

Advancing Disaster Resilience: Strengthening Social Protection through Disaster Risk Finance



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About Centre for Disaster Protection

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About Resilience Development Initiative

Resilience Development Initiative (RDI) is dedicated to promote sustainable development and resilience-building efforts in communities facing challenges such as disasters, climate change, and social vulnerabilities.

About the 'Expanding and improving Disaster Risk Finance' grant

The Centre invited organisations to respond to a request for research proposals relating to questions around expanded and improved use of disaster risk finance (DRF) to strengthen resilience in developing countries

Disclaimer

This publication reflects the views of the authors and not necessarily the views of the Centre for Disaster Protection.

Acronyms

ADB – Asian Development Bank	KADIN – Indonesian Chamber of Commerce
APBN – State Budget	LDRRMF – Local Disaster Risk Reduction and Management Fund
ASP – Adaptive Social Protection	LKMS – Islamic Microfinance Institutions
BPD LH – Environmental Fund Management Agency	LPDP – Education Fund Management Institution
BNPB – National Disaster Management Agency	MoCSMEs – Ministry of Cooperatives and SMEs
BPJS Kesehatan – National Health Insurance Provider	MoF – Ministry of Finance
BPJS Ketenagakerjaan – National Employment Insurance Provider	MoNDP – Ministry of National Development Planning
CCA – Climate Change Adaptation	MoSA – Ministry of Social Affairs
CSR – Corporate Social Responsibility	OIP – Government Investment Operator
DRF – Disaster Risk Finance	OJK – Financial Services Authority
DRFI – Disaster Risk Finance and Insurance	PKH – Family Hope Program
DRR – Disaster Risk Reduction	Regsosek – Social and Economic Registry
DRRF – Disaster Resilience & Recovery Fund	RPJMN – National Medium-Term Development Plan
DTKS – Integrated Social Welfare Data	SIB – Social Impact Bonds
DSP – On-Call Fund	SOEs – State-Owned Enterprises
ESCP – Environmental and Social Commitment Plan	TNP2K – National Team for Acceleration of Poverty Reduction
ESG – Environment and Social Governance	UNDRR – United Nations Office for Disaster Risk Reduction
ESMS – Environment and Social Management Systems	UNICEF – United Nations Children's Fund
GoI – Government of Indonesia	WFP – World Food Programme
IDS – Institute for Development Studies	
IEF – Indonesian Environment Fund	
ILO – International Labour Organization	
INA – Indonesia Investment Authority	
IRBI – Indonesia Disaster Risk Index	
JHT – National Old Age Insurance	
JKM – National Death Insurance	
JKK – National Work Accident Insurance	
JKP – National Job Loss Insurance	
JKN – National Health Insurance	

Executive Summary

Indonesia, one of the most disaster-prone countries globally, faces persistent vulnerability to natural hazards-induced disasters and climate-related risks. Ranked as the second-most at-risk nation in the 2023 World Risk Index, Indonesia's exposure to natural hazards places immense pressure on its social protection systems, which are often reactive and dependent on state budgets. These budgets tend to be insufficient in times of crisis, leading to delays in emergency response and limiting the government's ability to provide swift, targeted assistance to those in need.

This study, developed by the Resilience Development Initiative (RDI) with financial support from the Centre for Disaster Protection (CDP), examines how integrating Adaptive Social Protection (ASP) with Disaster Risk Financing (DRF) can bolster Indonesia's disaster resilience. ASP is an approach that combines elements of social protection, disaster risk reduction, and climate change adaptation to protect vulnerable communities before, during, and after crises. By aligning ASP with DRF, Indonesia has an opportunity to leverage both financial and operational synergies, resulting in a more timely, effective response during disasters. This integration not only enhances financial resilience but also enables scalable, data-informed responses that can adapt to evolving risks.

The study identifies key opportunities and challenges in integrating ASP with DRF, emphasising the need for improved financial efficiency, proactive resource allocation, and a scalable framework for emergency response. It proposes a phased approach that categorises ASP programmes by funding needs—routine or crisis-specific—and aligns them with appropriate DRF instruments such as the national Pooling Fund, contingent credit lines, climate bonds, and private sector partnerships. A more structured ASP-DRF framework can enhance Indonesia's ability to mobilise resources quickly, improve coordination across sectors, and build a more responsive and sustainable social protection system.

While the study outlines practical pathways for integration, it does not explore how the type and frequency of risk should influence the choice of financing tools. For example, shock-responsive social protection is often best suited for predictable, seasonal events that justify investment in delivery systems but not necessarily in risk transfer instruments like insurance. These are typically better suited to infrequent, high-impact shocks. Although this is an important consideration for future ASP-DRF design, addressing it in depth was beyond the scope of this paper.

Recommendations for ASP-DRF Integration:

1. Develop an ASP-DRF Integration Framework:

- Classify ASP programmes by financing needs—regular (steady-state) and responsive (emergency).
- Align regular ASP programmes with sectoral budgets and social insurance contributions for stable support, while emergency ASP programmes should utilise DRF instruments like the Pooling Fund, on-call funds, and insurance for rapid response

- Incorporate ASP financing into the Disaster Risk Financing and Insurance (DRFI) roadmap to streamline resource mobilisation across both steady-state and emergency scenarios.

2. Strengthen Data Systems and Diversify Financing Sources:

- Invest in data systems, such as the Regsosek socio-economic registry, to enhance targeting accuracy, transparency, and disaster response.
- Address funding gaps by expanding the national pooling fund, exploring climate bonds, and forming partnerships with private insurers and multilateral organizations to ensure robust support for ASP programmes.

3. Build Institutional Capacity and Foster Cross-Sector Collaboration:

- Establish an inter-agency task force to oversee ASP-DRF integration and promote coordination across social protection, disaster risk management, and climate adaptation sectors.
- Implement capacity-building initiatives for government staff and involve local communities to strengthen disaster management responsiveness and effectiveness.

4. Implement a Phased ASP-DRF Strategy with Monitoring and Evaluation:

- Adopt a phased approach, starting with framework development and pilot programmes in 2025, followed by expanded ASP coverage and enhanced financing capacity in subsequent phases.
- Use continuous monitoring and evaluation to refine ASP-DRF operations, ensuring alignment with Indonesia's evolving disaster risk landscape.

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1. Introduction

1.1 Background

Indonesia is ranked as the second most at-risk country in the 2023 World Risk Index, reflecting its high levels of vulnerability, exposure, and susceptibility to disasters, compounded by the ongoing impacts of climate change (Bündnis Entwicklung Hilft, 2023). To address these challenges, Indonesia has introduced the concept of Adaptive Social Protection (ASP). This approach aims to enhance the resilience of poor and vulnerable households by improving their ability to prepare for, cope with, and adapt to covariate shocks. ASP achieves this by integrating social protection with disaster risk reduction and climate change adaptation strategies (Bowen et al., 2020; Davies et al., 2009).

A key aspect of ASP is its financing strategy, which is one of its four main components. For ASP to be effective, it must be supported by a financing mechanism that is timely, adequate, and sustainable. Delayed or insufficient funding can lead disaster-affected individuals to adopt detrimental coping strategies, such as selling productive assets or withdrawing children from school, which can worsen poverty and hinder recovery efforts (Bowen et al., 2020).

Disaster Risk Finance (DRF) is essential for supporting ASP financing (Bowen et al., 2020; UNICEF, 2023; WFP, 2023). DRF ensures that governments have the necessary resources for effective disaster management and can quickly disburse funds during emergencies (OECD, 2015). By employing a risk-layered approach, utilising risk transfers, and enhancing financial resources (Clarke et al., 2015), DRF has the potential to provide the timeliness, adequacy and sustainability needed for ASP.

Although Indonesia has established a national DRF strategy, it has yet to be fully integrated with social protection systems, particularly with ASP, which is still under development. Most social protection programmes are funded through state budgets, which are often limited, reactive, and not well-suited for emergency situations. Consequently, emergency social protection measures have been slow to deploy, with UNICEF noting delays of up to two years in delivering living support programmes during the 2018 disasters (UNICEF, 2023).

There is a significant opportunity to better align ASP with DRF by connecting social protection programmes to relevant DRF instruments, especially those for emergency social protection. Examining Indonesia's approach in this area could offer valuable insights applicable to other developing countries facing similar social and disaster-related challenges.

1.2 Study's Objective and Scope

Based on background, the study's key objectives are as follows:

- examine the potential opportunities and challenges associated with integrating social protection and disaster risk finance;
- assess the current landscape of social protection in Indonesia; and

- formulate a customized strategy and provide recommendations to enhance the integration of social protection and disaster risk finance, aiming to strengthen the delivery of social protection services.

To achieve the aforementioned study's objectives, this study will focus on the discussion of several key aspects:

- **Integration Potential and Challenges:** Examine the opportunities for and obstacles to integrating social protection with disaster risk finance, focusing on potential benefits and difficulties.
- **Assessment of Social Protection in Indonesia:** Analyse the current structure, coverage, and effectiveness of social protection systems in Indonesia to understand their strengths and limitations.
- **Integration Strategy:** Develop a tailored strategy and offer practical recommendations to enhance the integration of social protection and disaster risk finance, aiming to improve the delivery and impact of social protection services.

1.3 Study's Methodology

The study on Strengthening Social Protection Delivery in Disaster through Integration with Disaster Risk Finance in Indonesia employed a comprehensive approach to data collection, utilising both qualitative and quantitative methods. Qualitative approaches were conducted using desk and literature reviews, key-informant interviews involving 14 stakeholders from relevant ministries and agencies, such as Ministry of Finance (MoF) and Ministry of Social Affairs (MoSA), as well as private sector actors. Survey data was collected and supplemented by quantitative data gathered through desk reviews of government documents, surveys, and secondary statistical results from government and international sources.

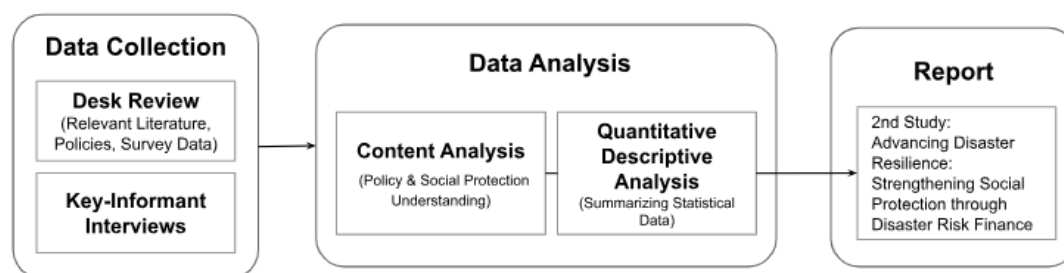


Figure 1. Methodology Framework

Source: BNPB, 2024

The data analysis was conducted using both qualitative and quantitative techniques. In particular, content analysis aided in understanding existing policies in social protection, particularly related to disaster management. Quantitative descriptive analysis was also utilised to interpret secondary statistical data, presenting it in visual formats such as figures and tabulations. Several tools were also employed to facilitate analysis and strategy development. Capacity Gap Assessment identified disparities between objectives and the actual or potential abilities to achieve them, highlighting key areas where development strategies may fall short. Lastly, Data Triangulation ensured the validity and robustness of findings by cross-referencing information collected through various methodologies, including desk reviews and in-depth interviews.

2. Conceptual Framework:

Integrating Social Protection and Disaster Risk Finance

2.1 Core Concept: Adaptive Social Protection and Disaster Risk Finance

2.1.1 Adaptive Social Protection (ASP)

Adaptive Social Protection (ASP) is a comprehensive framework that merges social protection, disaster risk management, and climate change adaptation to bolster the resilience of vulnerable households against various shocks. ASP involves addressing environmental degradation, poverty, and disaster vulnerability by promoting inclusive and sustainable development strategies (Wu & Drolet, 2021). This approach arose from the recognition that traditional social protection systems often lack the flexibility and responsiveness necessary to tackle modern challenges such as climate change and economic disruptions. By focusing on reducing poverty and enhancing resilience, ASP combines key elements such as social protection floors, disaster risk reduction, and climate change adaptation to create a comprehensive response framework that can adjust to evolving risks and vulnerabilities (Davies et al., 2008).

In practice, ASP initiatives ensure that vulnerable groups receive not only basic social guarantees like income security and healthcare but also access to employment, education, and disaster risk-reduction programmes, thus bolstering their adaptive capacities against future crises (Vincent & Cull, 2012; ILO, 2014). In its implementation, ASP is built upon four core elements which includes (Wyatt & Barca, 2021; World Bank, n.d.; World Bank, 2023):

- 1. Programmes:** These are crafted to be adaptable and responsive, allowing for adjustments in targeting and benefits based on household vulnerability to shocks. This involves adjusting eligibility criteria to include those most at risk and tailoring benefits to strengthen resilience.
- 2. Data and Information Systems:** Effective ASP depends on robust data systems that can identify vulnerable populations and monitor changes in their conditions. This includes expanding social registries to cover high-risk households and using real-time data for informed decision-making.
- 3. Finance:** ASP highlights the importance of effective and adaptive financing mechanisms capable of swiftly mobilizing resources in response to shocks. This involves estimating the cost of response before a shock, preplanning the funding required to ensure timely response, and establishing and linking the plan to effective disbursement mechanisms. Additionally, prepositioning funds to ensure timely support during crises is also crucial.
- 4. Institutional Arrangements and Partnerships:** Successful ASP requires coordination across various sectors and government levels, as well as collaboration with non-governmental organizations and community stakeholders. This integration is essential for maximizing the impact of interventions.

The implementation of ASP is guided by several key principles:

Institutional Coordination: Effective ASP demands collaboration between social protection agencies and those involved in climate change and disaster risk management. Navigating the complexities of various governmental and non-governmental actors can be challenging but is crucial for effective coordination.

Enhancing Adaptive Capacity: ASP programmes should aim to improve the adaptive capacity of households, enabling them to better prepare for, cope with, and recover from shocks. This may include providing resources to diversify livelihoods or strengthen asset bases.

Swift Response Mechanisms: Programmes should be designed to rapidly respond to shocks, leveraging existing social protection frameworks to ensure efficient delivery of assistance when needed.

2.1.2 Disaster Risk Finance

Disaster Risk Finance (DRF) is an essential framework that provides governments with the financial resources necessary to effectively manage disaster response and recovery efforts. The approach aims to protect affected sectors and populations from the economic impacts of disasters (OECD, 2015). Given the complex nature of disaster risks, DRF utilises a risk layering strategy to categorise different types of risks by their probability and severity. This method allows for the design of targeted mitigation and financing strategies that address each risk layer appropriately (Mechler & Aerts, 2014). By doing so, DRF enhances decision-making processes and ensures that resources are allocated efficiently to bolster community resilience.

The primary goals of DRF are to build financial resilience for vulnerable countries before disasters occur and to facilitate rapid and effective responses when disasters strike. This involves ensuring that financial resources are available promptly for recovery efforts, protecting national budgets from the strain of disaster expenditures, and supporting broader disaster risk management strategies such as risk reduction, preparedness, and resilient rebuilding (World Bank, 2018). DRF targets four main groups:

- 1. Government Entities:** DRF provides financial protection to enable rapid response and safeguard national and subnational budgets. It helps governments manage financial risks proactively and absorb disaster costs.
- 2. Homeowners and Small Businesses:** DRF supports the development of markets for private property disaster risk insurance, protecting individuals and businesses from financial losses due to property damage.
- 3. Agricultural Sector:** DRF promotes sustainable and cost-effective public-private partnerships in agricultural insurance. This benefits farmers, ranchers, and fishermen by mitigating risks associated with agriculture.
- 4. Marginalized Communities:** DRF channels emergency assistance through social protection mechanisms to ensure a swift and transparent response, reducing the humanitarian impact on vulnerable households.

The implementation of DRF is informed by the Sendai Framework for Disaster Risk Reduction 2015-2030 (SFDRR), which emphasises the importance of reducing disaster impacts through risk transfer and financial protection mechanisms for both public and private investment. While the Sendai Framework highlights the need to promote mechanisms for disaster risk transfer, insurance, and financial protection, it serves as a foundation for further development of DRF strategies. These principles include:

- 1. Risk-Informed Decision-Making:** Emphasises the importance of accurate, up-to-date data and risk analysis. Probabilistic risk analysis helps in understanding the likelihood and impact of different types of disasters, enabling governments to allocate appropriate resources for emergency response and recovery (OECD, 2012; UNDRR, 2017, 2020).
- 2. Ex-Ante Financing:** Focuses on arranging funds before a disaster occurs to ensure a swift and adequate response. This includes various financing instruments such as emergency disaster funds, disaster-ready loans, insurance, and grants (GFDRR, 2014; UNICEF, 2023; UNU EHS & UNCDF, 2021).
- 3. Adequate and Rapid Disbursement:** Ensures that funds are available quickly to prevent negative coping strategies by affected communities. Rapid disbursement mechanisms help meet immediate needs and prevent detrimental measures like asset liquidation or reduced food consumption (Bowen et al., 2020; UNICEF, 2023; WFP, 2023).
- 4. Reduction of Public Sector Fiscal Burden:** Advocates for extending financial responsibilities beyond the government. This involves encouraging private sector involvement and community contributions to share the costs of disaster management and risk reduction (UNDRR, 2015).
- 5. Transparent and Monitored Financing:** Aims to build trust and accountability in disaster financing by ensuring efficiency and effectiveness. This includes developing accurate financial policies, monitoring fund utilisation, and conducting evaluations to inform future DRF policy development (Argyrous & Rahman, 2016; GFDRR, 2014, 2016; OECD, 2015; Radu, 2022; UNU EHS & UNCDF, 2021).

By integrating these principles, DRF strives to enhance disaster management practices, promote private sector participation, and improve the transparency and accountability of financial resources used in disaster response and recovery.

2.2 Unveiling the Synergy: Potential Benefits and Challenges of Integration

2.2.1 Potential Benefits of Linking ASP and DRF

Integration of ASP and DRF will create a multitude of advantages, including **enhanced resilience** for vulnerable households, **improved financial efficiency**, **scalable assistance**, and **strengthened data systems** for better disaster response (Calcutt et al., 2021; Cubas et al., 2020; Hagemann, 2020). The benefits can best be illustrated below:

- 1. Enhanced Resilience for Vulnerable Households:** Integrating ASP with DRF strengthens the ability of poor and vulnerable households to withstand significant shocks like disasters and climate change impacts. This approach ensures timely support, aiding recovery and adaptation, and mitigating long-term vulnerabilities.

- 2. Improved Financial Efficiency:** Combining ASP and DRF enhances the efficiency of financial resource utilisation. Establishing clear triggers for fund disbursement based on risk assessments allows governments to mobilise resources effectively and avoid delays associated with traditional budget reallocations. This proactive strategy supports better preparedness and quicker response times.
- 3. Scalable and Flexible Assistance:** The integration allows for scalable support proportional to the severity of a disaster. ASP frameworks can adjust the level of assistance based on the disaster's scale, ensuring aid is both sufficient and appropriate for varying needs. Adequate funding, facilitated by DRF, is essential for achieving this scalability and flexibility.
- 4. Strengthened Data Systems:** Integrating ASP with DRF improves data collection and analysis, which is crucial for effective disaster response. ASP promotes comprehensive data systems to monitor household vulnerabilities and risks, enabling better resource targeting and informed decision-making.
- 5. Facilitated Early Action and Preparedness:** Linking ASP and DRF allows governments to implement early warning systems and preparedness measures, enabling proactive interventions. This can reduce the impact of disasters before they escalate, lowering overall recovery costs.
- 6. Enhanced Sectoral Coordination:** The integration fosters collaboration across various sectors, including social protection, disaster risk management, and climate change adaptation. This multi-sectoral approach ensures comprehensive responses to the interconnected risks faced by vulnerable populations.
- 7. Increased Accountability and Transparency:** A well-structured DRF strategy incorporating ASP can improve accountability in aid distribution. Clear criteria for fund allocation and tracking disbursements help build trust with communities and ensure that assistance reaches those most in need.

In conclusion, the integration of ASP with the DRF strategies not only enhances the effectiveness of social protection systems but also strengthens resilience among vulnerable populations. This comprehensive approach is crucial for addressing the complex challenges posed by climate change and disasters, ensuring timely and adequate support in the face of such events.

2.2.2 Potential Challenges of Linking ASP and DRF

While the integration promises significant benefits, such as improved financial efficiency and enhanced support for affected households, it also introduces a range of challenges. These include the complexities of coordination across different sectors, issues with data quality and availability, financial constraints, gaps in institutional capacity and expertise, the intricacies of risk layering and financial instruments, and political and social dynamics.

- 1. Complexity of Coordination:** Integrating ASP with DRF presents significant coordination challenges. Effective integration necessitates collaboration across multiple sectors, such as social protection, disaster management, and climate change adaptation. Each sector operates with its own priorities, frameworks, and funding mechanisms, which can lead to conflicts and inefficiencies. Additionally,

government agencies often work in silos, making information sharing and collaboration ineffective. This fragmentation can cause delays in assistance, inadequate coverage of affected populations, and inefficient use of resources. To mitigate these issues, establishing inter-agency task forces or committees can enhance coordination. Subsequently, developing shared frameworks or guidelines can provide clarity and direction for all stakeholders involved.

- 2. Data Quality and Availability:** The quality and availability of data are crucial for effective disaster response, yet they present a significant challenge. Many countries lack comprehensive data systems that accurately assess vulnerabilities and risks. Existing data is often outdated, inconsistent, or inadequately disaggregated. Real-time data, essential for timely financial responses in DRF, is also frequently unavailable. Poor data quality can lead to misallocation of resources and hinder effective planning and preparedness. To address these challenges, investing in advanced data collection and management systems—such as mobile applications and remote sensing technologies—can improve data quality and availability. Additionally, collaborating with local communities to gather qualitative data can provide valuable insights into vulnerabilities and needs.
- 3. Financial Constraints:** Financial constraints are a major challenge in integrating ASP with DRF. Many low- and middle-income countries face budget limitations that restrict their ability to invest in these initiatives, with competing priorities further complicating resource allocation. Dependence on volatile external funding sources, such as international aid, adds uncertainty to financing ASP initiatives, making long-term planning difficult. Insufficient funding can result in inadequate disaster response and recovery efforts, potentially eroding community trust in future programmes. To overcome these constraints, exploring innovative financing mechanisms, such as climate bonds or insurance products, can help mobilise additional resources. Prioritising ASP and DRF in national budgets can also redirect funding towards resilience-building initiatives.
- 4. Institutional Capacity and Expertise:** Institutional capacity and expertise are critical challenges in integrating ASP and DRF strategies. Many institutions may lack the technical skills needed for effective implementation, particularly in developing countries with limited capacity-building resources. Continuous training and development are necessary to keep staff updated on best practices and emerging trends. Weak institutional capacity can lead to poorly designed programmes that fail to meet the needs of vulnerable populations and hinder effective monitoring and evaluation. Investing in training programmes for government officials and staff can build necessary skills while partnering with academic institutions and NGOs can provide additional expertise and more resources for capacity building.
- 5. Risk Layering and Financial Instruments:** The complexity of risk management is a significant challenge when integrating ASP with DRF. Effective integration requires a sophisticated understanding of different types of risks, such as disasters and economic shocks, and how to layer financial instruments to address them. Governments must navigate the selection and combination of various financial instruments, such as insurance and contingency funds, to ensure adequate coverage for different disaster scenarios. Poorly designed financial instruments can lead to inadequate risk coverage and delays in fund disbursement. Conducting comprehensive risk assessments can help identify the most appropriate financial instruments for various scenarios, while developing clear guidelines for their use can streamline decision-making processes and improve efficiency.

6. Political and Social Dynamics: Political and social dynamics can also affect the integration of ASP and DRF. Political will is crucial for the success of these initiatives; a lack of support from political leaders can hinder progress. Social equity concerns may arise if assistance is not distributed fairly, leading to tensions among community groups. Lack of political will stall initiatives and prevent necessary policy changes and resource allocations. Social tensions can undermine community trust, complicating the implementation of ASP initiatives. Advocacy and awareness campaigns can help build political support by highlighting the benefits of integrating ASP and DRF. Furthermore, engaging communities in the design and implementation of programmes can ensure the community's needs are addressed, fostering a sense of ownership and trust.

Addressing these challenges requires a multifaceted approach that improves coordination, data quality, financial resources, institutional capacity, risk management, and political support. By proactively tackling these issues, governments and stakeholders can develop more effective and sustainable systems that better serve vulnerable populations in the face of disasters.

3. Strengthening Social Protection for Disaster

3.1 Evaluating Social Protection and Funding Landscape for Disaster Resilience in Indonesia

3.1.1 Evaluating Indonesia's Social Protection Practices in Disaster

Indonesia's commitment in adopting the Adaptive Social Protection (ASP) framework is reflected in various policies and strategic plans, particularly in the National Medium-Term Development Plan (Rencana Pembangunan Jangka Menengah/RPJM) 2020-2024. This document underscores the necessity for a comprehensive, inclusive, and adaptive social protection system—as the important element of Indonesia development agenda and priority—aimed at reducing poverty, risks, and vulnerability, particularly in the context of the result of disasters and climate change (TNP2K, 2023).

The literature present a range of programmes that are integral to ASP including cash transfers, social insurance, and climate insurance, among others (Béné et al., 2018; Bowen et al., 2020; Davies et al., 2009; G20 Indonesia, 2022; Kuriakose et al., 2012; Tenzing, 2020; Ulrichs et al., 2019). These programmes are categorised into nine distinct types, detailed in Table 1, and assessed based on their alignment with ASP objectives—particularly their effectiveness in reducing vulnerability and bolstering resilience.

Furthermore, the literature review and interview results highlight several potential ASP programmes, categorised according to their objectives and modes of disbursement. Notably, programmes focused primarily on education and energy subsidies were excluded from this analysis due to their limited direct impact on immediate disaster response and recovery efforts. This classification provides insight into each programme's adaptability and capacity to address needs at various stages of a disaster.

The evaluation of identified ASP programmes emphasises their potential for both horizontal and vertical expansions. Horizontal expansion refers to broadening the programme's reach to encompass a greater number of beneficiaries, whereas vertical expansion involves enhancing the programme's benefits or scope. Most programmes are recommended for horizontal expansion due to their limited coverage. For instance, the Family Hope Programme and Village Fund Cash Transfers are identified as candidates for horizontal expansion to better support disaster-affected populations. The identified programmes are categorised into **seven types** as shown in **Table 1**, which provides detailed information on each programme and its potential benefits.

Based on evaluation, Cash Transfers or Assistance and Logistics and Emergency Food Provision stand out as the greatest potential programmes for immediate disaster response. In the context of post-disaster recovery, Post-Disaster Recovery and Reconstruction programmes are also crucial for long-term recovery efforts.

Table 1. Use of Property Insurance Based on Occupancy

Programme Category	Description	Examples	Possible Expansion
Cash Transfers / Assistance	Provides direct financial support to households for basic needs during emergencies or as a safety net.	Family Hope Programme, Cash Assistance for Food in Disaster Response	Horizontal: Increase number of beneficiaries; Vertical: Increase assistance amount.
Social Insurance	Offers financial protection against risks such as health issues, old age, and unemployment.	National Health Insurance, National Old Age Insurance	Horizontal: Extend coverage; Vertical: Enhance benefits or include new risk categories.
Logistics and Emergency Food Provision	Provides logistical support and food aid during emergencies to meet immediate needs.	Non-cash Food Assistance, Social Food Banks	Horizontal: Increase reach of distribution; Vertical: Extend duration or improve aid quality.
Livelihood Support and Credit Assistance	Offers financial support or assistance for income-generating activities to help rebuild livelihoods.	Social Entrepreneurship Programme, Disaster Affected Business Assistance	Horizontal: Broaden access; Vertical: Increase support or diversify assistance types.
Programmes for Disabled, Elderly, Women, and Children	Specialised support for vulnerable groups including people with disabilities, the elderly, women, and children.	Social Rehabilitation Assistance for Vulnerable Persons and Elderlies	Horizontal: Increase beneficiaries; Vertical: Enhance service scope or benefits.
Public Works	Creates employment through public works projects, including infrastructure development and maintenance.	Public Works Programmes, Village Fund Public Works Programmes	Horizontal: Scale up projects or beneficiaries; Vertical: Enhance funding or project scope.
Village-Centered Development Programmes	Strengthens village-level resilience through capacity-building and community engagement.	Alert Village, Disaster Prepared Village	Horizontal: Extend to more villages; Vertical: Improve effectiveness or increase funding.
Climate Insurance	Mitigates financial impact from climate-related risks, covering agricultural or livestock operations.	Crop Insurance Premium Subsidies, Livestock Insurance Premium Subsidies	Horizontal: Cover more operations; Vertical: Enhance coverage levels or adjust premiums.
Post-Disaster Recovery and Reconstruction	Assists in recovering and rebuilding after disasters, including financial aid for repairs and reconstruction.	Social Rehabilitation Programmes for Disaster Victims, Stimulant Fund for Repairing Houses	Horizontal: Cover more individuals or households; Vertical: Improve funding mechanisms or recovery speed.

Source: Maipark Reinsurance, 2024

Integrating ASP with DRF strategies necessitates addressing various design and implementation challenges. Programmes should be rigorously evaluated for both horizontal and vertical expansion potential, improvement in data quality, and alignment with ASP principles. Employing a comprehensive approach will significantly enhance resilience, optimise disaster response, and ensure more effective recovery outcomes.

3.1.2 Current and Potential Social Protection's Funding Sources in Disaster

This overview examines the diverse financing mechanisms currently utilised in Indonesia to support ASP programmes and disaster management efforts. The overview explains the key funding sources, including state and local budgets, on-call

funds, contingency loans, insurance mechanisms, social insurance contributions, the Pooling Fund, and international aid. Each of these financing instruments plays a distinct role in addressing the financial needs associated with social protection and disaster risk management. By exploring these sources, this overview highlights the breadth of resources available, their specific applications, and their potential for integration to enhance the resilience and effectiveness of social protection systems in Indonesia.

- 1. State and Local Budgets:** The primary source of financing for social protection programmes in Indonesia is the state and local budgets. These budgets fund regular social assistance and subsidise social insurance contributions. For instance, in 2022, IDR 431.5 trillion (US\$ 28.76 billion), or 15.9% of the total state budget, was allocated for various social protection measures, including education benefits, energy assistance, and poverty reduction programmes (Uli, 2022). Additionally, IDR 68 trillion (US\$ 4.5 billion), or 2.5% of the total state budget, was allocated to village funds, which support local social protection initiatives (Sekretariat Kabinet, 2022). Village funds, initially used extensively for cash assistance during the COVID-19 pandemic, are now capped at a maximum of 25% of the total village fund under Ministry of Village Regulation No. 8 of 2022.
- 2. On-Call Funds:** The On-Call Fund (Dana Siap Pakai/DSP) is a flexible financing mechanism available for immediate use by the Government, particularly the National Disaster Management Agency (Badan Nasional Penanggulangan Bencana/BNPB). This fund is allocated within the State Budget (APBN) and specifically designated in BNPB's budget for emergency response activities. When a disaster occurs, BNPB requests these funds from the Ministry of Finance (MoF) based on a rapid assessment of needs. On-call funds can be used for both emergency response and post-disaster recovery phases (Ministry of Finance, 2018).
- 3. Contingency Loans:** Contingency loans provide financial support when a country's budgetary capacity is insufficient to handle disaster impacts. Indonesia has secured a contingent loan of US\$ 500 million from the Asian Development Bank (ADB) to address such shortfalls (ADB, 2020).
- 4. Insurance:** Insurance mechanisms, including climate insurance products such as crop, cattle, and aquaculture insurance, offer risk protection against disasters and climate change impacts (Panda, 2021). These products are administered through collaborations between the Government and Jasindo, a state-owned enterprise. Private insurance options, such as palm tree and property insurance, also contribute to financial resilience.
- 5. Social Insurance Contributions:** Social insurance contributions are designed to be self-financing, with funds accumulated for claims and operational needs. Indonesia's national health insurance (BPJS Kesehatan) and employment insurance (BPJS Ketenagakerjaan) are examples of this model. As of the latest reports, the financial health of these programmes remains stable, with loss ratios of 87.9% and 55.5%, respectively (BPJS Kesehatan, 2023; BPJS Ketenagakerjaan, 2023a).
- 6. Pooling Fund:** The Pooling Fund, a newer financial instrument, manages IDR 7.4 trillion (US\$ 493 million) for investment and utilisation (Ministry of Finance, 2023). Established under Presidential Regulation No. 75 of 2021, it supports various disaster management phases and risk transfers, offering a flexible and responsive financing source for ASP.

- 7. Aid:** International aid and voluntary transfers from development assistance, international organizations, and multilateral banks are additional funding sources. Under Government Regulation No. 23 of 2008, such aid must be reported to the BNPB and is often used for emergency response and recovery, adhering to donor requirements for preparedness activities.

In summary, Indonesia's approach to financing social protection and disaster management encompasses a range of instruments, each contributing uniquely to the country's resilience strategy. The integration of state and local budgets, on-call funds, contingency loans, insurance mechanisms, social insurance contributions, and the Pooling Fund is needed to address routine and emergency needs. However, while international aid can be helpful, its unpredictable nature may limit its effectiveness as a consistent component of this framework. Regardless, the effectiveness of the financing mechanisms in supporting ASP depends on the accuracy of data used as basis and emergency priorities, even though cases of the government scaling up social assistance and programmes in the event of disaster is evident. Future efforts should focus on optimising these funding sources to ensure timely and adequate support for vulnerable populations, enhancing the overall impact of social protection programmes, and reinforcing disaster resilience across the nation.

3.1.3 Financing Gap in Social Protection Delivery

The current financing landscape for ASP in Indonesia reveals substantial gaps that undermine the effectiveness and coverage of social protection programmes. As of the most recent data in 2023, the total expenditure on identified ASP programmes is IDR 406.8 trillion (US\$ 27.1 billion). This amount comprises IDR 175.6 trillion (US\$ 11.7 billion) allocated to social assistance through sectoral budgets and IDR 231.2 trillion (US\$ 15.4 billion) from social insurance contributions (Figure 4) (Uli, 2022). However, this figure excludes additional expenditures related to broader social protection measures introduced to mitigate the impacts of COVID-19, such as the Credit Relaxation Programme and the People's Credit Programme. These measures, which included IDR 900 trillion (US\$ 60 billion) in delayed payments and IDR 365 trillion (US\$ 24.3 billion) in credit disbursements, are significant but fall outside the direct scope of ASP due to their limited alignment with disaster risk reduction (DRR) and climate change adaptation (CCA) functions (Wareza, 2020); (Ferdianto, 2022).

Despite the substantial financial allocations, there are significant gaps in both coverage and adequacy within the current ASP framework (Bowen et al., 2020; Davies et al., 2009). For example, the Family Hope Programme, which aims to assist the poorest segments of the population, currently reaches 10 million beneficiaries. However, the ideal coverage should extend to 14 million individuals based on Indonesia's first and second poorest decile data (Coordinating Ministry for Economic Affairs, 2022), indicating a shortfall of 4 million beneficiaries. This gap highlights a critical deficiency in addressing the needs of the most vulnerable populations. Additionally, the financing needs for emergency social protection programmes reveal a substantial shortfall of IDR 105 trillion (US\$ 7 billion) for regular social assistance and IDR 12.1 trillion (US\$ 808.1 million) for emergency social assistance (Figure 3). These gaps hinder efforts to reduce poverty and prevent disaster-induced economic hardships, emphasizing the urgency of addressing these financial shortfalls.

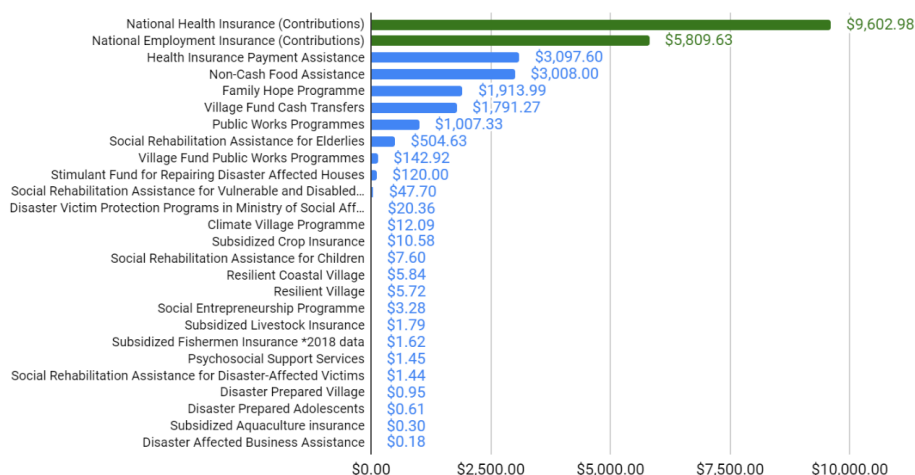


Figure 2. Budget for Social Protection Programs (in Million USD)

Source: Processed, from Various Performance Reports and DIPA of Ministries/Institutions (2022)

To better understand the financing needs, the study examined two scenarios. The first scenario calculated the financing needs based on fulfilling the full beneficiary targets for each ASP programme. This approach reveals significant gaps in existing programmes, especially for vulnerable groups such as children and individuals with disabilities. For instance, social rehabilitation assistance programmes for poor children and disabled persons exhibit notable shortfalls, underscoring the need for additional funding to adequately support these groups (**Figure 3**).

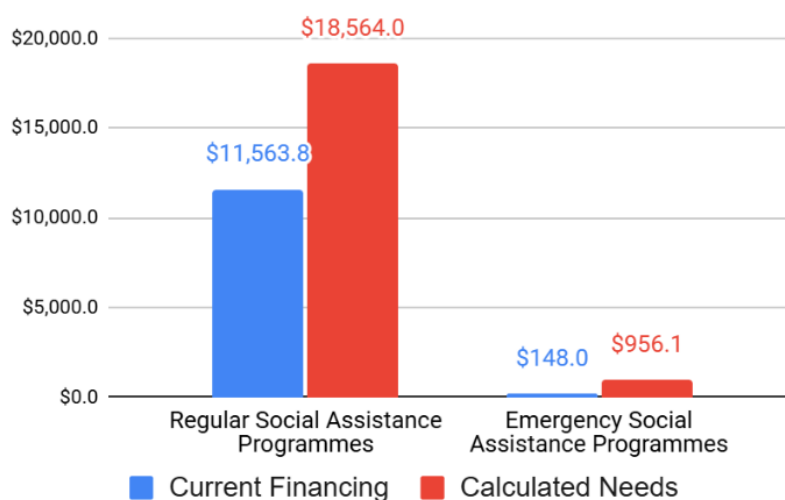


Figure 3. Financing Gaps of Social Assistance (in millions USD)

Source: Authors (2024), data processed from 2022

The second scenario adopted the "social protection floor" approach, which proposes a more comprehensive coverage model for all population groups, including the unemployed, older people, people with disabilities, mothers, and children. This approach calculates financing needs based on providing benefits equivalent to or a portion of the national poverty line. Specifically, the approach suggests that benefits for maternity, old-age, disability, and unemployment should equal 100% of the poverty line, while child benefits should be 25% of the poverty line (Adaba, 2016; ILO, 2011);

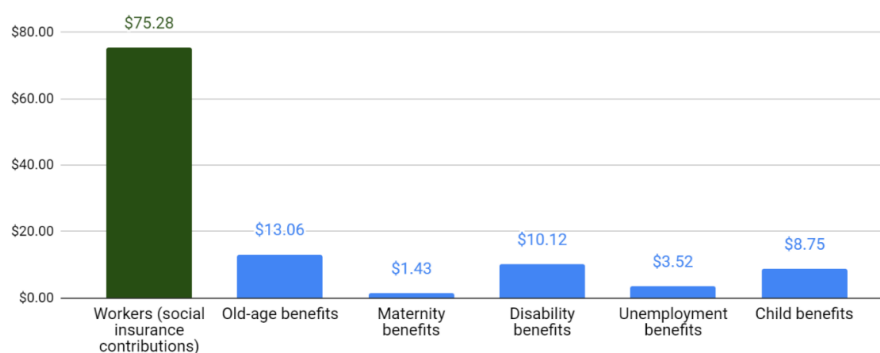


Figure 4 Estimated Social Protection Needs on Basic Income (in billion USD)

Source: Authors (2024), data processed from 2022

(Duran-Valverde et al., 2019). The estimated financing needs based on this approach total IDR 553.2 trillion (US\$ 36.8 billion) for non-contributory sources and IDR 1,129.2 trillion (US\$ 75.3 billion) for contributory sources (Figure 4). This theoretical calculation highlights a significant disparity between current expenditures and the ideal funding required to fully support all population groups, emphasising the need for a more robust and comprehensive financing strategy.

In conclusion, the current financing landscape for ASP in Indonesia reveals substantial gaps that impact the adequacy and coverage of social protection programmes. Addressing these gaps is critical for enhancing the effectiveness of social protection, reducing poverty, and preventing disaster-induced economic hardship. The findings underscore the importance of developing a more inclusive and sustainable financing strategy to ensure that all vulnerable populations receive the support they need.

3.1.4 Limitations of Social Protection Programme Design in Response to Disaster

Based on the literature review and interviews, while many identified programmes contribute to reducing vulnerability, managing risks, and enhancing resilience, there is a need for further design modifications to fully align them with the ASP approach. These programmes, which include various social assistance and social insurance schemes, often face limitations in their ability to expand or adapt rapidly during emergencies.

Many social assistance and social insurance programmes are designed with fixed parameters that do not easily accommodate expansion during emergencies. For instance, programmes like the Family Hope Programme and Non-cash Food Assistance are generally structured to operate under regular conditions without provisions for scaling up or adjusting in response to sudden disaster-related needs. To better align with ASP principles, these programmes need to incorporate mechanisms that allow for rapid scaling during emergencies. This could involve creating flexible guidelines that enable swift adjustments in beneficiary coverage, benefit levels, or delivery mechanisms in response to emerging needs during crises.

A significant challenge for regular social protection programmes is ensuring precise targeting of assistance. Programmes such as the Family Hope Programme and Non-cash Food Assistance often struggle with accurately identifying and reaching the most vulnerable populations, which can undermine the effectiveness of the support

provided. Improving targeting accuracy requires better data management and analysis, but current systems can be outdated, inconsistent, or incomplete, making it challenging to identify and prioritise beneficiaries accurately.

The World Bank's 2021 report on ASP highlights the critical role of up-to-date and interoperable data systems in scaling ASP for shock response, identifying significant limitations within Indonesia's social protection data systems that could hinder ASP effectiveness during crises. One key issue is the lack of comprehensive, dynamic registries that can quickly identify and support households affected by sudden shocks. For instance, Indonesia's Integrated Social Welfare Data (Data Terpadu Kesejahteraan Sosial/DTKS) is primarily based on static data collected for ongoing social assistance programmes. As a result, it can become outdated and fail to capture households that experience new vulnerabilities due to crises, such as disasters or economic downturns. Since updates to DTKS are managed by the Ministry of Social Affairs (MoSA), local authorities face challenges in adapting the data quickly during emergencies.

Interoperability between different social protection programmes is another challenge. ASP systems and disaster response agencies often operate independently, limiting their ability to share data and coordinate responses during crises. In Indonesia, DTKS is complemented by additional beneficiary data held by other ministries, each with different data operators, known as Wali Data. This lack of interoperability complicates efforts to scale ASP rapidly to meet the needs of vulnerable populations during shocks.

To address these limitations, Indonesia's Ministry of National Development Planning (MoNDP) has initiated the development of Regsosek, a more updated and interoperable socio-economic registry. This initiative aims to create a unified database that includes data on various socio-economic aspects of households, making it more adaptable for shock response. While Regsosek shows promise in overcoming the challenges of ASP data systems, it is still in the early stages and has not yet been fully operationalised across all relevant ministries.

By improving registries and interoperability, Indonesia's ASP systems can become more responsive and resilient, providing timely support to vulnerable households during crises. Enhanced data collection, real-time capabilities, and improved data disaggregation are crucial for refining targeting practices and ensuring that aid reaches those who need it most. Addressing these design and implementation challenges will align existing programmes with the ASP approach, strengthening their ability to reduce vulnerability, manage risks, and build resilience in both regular and emergency contexts.

3.2 Bridging the Gap: Integrating Adaptive Social Protection (ASP) into Indonesia's Disaster Risk Financing and Insurance (DRFI) Strategy

3.2.1 Aligning Social Protection Programmes with Financing Mechanisms

Although DRFI and ASP financing integration offers significant benefits and is feasible as many DRFI instruments are compatible with funding ASP programmes, Indonesia's Disaster Risk Finance Strategy has yet to mention the importance of interlinking social

protection for disaster management. Additionally, ASP is still a new concept for the Government, and there has yet to be a clear categorisation of what programmes may constitute the “adaptive” ones. Therefore, effective integration requires creating a typology of ASP programmes and financing instruments that harmonises the ASP and DRF conceptual frameworks.

In the study, programmes in Indonesia were identified that align with the goals of ASP by categorising them based on key ASP functions. This approach, combined with a literature review of ASP examples, allowed the identification of relevant ASP programmes deductively. The types of ASP programmes identified include:

- 1. Cash Transfers/Assistance:** This category covers various forms of direct cash support, such as cash transfers, conditional cash transfers, and emergency cash assistance provided in response to specific crises.
- 2. Social Security:** Programmes in this category offer different types of social insurance, including health insurance, pensions, death benefits, job loss insurance, and accident coverage for workers.
- 3. Logistics Assistance and Emergency Food Provision:** These programmes address food security, especially in emergencies, through regular food assistance, disaster-activated food banks, and the setup of emergency kitchens and food distribution during crises.
- 4. Livelihood Diversification Support, Credit Assistance, and Employment Programmes:** Programmes under this category support economic resilience, including business credit subsidies, entrepreneurship programmes, and job facilitation initiatives aimed at strengthening income sources.
- 5. Programmes for the People with Disabilities, Older People, Women, and Children:** This group includes targeted support programmes such as empowerment and business assistance, as well as life insurance specifically for vulnerable populations like people with disabilities, older people, women, and children.
- 6. Public Works and Physical Development Facilitation Programmes:** Programmes here provide employment linked to infrastructure projects, which can serve the dual purpose of building resilience to physical vulnerabilities from disasters.
- 7. Village-Based Development Programmes:** These community-centred programmes focus on disaster mitigation and capacity building, including preparedness training, village-level risk reduction planning, and local infrastructure for disaster mitigation.
- 8. Subsidised Climate Insurance:** This category includes government-subsidised and public-private climate insurance programmes, such as microinsurance and climate risk insurance, aimed at reducing financial risks for vulnerable populations.
- 9. Post-Disaster Recovery and Reconstruction Assistance:** Programmes here provide immediate support post-disaster for recovery and reconstruction, including psychosocial aid, support for children and vulnerable groups, compensation for physical losses, and housing repair or relocation.

While these programmes reflect ASP functions, it is important to note that ASP in Indonesia is still in the design phase. The listed programmes serve as suggested approaches and may evolve based on future government policies and agreements (Table 2)

Table 2. Social Protection Programmes based on Functions

Types of Programmes	Programmes	Programme Implementer
Cash transfers/assistance	Family Hope Programme (<i>Programme Keluarga Harapan</i>)	Ministry of Social Affairs
Social insurance	National Health Insurance (<i>Jaminan Kesehatan</i>)	National Health Insurance Agency (BPJS Kesehatan)
	National Old Age Insurance (<i>Jaminan Hari Tua</i>)	National Employment Insurance Agency (BPJS Ketenagakerjaan)
	National Pension Insurance (<i>Jaminan Pensiun</i>)	
	National Death Insurance (<i>Jaminan Kematian</i>)	
	National Job Loss Insurance (<i>Jaminan Kehilangan Pekerjaan</i>)	
	National Work Accident Insurance (<i>Jaminan Kecelakaan Kerja</i>)	
	Health Insurance Payment Assistance	Ministry of Social Affairs
Logistics assistance and emergency food provision	Non-cash Food Assistance (<i>Sembako</i>)	Ministry of Social Affairs
	Social Food Banks (<i>Lumbung Pangan Sosial</i>)	Ministry of Social Affairs
	Provision of Basic Needs During Disasters	Ministry of Social Affairs and BNPB
	Cash Assistance in Disaster Response (<i>Jaminan Hidup</i>)	Ministry of Social Affairs
Livelihood diversification support, credit assistance and employment programmes	Social Entrepreneurship Programme	Ministry of Social Affairs
	**Productive Micro Business Assistance	Ministry of Cooperatives and SMEs
	Relaxation of Disaster Affected Business Credit	Financial Services Authority
Programmes for people with disabilities, older people, women, and children	Social Rehabilitation Assistance for People with Disabilities	Ministry of Social Affairs
	Social Rehabilitation Assistance for Older People	
	Social Rehabilitation Assistance for Children	

Types of Programmes	Programmes	Programme Implementer
	Social Rehabilitation Assistance for Vulnerable Group	
Public works and physical development facilitation programmes	Public Works Programmes	Ministry of Public Works and Housing
Village-based development programmes	Alert Village (<i>Desa Siaga</i>)	Ministry of Health
	Disaster Prepared Village (<i>Kampung Siaga Bencana</i>)	Ministry of Social Affairs
	Resilient Coastal Village (<i>Desa Pesisir Tangguh</i>)	Ministry of Marine Affairs and Fisheries
	Resilient Village (<i>Desa Tangguh Bencana</i>)	National Disaster Management Agency
	Climate Village Programme (<i>Programme Kampung Iklim</i>)	Ministry of Environment and Forestry
	Disaster Prepared Adolescents (<i>Taruna Siaga Bencana</i>)	Ministry of Social Affairs
	Village Funds (<i>Dana Desa</i>)	Ministry of Village, Development of Disadvantaged Regions and Transmigration
Subsidised climate insurance	Crop Insurance (<i>Asuransi Usaha Tani Padi</i>)	Ministry of Agriculture
	Livestock Insurance (<i>Asuransi Usaha Ternak Sapi dan Kerbau</i>)	Ministry of Agriculture
	Aquaculture insurance (<i>Asuransi Perikanan bagi Pembudidaya Ikan Kecil</i>)	Ministry of Marine Affairs and Fisheries
	Subsidised Fishermen Insurance (<i>Bantuan Premi Asuransi Nelayan</i>)	Ministry of Marine Affairs and Fisheries
Post-disaster recovery and reconstruction assistance	Psychosocial Support Services	Ministry of Social Affairs
	Stimulant Fund for Repairing Disaster Affected Houses	National Disaster Management Agency
	Death Compensation for Heirs	Ministry of Social Affairs

On top of the alignment of function, previous analyses underscore the necessity of distinguishing between the ASP programmes that require responsive versus regular financing. Responsive financing is designed for immediate, crisis-driven interventions, allowing funds to be released quickly to address critical needs. Regular financing, on the other hand, refers to the predictable, consistent allocation of resources to sustain ongoing social protection programmes under normal circumstances. For instance, emergency response programmes must access responsive financing to facilitate the rapid disbursement of funds for urgent needs such as logistics, basic necessities, and recovery efforts. Key ASP programmes like the Family Hope Programme, Food Assistance Programme (Sembako), and Social Rehabilitation Assistance Programmes also fall into the responsive financing category, given their critical role during emergencies (Mahatmiya, 2022; Malik, 2018).

Table 3. Types of ASP Programme based on Their Responsiveness Financing Needs

Regular Financing (Annual Sectoral Budget Processes)	Responsive Financing (Quickly Disbursed)
<ul style="list-style-type: none"> • Family Hope Programme 	<ul style="list-style-type: none"> • Family Hope Programme (Adaptive)
<ul style="list-style-type: none"> • Village Fund Cash Transfers 	<ul style="list-style-type: none"> • Cash Assistance for Food in Disaster Response
<ul style="list-style-type: none"> • Non-cash Food Assistance 	<ul style="list-style-type: none"> • Food Assistance
<ul style="list-style-type: none"> • National Social Insurance Programmes 	<ul style="list-style-type: none"> • Social Rehabilitation Assistance Programmes
<ul style="list-style-type: none"> • Health Insurance Payment Assistance 	<ul style="list-style-type: none"> • Social Food Banks
<ul style="list-style-type: none"> • Social Entrepreneurship Programme 	<ul style="list-style-type: none"> • Provision of Basic Needs During Disasters
<ul style="list-style-type: none"> • Relaxation of Disaster Affected Business Credit 	<ul style="list-style-type: none"> • Disaster Affected Business Assistance
<ul style="list-style-type: none"> • Social Rehabilitation Assistance Programmes (Disabilities, Elderlies, Children) 	<ul style="list-style-type: none"> • Psychosocial Support Services
<ul style="list-style-type: none"> • Public Works Programmes 	<ul style="list-style-type: none"> • Stimulant Fund for Repairing Disaster Affected Houses
<ul style="list-style-type: none"> • Village Fund Public Works Programmes 	<ul style="list-style-type: none"> • Death Compensation for Heirs
<ul style="list-style-type: none"> • Alert Village 	
<ul style="list-style-type: none"> • Disaster Prepared Village 	
<ul style="list-style-type: none"> • Resilient Coastal Village 	
<ul style="list-style-type: none"> • Resilient Village 	
<ul style="list-style-type: none"> • Climate Village Programme 	
<ul style="list-style-type: none"> • Disaster Prepared Adolescents 	
<ul style="list-style-type: none"> • Subsidised Climate Insurance 	

Source: Authors (2024), data processed from 2024

To integrate ASP with DRF effectively, it is essential to classify financing instruments according to their responsiveness and alignment with different ASP programme requirements. Each ASP programme has unique funding needs based on the nature of the support provided, whether it is regular social protection or responsive assistance activated during crises. By categorising financing instruments, the framework presented in Table 3 provides guidance on selecting the most suitable funding sources, helping policymakers and programme designers match financial instruments with the specific demands of ASP. This approach ensures that funding is available and mobilised efficiently, supporting both ongoing ASP activities and rapid-response mechanisms when emergencies occur.

Table 4. ASP Financing Instrument Considerations

No	Instrument	Capacity	Considerations	Responsiveness	Recommended Type of Financing Programmes
1	State and Local Budget	IDR 167.9 trillion in 2022	Maintains regular social protection financing; additional budget requests and reallocations may be slow	Regular financing: annual budget processes	Regular ASP programmes implemented each fiscal year
2	On-call Funds	IDR 4.5 - 5 trillion annually, up to IDR 10 trillion	Used for emergency response and post-disaster needs, prioritises physical and logistical needs first	Responsive financing	Responsive ASP programmes related to logistics, food, and recovery
3	Pooling Fund	3%-4% of the latest reported investment of IDR 7.4 trillion in 2023, projected increase	High flexibility for all phases of disaster management; requires time to build capacity.	Regular and responsive financing	Emergency expansion and regular ASP programmes in local governments
4	ADB's Contingent Credit Lines	IDR 7.5 trillion	Utilised as a last resort for national financing needs to support the Disaster Resilience Improvement Programme, responsive in nature	Responsive financing	Responsive ASP programmes needing additional funding
5	Aid	N/A	Depends on availability and donor conditions; not reliable for routine use	Responsive financing	Emergency ASP programmes when aid is available
6	Insurance	N/A	Can respond to disaster needs but relies on insurance frameworks	Responsive financing	ASP programmes covered by insurance
7	Social Insurance Contribution	Adequate solvency ratio	Capable of providing additional benefits, though lacks expansion measures for emergencies	Regular and responsive financing	Regular and responsive social insurance benefits

Source: Authors (2024), data processed from 2024

To integrate ASP with DRF effectively, it is essential to classify financing instruments according to their responsiveness and alignment with different ASP programme requirements. Each ASP programme has unique funding needs based on the nature of the support provided, whether it is regular social protection or responsive assistance activated during crises. By categorising financing instruments, the framework presented in Table 3 provides guidance on selecting the most suitable funding sources, helping policymakers and programme designers match financial instruments with the specific demands of ASP. This approach ensures that funding is available and mobilised efficiently, supporting both ongoing ASP activities and rapid-response mechanisms when emergencies occur.

3.2.2 Proposed Integration Framework

The proposed strategy for integrating ASP financing with DRF (see Figure 5) involves a structured approach that aligns ASP financing with DRF mechanisms. To effectively finance both regular and responsive ASP programmes, specific financial instruments have been identified based on their functionality and responsiveness. Regular ASP initiatives, such as ongoing social assistance and insurance programmes, can be supported by state and local budgets, the Pooling Fund, and social security contributions. For responsive ASP programmes activated during crises, on-call funds, the Pooling Fund, contingent credit lines, insurance, and aid or grants are deemed appropriate. Each instrument has unique considerations for use:

1. **On-call Funds** are suitable for emergency social assistance in the form of goods, services, or cash. However, the primary focus for on-call funds can sometimes shift toward physical recovery and reconstruction rather than social support.
2. **Pooling Fund** is a versatile source for ASP financing, providing flexible, responsive support. However, building a sufficient pool requires time, and an adequate balance must be maintained to meet both regular ASP needs and responsive programme expansion during crises.
3. **Contingent Credit Lines** offer a responsive option, accessible when national resources are insufficient for disaster management. This instrument acts as a backup to quickly mobilise funds during extreme events.
4. **Aid/Grants** can provide essential financial support when needed, though they are not a dependable routine source due to reliance on donor availability and collaboration.
5. **Insurance** offers responsive funding for disaster events, though it comes with specific policy agreements and conditions that must be met to ensure eligibility for compensation, often focusing on targeted groups.
6. **Social Security Contributions** from labour and health programmes are generally capable of providing emergency relief, yet they may require adjustments to address disaster-related losses specifically. Regulatory frameworks should include provisions to enable rapid deployment in emergencies.

By strategically applying these instruments, ASP financing can more effectively address both steady-state and crisis-specific needs, enhancing resilience and adaptability across various social protection programmes.

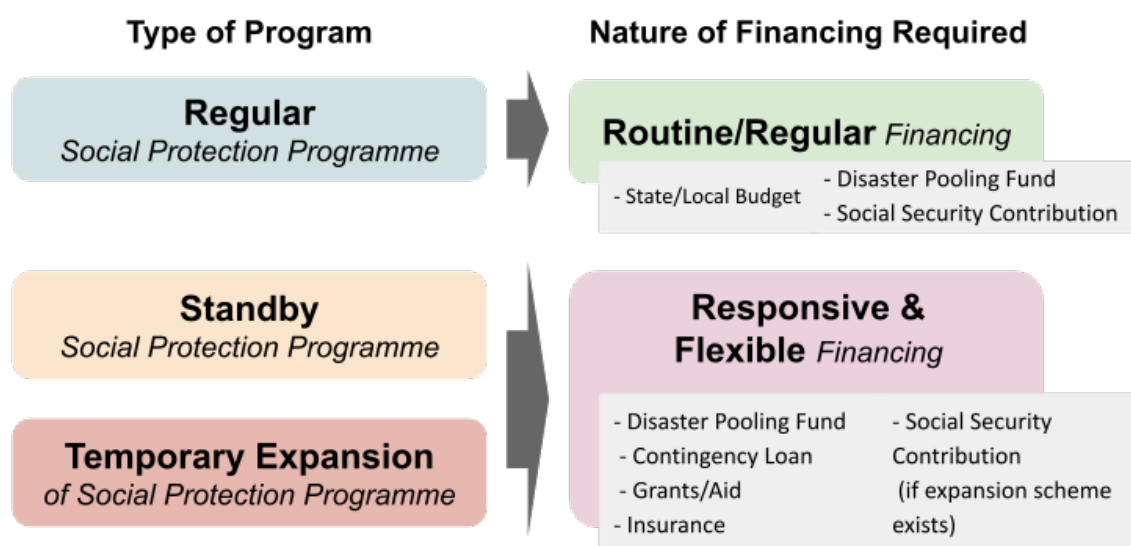


Figure 5. Proposed Integration Framework for ASP-DRF
 Source: Authors (2024)

Based on the previous analysis, Figure 5 presents a comprehensive framework for financing social protection, systematically organising programmes based on their operational characteristics and primary funding mechanisms. **Regular Social Protection Programmes** are the foundational, ongoing initiatives that provide continuous support to vulnerable populations. These programmes rely on predictable funding sources such as state and local budgets, disaster pooling funds, and contributions from social security. The stable nature of these funding streams ensures that regular social protection programmes can operate consistently, maintaining a safety net for individuals and households in need.

Standby Programmes are a specialised category within social protection, designed to activate rapidly in response to unexpected crises, such as natural disasters or economic shocks. These programmes require flexible and readily accessible funding sources, including disaster pooling funds, contingency loans, grants or aid from donors, and on-call funds. This type of financing allows for immediate mobilisation and rapid deployment of resources, enabling quick response in critical situations when regular support systems may be overwhelmed.

Temporary Expansions of Social Protection Programmes are tailored to meet additional needs that arise during specific events or emergencies. These expansions are designed to be short-term yet impactful, helping affected populations bridge gaps in support until stability is restored. Funding for these temporary expansions typically comes from responsive instruments like insurance, which can be activated in the event of a disaster and possibly augmented by additional social security contributions.

This framework highlights the importance of maintaining a diversified pool of funding sources to sustain the functionality of social protection programmes, particularly during crises. By categorising social protection programmes and aligning them with the appropriate funding mechanisms, this approach ensures that support systems remain adaptable, responsive, and resilient under various scenarios, ultimately enhancing the sustainability and impact of social protection initiatives.

3.2.3 Implementation Process

The integration of ASP financing with the DRFI strategy requires a systematic process, including agreeing on ASP programmes, refining programme designs, and calculating financing needs (see Figure 6). Phasing of implementing the aforementioned framework for social protection programmes envisions a phased approach spanning from 2025 to beyond 2050, aiming to progressively adapt financing sources and mechanisms to strengthen social protection systems over the coming decades. This timeline is divided into three stages, each reflecting a strategic shift in funding allocation and emphasis as the landscape of social protection and disaster risk management evolves. The framework underscores the importance of diversified funding sources, highlighting the growing role of the Pooling Fund in disaster response, mitigation, and social protection.

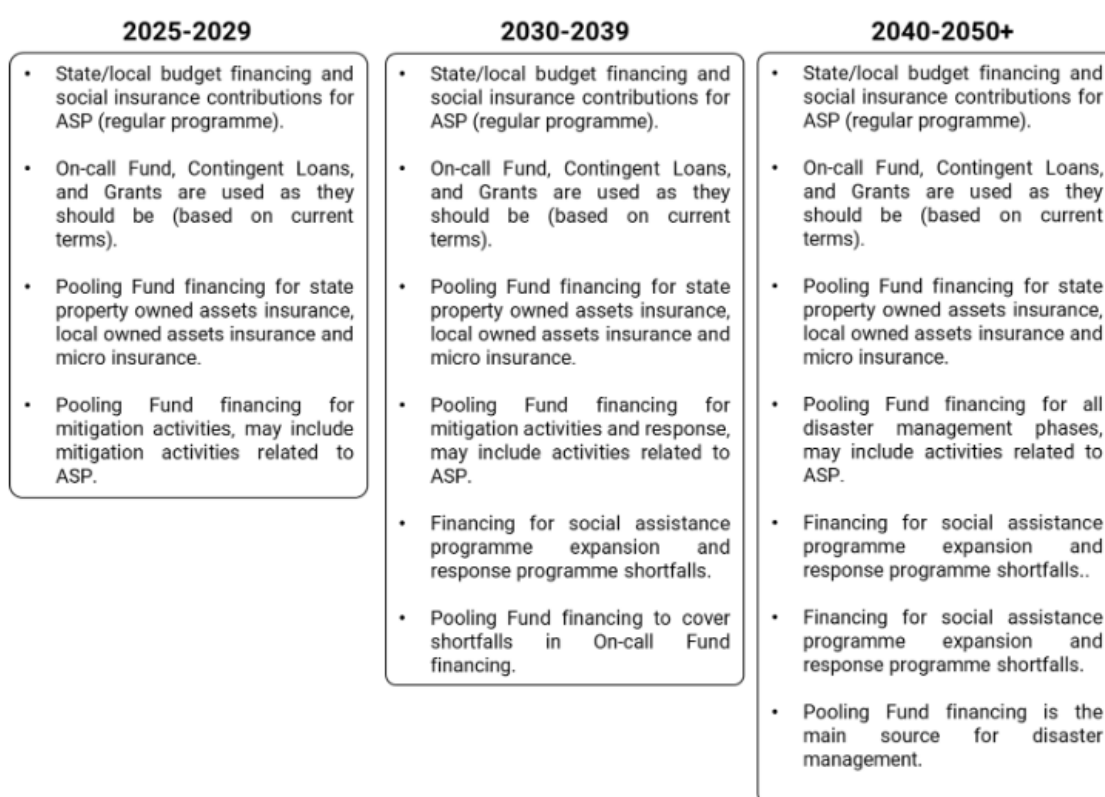


Figure 6. Proposed Phasing of Integration of ASP Financing Strategy with DRFI Strategy

Source: Authors (2024)

2025-2029: In this initial phase, state and local budgets, alongside social insurance contributions, will serve as the foundational sources of financing for regular social protection programmes under ASP. On-call funds, contingent loans, and grants will also be available to support these programmes on an as-needed basis, following existing terms and conditions. The Pooling Fund will play an essential role in financing state and local assets, particularly through insurance mechanisms, and will also support microinsurance and ASP-related mitigation efforts. During this period, the Pooling Fund’s use will be largely exploratory, focusing on limited but impactful areas, especially in asset protection and selected insurance schemes.

2025-2029: In this initial phase, state and local budgets, alongside social insurance contributions, will serve as the foundational sources of financing for regular social protection programmes under ASP. On-call funds, contingent loans, and grants will also be available to support these programmes on an as-needed basis, following existing terms and conditions. The Pooling Fund will play an essential role in financing state and local assets, particularly through insurance mechanisms, and will also support microinsurance and ASP-related mitigation efforts. During this period, the Pooling Fund's use will be largely exploratory, focusing on limited but impactful areas, especially in asset protection and selected insurance schemes.

2030-2039: In the second phase, regular ASP programmes will continue to rely on state and local budgets and social insurance contributions. However, the Pooling Fund will expand its role to finance a broader range of activities, including response and mitigation efforts within ASP. This expanded focus allows the Pooling Fund to cover potential shortfalls in on-call funding, improving financial resilience against unforeseen events. Funding allocations will also begin to target the expansion of social assistance programmes, ensuring these programmes can address growing needs and fill gaps in response resources. This phase marks a shift towards greater reliance on the Pooling Fund, signalling an intention to strengthen its role as a critical financing tool in ASP.

2040-2050+: By this stage, the Pooling Fund is expected to become the primary source of financing across all phases of disaster management—mitigation, response, and recovery activities related to ASP. Regular social protection programmes will continue to be financed by state/local budgets and social insurance contributions, but the Pooling Fund's increasing capacity will allow it to assume a central role in both routine and emergency financing. On-call funds, contingent loans, and grants will remain as supplementary resources, utilised according to evolving conditions. Funding for social assistance programmes will remain a priority, with allocations focused on scaling and responding to emergency needs, ensuring consistent support for expanding social protection coverage.

Overall, this strategy integration phases emphasises a multi-faceted funding approach to enhance the sustainability, resilience, and effectiveness of social protection programmes. It reflects a strategic reliance on the Pooling Fund as a scalable financing instrument for disaster management, adaptive social protection, and emergency response, anticipating its critical role in the future of ASP systems. By gradually strengthening and diversifying funding sources, this framework supports a long-term vision for resilient social protection infrastructure.

Once the strategy integration phases are defined, it becomes essential to determine the required financing in detail. However, there are two main challenges due to the ongoing development of ASP. First, there is no finalised programme design that clearly outlines the benefits and their associated monetary values. Second, the socio-economic registry has yet to be fully enhanced, making it difficult to accurately assess needs before its complete implementation. Additionally, government funding allocations are based on implementation capacity and phasing, rather than

addressing all needs immediately. These complexities were emphasised during interviews. As a result, the estimated costs are linked to the process of discussing and designing the financing for ASP programmes.

Figure 7 shows that to calculate a detailed and ideal financing estimate for ASP, specific information is needed, including an agreed programme design, beneficiary data, and precise cost calculations. This process is expected to be finalised by 2026, in alignment with the initial discussions outlined in the national ASP roadmap.

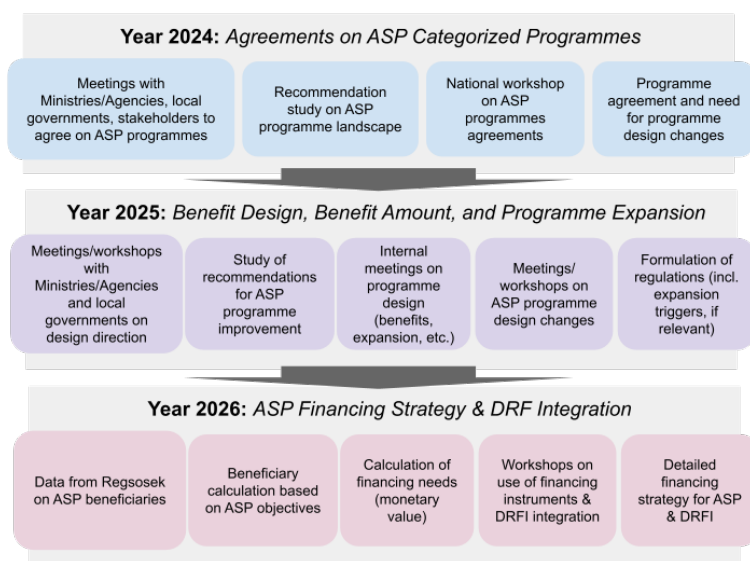


Figure 7. Process of ASP Financing and Needs Identification

Source: Author (2024)

The aforementioned process can be divided into three stages, as follows:

1. Agreements on ASP-Categorised Programmes (Year 2024)

The initial phase, focused on reaching consensus on ASP programmes, prioritises collaboration and consultations to build a strong foundation for the ASP Initiative.

- **Stakeholder Engagement:** This involves meetings and consultations with a wide range of stakeholders, including key ministries, government agencies, local government representatives, NGOs, and private sector partners. These engagements will work to ensure alignment on ASP objectives, programme categories, and roles for each stakeholder in the ASP ecosystem.
- **Recommendation Study:** A consultant-led assessment will provide a comprehensive review of existing ASP programmes and offer actionable insights for improvements. This study will inform the design of new ASP programmes and highlight areas for enhancement or restructuring in current programmes.
- **National Workshop:** This workshop will bring together national and local stakeholders to finalise agreements on ASP programme categories. Participants will review findings from consultations and the recommendation study to reach a consensus on ASP programme structures, implementation

- approaches, and categorization based on vulnerability, need, and potential for expansion.

2. Benefit Design, Benefit Amount, and Programme Expansion Mechanism (Year 2025)

Building on the programme consensus, this phase focuses on detailed design elements, including benefit amounts, eligibility criteria, and mechanisms to expand ASP programmes in response to changing needs or disaster events.

- **Stakeholder Meetings and Workshops:** Ongoing discussions with stakeholders will refine ASP benefit structures, target populations, eligibility criteria, and mechanisms for expanding or scaling benefits in response to varying needs. Workshops will include technical consultations and involve national and local government agencies, ensuring buy-in and cohesion on ASP design elements.
- **Study on Programme Design Improvements:** A dedicated study will explore options to enhance ASP benefit design. This research will examine benefit adequacy, targeting effectiveness, and cost-efficiency, with recommendations integrated into the ASP design to better support vulnerable populations.
- **Internal Agency Coordination:** Government ministries and agencies will conduct internal meetings to address technical details of ASP programmes, such as benefit amounts, expansion plans, and administrative requirements. This internal coordination aims to prepare relevant ministries to support ASP programme rollouts in their respective jurisdictions.
- **Regulatory Formulation and Approval:** This involves drafting new regulations and revising existing ones to legally support ASP programme designs and expansions. Regulations will specify programme details, including eligibility triggers for programme expansions and criteria for accessing funds, enabling ASP programmes to respond to evolving social protection needs.

3. Formulation of ASP Financing Strategy and DRFI Integration (Year 2026)

The final phase is dedicated to establishing a solid financial framework for ASP, ensuring its sustainability by integrating it with the Disaster Risk Financing and Insurance (DRFI) Strategy to create a responsive financing mechanism.

- **Data from Regsosek:** Using data from the Integrated Social Security Registration System (Regsosek), ASP programmes will have a reliable basis for identifying beneficiaries, which is essential for targeted support and accurate budgeting. This data-driven approach ensures that ASP resources are allocated to those most in need.
- **Beneficiary and Financing Calculations:** Beneficiary estimates will be aligned with ASP programme goals, allowing for an accurate projection of financial requirements. Calculations will include funding needs for both regular programme operations and responsive expansions.
- **Workshops on Financing Instruments and DRFI Integration:** Discussions among stakeholders, finance experts, and DRFI specialists will identify suitable financing instruments for ASP programmes. Workshops will address how to integrate ASP funding with DRFI tools, such as insurance products, contingent

- loans, and disaster funds, to create a responsive financial safety net for ASP.
- **Comprehensive Financing Strategy and DRFI Integration:** A detailed financing plan for ASP will be finalised, encompassing regular funding from state/local budgets, social insurance contributions, and additional DRFI instruments. This integration will ensure that ASP programmes can adapt quickly to disaster events, supporting vulnerable populations through responsive, sustainable funding.

This phased approach will facilitate a seamless integration of ASP financing into the DRFI framework, ensuring that financial resources are effectively allocated to address both regular and responsive needs.

4. Conclusion and Recommendation

In conclusion, integrating ASP and DRF offers Indonesia a powerful pathway to establishing a resilient social protection system capable of addressing both routine and crisis-induced needs. This approach not only enhances financial resilience but also accelerates response times during disasters, ensuring timely and targeted support for communities most at risk. By merging these two frameworks, Indonesia can maintain consistent, reliable support for its vulnerable populations while also securing the rapid mobilisation of resources in times of crisis. However, achieving this vision requires significant improvements in data systems, funding diversification, and collaborative governance, all of which will be critical to building a system that can withstand the nation's multifaceted risk landscape.

The phased implementation of ASP-DRF integration will allow Indonesia to build foundational capacities gradually, piloting responsive programmes, expanding coverage, and refining coordination mechanisms over time. This approach emphasises starting with robust groundwork—such as establishing a comprehensive ASP-DRF framework and developing the Regsosek socio-economic registry—to support more complex, scalable social protection mechanisms as institutional capacity grows. Continuous monitoring and evaluation will ensure that Indonesia's ASP-DRF framework remains adaptive to changing risk conditions, allowing for adjustments that keep the system effective, responsive, and financially sustainable in the face of future challenges.

Ultimately, the ASP-DRF integration framework proposed here not only offers a model for Indonesia's social protection but also serves as a replicable blueprint for other disaster-prone countries seeking to build resilient social safety nets. As climate-related and other disaster risks increase globally, an integrated ASP-DRF model could position Indonesia as a leader in adaptive social protection, inspiring similar frameworks in countries with comparable vulnerabilities. By investing in such a forward-thinking system, Indonesia has the potential to set new standards for disaster resilience and social support, contributing meaningfully to global efforts in building a sustainable, inclusive response to the growing threats of natural hazards-induced disasters.

Recommendations for ASP-DRF Integration:

- 1. Develop a Comprehensive ASP-DRF Integration Framework:** Indonesia should establish a structured ASP-DRF framework that systematically categorises ASP programmes based on their financing requirements—whether regular (steady-state) or responsive (emergency) needs—and aligns them with suitable DRF funding mechanisms. Regular ASP programmes, which address ongoing needs such as basic income support and health insurance, should be supported by stable, predictable funding sources, such as sectoral budgets and social insurance contributions. Emergency ASP programmes, however, require rapid and flexible funding sources that can be activated immediately during crises.

1. To meet these needs, DRF instruments like the Pooling Fund, on-call funds, contingency loans, and insurance mechanisms should be prioritised to enable quick disbursement of financial resources. Integrating these elements within the DRFI roadmap will allow Indonesia to coordinate resource mobilisation effectively, ensuring both steady-state and emergency social protection needs are met.
2. **Enhance Data Systems and Broaden Financing Sources:** Reliable and real-time data is essential for effective ASP-DRF integration, as it allows for precise targeting, transparent fund distribution, and informed decision-making in disaster response. The study recommends that Indonesia invest in comprehensive data infrastructure, such as the Regsosek socio-economic registry, to better identify and prioritise at-risk populations. Enhanced data systems will enable a rapid and more accurate assessment of vulnerability, thereby ensuring that resources reach those most in need during both regular operations and emergency situations. Additionally, to address existing funding gaps in ASP and DRF, Indonesia should pursue a diversified financing strategy. Expanding the national pooling fund, issuing climate bonds, and forming partnerships with private insurers and international organizations will provide a more resilient financial base. These resources will support both regular social protection and responsive disaster relief, ensuring that financial support is available when and where it is most needed.
3. **Strengthen Institutional Capacity and Inter-Agency Coordination:** Integrating ASP with DRF requires a high level of institutional capacity and cross-sector collaboration among government agencies, local authorities, and private sector partners. Establishing an inter-agency task force to oversee ASP-DRF integration would facilitate coordination and communication across sectors, ensuring alignment of priorities and streamlining disaster response efforts. This task force should include representatives from social protection, disaster risk management, and climate adaptation sectors, each bringing unique insights and resources to strengthen the overall framework. Capacity-building programmes for government staff, as well as collaboration with local communities, will be crucial to ensure effective implementation at every level. Investing in training for government personnel will equip them with the knowledge and skills necessary to manage the complexities of ASP-DRF integration, while community engagement will promote locally informed disaster responses that better address specific on-the-ground needs.
4. **Implement a Phased ASP-DRF Strategy with Ongoing Monitoring and Evaluation:** Implementing ASP-DRF integration will require a phased approach, allowing Indonesia to gradually build capacity and adapt its social protection and financing strategies. The initial phase, starting in 2025, should focus on developing the framework and piloting responsive ASP programmes to test the effectiveness of various financing instruments. In subsequent phases, Indonesia can expand ASP coverage, incorporate the Pooling Fund more fully into DRF activities, and refine coordination practices among agencies. Continuous monitoring and evaluation are essential to this phased approach, as they provide critical feedback to improve ASP-DRF operations over time. By enabling data-driven adjustments, monitoring and evaluation will ensure that ASP-DRF mechanisms remain responsive and aligned with Indonesia's evolving risk landscape, ultimately creating a social protection system that is adaptive, financially sustainable, and capable of addressing both regular needs and disaster-induced challenges.

Annex 1.

List of Interviews

Table 5. List of Interviews

No.	Directorate/Department	Institution	Category
1	Directorate of Budget for Human Development and Culture (Sub-Directorate of Budget for Research, Innovation, and Disaster)	Directorate General of Budget, Ministry of Finance	Budget & Finance
2	Directorate of Financial Management for Public Service Agencies	Directorate General of Treasury, Ministry of Finance	Budget & Finance
3	Directorate of Emergency Resource Support	Deputy for Emergency Management, National Disaster Management Agency (BNPB)	Disaster Response & Emergency Management
4	Directorate of Risk Mapping and Evaluation	Deputy for Systems and Strategy, National Disaster Management Agency (BNPB)	Disaster Risk Assessment & Strategy
5	Directorate of Disaster Management Systems	Deputy for Systems and Strategy, National Disaster Management Agency (BNPB)	Disaster Risk Management & Policy
6	Directorate of Disaster Management Strategy Development	Deputy for Systems and Strategy, National Disaster Management Agency (BNPB)	Disaster Risk Management & Policy
7	Directorate of Social Protection for Natural Disaster Victims	Directorate General of Social Protection and Security, Ministry of Social Affairs	Social Protection & Welfare
8	Directorate of Spatial Planning, Land, and Disaster Management	Deputy for Regional Development, Ministry of National Development Planning	Regional Planning & Disaster Management
9	Secretariat of the Directorate General of Capture Fisheries	Ministry of Marine Affairs and Fisheries	Fisheries & Marine Affairs
10	Directorate of Agricultural Financing	Directorate General of Agricultural Infrastructure and Facilities, Ministry of Agriculture	Agricultural Financing & Support
11	Department of Insurance, Guarantee, and Pension Fund Regulation and Supervision	Financial Services Authority (OJK)	Financial Regulation & Insurance
12	Director	Environmental Fund Management Agency (BPDLH)	Environmental Finance & Fund Management
13	PT Maipark Reinsurance	Private Sector	Insurance & Reinsurance
14	Directorate of Social Security	Ministry of Social Affairs	Social Protection & Welfare
15	Social Security and Employment	(Unspecified Institution)	Social Security & Employment
16	Directorate General of Fiscal Balance	Ministry of Finance	Fiscal Policy & Budget Allocation
17	Directorate of Poverty Reduction and Community Empowerment	Ministry of National Development Planning/National Development Planning Agency (Bappenas)	Poverty Alleviation & Community Development

Source: Authors (2024), data processed from 2024

Annex 2.

Calculation of Social Protection Financing Needs

Table 6. Calculation of Social Protection Needs

No.	Programmes	Current spending (2022-2023, in IDR billions) ^a	Beneficiaries (annual)		Unit costs (annual)		Social protection financing needs (IDR billions)		
			Normal condition	During emergency	Unit cost in normal condition	Unit cost in emergency condition	Costs in normal condition	Cost during emergency	Total
Regular Social Protection									
1	Family Hope Programme	IDR 28,709.8	14,353,445 ^b	2,772,179 ^c	IDR 2,400,000	IDR 1,890,000	IDR 34,448.3	IDR 5,239.4	IDR 39,687.7
2	Cash Transfer from The Village Fund	IDR 26,869.0	7,830,142 ^d	N/A	IDR 3,600,000	N/A	IDR 28,188.5	N/A	IDR 28,188.5
3	Health Insurance Payment Assistance	IDR 46,464.0	113,000,000 ^e	N/A	IDR 480,000 ^e	N/A	IDR 54,240.0	N/A	IDR 54,240.0
4	Non-Cash Food Assistance (Food Assistance during Emergencies)	IDR 45,120.0	22,004,077 ^f	2,772,179 ^c	IDR 2,400,000 ^f	IDR 600,000 ^f	IDR 52,809.8	IDR 1,663.3	IDR 54,473.1
5	Social Rehabilitation Assistance Persons with Disabilities	IDR 763.3	2,623,174 ^g	N/A	IDR 2,400,000	IDR 300,000	IDR 6,295.6	N/A	IDR 6,295.6
6	Social Rehabilitation Assistance for Elderlies		3,237,366 ^h	N/A	IDR 2,400,000	IDR 300,000	IDR 7,901.4	N/A	IDR 7,901.4
7	Social Rehabilitation Assistance for Children		3,739,841 ⁱ	N/A	IDR 2,400,000	IDR 300,000	IDR 8,975.6	N/A	IDR 8,975.6
8	Social Entrepreneurship Programme	IDR 49.1	3,300,000 ^j	N/A	IDR 6,000,000	N/A	IDR 19,800.0	N/A	IDR 19,800.0
9	Public Works Programmes	IDR 15,110.0	3,300,000 ^j	N/A	IDR 13,588,785	N/A	IDR 44,843.0	N/A	IDR 44,843.0
10	Village Fund Public Works Programmes	IDR 2,143.8	3,300,000 ^j	N/A	IDR 718,000	N/A	IDR 2,369.4	N/A	IDR 2,369.4
11	Community Based DRM Programmes (Combined 6 programmes)	IDR 378.3	42,000,000 ^k	N/A	IDR 412,300	N/A	IDR 17,316.6	N/A	IDR 17,316.6
12	Subsidised Crop Insurance	IDR 158.7	6,490,914 ^l	N/A	IDR 144,000	N/A	IDR 934.7	N/A	IDR 934.7
13	Subsidised Livestock Insurance	IDR 26.9	676,199 ^m	N/A	IDR 160,000	N/A	IDR 108.2	N/A	IDR 108.2
14	Subsidised Aquaculture insurance	IDR 4.5	689,705 ⁿ	N/A	IDR 225,000	N/A	IDR 155.2	N/A	IDR 155.2
15	Subsidised Fishermen Insurance	IDR 24.3	1,462,909 ^o	N/A	IDR 140,000	N/A	IDR 204.8	N/A	IDR 204.8
Emergency Response Social Protection									
1	Cash Assistance in Disaster Response	IDR 305.5	N/A	2,772,179 ^c	N/A	IDR 300,000	N/A	IDR 831.7	IDR 831.7
2	Social Food Banks		N/A	2,772,179 ^c	N/A	IDR 337,000 ⁱ	N/A	IDR 934.2	IDR 934.2
3	Provision of Basic Needs During Disasters		N/A	2,772,179 ^c	N/A	IDR 237,700 ⁱ	N/A	IDR 658.9	IDR 658.9

4	Death Compensation for Heirs		N/A	7,960 ^p	N/A	IDR 15,000,000	N/A	IDR 119.4	IDR 119.4
5	Social Rehabilitation Assistance for Disaster Victims	IDR 21.7	N/A	2,772,179 ^c	N/A	IDR 300,000	N/A	IDR 831.7	IDR 831.7
6	Disaster Affected Business Assistance	IDR 15,360.0	N/A	96,195 ^q	N/A	IDR 2,400,000	N/A	IDR 230.9	IDR 230.9
7	Psychosocial Support Services	IDR 7.6	N/A	609,879 ^r	N/A	IDR 3,200,000	N/A	IDR 1,951.6	IDR 1,951.6
8	Stimulant Fund for Repairing Disaster Affected Houses	IDR 1,800.0	N/A	75,222 ^s	N/A	IDR 25,000,000	N/A	IDR 1,880.5	IDR 1,880.5
Current Spending Sub-Total (Regular Social Protection)		IDR 173,457.5	Current Spending Sub-Total (Emergency Social Protection)		IDR 2,220.5	Financing Needs Sub-Total	IDR 278,459.3	IDR 14,341.6	
		USD 11,564.8			USD 148.03		USD 18,563.96	USD 956.11	
Current Spending Total					IDR 175,678	Financing Needs Total			IDR 292,801.0
					USD 11,711				USD 19,520.0

Source: Processed, Author (2024)

The calculations used assumptions to allow the calculation to take place, especially on the number of beneficiaries that will need the social protection programme. On the other hand, several unit costs were able to be found in programme operational procedures. For programmes without such documents, a division between budgets spent and beneficiaries targeted was conducted, to determine how much financing is needed per unit of beneficiary. As data for social assistance beneficiaries are scattered and less sorted, this estimation calculates the ideal coverage of each programme, based on the assumption that all beneficiaries that need assistance should be able to receive them. Assumptions used are as follows:

- Based on data provided by the Ministry of Finance.
- Based on decile 1 and 2 families, the socio-economic decile data is the closest to the aimed Socio-Economic Registry system currently developed. Source: [1]
- Based on average disaster victims affected of 2,772,179. Calculated from Indonesia Disaster Database / DIBI. Source: [1]
- Based on 54% of decile 1 and 2 families, it is assumed per Indonesia's Central Bureau of Statistics database, that 54% of poverty is in villages Source: [1], [2]
- Based on number of health insurance payment subsidies target in Presidential Regulation No. 36 of 2023 concerning Social Insurance Roadmap 2023-2024. Costs were calculated based on the division of the total budget against beneficiaries. Source: [1]
- Based on number of decile 1-3 families, with benefits assumed IDR 200.000 per month (rate was initially IDR 110.000 but has since raised and continued to be IDR 200.000 in 2023) and IDR 200.000 for 3 months in emergencies. Further assistance is assumed to be given for three months maximum during emergencies. Source: [1], [2], [3]
- Based on the number of disabled persons (22.97 million) that are poor (11.42%). Source: [1]
- Based on the number of elderly persons (29.3 million) that are poor (11.1%). Source: [1], [2]
- Based on the number of children (79.86 million) that are poor (12.17%). Source: [1]
- Based on the number of extremely poor populations that require further assistance to improve socio-economic conditions. Source: [1]
- Based on the number of populations in village communities currently at highest risk from climate change impacts, particularly in coastal areas. Source: [1]
- Based on the number of crop farmers that are poor and without adequate water sources. Source: [1]
- Based on the number of small scale livestock farmers Source: [1]
- Based on the number of small-scale aquaculture farmers (1,379,409), assuming 50% of them are poor – estimates of poverty is uncertain due to irregular income. Source: [1], [2]
- Based on the number of capture fishers (2,925,818) with an assumed 50% of them are poor. Source: [1], [2]
- Based on average disaster deaths calculated from DIBI. Source: [1]
- Based on average disaster victims affected calculated from DIBI, and an assumption that the national entrepreneurship rate (3.47%) applies to the number of affected business owners (3.47% of 2.77 million). Source: [1], [2]
- Based on average disaster victims affected calculated from DIBI, and a WHO theory-based assumption of 25% affected victims will require psychosocial help. Source: [1], [2]
- Based on average number of houses damaged calculated from DIBI. Source: [1]
- Based on calculations (division) between budget spending and number of beneficiaries.
- Based on the assumption that 1 US Dollar equals to IDR 15.000

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