, i.e. decision making, triggering and delivering planned actions, for the communities before disaster strikes²³. Such approach has also been used to link with social protection schemes to reduce livelihood disaster impacts²⁴.

After the devastating Indian Ocean Tsunami in 2004, Indonesia began to establish the sophisticated tsunami **early warning system, MHEWS**, hosted by Meteorological, Climatological and Geophysical Agency (BMKG). The MHEWS warning centre receives data from more than 300 sensors across the country in real time through GPS systems, enabling the issue of warnings within 5 minutes²⁵. The programme also includes capacity development in different communities to make sure that warnings are translated into action of affected people, businesses and governments. In reality, implementation is still a challenge, among others due to the limited availability of experts and adequate data to support local processes²⁶.

Currently, Indonesia has been developing a multi-hazard early warning system that integrates various detection tools and data under coordination of the **National Disaster Management Agency (BNPB)**. This effort needs to be accompanied with effort to strengthen early action, from community preparedness to reducing impacts on community assets and livelihoods.

Social resilience building & community-based approaches

Apart from warning and response right before/after disasters, increased attention in DRM is put on strengthening capacities of households and communities to withstand shocks induced by hazards. This so called “resilience building” should serve to prepare potentially affected people and systems, such as infrastructure, to be able to maintain essential functions when a natural hazard hits them. Since different people and systems have very different functions that matter for them, resilience building exists in many ways, from technical infrastructure resilience, to ecological resilience, and social or socio-economic resilience of households.

A key initiative in community-based resilience building is the **Tagana Programme** in response to the design of community-based disaster management systems. It comprises of community-based youth groups for disaster preparedness located in multiple districts and provinces. In recent years it got supported by the Tagana training centre with support of the Ministry of Social Affairs. One reason for pushing the initiative is to improve the quality of social protection for disaster victims, from national to provincial and local levels by involving all relevant actors.

Climate Change Adaptation

Community-based adaptation

Climate change adaptation processes are often initiated and planned following a top-down approach, meaning that national or even international stakeholder design specific adaptation actions for vulnerable communities affected by climate change. This approach sometimes neglects local circumstances and peoples’ needs and priorities. The bottom-up Community-based Adaptation (CBA) is based on adaptive planning on knowledge and experiences of communities themselves²⁷. This helps to ensure that local needs are reflected and that actions

²² IFRC (2014)

²³ Wilkinson et al (2018); Weingärtner et al (2019); Tanner et al (2019)

²⁴ Weingärtner et al (2019)

²⁵ GITEWS (2020)

²⁶ Lauterjung & Letz (2017)

²⁷ Reid (2015)

are based on peoples' capacities to execute them themselves, hence empowering them and creating ownership for adaptation within affected communities²⁸.

To support village climate adaptation in Indonesia **ProKlim** (the "Kampung Iklim" (Climate village) Programme) was established in 2012, through the Ministry of Environment and Forestry. The key goal of ProKlim is to enhance understanding of climate change and its impacts within the Indonesian society, and thus encourage practical action to strengthen community resilience and promote low carbon emissions lifestyles. ProKlim supports the dissemination of information and best practices on climate change adaptation and mitigation, to improve local adaptive capacities. Registered villages can submit their local projects to the respective regional offices. To sustain the projects, community groups are responsible for local climate actions and to support social, economic and environmental co-benefits, as well as risk mitigation of climate related disasters.

Other programmes that also relate to climate change adaptation, include **Agricultural Insurance** (managed by the Ministry of Agriculture) and the **Climate Health Village** Programme (managed by the Ministry of Health).

Disaster Risk Financing and Insurance

Disaster risk financing and insurance (DRFI) addresses the financing needs of governments, private households, and private enterprises (both formal and informal) under consideration of disaster-related risk factors. At the government level, fiscal risks due to natural and climate-related hazards can threaten the viability of policies and programmes. To meet the challenge of disaster-related financing gaps, national and local governments should optimize their mix of financial instruments for sustainable revenue mobilization and expenditure management. For instance, hazard-sensitive fiscal forecasting could feed into early warning systems and forecast-based early action systems to avoid bottlenecks in disaster response financing. Financial inclusion is of particular relevance for poor and vulnerable population as well as small entrepreneurs. They should have easy access to cash and savings accounts, lending services and insurance adapted to their needs before, during and after disasters.

Indonesia's DRFI Strategy (2018) foresees among other things the use of contingency financing instruments as a complement to the national budget to retain disaster risk with moderate to high levels of loss. Each ministry has a contingency fund that can be allocated within the limits of the ministry's mandate. The BNPB draws heavily on the national contingency budget line to finance its interventions.

Currently, the government is in the process of introducing the **Disaster Pooling Fund (PFB)** as an instrument of risk retention used to respond to financing needs in the event of disasters. Other innovative disaster risk financing instruments are also being considered, such as **Catastrophe Bonds** (aka Cat Bonds) and **Social Impact Bonds**.

Public assets insurance has been introduced and adopted by the Ministry of Finance. **Sector-specific insurance** for private sector actors is still in an early stage of development. Paddy rice insurance began in 2015. Insurance for livestock (cows and buffaloes) was introduced in 2016.

Cross-Cutting Issues

²⁸ Reid et al (2009)

Gender Equality

Gender inequalities create specific vulnerabilities of men and women to the impact of disasters and climate change. It is mainly women, especially the poor, elderly, ethnic or social minorities, who have limited coping strategies and the highest risk of being affected by disasters²⁹.

In Indonesia the impact of disasters caused harder work for women to fulfil their household needs especially water and food which then create another poverty and vulnerability cycle. Damage of food gardens and agricultural assets deprive family of food and women's important source of livelihood³⁰.

But there is also a gender-specific impact during response and reconstruction: This is due to less time for development activities than their male counterparts, women's limited access to income, education and decision making during the breakdown of facilities caused by disasters³¹. In addition, women lack information on aid available, including cash-for-work opportunities³² and Livelihood and skills development failed to address women's specific concerns³³.

The gender-differentiated impacts of disasters and climate change resulted in the inclusion of women in international agreements to name a few: In 2017, the Conference of the Parties (COP) adopted the first Gender Action Plan (GAP) under the Lima Work Programme (2014) to promote design gender responsive approaches to climate action, among others. The GAP was extended by the new five-year plan during COP25 (2019). Gender-responsive action has also been recognized in disaster risk reduction in the Sendai Framework for Disaster Risk Reduction (2015–2030).

The Indonesia legal framework includes comprehensive general gender laws and regulations as well as those pertaining to disaster management, however, implementation is still a challenge:

The **Presidential Decree Inpres No. 9/2000** (12) on National Gender Mainstreaming Policy guides the National Long-term Development Plan (RPJPN) 2005–2025 which confirms the government's commitment to gender equality with specific laws in place and aligning the National Development Agenda with 17 Sustainable Development Goal (SDG).

The **Ministerial Regulation No. 6/2009** on Norms, Standards, Procedures and Criteria (NSPK) stipulates the collection, analysis of sex and age disaggregated Gender- and Child-Data in all provincial and district policies, programmes and activities.

Law No 24/2007 on disaster management stipulates the principle of equality stating that provisions in disaster management cannot differentiate against e.g. gender, religious, ethnic group, or social status background.

Regulation/Perka BNPB No.13/2014 on Gender Mainstreaming in Disaster Management obligates that disaster management should be implemented based on gender responsivity to ensure the just and humane fulfilment of women's and men's needs in disaster. There are 4 indicators used in mainstreaming the implementation before, during, and after disasters: access, participation, resource and decision-making control and benefits from policies and programs.

Regulation No. 6/2017 concerning Rehabilitation and Reconstruction After Disaster aims at an integration with local/national development plans. It is building on e.g. participation, coordination, good governance, build back better concept, and mainstreaming gender, vulnerable group, and people with disabilities.

²⁹ World Bank et al (2011)

³⁰ CARE (2018)

³¹ Medan et al (2016)

³² UNFPA et al (2018)

³³ APEC (2009)

Regulation of BNPB No. 3/2018 concerning Refugee management in emergency response contains gender equality as one principle in refugee management.

In 2015, the Ministry of Women Empowerment and Child Protection developed the **guidelines** for local governments to integrate gender and women empowerment into climate resilient plan, medium term development plan and annual budgeting.

Inclusion / Leave No One Behind

Leave No One Behind (LNOB) is one of the basic principles of the implementation of the UN's 2030 Agenda. It articulates the commitment of UN member states to accompany all people on the path to sustainable development and to reach those who are furthest behind. LNOB calls for greater focus on society's poorest and most disadvantaged individuals and groups.

Victims of natural and climate-related disasters are at potentially high risk of being left behind. But exposure to hazards and disasters is only one of many factors that can lead to exclusion from the benefits of sustainable development. Persons living with disabilities, refugees, and members of ethnic minorities, for instance, tend to face greater challenges than other groups when coping with calamities. In such cases we may speak of intersecting factors giving rise to various forms of multiple overlapping deprivation and affecting the risk of being left behind (cf. GIZ 2020, p. 22). Disasters tend to exacerbate existing forms of exclusion and social inequality, leaving poor, vulnerable and marginalised groups at even greater risk of being left behind.

The Overseas Development Institute (ODI 2019) has assessed the readiness of 159 countries to "leave no one behind". The results for Indonesia are mixed: The report confirms the country's LNOB readiness in terms of data (household surveys), while observing only "partial readiness" in terms of policy (resilience and equal access to employment, health and land) and finance (education, health and social protection). The report attests to Indonesia's overall readiness to leave no one behind, but also suggests that many inclusion and protection gaps remain to be filled.

Numerous laws and regulations have been introduced in Indonesia to address the needs of poor, vulnerable and marginalized groups. Some examples are Law No. 07/2008 concerning Procedure of Basic Needs Provision and Law No. 14/2014 concerning Protection, Participation and Handling of People with Disabilities. Law No. 03/2018 concerns refugee management in emergency response. Numerous social protection schemes aim to mitigate the effects of poverty, vulnerability, and marginalization on specific groups. Nevertheless, many forms of deprivation and exclusion persist.

Annex 3 Glossary of Terms

Adaptive capacity: The ability of systems, institutions, humans and other organisms to adjust to potential damage, to take advantage of opportunities, or to respond to consequences. (IPCC 2014)

Climate Change Adaptation (CCA) refers to adjustments in ecological, social, or economic systems in response to actual or expected climatic stimuli and their effects or impacts. It refers to changes in processes, practices, and structures to moderate potential damages or to benefit from opportunities associated with climate change. (UNFCCC 2019a)

Coping capacity: The ability of people, organizations, and systems, using available skills and resources, to manage adverse conditions, risk or disasters. The capacity to cope requires continuing awareness, resources and good management, both in normal times as well as during disasters or adverse conditions. Coping capacities contribute to the reduction of disaster risks. (UNDRR 2017).

Disaster Risk Management (DRM) is the application of disaster risk reduction policies and strategies to prevent new disaster risk, reduce existing disaster risk and manage residual risk, contributing to the strengthening of resilience and reduction of disaster losses. (UNDRR 2017)

(Disaster) Mitigation: The lessening or minimizing of the adverse impacts of a hazardous event. The adverse impacts of hazards, in particular natural hazards, often cannot be prevented fully, but their scale or severity can be substantially lessened by various strategies and actions. Mitigation measures include engineering techniques and hazard-resistant construction as well as improved environmental and social policies and public awareness. It should be noted that, in climate change policy, “mitigation” is defined differently, and is the term used for the reduction of greenhouse gas emissions that are the source of climate change. (UNDRR 2017)

Exposure: The situation of people, infrastructure, housing, production capacities and other tangible human assets located in hazard-prone areas. Measures of exposure can include the number of people or types of assets in an area. These can be combined with the specific vulnerability and capacity of the exposed elements to any particular hazard to estimate the quantitative risks associated with that hazard in the area of interest. (UNDRR 2017)

(Disaster) Preparedness: The knowledge and capacities developed by governments, response and recovery organizations, communities and individuals to effectively anticipate, respond to and recover from the impacts of likely, imminent or current disasters. (UNDRR 2017)

Life-cycle approach: The life-cycle approach reflects that individuals face different risks and vulnerabilities at different stages in life, and that social protection can be designed to address these risks at each stage. (GED 2020)

(Natural) Hazard: A natural process or phenomenon that may cause loss of life, injury or other health impacts, property damage, social and economic disruption or environmental degradation. Hazards may be single, sequential or combined in their origin and effects. Each hazard is characterized by its location, intensity or magnitude, frequency and probability. (Adjusted after UNDRR 2017)

(Disaster) Prevention: Activities and measures to avoid existing and new disaster risks. While certain disaster risks cannot be eliminated, prevention aims at reducing vulnerability and exposure in such contexts where, as a result, the risk of disaster is removed. Examples include dams or embankments that eliminate flood risks, land-use regulations that do not permit any settlement in high-risk zones, seismic engineering designs that ensure the survival and

function of a critical building in any likely earthquake and immunization against vaccine-preventable diseases. (UNDRR 2017)

(Disaster) Reconstruction: The medium- and long-term rebuilding and sustainable restoration of resilient critical infrastructures, services, housing, facilities and livelihoods required for the full functioning of a community or a society affected by a disaster, aligning with the principles of sustainable development and “build back better”, to avoid or reduce future disaster risk. (UNDRR 2017)

(Disaster) Recovery: The restoring or improving of livelihoods and health, as well as economic, physical, social, cultural and environmental assets, systems and activities, of a disaster-affected community or society, aligning with the principles of sustainable development and “build back better”, to avoid or reduce future disaster risk. (UNDRR 2017)

Residual risk: The disaster risk that remains in unmanaged form, even when effective disaster risk reduction measures are in place, and for which emergency response and recovery capacities must be maintained. Annotation: The presence of residual risk implies a continuing need to develop and support effective capacities for emergency services, preparedness, response and recovery, together with socioeconomic policies such as safety nets and risk transfer mechanisms, as part of an integrated approach. (UNDRR 2017)

Resilience: The ability of a system, community or society exposed to hazards to resist, absorb, accommodate, adapt to, transform and recover from the effects of a hazard in a timely and efficient manner, including through the preservation and restoration of its essential basic structures and functions through risk management. (UNDRR 2017)

(Disaster) Response: Actions taken directly before, during or immediately after a disaster in order to save lives, reduce health impacts, ensure public safety and meet the basic subsistence needs of the people affected. Disaster response is predominantly focused on immediate and short-term needs and is sometimes called disaster relief. (UNDRR 2017)

(Disaster) Risk: The potential loss of life, injury, or destroyed or damaged assets which could occur to a system, society or a community in a specific period of time, determined probabilistically as a function of hazard, exposure, vulnerability and capacity. Disaster risk comprises different types of potential losses which are however often difficult to quantify. (UNDRR 2017)

Risk retention: Explicitly or implicitly absorbance of the impacts of a (climatic) hazard. Risk retention can take several forms, mostly in terms of organizational and financial planning, ranging from contingency financing, contingency funds, social protection, savings or ex ante reserve funds for the purpose of off-setting unexpected financial claims. (UNFCCC 2019b)

Risk transfer: Risk transfer can be defined as a process of shifting the financial burden of risk or responsibility for risk financing to another party – for example from households, agricultural producers, the community and the government to agricultural cooperatives, (re-)insurers and multilateral banks. (UNDRR 2017)

Social protection: A set of policies and programmes aimed at preventing or protecting all people against poverty, vulnerability and social exclusion throughout their lifecycle, with a particular emphasis towards vulnerable groups (ISPA 2016). Social protection encompasses a wide range of instruments (also referred to as programmes, schemes, etc.) with varying objectives and financing mechanisms (e.g. non-contributory vs. contributory) that can be classified broadly as social assistance, social insurance, social care and labour market policies. (O’Brien et al 2018)

Susceptibility: The internal predisposition of an element (e.g. human individual, a social group, a city, an economic sector, physical infrastructure) regulating the degree of harm that can be caused by a given hazard impact. (Garschagen 2014)

Vulnerability: The conditions determined by physical, social, economic and environmental factors or processes, which increase the susceptibility and decrease coping and adaptive capacities of an individual, a community, assets or systems to the impacts of hazards. (Adjusted after UNDRR 2017)

Well-being: The concept of human well-being encompasses a range of different individual, household and societal level dimensions, that depend on people's individual choices and opportunities to live the lives that they value ("Well-being means different things for different people"). It goes beyond measuring income and GDP. The OECD identifies the following 11 parameters contributing to human well-being: Income and wealth, Jobs and earning, Housing, Health status, Work-life balance, Education and skills, Societal connections, Civic engagement and governance, Environmental quality, Personal security and Subjective well-being. (OECD 2017)

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