



Brazil readiness assessment

Delivering anticipatory social protection

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Working Paper

May 2026

Climate change; Policy and planning

Keywords:

Loss and damage, social protection, climate justice, climate finance, national climate change policies



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Acknowledgements

We begin by thanking Comic Relief for providing funding for carrying out this research.

We gratefully acknowledge the partnership of Instituto Fome Zero (IFZ) in co-leading the consultation process for this assessment. We thank all the stakeholders who contributed their time and expertise during consultations in Brasília and São Paulo, including representatives from the ministries of social development, agriculture, environment and foreign affairs and the Institute for Applied Economic Research. Special thanks to the civil society organisations and academic experts who provided critical feedback on the preliminary ASPIRE findings and shared essential documentation.

We especially thank David Ackers, editorial manager at IIED, for providing input and support throughout the development of this publication. Thanks to Annette McGill for her support in copyediting the working paper and Rosalind Cook for her work on the design and layout.

We would like to thank Chandrakanth Vivekanandan, programme manager at IIED and Martin Cummins, project manager at IIED, for managing the publication's production.

Published by IIED, May 2026

Bharadwaj, R, Karthikeyan, N, Kaur, KP, Chaliha, S, da Silva, JG and Graziano, E (2026) Brazil readiness assessment: delivering anticipatory social protection. IIED, London.

iied.org/22703iied

ISBN: 978-1-83759-190-9

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This paper assesses Brazil’s readiness to deliver anticipatory social protection using the ASPIRE framework. It finds that while Brazil has strong policy intent, mature delivery systems and proven crisis-response capacity, its current approach to climate risks remains predominantly reactive, relying on emergency measures after shocks occur. The paper sets out a practical roadmap for embedding early, risk-informed action into existing social protection systems to protect communities from climate shocks and other risks. By linking early warning data to pre-agreed triggers and financing, Brazil can shift from reacting to crises to protecting vulnerable communities before climate shocks escalate.

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Abbreviations

ASPIRE	Anticipatory Social Protection Index for Resilience
BCR	Benefit–cost ratio
BPC	<i>Benefício de Prestação Continuada</i> (Continuous Cash Benefit)
CAE	<i>Conselho de Alimentação Escolar</i> (School Feeding Councils)
CEMADEN	<i>Centro Nacional de Monitoramento e Alertas de Desastres Naturais</i> (National Centre for Monitoring and Early Warning of Natural Disasters)
DRF	Disaster risk financing
DRM	Disaster risk management
EWS	Early warning systems
FNDE	<i>Fundo Nacional de Desenvolvimento da Educação</i> (National Fund for Education Development)
GDP	Gross domestic product
INMET	<i>Instituto Nacional de Meteorologia</i> (National Institute of Meteorology)
PAA	<i>Programa de Aquisição de Alimentos</i> (Food Acquisition Programme)
PAIF	<i>Serviço de Proteção e Atendimento Integral à Família</i> (Protection and Integral Support Service to the Family)
PNAE	<i>Programa Nacional de Alimentação Escolar</i> (National School Feeding Programme)
SUAS	<i>Sistema Único de Assistência Social</i> (Unified Social Assistance System)

Summary

Brazil faces growing climate and disaster risks that threaten livelihoods, food security and hard-won development gains, particularly among poor and vulnerable populations. While the country has one of the most extensive and mature social protection systems in Latin America, its ability to act before shocks occur rather than responding after impacts are felt remains uneven. This paper assesses Brazil's readiness to deliver anticipatory social protection and identifies practical pathways to strengthen early, risk-informed action using existing systems.

The analysis applies the Anticipatory Social Protection Index for Resilience (ASPIRE) framework to assess readiness across four domains: policy, systems, programme design and programme delivery. It combines a national-level assessment with in-depth programme analysis of three flagship social protection instruments: the *Programa de Aquisição de Alimentos* (Food Acquisition Programme — PAA), the *Programa Nacional de Alimentação Escolar* (National School Feeding Programme — PNAE) and Bolsa Família. Together, these programmes represent the backbone of Brazil's non-contributory social protection system, spanning income support, food and nutrition security and climate-sensitive rural livelihoods.

The assessment finds that Brazil has strong foundational capacity for anticipatory social protection. Social protection objectives are anchored in constitutional rights and equity principles. National registries such as the *Cadastro Único* (Single Registry) provide wide coverage and enable rapid identification of vulnerable households, and delivery systems have demonstrated the ability to scale quickly during crises, most notably during the COVID-19 response. Brazil also has well-developed early warning and disaster monitoring systems and growing experience with innovative financing instruments.

However, these strengths are not yet translated into systematic anticipatory action. Across policy, systems and programmes, responses to shocks remain largely reactive, relying on emergency decrees, ad hoc budget reallocations and discretionary administrative decisions. Early warning information is not routinely linked to social protection triggers, anticipatory financing is limited and fragmented, and climate-risk information is not consistently integrated into programme design or targeting decisions.

Programme-level analysis reinforces this finding. PAA, PNAE and Bolsa Família have all shown flexibility during crises, but none are designed to activate support automatically or semi-automatically when shocks are forecast. Each programme has a distinct role, such as

income smoothing, nutritional protection and livelihood stabilisation, but these roles are not coordinated as part of a shared anticipatory strategy. As a result, early action is delayed and losses to livelihoods, nutrition and human capital that could have been preventable persist.

Based on these findings, this paper proposes a set of pragmatic, system-level recommendations presented as a phased ASPIRE Roadmap.

Rather than creating new programmes to address climate risks, the recommendations in the Roadmap outline a sequenced transition, moving from foundational readiness and targeted piloting to full system integration. It focuses on embedding anticipatory action within existing policies and systems by:

- Institutionalising early action as a standard operating principle in social protection policy
- Linking early warning systems to clear triggers and decision protocols
- Establishing layered and pre-agreed financing arrangements for early action
- Integrating climate risk and vulnerability into programme design choices
- Clarifying complementary anticipatory roles across flagship programmes, and
- Strengthening coordination and accountability for anticipatory decision making.

Our analysis shows that Brazil is well positioned to make this shift. By acting earlier in the risk cycle and by using existing registries, delivery platforms and programmes more strategically, Brazil can reduce human and economic losses from climate shocks, improve the cost effectiveness of social protection spending and strengthen long-term resilience. A phased ASPIRE Roadmap offers a realistic pathway to achieve this transformation while preserving the strengths of Brazil's social protection system and aligning with broader climate and development objectives.

1

Climate change and social protection

1.1 Climate risks and development pressures in Brazil

Climate change is already reshaping Brazil's development landscape, with more frequent and intense floods, droughts, heat extremes and wildfires affecting people's safety, livelihoods and access to basic services. Brazil's risks are highly uneven across regions, intersecting with entrenched inequalities, including high levels of informality and persistent poverty. This means that climate shocks often hit people with the least coping capacity the hardest.

Recent events underline the scale of the challenge. Between late April and May 2024, Rio Grande do Sul state experienced unprecedented flooding, resulting in 177 deaths and the displacement of around 388,000 people, with more than 2.3 million people affected overall (United Nations, 2024). Beyond the immediate humanitarian impacts, the floods caused widespread disruption to livelihoods and local economies in a state that accounts for roughly 6.5% of Brazil's gross domestic product (GDP), with agriculture, food processing and manufacturing among the most affected sectors (BCB, 2024). The event also exposed how climate shocks can overwhelm municipal response capacity, particularly where informal settlements and inadequate infrastructure increase exposure.

Brazil is facing deepening drought stress, particularly in the Amazon region. In 2023 and 2024, the Amazon experienced historic drought conditions, the most severe in over 120 years of record keeping. This led to emergency declarations across several states, affecting hundreds of thousands of people, disrupting river transport, limiting access to food and basic goods,

and undermining fishing and subsistence livelihoods (CEMADEN, 2024). Prolonged dry periods have also increased the risk of forest fires, with knock-on effects for health, ecosystems and local economies (World Bank, 2025). In the semi-arid northeast, recurrent droughts continue to undermine rainfed agriculture and livestock production, further increasing vulnerabilities among smallholder farmers and rural households.

Extreme heat is also an additional and growing pressure. 2024 was the hottest year recorded since 1961, with average temperatures well above historical norms (INMET, 2025). Heatwaves are increasing health risks, reducing labour productivity (Kjellström et al., 2019) and placing additional strain on energy and water systems, particularly in densely populated urban areas where low-income households often lack adequate housing, cooling or access to green spaces.

These climate pressures arrive in a context of persistent socioeconomic vulnerability. Despite recent progress, poverty remains widespread, with more than a quarter of Brazil's population living below the international poverty line (World Bank, 2024). Climate shocks can quickly reverse development gains, especially for households living just above the poverty threshold. The country's high level of labour informality – close to 40% of the workforce (IBGE, 2025) – further amplifies vulnerability, as informal workers typically lack savings, insurance or job-based social protection and are often concentrated in climate-sensitive sectors and locations.

Brazil's climate risks form a distinct but interconnected pattern. The Amazon faces rising temperatures, drought and fire risks that threaten ecosystems and traditional livelihoods. The northeast remains highly exposed to drought and water scarcity, with long-term implications for food security and migration. The south and southeast

are increasingly affected by intense rainfall, floods and landslides that disrupt economic hubs and urban systems (Serviço Geológico do Brasil — CPRM, 2023). Large cities and coastal areas face compounding risks from heat, flooding and infrastructure loss, with disproportionate impacts on informal settlements. This wide-ranging and overlapping risk profile shows that climate change in Brazil is also becoming a systemic development threat that demands proactive, well-targeted responses (World Bank, 2023).

Without timely and forward-looking measures, climate shocks will continue to deepen poverty, widen regional and social inequalities and increase the long-term fiscal cost of crises. As crises become more frequent, the cost of waiting to react is becoming unsustainable. Addressing these challenges requires shifting from reactive responses towards anticipatory approaches that can protect households before shocks hit. By leveraging Brazil's mature social protection systems that already reach millions of the most vulnerable, the government can strengthen long-term resilience while reducing the volatility of disaster-related expenditures.

1.2 Brazil's social protection system as a platform for resilience

Brazil has one of the largest and most established social protection systems in the global South, built around a combination of income support, social assistance and integrated delivery systems. Over the past two decades, these programmes have played an important role in reducing poverty and inequality, improving access to education and health services and providing income security for low-income households. Thus, they also offer a platform through which climate risks could be addressed more proactively.

At the core of Brazil's social protection architecture is Bolsa Família, which provides regular cash transfers to more than 20 million low-income households, reaching a significant share of people living in poverty or near poverty (Ministério do Desenvolvimento e Assistência Social Família e Combate à Fome, 2024). The programme is supported by Cadastro Único, a nationally integrated social registry that contains detailed socioeconomic information on over 90 million individuals and is used to determine eligibility across a wide range of federal, state and municipal social programmes (Ministério do Desenvolvimento e Assistência Social Família e Combate à Fome, 2024). Together, these systems give Brazil strong coverage, targeting capacity and delivery reach compared to many countries facing similar climate risks.

Brazil's social protection system has also demonstrated an ability to scale rapidly in response to crises. During the COVID-19 pandemic, emergency cash transfers were expanded quickly and at scale, reaching households that had not previously been covered and preventing a much larger increase in poverty (Lara de Arruda et al., 2021). This experience highlighted both the flexibility of Brazil's delivery systems and the critical role of social protection in cushioning large, economy-wide shocks.

Despite these strengths, Brazil's social protection system has so far been used primarily as a reactive safety net, responding after shocks have already occurred. While existing programmes help households cope with income losses and smooth consumption, they are not systematically designed to anticipate climate risks or to trigger support before impacts materialise (Tebaldi, 2025). Considerations of climate hazards such as floods, droughts and heatwaves are rarely embedded into programme objectives, eligibility criteria or payment mechanisms, and links between climate-risk information and social protection delivery remain limited.

As climate shocks become more frequent and severe, this gap matters. Many of the households reached by Brazil's social protection programmes are also those most exposed to climate risks (Lara de Arruda et al., 2021). These include informal workers, smallholder farmers, riverine and forest-dependent communities and residents of flood- and heat-prone urban areas. For these groups, timely support before a shock, whether through temporary cash top-ups, expanded coverage or complementary resilience-building investments, can enhance resilience. During crises, they can prevent asset losses, reduce the need for negative coping strategies and lower the long-term cost of recovery.

Brazil's social protection system therefore represents a significant untapped opportunity for building climate resilience. Its scale, digital infrastructure and institutional reach provide a strong foundation for moving beyond crisis response towards more anticipatory and risk-informed approaches.

1.3 Why anticipatory social protection and why now?

Brazil's recent climate shocks have highlighted the limits of relying primarily on reactive responses to manage climate risk. While such responses are essential, they are often slow, costly and unable to prevent households from experiencing irreversible losses. By the time support reaches affected families, livelihoods may already be disrupted, assets sold and negative coping strategies adopted, increasing the long-term social and fiscal costs of recovery.

As climate risks intensify, this reactive model is becoming increasingly unsustainable. Repeated shocks place growing pressure on public finances, strain subnational governments and divert resources away from long-term development priorities. Climate-related disasters in Brazil are not only humanitarian events but also macroeconomic shocks, with implications for growth, fiscal stability and inequality. This emphasises the importance of anticipatory action for protecting households and budgets before the shock propagates through the economy.

Evidence from the ASPIRE meta-analysis shows that early action through social protection is significantly more cost-effective than responding after climate disasters (Bharadwaj et al., 2025). Figure 1 shows the estimated cost of covering 100% of financial losses from

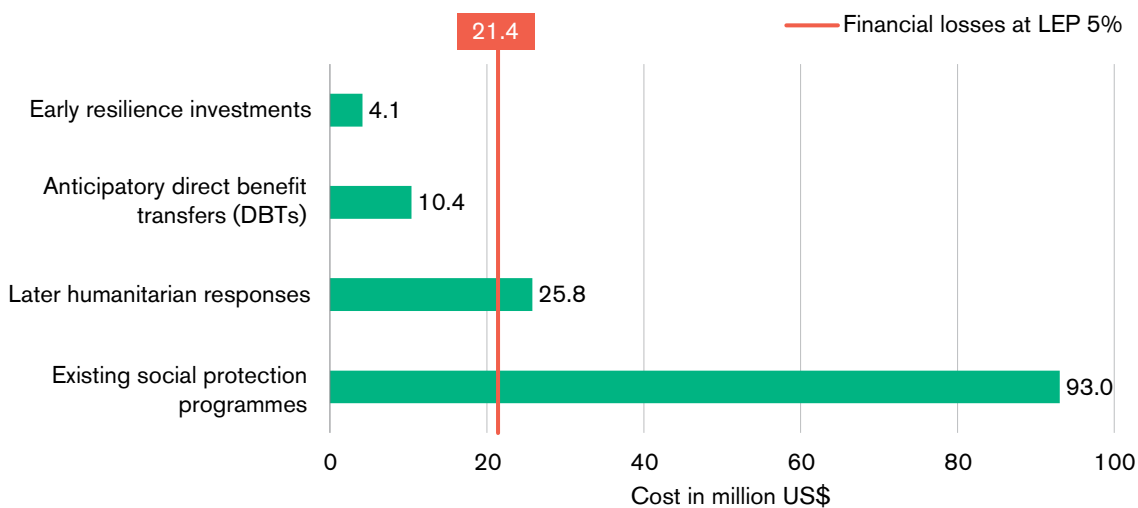
a severe climate shock (a 1-in-20-year event) across eight developing economies selected to represent a diverse range of climate-risk contexts (Bangladesh, India, Pakistan, Ethiopia, Ghana, Malawi, Senegal and Uganda) under different response approaches.

The analysis shows that relying on existing social assistance mechanisms to compensate for losses of US\$21 billion would require close to US\$93 billion, while late humanitarian action would cost around US\$25.8 billion. In contrast, anticipatory responses, delivered before shocks hit, could cover the same losses for approximately US\$10.4 billion and early investments in longer-term resilience for just US\$4.1 billion.

Although these figures are derived from a multi-country analysis, they show that the earlier the intervention, the lower the cost of protecting households and livelihoods. For Brazil, where climate shocks are increasing in frequency and scale, and where social protection already represents a significant public investment, this evidence highlights a major opportunity to achieve better outcomes using existing systems, not necessarily by spending more, but by spending earlier and more strategically.

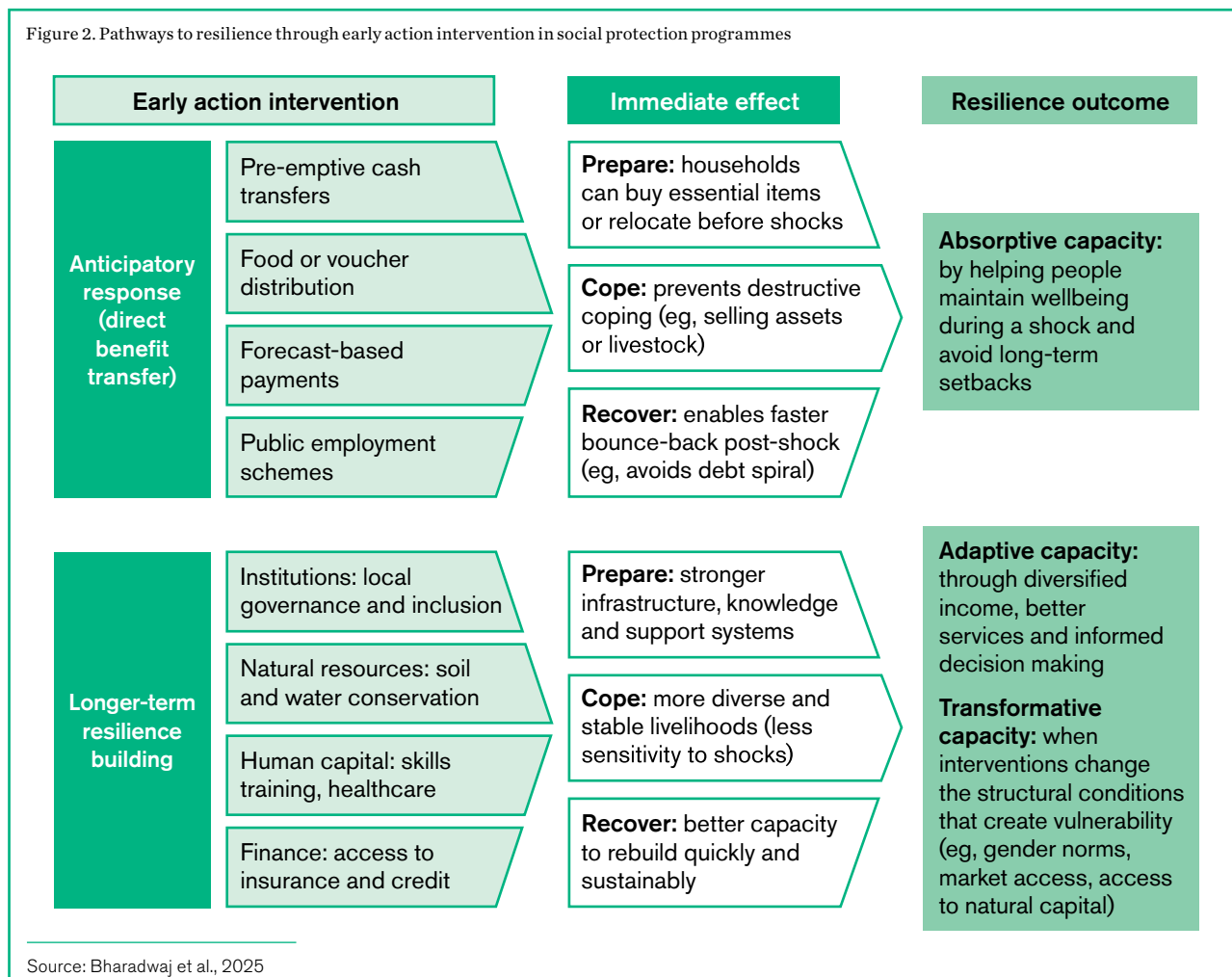
Early action through social protection can be understood through two complementary pathways, both of which are directly relevant to Brazil's context (see Figure 2).

Figure 1. Cost of covering 100% of financial losses caused by disasters at loss exceedance probabilities (LEP) 5%: eight countries under review in the ASPIRE meta-analysis



Note: LEP 5% represents a 1-in-20-year loss event, reflecting a severe but plausible disaster scenario for fiscal planning. Source: Bharadwaj et al., 2025

Figure 2. Pathways to resilience through early action intervention in social protection programmes



The first pathway is anticipatory direct benefit transfers. These involve providing temporary cash, food or in-kind support before a shock occurs, with the transfers triggered by early warning systems or climate forecasts. By enabling households to prepare, for example, by securing food, protecting assets or avoiding negative coping strategies, anticipatory transfers can substantially reduce losses and prevent households from falling into poverty following a shock.

The second pathway is early investment in longer-term resilience through social protection programmes. This includes using social assistance, public works or livelihood support mechanisms to build assets, improve infrastructure, restore ecosystems and strengthen income security in areas exposed to climate change impacts. These investments reduce vulnerability over time, lowering both the human and fiscal cost of future shocks. Together, these two pathways shift social protection from a reactive safety net to a risk-informed system that reduces loss and damage before it occurs.

2

Assessing readiness for anticipatory social protection: the ASPIRE approach

Delivering early action through social protection in Brazil will depend not only on the scale of existing programmes, but also on whether policies, systems and delivery mechanisms are sufficiently prepared to respond to climate risks in a timely and coordinated manner. While Brazil has a relatively mature social protection system, the increasing frequency and severity of climate shocks raise important questions about its readiness to deliver anticipatory and risk-responsive support at scale.

The ASPIRE diagnostic tool can be used to assess how well Brazil's social protection system is positioned to deliver early action for climate resilience. This section introduces the ASPIRE framework and explains how it can be applied to assess readiness in the Brazilian context and help identify gaps and practical entry points for strengthening social protection as a tool for both anticipatory response and longer-term resilience building. More details about the ASPIRE toolkit (Bharadwaj et al., 2023) and how to use it can be found at: www.iied.org/21901iied

2.1 Applying ASPIRE in Brazil

Brazil faces a diverse and spatially uneven set of climate risks, alongside persistent social and regional

inequalities. At the same time, it has extensive social protection coverage, strong digital delivery systems and experience in scaling support during crises. These features make Brazil well-placed to move towards more anticipatory approaches, but they also mask important variations in readiness across policies, systems and programmes.

ASPIRE is particularly relevant in this context because it moves beyond questions of coverage and expenditure and focuses instead on system readiness. It helps assess whether climate risks are adequately reflected in social protection policies, whether financing and information systems can support early action and whether programmes are designed to scale or adapt in response to shocks. By doing so, it allows the strengths within Brazil's system to be identified and leveraged, while also highlighting constraints that may limit the effectiveness of anticipatory action.

2.2 What is ASPIRE?

A primary impediment to strengthening early climate action via social protection is the wide variety of contexts in which risks and responses occur. Climate risks vary by geography and hazard type, while vulnerability and coping capacity differ across population groups. Social protection systems also vary widely in their level of maturity, coverage and institutional

coordination. This diversity means that there is no one-size-fits-all approach to anticipatory or shock-responsive social protection.

The ASPIRE diagnostic tool was developed to address this challenge. It provides a structured, evidence-based framework to assess how well social protection systems are positioned to deliver early action, including both anticipatory support that can be triggered ahead of climate shocks and early investments that strengthen long-term resilience.

In Brazil, as in many countries, governments face overlapping constraints such as fragmented mandates across sectors, limited integration between climate-risk management and social protection, and gaps in programme design or delivery mechanisms. At the same time, institutional capacity and digital infrastructure are relatively strong in some areas. ASPIRE supports a shift away from generic models towards more context-specific solutions that reflect Brazil's institutional arrangements and risk profile.

The tool is guided by three core questions:

1. Are current policies, systems and programmes capable of delivering timely and targeted support to those most at risk from climate shocks?
2. Where are the critical gaps, whether institutional, technical or financial, that are limiting early action?
3. What concrete actions are needed to close these gaps and enable scalable early action?

By addressing these questions, ASPIRE can help strengthen the foundations of social protection systems so they can respond more effectively to climate risks while supporting long-term resilience.

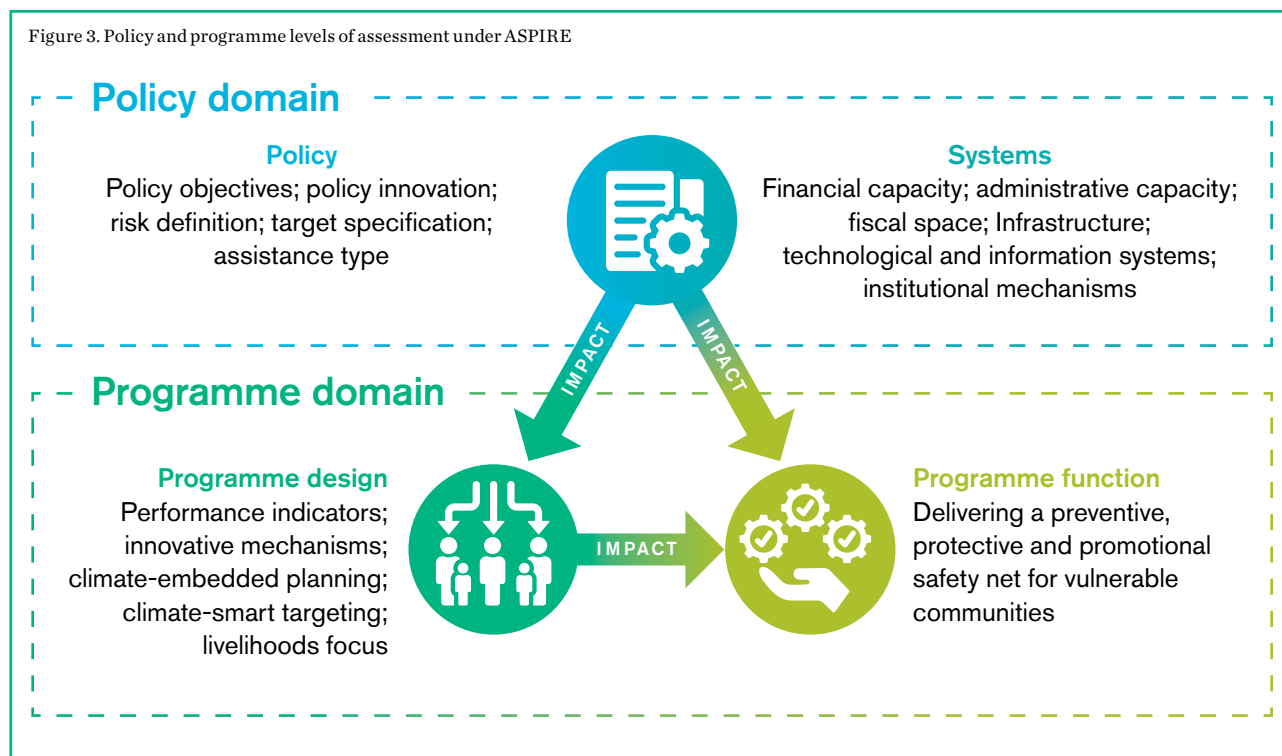
2.3 What domains does ASPIRE analyse?

ASPIRE uses a two-level diagnostic framework to assess readiness across both national policy and systems and individual programmes (see Figure 3). This approach recognises that effective early action depends on the alignment between high-level policy frameworks and on-the-ground delivery.

At the national level, ASPIRE assesses 36 indicators across two domains: policy and systems.

- The policy domain examines whether national strategies and frameworks explicitly address climate risks, promote anticipatory and adaptive social protection and establish clear objectives, roles and responsibilities.
- The systems domain focuses on the operational backbone required to deliver early action, including fiscal space, financing mechanisms, information systems, social registries, integration with early warning systems, institutional coordination and delivery infrastructure.

Figure 3. Policy and programme levels of assessment under ASPIRE

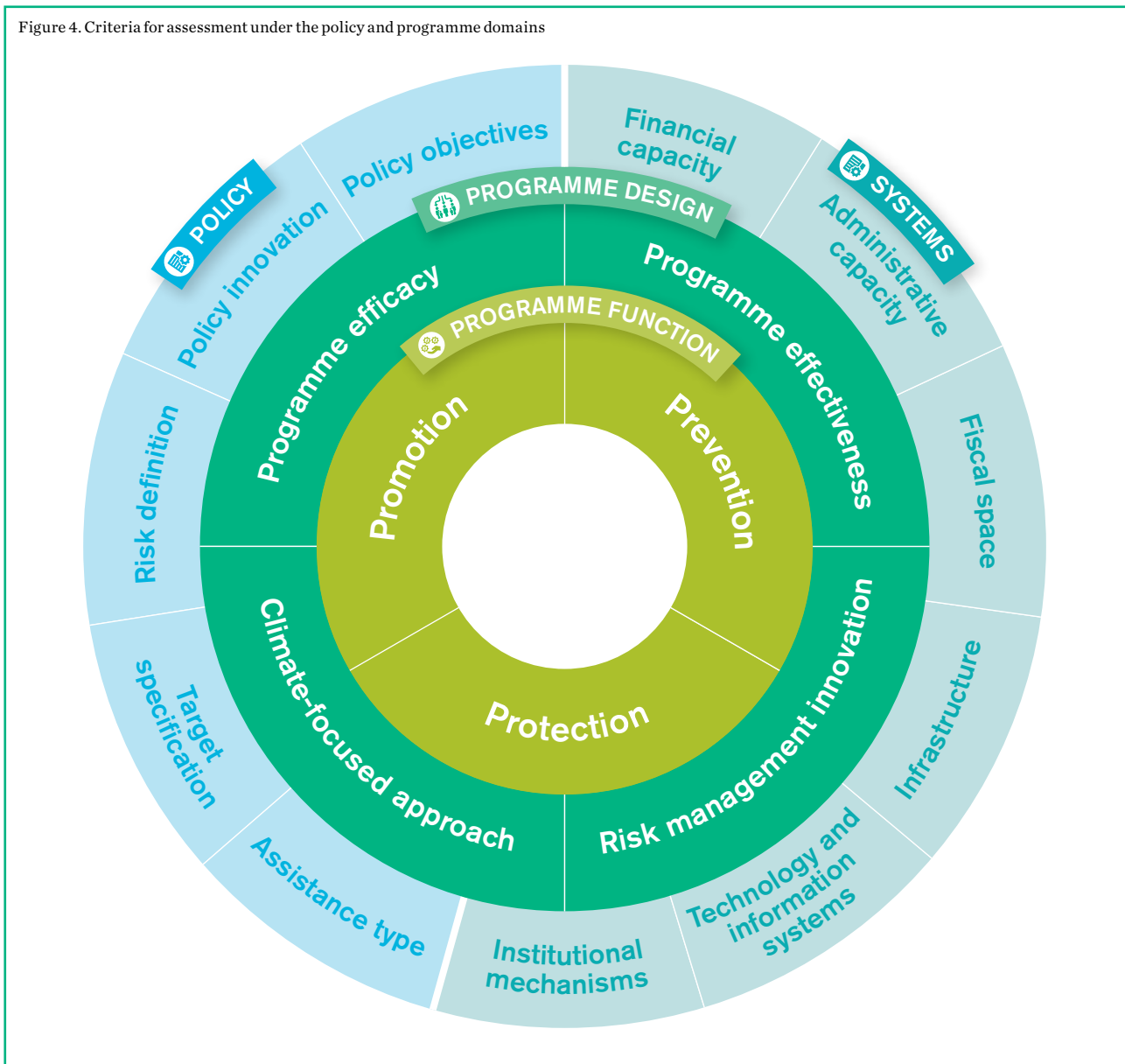


At the programme level, ASPIRE assesses 33 indicators across two domains: programme design and programme functioning.

- Programme design indicators assess whether climate risks are integrated into targeting approaches, eligibility criteria, benefit structures and scalability mechanisms.
- Programme functioning indicators examine whether programmes help prevent harmful coping strategies, protect assets during crises and support recovery, contributing to absorptive, adaptive and transformative resilience.

The criteria used across these domains are summarised in Figure 4. This framework provides a tool for comprehensive assessment of Brazil's readiness to deliver early action through social protection. The following section presents the results of the ASPIRE assessment for Brazil, structured around the four domains of policy, systems, programme design and programme delivery.

Figure 4. Criteria for assessment under the policy and programme domains



3

Brazil: ASPIRE country readiness assessment

This section presents the results of the ASPIRE assessment for Brazil, examining the country's readiness to deliver anticipatory social protection for resilience. The assessment is structured around the four ASPIRE domains: policy, systems, programme design and programme delivery, which together capture the institutional, operational and programmatic conditions required to shift the existing programmes from reactive social assistance towards early, risk-informed action.

The analysis first reviews the state of readiness of Brazil's policy and systems, showing how capable national frameworks, coordination arrangements, information systems, financing mechanisms and institutional processes are for delivering anticipatory approaches. It then examines programme design and delivery readiness through in-depth assessments of selected flagship social protection programmes, analysing how they function in practice and the extent to which they incorporate preventive, protective and promotive features, as well as anticipatory and climate-responsive elements.

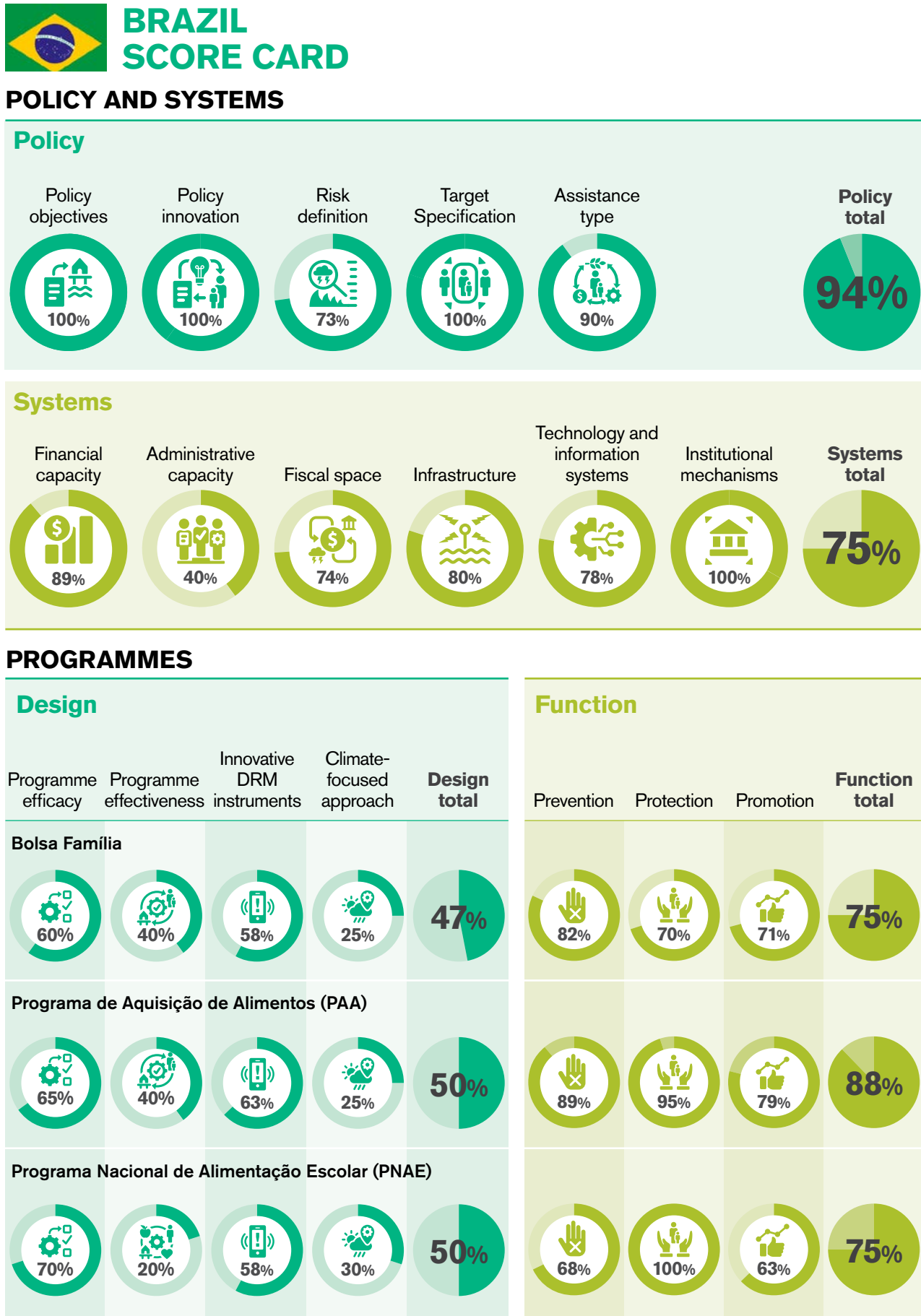
The three programmes covered for this assessment are: PAA, PNAE and Bolsa Família. These programmes were selected because they form the backbone of Brazil's social protection system, spanning income support, food and nutrition security, and links to family farming. Their differing programme design, target groups and delivery models allowed the assessment to capture variations in readiness and to identify where anticipatory social protection could be most effectively strengthened across the system.

3.1 Summary scorecard: policy, systems and programme readiness

The assessment presented here is the result of a collaborative process led by the International Institute for Environment and Development (IIED) in partnership with Instituto Fome Zero (IFZ). The application of the ASPIRE diagnostic was refined and validated through a series of multistakeholder consultations held in Brasília and São Paulo in August, September and October 2025. These sessions brought together senior officials from the Ministries of Social Development, Agriculture, Environment and Foreign Affairs, alongside experts from the Brazilian Institute for Applied Economic Research (IPEA), civil society organisations and academia. Participants contributed relevant documentation and operational insights that were incorporated into the final analysis, ensuring that the assessment reflects the specific institutional and political context of Brazil's social protection system.

In Figure 5, we present the overall scorecard of Brazil's readiness for anticipatory social protection, based on the ASPIRE assessment. The figure summarises the results across the four domains and presents performance metrics to highlight where Brazil is already well positioned and where important gaps remain. The sections that follow unpack these results, explaining how the scores were arrived at, what the assessment reveals across different domains and what this means for strengthening anticipatory action.

Figure 5. Brazil's ASPIRE scorecard: summary of readiness across policy, systems and three major programmes



3.2 Policy domain results

3.2.1 Policy objectives

Clear vision, goal and objectives

POLICY OBJECTIVES ¹	
The country's social protection policy has a clear vision, goals and objectives	5
The policy explicitly mentions building resilience to climate shocks as an objective	5
The policy prioritises anticipatory response to climate shocks (in other words, preparedness and proactive measures to mitigate impacts)	5
The country uses systemic policy planning cycle mechanisms to manage the design and delivery of social protection programmes	5

Brazil's social protection vision is not set out in a single standalone 'social protection policy' document, but it is strongly anchored in the country's constitutional framework and in major federal strategies that shape the design and purpose of social policy. The 1988 Constitution establishes social justice and inclusion as foundational goals. Article 3 sets out the fundamental objectives of the Republic, including eradicating poverty and substandard living conditions and reducing social and regional inequalities, alongside promoting wellbeing without discrimination.

This constitutional anchoring matters for readiness because it creates a clear, long-term mandate for social protection as part of national development. The Constitution also assigns responsibilities for planning and development across levels of government, creating an enabling basis for the Union and subnational entities to act on poverty reduction and social protection goals through policies, plans and programmes.

Major federal strategies reinforce this framing by explicitly recognising poverty and vulnerability as multidimensional and requiring coordinated policy responses. For example, the *Brasil Sem Miséria* (Brazil Without Extreme Poverty) plan was designed as a multidimensional strategy linking income support, access to public services and productive inclusion, rather than addressing poverty solely via financial support.

A further feature of Brazil's policy framing is a relatively strong emphasis on rights and equity. The constitution frames social rights broadly (including the right to education, health, food, work, housing and social security) and it explicitly commits to non-discrimination and wellbeing for all citizens, regardless of origin, race, ethnicity, sex or age.

In practice, this vision has translated into a wide ecosystem of contributory and non-contributory instruments intended to prevent households from falling

deeper into poverty and to protect against livelihood risks. This includes the flagship income transfer programme (Bolsa Família), unemployment insurance, pensions and disability benefits, and food and nutrition programmes such as PNAE, which legally establishes school meals as a right for students in public education and a duty of the State.

With regard to targeting and inclusion, the direction of policy is towards improving coverage and reducing exclusion through continuous identification and registration efforts. The technical planning underpinning the *Brasil Sem Fome* (Brazil Without Hunger) agenda emphasises active identification of food-insecure populations, noting that 36.6% of households reported food insecurity. It sets a goal of registering 71% of families with a per-capita income of half the minimum wage in the Cadastro Único (the single registry) by 2026. This shows that targeting and inclusion are being treated as ongoing system priorities.

The evidence also points to areas where eligibility conditions and coverage gaps can still create exclusion risks, for example, relatively low unemployment insurance coverage among unemployed people and design features that may disproportionately exclude younger or poorer workers.

What this suggests for Brazil's readiness to deliver anticipatory social protection: Brazil's overarching policy intent is strong and long-standing (poverty reduction, inclusion, rights). The readiness gap is not the absence of policy objectives, but the extent to which those objectives are consistently translated into shock- and climate-specific provisions across the system (including protocols, triggers and financing).

Building resilience

Brazil's social protection objectives do not consistently frame 'climate resilience' as an explicit headline purpose across the full system, but resilience-relevant objectives and design features are present across several major policy instruments and programmes. These provide tangible entry points for linking social protection more directly to climate and disaster risk.

Several programmes already incorporate vulnerability and risk area considerations in ways that align closely with resilience building. For example, the updated *Minha Casa, Minha Vida* (My House, My Life) law prioritises groups, including residents in broadly defined risk areas and households displaced by disasters or facing social risks, signalling an intent to use housing support as a risk-reduction measure rather than solely as an anti-poverty intervention.

In rural areas, a set of instruments functions as a crisis buffer for climate-sensitive livelihoods. *Garantia Safra* provides emergency cash support to farmers affected by

¹ For more details on the scoring format, please refer the ASPIRE Toolkit available at www.iied.org/21901iied

natural calamities and the Brazil Without Hunger agenda includes a crop guarantee measure to support farmers facing crop losses from natural disasters, which is designed to reach 565,000 families in 709 municipalities.

There are also examples of programmes that combine social objectives with environmental and ecosystem outcomes. Bolsa Verde illustrates how targeted support can be aligned with environmental objectives. Its reactivation in 2023, following a suspension in 2019, marks a shift towards linking sustainable resource management and forest conservation, suggesting there is policy space for resilience co-benefits, even where climate risk is not always explicitly referenced in programme objectives.

The policy landscape therefore suggests that Brazil already has multiple resilience-relevant programme pathways, but these remain uneven across the system and are not yet consistently pulled together under a single, explicit resilience objective for social protection as a whole.

What this suggests for Brazil's readiness to deliver anticipatory social protection: Brazil has credible building blocks for resilience within the programme portfolio, but readiness is uneven because resilience intent is not yet systematised across social protection objectives, instruments and implementation rules.

Anticipatory response

Brazil's policy and programme ecosystem shows strong capacity for rapid adaptation once a crisis hits, but anticipatory mechanisms (for example, standing trigger protocols linked to climate forecasts or early warning thresholds) are still not consistently institutionalised across major programmes.

The evidence shows that during severe shocks, Brazil has been able to mobilise social protection systems quickly using administrative and legal flexibility. During the COVID-19 crisis, for instance, emergency benefits reached more than 65 million people (around 30% of the population), leveraging the Cadastro Único and additional registration mechanisms to rapidly expand coverage and reach previously excluded populations.

Similarly, during climate-related calamities, such as the floods in Rio Grande do Sul and drought in other regions, Bolsa Família has been used as an emergency response platform through decrees and administrative measures. These include prioritising affected municipalities, suspending registry update deadlines and maintaining benefits even when services required to meet conditionalities (such as schools and health clinics) are disrupted.

However, these adaptations are largely activated through extraordinary measures rather than pre-agreed,

forecast-based triggers. The evidence shows an absence of automatic triggers linked to meteorological early warning systems and reliance on political and administrative activation to scale responses.

In addition, the review found no evidence that Bolsa Família systematically uses early warning systems to trigger anticipatory support and shows that the requirement for legislative approval of emergency measures can become a constraint during crises.

What this suggests for Brazil's readiness to deliver anticipatory social protection: Brazil's readiness is relatively strong for rapid post-shock adjustment, but weaker for pre-shock action because anticipatory support still depends on exceptional decisions rather than standing triggers, pre-agreed protocols and scalable financing arrangements.

Systematic planning cycle

Brazil's social protection policy landscape shows strong evidence of iterative policy development, reform and course correction, often through programme consolidation, learning-by-doing, public engagement and periodic redesign.

There is evidence of piloting and refinement in programme development. For instance, Bolsa Verde was initially piloted in selected areas with local monitoring approaches tailored to regional forest types and population density, drawing on the operational infrastructure and targeting lessons established through Bolsa Família.

Long-term consultative processes are also visible in the evolution of major programmes. For example, the strengthening of PNAE procurement rules, particularly the legal requirement that at least 30% of school feeding resources be used to purchase food from family farms, was shaped over time through stakeholder engagement involving parliamentary bodies, civil society and farmers' organisations, alongside revisions responding to evidence on food insecurity and nutrition needs.

Brazil also shows a pattern of policy learning through integration and reorganisation. The move from multiple fragmented cash transfer initiatives to a more streamlined Bolsa Família architecture reflects this iterative planning and coordination. This evolution is robust, supported by monitoring and governance structures established as part of recent strategies. The federal Brazil Without Hunger plan is explicitly designed as an interministerial agenda, led through the food and nutrition security governance system and involving 24 ministries, with public reporting and monitoring commitments.

Brazil's ability to plan, update and implement at scale is strengthened by the presence of a large, mature social registry infrastructure, Cadastro Único, which supports the State's ability to identify, update and scale assistance over time.

What this suggests for Brazil's readiness to deliver anticipatory social protection: The assessment under this indicator suggests that Brazil has many of the institutional aspects associated with a systematic planning cycle, such as policy iteration, review and redesign and large-scale administrative platforms. The key readiness gap is less related to whether planning happens and more about whether planning and revision cycles are being used to institutionalise anticipatory mechanisms (including triggers, protocols and pre-agreed financing arrangements) as standard practice.

3.2.2 Policy innovation

POLICY INNOVATION

Rights-based regulatory provisions are given for the social protection of vulnerable communities	5
The policy offers portable benefits for migrant populations	5
The policy emphasises universal access to a range of benefits by vulnerable communities	5
The policy acknowledges community, civil society organisation, nongovernmental organisation and private sector engagement in social protection interventions	5

Rights-based entitlement

Brazil's social protection framework includes several features that align strongly with a rights-based approach, particularly where entitlements are anchored in law and can be claimed through administrative or judicial channels. At the constitutional level, social rights are explicitly recognised (including rights to education, health, food, work, housing, social security and assistance to the destitute), providing an enabling foundation for rights-based social policy.

This rights framing is especially clear in parts of the social assistance system. The Law on Social Assistance established the legal basis for key entitlements, including the *Benefício de Prestação Continuada* (Continuous Cash Benefit — BPC) for poor older people and people with disabilities. Where access is denied, claimants can challenge decisions through the courts. Evidence shows that by 2015, one-third of disability benefits under BPC were awarded through court rulings, which is a strong signal that access to rights is real and actively used.

Beyond formal rights, Brazil's policy design has also shown deliberate efforts to identify and prioritise disadvantaged groups. For example, Bolsa Família's early design choices aimed at clarity and fairness, including a simple benefit structure and the decision to make women the typical recipients of transfers.

In food security programmes, programme design explicitly recognises that smallholders, including women, Indigenous and Quilombola groups, face structural barriers to participating in formal markets and has sought to address this through targeted inclusion in procurement and supply chains.

In terms of rights awareness and the ability to claim benefits, Brazil's decentralised registration model (through municipalities), combined with payment delivery through a federal bank, has supported beneficiaries to understand eligibility and access support. Evidence shows that 98% of delivered benefits are collected by beneficiaries within one month, suggesting that delivery is not only timely but also understood and used in practice.

What this suggests for Brazil's readiness to deliver anticipatory social protection: Brazil has a strong rights-based foundation in parts of the system (particularly BPC/*Sistema Único de Assistência Social* (Unified Social Assistance System — SUAS) related entitlements) and a demonstrated pathway for remedy, but rights-based protection is not uniform across all flagship programmes, some of which operate more as policy entitlements than enforceable rights.

Portability of benefits

The evidence suggests that internal migration does not appear to be a major barrier to accessing key benefits, largely because eligibility and delivery are linked to national systems rather than locality-specific registers. Municipalities manage enrolment and service delivery, but the overall architecture is supported by national registries and federated systems that help benefits follow the person rather than the place.

Two examples stand out. First, Bolsa Família (and related emergency expansions) have shown flexibility in adjusting rules during crises, including adapting family composition rules to include groups such as internal migrants during the COVID-19 emergency response.

Second, PNAE's benefit is functionally portable because it is tied to public school enrolment. Children from migrant households can continue to access school meals as long as they are enrolled in a participating public school, regardless of where they move within Brazil.

What this suggests for Brazil's readiness to deliver anticipatory social protection: Brazil's system conditions are broadly conducive to portability in practice, but the evidence is still relatively indirect (in other words, portability is enabled by system design and delivery architecture rather than being consistently codified and reported as a portability feature across programmes).

Universal access

Brazil's policy intent places strong emphasis on broad-based access, particularly for core services and for large-scale programmes with national reach. Evidence drawn from the World Bank's simulation work suggests that, under perfect implementation assumptions, 90% of households would have at least one member eligible for a protected source of income through formal labour arrangements, old age benefits or social assistance transfers. It also reports high coverage of older people (including 83% coverage in one estimate and 9 in 10 people aged 65+ receiving a pension in another estimate).

Brazil's ability to pursue universal access is also supported by the scale of its social registry. The World Bank describes Cadastro Único as connecting over 90 million people to more than 40 social programmes, which is a major enabling factor for expansion, inclusion efforts and shock response at scale.

At the programme level, the evidence shows that PNAE is designed as universal coverage for students in public basic education, with estimated coverage reaching 100% of that target population.

The same evidence base also points to uneven access across benefit types. For example, unemployment benefit coverage remains relatively low compared to need (with one cited estimate of 17.7% of unemployed workers receiving unemployment benefits in 2019).

What this suggests for Brazil's readiness to deliver anticipatory social protection: Brazil has strong foundations for universalising access in some areas (notably school feeding, registry-based social assistance and old age protection), but coverage remains uneven across the overall portfolio and some instruments are more exclusion prone than others.

Stakeholder engagement

Brazil's policy landscape shows substantial experience with stakeholder engagement and participatory governance, particularly in food and nutrition security and in decentralised programme implementation. The Brazil Without Extreme Poverty plan explicitly envisaged coordination mechanisms (including 'situation rooms' and computerised support systems) to support coordination across federal agencies, states, municipalities and civil society.

More recently, Brazil has taken steps to formalise dialogue channels with civil society at the national level through the establishment of a Social Participation Council and an interministerial participation system intended to provide a regular channel for engagement in policy development and review.

This participatory pattern is also reflected in specific programme areas. In food systems programming, Brazil's National System of Food and Nutrition Security

(established in 2006) supports institutionalised consultation by bringing civil society organisations and government sectors together around food security programmes such as PNAE.

Similarly, organised family farmer groups have played a meaningful role in shaping policy discussions on school feeding and related procurement models, and programmes such as the Cisterns Programme show operational engagement of local civil society organisations in implementation and beneficiary selection in vulnerable semi-arid regions.

On accountability and oversight, PNAE has formal local oversight structures through *Conselho de Alimentação Escolar* (School Feeding Councils — CAE) and uses digital monitoring tools such as *Sistema de Monitoramento do PNAE* – (SIGPNAE), which strengthens transparency and creates institutional space for participation and monitoring.

What this suggests for Brazil's readiness to deliver anticipatory social protection: Brazil has relatively strong participatory infrastructure and decentralised engagement pathways, with particularly robust examples in food security governance and local oversight arrangements. The readiness challenge is to ensure these engagement mechanisms also strengthen climate- and shock-relevant decision making (including anticipatory protocols), rather than remaining primarily focused on routine programme delivery and accountability.

3.2.3 Risk definition

RISK DEFINITION	
The policy identifies types of risk that the most vulnerable communities face	5
The policy clearly defines trigger points for hazard events (for example, anticipated drought based on rainfall data) that may activate the anticipatory social protection	1
The policy sets out contingency plans for social protection measures to come into force when trigger points for hazardous events are reached	5

Definition of risk to the most vulnerable

Brazil's social protection framework demonstrates a relatively strong capacity to identify and articulate the types of risks faced by vulnerable populations, even though these risks are not always explicitly framed through a climate lens. Major policy frameworks and programmes acknowledge that poverty and vulnerability in Brazil are multidimensional, encompassing income insecurity, food and nutrition insecurity, exposure to social risks, health shocks, disability, and displacement linked to disasters.

The Brazil Without Extreme Poverty plan explicitly recognises the multidimensional nature of deprivation

and the need to address overlapping risks through a combination of contributory and non-contributory measures. A notable feature of this approach is the emphasis on 'active search' (*busca ativa*), signalling that vulnerability is not treated as static or self-reported, but as something that requires proactive identification of at-risk households rather than waiting for people to approach the State.

Across the social assistance system, risk definitions are operationalised through a wide portfolio of programmes. Under SUAS, *Proteção Social Básica* (Basic Social Protection — PSB) and *Proteção Social Especial* (Special Social Protection — PSE) respond to different dimensions of vulnerability, ranging from chronic poverty and food insecurity to rights violations, homelessness, disability, domestic violence and disaster-related displacement. Services such as *Serviço de Proteção e Atendimento Integral à Família* (Protection and Integral Support Service to the Family — PAIF), emergency protection services, home-based care for the elderly and people with disabilities, and specialised support for at-risk adolescents indicate a broad understanding of social risk that goes beyond income alone.

There is also strong integration between income support and social services. Evidence shows substantial overlap between PAIF beneficiaries and Bolsa Família recipients, suggesting that households identified as income-poor are simultaneously recognised as facing wider social risks. In food and nutrition, programmes such as PNAE are explicitly designed to mitigate nutritional risk among children and the scale and expansion of the programme over time reflect a sustained commitment to this risk category, even if precise estimates of coverage among the 'most vulnerable' are difficult to establish.

What this suggests for Brazil's readiness to deliver anticipatory social protection: Brazil shows relatively high readiness in defining who is vulnerable and what risks they face, with a broad, multi-dimensional understanding of vulnerability embedded across policies and programmes. The main limitation is that these risk definitions are not always explicitly linked to climate hazards and forward-looking shock scenarios, which constrains their direct use for anticipatory action.

Definition of trigger points

In contrast to its relatively strong articulation of vulnerability, Brazil's social protection system shows limited evidence of clearly defined trigger points for hazard events that would automatically activate anticipatory social protection.

The evidence points to a pattern in which social protection responses are typically activated after shocks occur, rather than being triggered by forecast-based

thresholds. For example, social assistance systems have adapted during unforeseen public health and disaster events, as in the preferential support provided under BPC-PCD (Benefit for Persons with Disabilities) during the Zika outbreak. But these adaptations were reactive and discretionary rather than driven by predefined triggers linked to early warning data.

Similarly, while legal and operational documents for programmes such as PNAE allow for additional financial support or flexibility during public emergencies or calamities, they do not define hazard thresholds (for example, rainfall deficits, flood warnings or drought indices) that would automatically activate support in advance of impacts. This suggests that flexibility exists, but it is not codified in a way that enables systematic anticipatory action.

What this suggests for Brazil's readiness to deliver anticipatory social protection: Brazil's readiness to deliver anticipatory social protection is constrained by the lack of formal trigger mechanisms. The absence of explicit trigger definitions reflects a broader institutional pattern: early warning information may exist within disaster risk management (DRM) systems, but it is not formally integrated into social protection policy rules or programme operating procedures in a way that enables automatic or routine anticipatory activation.

Contingency plans and use of trigger points

Despite the lack of formal anticipatory triggers, Brazil's social protection system shows a relatively strong capacity for contingency planning and shock response once hazard events materialise.

Evidence from World Bank analysis indicates that major programmes, particularly Bolsa Família, are embedded within a broader institutional ecosystem that allows coordination between SUAS and Civil Defence authorities. In disaster contexts, this coordination has enabled the implementation of contingency measures such as active outreach, temporary shelters, psychosocial support and prioritised assistance for affected households.

A critical enabling factor is the national social registry (*Cadastro Único*), which allows authorities to rapidly identify vulnerable households in disaster-affected areas and adjust delivery accordingly. This infrastructure supports targeted post-shock assistance and helps reduce delays in reaching affected populations, even when responses are activated through administrative or emergency decisions rather than predefined triggers.

However, the evidence also suggests that these contingency arrangements are event-driven rather than trigger-driven. While multiple programmes include mechanisms that can be adapted during crises, contingency plans are not systematically linked to

hazard thresholds that would automatically bring social protection measures into force before impacts occur.

What this suggests for Brazil's readiness to deliver anticipatory social protection: Brazil has relatively strong readiness for reactive contingency planning and post-shock coordination, supported by mature delivery systems and registries. The key gap lies in converting these response-oriented contingency mechanisms into anticipatory plans tied to predefined triggers, which would help avoid impacts earlier in the risk cycle.

3.2.4 Target specification

📌 TARGET SPECIFICATION

The policy identifies the groups of households or individuals that are most at risk of being affected by shocks or crises and should be targeted for assistance	5
The policy recognises diversity of vulnerability (for example, women, children, elderly people, displaced people)	5
The policy specifies who is eligible for assistance from social protection programmes	5
Targeting criteria are transparent, fair and based on objective indicators defining vulnerability	5

Identifies households or individuals most at risk

Brazil's social protection framework shows a strong and relatively explicit approach to identifying who should be prioritised for support, with multiple programmes designed around groups that are routinely most exposed to shocks and long-term vulnerability. Women, children, older people and people with disabilities feature prominently across major programmes, with targeting often embedded in eligibility rules and prioritisation criteria rather than treated as an add-on.

The design of Bolsa Família has historically channelled transfers through the women in the household and the programme architecture continues to emphasise support to families with children, pregnant women and nursing mothers through differentiated benefit components and co-responsibilities linked to health and schooling.

In parallel, housing policy also explicitly uses vulnerability-based prioritisation. Under *Minha Casa, Minha Vida*, priority criteria include women heads of household and women survivors of domestic violence, alongside other vulnerable groups.

Children are also strongly covered through both income support and in-kind provision. PNAE institutionalises school feeding as a right for students in public basic education, with the principles of equal access and wide reach via the education system embedded into the design.

For older people and people with disabilities, Brazil's framework includes long-standing income guarantees through social assistance and pensions and structured services under SUAS that provide complementary care and protection. This reflects a system that recognises age and disability as core dimensions of vulnerability.

For socially marginalised groups, targeting is evident in both poverty strategies (including 'active search' approaches) and programme design choices that recognise barriers faced by specific communities. In food systems, for example, PNAE's procurement rules explicitly prioritise family farming suppliers, including Indigenous and Quilombola groups, creating an inclusion channel through public purchasing.

The housing programme provides a clear example of the recognition of disaster-related vulnerability, including prioritisation of people affected by disasters and those in risk contexts.

What this suggests for Brazil's readiness to deliver anticipatory social protection: Brazil is relatively strong in naming and embedding priority groups within major programmes and policy instruments. The main readiness gap is the lack of systematic prioritisation of vulnerable households ahead of shocks, rather than mainly through post-event support.

Identifies diversity of vulnerability

Across the evidence base, Brazil's policy and programme ecosystem demonstrates clear recognition that vulnerability is heterogeneous, shaped by life cycle risks (children, pregnancy, old age), disability, social marginalisation and exposure to violence and displacement. This is visible not only in Bolsa Família and SUAS services, but also in cross-programme design choices, for example, in the way eligibility rules and prioritisation criteria in housing and assistance programmes interact with other benefits, rather than treating vulnerability as one single category.

This shows a system that does not rely on a single instrument, but combines income transfers, services and in-kind provision in ways that can reach different vulnerable groups through different channels (cash, services, schools, housing).

What this suggests for Brazil's readiness to deliver anticipatory social protection: Brazil's diversity framing is a real strength for anticipatory social protection, because it provides an existing basis for defining who should be protected first when risk escalates. The opportunity is to connect this heterogeneity more directly to climate-risk profiles (for example, who is most exposed to floods/droughts/heat stress) and to pre-arranged response rules.

Eligibility defined

Brazil's readiness on eligibility definition is underpinned by relatively clear and systematised rules, supported by a mature social registry infrastructure. Cadastro Único is designed to identify and characterise low-income families nationwide and is widely used as the gateway for multiple programmes. A commonly cited eligibility criterion for inclusion in Cadastro Único is household per-capita income that is less than half the minimum wage, which provides a broad entry point for low-income targeting across programmes.

At programme level, eligibility thresholds are also defined in operational terms. Bolsa Família uses a per-capita income threshold for entry, with rules updated over time to manage entry, exit and transition as household income changes (including recent adjustments to 'protection rule' arrangements). These rules matter because they reduce discretion and support scale-up, particularly during crises, by clarifying who qualifies and how status is retained or adjusted.

What this suggests for Brazil's readiness to deliver anticipatory social protection: Brazil has strong foundations for eligibility definition, especially due to Cadastro Único and established programme rules. This supports readiness to scale support during shocks. The remaining challenge relates to using eligibility systems to enable rapid, risk-informed horizontal expansion (new households) and vertical expansion (temporarily higher support) when hazards are forecast.

Targeting criteria transparent, fair and objective

The evidence suggests that Brazil relies heavily on objective and transparent indicators, particularly income thresholds linked to the minimum wage and per-capita income measures, to determine eligibility across programmes, complemented by categorical criteria (children, pregnancy, disability, age, risk status). For Bolsa Família, the programme's entry criteria are defined around per-capita income thresholds and the government periodically issues formal guidance on how eligibility and transition rules are applied.

For PNAE, the targeting logic is structurally transparent because eligibility is tied to enrolment in public basic education. This supports a broad-based approach that limits exclusion errors for children attending school.

What this suggests for Brazil's readiness to deliver anticipatory social protection: Brazil's reliance on objective criteria strengthens readiness by supporting predictable targeting and scalable delivery. The key readiness gap for anticipatory social protection is that transparency in eligibility does not automatically translate into transparency in shock triggers, for example, when and how households should receive early support based on forecast risk.

3.2.5 Assistance type

ASSISTANCE TYPE	
The policy explicitly sets out the types of assistance provided through social protection programmes (for example, income support, food assistance, healthcare)	4
The assistance specified (for example, livelihood support, healthcare, food, shelter, education) is comprehensive depending on local context	5

Assistance through anticipatory support

Across Brazil's major social protection instruments, the most consistent 'early' support is embedded in programme design choices that reduce vulnerability (and help households cope), rather than in standing anticipatory protocols that are automatically triggered by forecasts. However, there are a few clear examples where the type of assistance is defined in advance and is intended to reduce exposure or protect assets.

One example is Bolsa Verde, which provides a defined cash benefit linked to environmental conservation and sustainable resource use. While this is not a classic forecast-triggered anticipatory transfer, it is designed to create incentives that can reduce longer-term climate and environmental risks (for example, pressures linked to deforestation and ecosystem degradation). The programme design also makes the assistance package clear and predictable to recipients.

A second example is PNAE, where the assistance type is explicit and standardised: daily school meals delivered through public education systems. PNAE's rules specify nutrition parameters tied to students' needs (for example, minimum shares of daily nutritional requirements depending on time spent in school).

What this suggests for Brazil's readiness to deliver anticipatory social protection: Brazil already has well-established delivery platforms where the benefit package is clear and, in some cases, aligned to longer-term risk reduction. However, the evidence base still points to limited institutionalisation of forecast-based triggers that would shift these programmes (especially cash-based ones) into a more consistently anticipatory mode.

Assistance provided is comprehensive

Brazil's social protection architecture is broad and includes an array of instruments, combining cash transfers with in-kind support and service-linked assistance. This mix matters because climate shocks typically create overlapping stresses, such as income loss, food insecurity, health risks, displacement and service disruption, and single-instrument responses often fall short.

In the case of cash transfers, Brazil has demonstrated an ability to rapidly expand support at scale during major crises. The *Auxílio Emergencial* (Emergency Aid) response during COVID-19 is a clear example of surge capacity: official reporting notes payments reaching around 68 million people, with very large overall fiscal outlays. Even though COVID-19 is not a climate shock, the operational lesson is relevant for climate extremes. When legal and administrative decisions allow, Brazil can use existing delivery channels to expand support quickly.

At the systems level, Brazil's capacity to offer a more comprehensive safety net is reinforced by the role of Cadastro Único as a gateway for vulnerable families to access multiple programmes. Official information describes it as an entry point for tens of millions of low-income families and a key connector across a wide set of federal programmes. This strengthens comprehensiveness in practice, because households can be assessed once and then linked to different forms of assistance (cash, services, food-related programmes), rather than navigating multiple disconnected registries.

What this suggests for Brazil's readiness to deliver anticipatory social protection: Brazil is strong on breadth and scalability. It has multiple instruments, mature delivery channels and demonstrated surge capacity when crises escalate. The main readiness gap is not the absence of assistance options, but that anticipatory support is not yet consistently structured as a standard package linked to early warning/forecast triggers with pre-agreed activation protocols and predictable financing.

3.3 Systems domain results

3.3.1 Administrative capacity and fiscal space

Financial capacity

FINANCIAL CAPACITY	
Country income category	3
Economic dependency index	5

Brazil is classified as an upper-middle-income country, with a per-capita income of around US\$10,640 (World Bank, 2024). This places it in a relatively strong position compared to many countries attempting to operationalise anticipatory social protection. In addition, Brazil scores very low on economic dependency, reflecting limited reliance on external aid and a diversified economic base.

What this suggests for Brazil's readiness to deliver anticipatory social protection: For readiness, this matters because anticipatory systems require predictable domestic resources to pre-position finance, absorb shocks and scale responses without excessive delays. Brazil's macroeconomic profile suggests that, in principle, the country has the economic capacity to do this, especially compared to lower-income contexts where fiscal fragility is a binding constraint.

Administrative capacity

ADMINISTRATIVE CAPACITY	
Government effectiveness index	2
Corruption perception index	2

Administrative capacity presents a more mixed picture. Indicators of government effectiveness and corruption perception suggest moderate to weak performance relative to Brazil's income level. This does not imply an absence of state capacity, as Brazil manages very large and complex programmes. But it does highlight challenges in coordination, consistency and implementation quality across sectors and levels of government.

In practice, Brazil has demonstrated that it can deliver at scale when political alignment and legal authorisation are present (as seen during COVID-19). However, moderate effectiveness scores help explain why anticipatory mechanisms tend to rely on exceptional measures rather than being embedded as routine, rules-based processes.

What this suggests for Brazil's readiness to deliver anticipatory social protection: The administrative capability demonstrates being sufficient for scale, but less reliable for automaticity and speed without ad hoc decisions.

FISCAL SPACE	
Spending on social assistance programmes as a percentage of GDP	5
Special allocation of contingency funds for anticipatory risk financing	2
The country has access to extra budgetary resources, including international financial instruments and donor organisations	2
Policies incorporate the use of private sector financing (for example, green bonds, resilience bonds)	3
The country integrates and uses disaster risk financing instruments (for example, crop insurance, health insurance, contingent credit, catastrophe insurance, reinsurance, catastrophe bonds)	2

Fiscal space

Brazil's fiscal commitment to social protection is substantial. Pre-pandemic, total spending on social protection reached around 19% of GDP, with social assistance accounting for approximately 5% of GDP. A large share of spending is absorbed by pensions, but non-contributory programmes still represent a significant and stable budget line. This level of expenditure signals that social protection is a core function of the State, not a marginal policy area.

What this suggests for Brazil's readiness to deliver anticipatory social protection: This provides a solid foundation for scaling anticipatory responses, provided that funds can be reallocated or released quickly when shocks occur.

Contingency funds and anticipatory risk financing

Evidence of dedicated contingency funding for anticipatory risk financing is limited. There is no indication that multiple major programmes have pre-allocated contingency envelopes specifically designed for forecast-based activation.

However, Brazil has demonstrated financial flexibility during crises. For example, emergency financing, supported in part by international financing, was mobilised to expand Bolsa Família and related programmes during COVID-19. In addition, programmes such as PAA and PNAE have shown the ability to reprogramme budgets in emergencies (for instance, shifting from school meals to food baskets when schools closed).

What this suggests for Brazil's readiness to deliver anticipatory social protection: This suggests that Brazil has a system that is financially adaptable but not pre-positioned. The absence of standing contingency funds linked to triggers means responses depend on political and administrative decisions rather than automatic release mechanisms.

Access to other sources of finance

Brazil has sustained access to extra-budgetary financing, particularly through international financial institutions. Long-standing engagement with multilateral partners has supported the expansion and reform of flagship programmes over time. While this financing is not anticipatory by design, it has played an important role in shock response.

What this suggests for Brazil's readiness to deliver anticipatory social protection: In readiness terms this external financing acts as a backstop but not a substitute for domestic, pre-agreed anticipatory financing arrangements.

Private sector finance

Brazil has taken a notable step by establishing a Sovereign Sustainable Bond Framework, enabling the issuance of green, social and sustainability bonds. These instruments can be used to finance programmes such as Bolsa Família and food security interventions, signalling growing alignment between social policy and capital markets.

What this suggests for Brazil's readiness to deliver anticipatory social protection: The evidence does not yet suggest that private finance is systematically embedded as a core financing channel for anticipatory social protection. Its role remains enabling rather than transformative.

Integration of disaster risk financing (DRF) instruments


DRF remains largely ex post in Brazil's social protection system. While there are several standalone instruments, particularly in agriculture, such as crop insurance and income stabilisation schemes, these are not fully integrated into social protection delivery systems.

There is no overarching mandate to integrate DRF into social protection, nor evidence of anticipatory DRF being routinely triggered before shocks. Budget reallocations after disasters remain the dominant response. Some targeting of vulnerable geographies and groups exists, but coordination across instruments is limited.

What this suggests for Brazil's readiness to deliver anticipatory social protection: From a readiness perspective, this is a key gap. Brazil has many relevant tools, but they operate in parallel rather than as part of a coherent, layered risk financing strategy linked to social protection delivery.

3.3.2 Infrastructure, technology and information systems

Infrastructure

 INFRASTRUCTURE	
Communication index	4
Physical connectivity	4

Brazil's basic infrastructure provides a relatively stable foundation for delivering social protection at scale, though with some unevenness across regions. According to the INFORM 2024² indicators, Brazil scores moderately on both communication and physical connectivity. This suggests that, at a national level, communication networks and transport connectivity are generally adequate to support programme delivery, information dissemination and coordination across institutions. However, these averages mask significant

² A global, open source tool that measures country risk based on hazards, vulnerability and coping capacity, available at: <https://drmkc.jrc.ec.europa.eu/inform-index/INFORM-Risk>

territorial disparities, particularly between urban centres and remote or environmentally vulnerable areas, where weaker connectivity can still affect last-mile delivery and timely response during crises.

National database/social registry

TECHNOLOGY AND INFORMATION SYSTEMS	
A national database/social registry exists	3
Climate-smart information systems are used for different purposes including for social protection	2
Early warning systems for major climate hazards are available	2
Early warning systems are applied in social protection programmes	3
Artificial intelligence (AI), risk modelling etc are used to implement programmes	1
Platforms for enhanced efficiency and effectiveness of the delivery of social protection entitlements are used (for example, mobile-based payments)	3

A major strength of Brazil's system is the existence and widespread use of a national social registry. Cadastro Único has been in place since 2001 and serves as the backbone of Brazil's social protection architecture. During the COVID-19 pandemic, Brazil further strengthened its information infrastructure by creating the *Cadastro Nacional de Informações Sociais* (National Social Information Registry), which linked 17 administrative databases and integrated information on employment, contributions, benefits and tax identifiers. These systems demonstrate strong administrative capacity to identify, register and update beneficiary information at scale, which is a critical enabler for both rapid expansion and potential anticipatory action.

Climate-smart information systems

Evidence of climate-smart information systems being used explicitly for social protection purposes remains limited. The Brazil Without Hunger plan includes plans to conduct agricultural climate-risk zoning studies to assess water vulnerability and climate risks affecting food security, indicating a growing awareness of the need to include climate risks in planning processes. However, the available evidence suggests that such climate-smart data are not yet systematically embedded into social protection targeting, eligibility or benefit design. World Bank assessments note that Brazil still faces gaps in identifying communities at the highest climate risk and translating climate vulnerability assessments into routine social protection decisions, particularly before shocks occur.

Availability and application of early warning systems (EWS) and artificial intelligence (AI)

Brazil has relatively well-developed EWS for major climate hazards, particularly in high-risk areas. World Bank stress-testing indicates that EWS are established

and functioning, and administrative systems such as SUAS and Cadastro Único are used to identify vulnerable households in disaster-affected areas to support post-shock responses. However, these systems are not yet consistently linked to predefined thresholds that automatically trigger anticipatory social protection responses within flagship programmes such as PAA, PNAE or Bolsa Família. While EWS are embedded in some agricultural risk management policies, their application in social protection is largely reactive. Similarly, although Brazil has recently established an Artificial Intelligence Centre under the *Instituto Nacional de Metrologia, Qualidade e Tecnologia* (the National Institute of Metrology, Quality and Technology) there is currently no evidence that AI or advanced risk modelling tools are being used to inform targeting, trigger mechanisms or benefit adjustments in major social protection programmes.

Efforts to enhance efficiency and effectiveness in delivery

Brazil has made substantial progress in using digital platforms and delivery systems to improve efficiency and reach. Direct benefit transfers through the state-owned bank, Caixa Econômica Federal, combined with Cadastro Único, have enabled large-scale, timely disbursement of cash transfers. During the COVID-19 response, digital platforms, mobile applications and in-person registration options were used to rapidly expand coverage, including to households not previously registered, while also promoting financial inclusion. Nearly 40% of emergency aid beneficiaries opened bank accounts for the first time. In the case of PNAE, the introduction of debit cards for electronic transactions with family farmers has improved efficiency and transparency while maintaining offline alternatives where digital access is limited. These platforms demonstrate strong delivery capacity and adaptability under crisis conditions.

What this suggests for Brazil's readiness to deliver anticipatory social protection: Brazil's infrastructure and information systems provide a strong operational base for social protection delivery and crisis response. The country has robust national registries, effective payment platforms and established EWS, all of which are essential building blocks for anticipatory social protection. However, readiness is constrained by the limited integration of climate-smart data, early warning thresholds and predictive tools into routine social protection operations. While systems can be mobilised quickly after shocks occur, they are not yet systematically configured to act in advance. Strengthening readiness will therefore require moving beyond data availability towards deeper interoperability, linking climate-risk information, EWS and social registries through clear protocols and triggers that enable earlier, more automatic activation of support before impacts escalate.

3.3.3 Institutional mechanisms

 INSTITUTIONAL MECHANISMS	
Bodies and mechanisms exist for social policy coordination across ministries and departments	3
Bodies and mechanisms exist for multistakeholder engagement at the grassroots level	3

Cross ministry/department coordination

Brazil has a relatively well-established architecture for coordinating social policy across ministries and levels of government. Rather than relying on a single coordination body, this architecture has evolved through successive national strategies and sectoral systems that embed coordination as a core operating principle. The Brazil Without Extreme Poverty plan has explicitly institutionalised interministerial coordination to address poverty through a multidimensional lens, supported by 'situation rooms' and integrated information systems to track implementation across federal entities, states, municipalities and civil society actors.

This coordination logic is further reinforced through SUAS, which operates as an inter-federative governance framework. Under SUAS, responsibilities for financing, regulation and implementation are shared across federal, state and municipal levels, ensuring that national policy objectives are translated into locally delivered services. More recently, the Brazil Without Hunger plan has formalised cross-sector coordination at an even larger scale, bringing together 24 ministries under the *Câmara Interministerial de Segurança Alimentar e Nutricional* (Interministerial Chamber of Food and Nutrition Security) to implement and monitor 80 actions and programmes. The governance design includes a management committee responsible for tracking progress, ensuring compliance and reporting to national oversight bodies, reinforcing vertical and horizontal coordination.

At the programme level, similar coordination mechanisms are visible. For example, PAA is overseen by an interministerial management group that facilitates collaboration across agriculture, social development and food security institutions, while allowing decentralised implementation by states and municipalities.

Multistakeholder engagement in delivery

Brazil's social protection system is also characterised by a strong emphasis on decentralised implementation and engagement at the grassroots level. From the early implementation of Bolsa Família, coordination between federal ministries and municipal governments has been central to programme delivery, particularly for monitoring conditionalities related to health and education. Municipalities play a key role in registering beneficiaries, updating data in Cadastro Único and monitoring

compliance, while federal authorities retain responsibility for regulation, financing and data validation.

SUAS provides the institutional backbone for this decentralised model, enabling local governments to adapt service delivery to local contexts while operating within nationally defined frameworks. This flexibility is evident in services such as the *Serviço de Convivência e Fortalecimento de Vínculos* (Coexistence and Bond Strengthening Service), where activities differ widely across municipalities in response to local needs and priorities. Such arrangements allow social protection to be embedded within community-level service ecosystems, rather than operating as a purely centralised transfer system.

Civil society engagement is also an integral part of delivery in several sectors. The Brazil Without Hunger plan explicitly calls for formalised partnerships with civil society organisations to support community kitchens, food distribution networks and local supply systems. In food and nutrition programmes, councils and participatory bodies have historically played a role in oversight, feedback and implementation support, helping to align national objectives with local realities. While the intensity and effectiveness of engagement vary across locations, the institutional space for multistakeholder participation is well established.

What this suggests for Brazil's readiness to deliver anticipatory social protection: Brazil's institutional mechanisms provide a strong foundation for delivering complex, multi-actor social protection responses. The country has functioning coordination bodies, clear intergovernmental arrangements and well-established decentralised delivery systems that can be mobilised at scale. These features are particularly important for anticipatory social protection, which depends on coordination across ministries, levels of government and service providers.

However, while coordination mechanisms are robust for implementation and post-shock response, they are not yet consistently leveraged to support anticipatory action. Coordination tends to intensify once crises materialise, rather than being systematically used to plan, trigger and finance early responses in advance of shocks. Strengthening readiness will therefore require using existing institutional platforms not only for coordination during emergencies, but also for pre-agreed planning, data sharing and decision making that enable earlier, more predictable activation of support before risks escalate.

3.4 Programme design and delivery readiness

To assess Brazil's readiness to deliver anticipatory social protection in practice, we also analysed how readiness is reflected in the design and delivery of major social protection programmes. This programme-level analysis is important, as anticipatory action ultimately depends on whether existing instruments can be adapted, scaled and triggered in ways that reach households before climate and other shocks translate into irreversible losses.

Three programmes were selected for in-depth assessment: PAA, PNAE and Bolsa Família. These programmes represent the core pillars of Brazil's non-contributory social protection system and offer complementary entry points for anticipatory and resilience-oriented action.

The PAA sits at the intersection of social protection, food security and rural livelihoods. By purchasing food from smallholder and family farmers, often those most exposed to climate variability, and channelling it to vulnerable populations, PAA combines income support with market access and local resilience objectives. Its design is particularly relevant for anticipatory social protection as it targets climate-sensitive livelihoods and can potentially be adapted to respond to early signals of droughts, floods or production shocks.

PNAE represents one of the largest and longest-running food-based social protection programmes globally, with near-universal coverage of children enrolled in public education. Beyond its nutritional objectives, PNAE plays a stabilising role for household food security and local food systems, particularly during crises. Its structured procurement rules, decentralised delivery model and strong links to local governments and smallholder farmers make it an important programme for assessing how in-kind and food-based instruments can contribute to anticipatory response and resilience building.

Bolsa Família is Brazil's flagship income transfer programme and the primary platform for reaching poor and vulnerable households at scale. It has nationwide coverage, is deeply embedded in the Cadastro Único social registry and has demonstrated capacity to expand rapidly during crises, most notably during the COVID-19 response. Its central role in poverty reduction, combined with its administrative maturity and delivery infrastructure, makes Bolsa Família an important programme to deliver anticipatory cash-based support before climate shocks.

These three programmes were therefore selected because they:

- Cover different population groups and risk profiles, including poor households, children and climate-exposed smallholder farmers
- Use diverse modalities of support, including cash transfers, food provision and market-based livelihood support
- Operate at scale, with established national systems for targeting, financing and delivery, and
- Have all demonstrated some degree of flexibility during crises, making them relevant platforms for assessing the feasibility of anticipatory approaches.

Employing the ASPIRE diagnostic tool to assess these programmes allowed us to examine whether programme objectives, targeting mechanisms, benefit structures, delivery systems and coordination arrangements are aligned with the requirements of early action. The following subsections present the ASPIRE assessment results for each programme, highlighting strengths, gaps and opportunities to strengthen anticipatory social protection in Brazil.

3.4.1 Programa de Aquisição de Alimentos (Food Acquisition Programme – PAA)

Programme efficacy

Coverage: PAA is a nationally implemented programme with variable coverage over time, closely linked to fiscal allocations and political priorities. In 2023, approximately 44,300 family farmers supplied food to the programme across Brazil, with participation spanning all regions and a strong presence in poorer and more food-insecure municipalities. Women accounted for around 51% of supplier beneficiaries, reflecting explicit prioritisation criteria embedded in programme rules. While overall farmer coverage is modest relative to the total population of family farmers, available evidence suggests that resource allocation is progressive, with higher volumes directed towards poorer and underserved areas.

Benefit incidence: PAA's benefit incidence is explicitly targeted rather than universal. On the supply side, benefits accrue to low-income family farmers, including Indigenous peoples, Quilombola communities, agrarian reform settlers, women and rural youth. On the demand side, procured food is channelled to vulnerable populations through social assistance networks, community kitchens, day care centres, schools and public or philanthropic institutions. This dual targeting structure means that programme benefits are concentrated among groups facing food insecurity and livelihood vulnerability.

Benefit adequacy: Benefit adequacy under PAA varies by modality, location and year. Supplier-level caps differ across modalities, such as Purchase with Simultaneous Donation (where the government buys food from family farmers and immediately delivers it to local social assistance networks) and PAA-Milk (a specific modality focused on purchasing and distributing milk to address nutritional deficiencies in regions like the northeast). Outcomes depend on local implementation capacity, market conditions and continuity of funding. While there is no single adequacy benchmark, impact evaluations indicate that participation has led to increases in production value and income for family farmers, suggesting that benefit levels are sufficient to influence livelihood outcomes, even if they are not designed to fully smooth consumption during severe shocks.

Average per-capita transfer: In 2023, the programme budget was approximately US\$188.6 million. Supplier beneficiaries under Purchase with Simultaneous Donation could receive up to around US\$2,700 annually, while those in PAA-Milk could access higher amounts (up to approximately US\$5,400). Average transfers per supplier across key modalities were estimated at around US\$1,500. Budget allocations increased substantially again in 2025, highlighting renewed political commitment and scale-up after earlier contraction.

Programme effectiveness

Benefit–cost ratio (BCR): A recent cost-benefit analysis indicates that each Brazilian real invested in PAA generates a return of approximately 0.21 Brazilian real through increased production value. While this does not capture broader social, nutritional or resilience co-benefits, it provides evidence that the programme delivers measurable economic returns for participating farmers.

Innovative disaster risk management instruments

PAA incorporates some innovative elements that are relevant to risk management, but these are uneven and not fully systematised from an anticipatory social protection perspective.

The programme does not embed EWS as formal triggers for anticipatory action. Although Brazil has well-developed disaster monitoring and alert systems, including national drought and disaster information platforms, there is limited evidence that climate forecasts or hazard alerts directly inform PAA decisions such as advance procurement, pre-positioning of food or early release of resources. Instead, responses tend to be activated once crises are already unfolding.

PAA does, however, include anticipatory risk financing features, particularly through modalities such as advance purchase and subsidised credit mechanisms. Historically, instruments such as rural product

certificates enabled farmers to access finance before production and market delivery, helping to stabilise cash flow and manage production risks. While some early instruments have been discontinued, advance purchase and stock-based modalities continue to function as forms of ex-ante liquidity support for family farming organisations. These features distinguish PAA from purely reactive food assistance programmes.

At the same time, there is no evidence that PAA applies a formal risk layering approach. Although resources are differentiated by vulnerability group, the programme does not systematically assess hazard frequency or severity, nor does it deploy different financial instruments for different layers of climate or disaster risk.

A clear strength lies in the programme's use of national registries and administrative systems. PAA relies on the *Cadastro Nacional da Agricultura Familiar* (National Family Farming Registry), which underpins eligibility, monitoring and access to complementary policies such as credit, insurance and other social programmes. This registry strengthens targeting accuracy and administrative coordination across the rural development and social protection landscape.

Delivery systems are moderately digitised and decentralised. Different modalities use different payment and contracting arrangements, including electronic payments to organisations and bank-based transfers. However, qualitative evidence points to delays in payments in some contexts, indicating that delivery efficiency remains uneven.

Climate-focused approach

PAA integrates social and economic vulnerability considerations, but its climate focus remains indirect.

The programme differentiates funding and prioritisation based on social vulnerability, with earmarked resources for Indigenous peoples, Quilombola communities and solidarity kitchens. However, there is no evidence of systematic climate vulnerability mapping that identifies climate-exposed geographies, livelihood sensitivities or hazard profiles for anticipatory scaling or resource allocation.

Environmental rehabilitation, conservation and landscape restoration are not core components of PAA's design. While PAA operates in contexts where environmental degradation and climate stress affect production, these issues are addressed through separate programmes rather than being integrated into PAA modalities. Similarly, water management interventions and climate-proofing of infrastructure (such as roads or storage facilities) are outside the programme's scope, even though they influence farmers' capacity to supply food during droughts or floods.

The programme also does not envisage the construction of community-based disaster risk-reduction assets. Its mandate remains focused on food procurement, income support and food access, rather than physical resilience or infrastructure development.

Functions

Prevention: PAA contributes to prevention primarily by stabilising livelihoods and strengthening local food systems before crises occur. By guaranteeing a public procurement channel at predictable prices, the programme reduces market risk for family farmers and helps protect incomes from volatility. Impact evaluations show that participation leads to increases in production value and household income, which can prevent farmers from slipping into deeper poverty.

The programme also delivers preventive food security benefits by supplying nutritious food to vulnerable populations through social assistance networks, community kitchens and public institutions. This helps reduce baseline food insecurity, even though the programme is not explicitly framed as anticipatory action for climate shocks.

Community-level advance planning for disasters is not embedded in PAA's design. While cooperatives and farmer organisations play a central role in implementation, and some may engage in broader resilience initiatives, there is limited evidence that PAA systematically supports community preparedness or advance planning for climate hazards.

PAA does include some capacity-building and awareness-raising mechanisms, particularly through technical assistance and rural extension services (*Assistência Técnica e Extensão Rural — ATER*) that help family farmers navigate procurement processes and organisational requirements. These efforts support inclusion, especially for Indigenous communities and women, but they are uneven and constrained by institutional capacity and resource availability.

Protection: PAA demonstrates strong protective capacity during crises. The programme remained operational during the COVID-19 pandemic, adapting delivery modalities and scaling up funding to secure food supply and livelihoods. Budget allocations increased sharply during the pandemic period, providing rapid additional support to both producers and consumers.

By continuing procurement and food distribution during shocks, PAA helps maintain consumption and income flows, acting as a buffer against livelihood loss. While it does not offer insurance-type compensation for non-economic loss and damage, such as loss of school days or psychosocial impacts, its income and market stabilisation effects provide indirect protection.

Some flexibility has been observed during climate shocks, particularly in drought-affected regions, where farmers have received extensions or adjustments to delivery requirements. However, these measures are ad hoc rather than embedded as formal waiver or subsidy mechanisms linked to hazard triggers.

Promotion: PAA's promotional role is one of its strongest features. The programme has been shown to support livelihood diversification, with evidence indicating that participating farmers diversify crops and, in some cases, expand into processing or allied activities. Stable procurement demand encourages investment and experimentation, particularly among organised farmers.

The programme also improves access to markets by lowering transaction costs and overcoming barriers such as small production volumes and high transport costs. This is particularly important for farmers in remote or marginalised regions. Through cooperatives and associations, PAA strengthens collective organisation and bargaining power.

There is limited evidence of formal support for planned labour mobility or migration. However, qualitative studies suggest that PAA can make farming more attractive to younger household members, indirectly influencing decisions to remain engaged in agriculture.

Participation and representation are promoted through engagement with cooperatives, civil society organisations and technical assistance providers. While this supports inclusion, especially of women and marginalised groups, the extent to which these mechanisms translate into meaningful decision-making power varies and may be affected by local power dynamics.

The scorecard for the PAA programme based on ASPIRE analysis is presented in Table 1.

Table 1. PAA scorecard

PROGRAMME DESIGN		Total: 50%	PROGRAMME FUNCTION		Total: 87.5%
PROGRAMME EFFICACY			PREVENTION		
Coverage	3		The programme offers anticipatory support before a crisis to prevent communities slipping into further poverty and vulnerability	2	
Benefit incidence	3		The programme offers services or support that protect health, livelihoods and income before the onset of a crisis	4	
Benefit adequacy	2		The programme encourages community-level advance planning and interventions (for example, planning for cyclone shelters, evacuation planning) to prepare communities to deal with a future crisis	3	
Average per capital transfer	5		The programme offers subsidised healthcare and food aid	4	
PROGRAMME EFFECTIVENESS			The programme offers skills training to the target population	4	
Benefit–cost ratio	2		The programme supports asset creation	4	
INNOVATIVE DRM INSTRUMENTS			The programme promotes awareness of resilience among the target populations	4	
The programme uses early warning systems to provide anticipatory support to the target groups by assessing trigger points of climate hazards	1		PROTECTION		
The programme uses anticipatory risk financing instruments	4		The programme offers humanitarian cash transfer assistance	4	
The programme adopts a layers of risk approach (in other words, assessing the probability and severity of risks) that distinguishes among the continuum of frequent but less damaging events through to the rare but catastrophic disasters, and then manages this risk through a variety of instruments	1		The programme offers food aid and non-food aid	4	
The programme uses a national database registry for its operations	4		The programme offers support to access health facilities under post-shock conditions	4	
The programme uses platforms that enhance efficiency and effectiveness of the delivery (for example, the Jan Dan-Aadhaar-Mobile trinity in India)	2		The programme provides income-earning opportunities through public works programmes	4	
CLIMATE-FOCUSED APPROACH			The programme offers fee/tax waiver/relaxation benefits to the target populations in the event of climate hazards	3	
The programme maps out geographical areas, livelihood groups, social groups, etc that are vulnerable to climate change impacts, and planning for scaling up of the programme and allocation of resources is done based on the degree of vulnerability	1		PROMOTION		
The programme undertakes environmental rehabilitation-related interventions (for example, soil or water conservation)	1		The programme offers support for livelihood diversification	4	
The programme undertakes interventions on improving water management (for example, rehabilitating water bodies)	1		The programme supports the target populations to build entrepreneurial skills	4	
The programmes focuses on climate-proofing physical infrastructure (for example, roads or bridges)	1		The programme offers support for promotion of new livelihood opportunities	3	
The programme envisages constructing community-based disaster risk-reduction assets (for example, storm shelters)	1		The programme implements guided labour mobility and migration interventions	1	
			The programme supports improved access to markets, natural resources, government departments, financial inclusion, community infrastructure, etc	4	
			The programme encourages participation of the target populations in decision-making processes	3	

BOX 1. WHAT THE ASPIRE ASSESSMENT INDICATES FOR PAA'S READINESS TO DELIVER ANTICIPATORY SOCIAL PROTECTION

PAA shows moderate to strong readiness from a programme design and delivery perspective. It has clear objectives, established delivery channels, national registries and proven capacity to scale support during crises. Its combination of income support for farmers and food provision for vulnerable populations makes it a strategically important instrument at the intersection of social protection, food security and rural development.

However, from an anticipatory social protection view, readiness seems partial. While PAA includes elements of ex-ante risk financing through advance purchase and credit type mechanisms, it lacks institutionalised early warning triggers, climate vulnerability mapping and a layered risk management framework. As a result, much of its effectiveness in crises depends on reactive scale-up rather than pre-agreed anticipatory action.

Strengthening PAA's readiness would therefore require building on existing strengths, particularly advance financing and registries, while embedding clearer anticipatory protocols, climate-informed targeting and coordination with disaster risk management systems.

3.4.2 Programa Nacional de Alimentação Escolar (National School Feeding Programme – PNAE)

Programme efficacy

Coverage: PNAE is one of Brazil's largest universal social programmes, reaching around 40 million children daily. When set against Brazil's population of approximately 51 million children and adolescents under the age of 18, this implies coverage of roughly 78% of this age group, consistent with the programme's broad, rights-based design. Global reporting further suggests that coverage of school meals in Brazil is at or near universal for primary education, reinforcing PNAE's role as a cornerstone of the country's social protection architecture.

Benefit incidence: Benefit incidence is effectively universal for children attending school in the public education system, as PNAE is designed as a rights-based entitlement rather than a poverty-targeted transfer. Access to school meals is not conditional on household income, which distinguishes PNAE from

many other social assistance instruments and ensures wide and predictable reach.

Benefit adequacy: PNAE is designed to contribute to children's nutritional needs, with programme guidelines indicating that school meals should cover a share of daily nutritional requirements. However, the evidence reviewed does not provide a consistent or standardised measure of benefit adequacy across contexts. In practice, adequacy varies depending on per-capita allocations, food prices, local co-financing and municipal delivery capacity, meaning outcomes can differ despite the programme's universal intent.

Average per-capita transfer: For 2024, the programme budget is estimated at US\$976 million, with per-capita allocations ranging between approximately US\$0.072 and US\$0.24, depending on education stage, student category and location. These figures reflect predictable resource flows at national scale, while also indicating that per-capita amounts are modest and require efficient delivery and complementary municipal financing to achieve intended nutritional outcomes.

Programme effectiveness

Benefit–cost ratio: PNAE-specific BCR was not available in the evidence base reviewed. We therefore used the World Bank's average BCR of 0.13 for Brazilian social assistance programmes as a proxy. While this provides a general indication of value, it does not provide a direct, programme-specific assessment of PNAE's cost effectiveness. Strengthening the evidence base through dedicated cost–benefit analyses of school feeding programmes would be a valuable step for future refinement of the roadmap.

Innovative disaster risk management instruments

PNAE does not embed innovative disaster risk management instruments within its programme design, particularly in relation to anticipatory action. The evidence indicates that EWS are not directly integrated into school feeding operations or decisions on procurement from family farmers. While Brazil has well-established national disaster monitoring and alert systems, and social assistance mechanisms such as SUAS can activate response measures once crises are identified, there is limited evidence that these systems inform anticipatory decisions within PNAE itself. For example, there is no indication that climate or hazard forecasts are used to trigger pre-positioning of food, adjust procurement plans in advance or release additional resources for school meals before shocks occur.

Similarly, PNAE does not appear to incorporate anticipatory risk financing instruments. The programme is financed primarily through federal budgetary resources, drawing on a wide range of taxes and

contributions, with municipalities also bearing part of the implementation costs. The evidence review finds limited information suggesting the existence of earmarked contingency funds, parametric instruments, insurance mechanisms or other dedicated financial tools designed to absorb climate-related shocks within PNAE. Emergency responses observed during crises have relied on ad hoc budget reallocations or additional transfers rather than pre-agreed financial mechanisms.

Although PNAE operates at scale, is decentralised and benefits from predictable financing flows, there is no evidence that it systematically assesses different levels of risk from frequent, low-impact disruptions to rare, high-impact disasters or manages these risks through differentiated instruments. Risk management within PNAE therefore remains largely implicit and reactive.

One area of clear strength lies in PNAE's use of national administrative databases and delivery platforms. The programme relies on the Brazilian Educational Census (School Census), managed by *Instituto Nacional de Estudos e Pesquisas Educacionais Anísio Teixeira* (Anísio Teixeira National Institute for Educational Studies and Research), which provides the basis for fund allocation by the *Fundo Nacional de Desenvolvimento da Educação* (National Fund for Education Development – FNDE) and includes unique identifiers for each student. This strengthens administrative control, allocation accuracy and accountability. In addition, PNAE has adopted several digital and financial platforms to enhance delivery efficiency, including FNDE's streamlined disbursement system with regular direct transfers, the introduction of a PNAE debit card (since 2020) to enable electronic transactions with family farmers and the ePNAE platform, which improves transparency and social oversight by making programme information accessible to stakeholders. These systems enhance operational efficiency even though they are not yet leveraged for anticipatory disaster risk management.

Climate-focused approach

PNAE's programme design does not explicitly integrate a climate-focused approach, despite operating in contexts where climate variability can significantly affect food systems and service delivery. The programme differentiates per-capita allocations based on education stage, school location and socioeconomic conditions. While it provides higher allocations for Indigenous and Quilombola students, there is no evidence that climate vulnerability mapping is undertaken to inform prioritisation, scaling decisions or anticipatory planning.

Environmental and natural resource considerations are similarly external to PNAE's core design. Although factors such as soil degradation, water scarcity and drought can disrupt agricultural supply chains that underpin school feeding, the programme does not incorporate environmental rehabilitation, conservation

or water management measures. These priorities are addressed through other standalone programmes, but they are currently not integrated with PNAE. This lack of alignment limits the programme's capacity to implement anticipatory measures that could safeguard school feeding services from climate-induced disruptions before they occur.

The programme also does not include climate-proofing of physical infrastructure, such as roads, storage or logistics facilities, nor does it envisage the construction of community-based disaster risk-reduction assets.

Functions

Prevention: PNAE delivers strong preventive benefits in a developmental sense by improving children's nutrition and supporting learning outcomes, thereby reducing underlying vulnerability among school-age populations. Although the programme is not explicitly framed as anticipatory preparedness for climate or disaster shocks, its design contributes to resilience by strengthening baseline human capital and food security before crises occur. By providing regular, subsidised meals during formative years, PNAE helps protect health and cognitive development, which can reduce longer-term vulnerability to poverty and exclusion.

Beyond child nutrition, the programme also contributes to preventive livelihood protection through its institutionalised procurement model. The requirement is that at least 30% of food purchases be sourced from family farmers, combined with prioritisation of Indigenous and Quilombola communities and measures to strengthen women's participation. It creates a stable and predictable market for small-scale producers. Evidence suggests that this predictable demand can help stabilise incomes and reduce livelihood volatility, even though compliance with procurement rules varies across municipalities and implementation capacity remains uneven.

PNAE's participatory governance arrangements, particularly through CAE, further strengthen preventive capacity by embedding community engagement, transparency and oversight into programme delivery. These mechanisms support local ownership and accountability around food provision and resource use. However, there is limited evidence that this participatory infrastructure is used for structured community-level advance planning for environmental crises.

While PNAE delivers subsidised food services at scale and has been associated with improved diet quality, reduced obesity among adolescents and positive household food security outcomes, it does not include explicit design features for anticipatory climate action. Skills training, asset creation and climate-specific preparedness measures are not core programme components, and awareness of climate risks remains indirect and uneven across municipalities. As a result,

PNAE's preventive contribution is substantial in terms of human capital and food security, but its preventive logic has not been operationalised as anticipatory action in response to climate risks.

Protection: PNAE demonstrates strong protective capacity once crises occur, primarily through its ability to rapidly adapt delivery modalities and mobilise additional resources. During the COVID-19 pandemic, the programme adjusted its operational model by authorising the distribution of food directly to parents and guardians when in-person schooling was suspended, supported by legal and administrative changes. Additional financial transfers were mobilised to sustain food provision, ensuring continuity of nutritional support despite widespread disruption.

A similar pattern of adaptive protection is evident in response to climate-related shocks. During the 2024 floods in Rio Grande do Sul, PNAE released additional funding to federal, state and municipal education networks to expand food assistance for affected communities. These responses highlight the programme's institutional flexibility and its capacity to function as a protective channel during emergencies, even though such responses rely on ad hoc decisions rather than pre-agreed triggers.

At the local level, municipalities have used PNAE resources to distribute food kits and, in some cases, complementary support to maintain nutritional assistance during periods of disruption. The programme also supports livelihoods indirectly during crises by maintaining procurement from family farmers, helping stabilise demand and income when other markets are disrupted. However, PNAE's protective role remains largely reactive. It does not include explicit insurance-type mechanisms or compensatory instruments for non-economic loss and damage, nor does it embed formal waiver or subsidy mechanisms linked to climate hazards.

Promotion: PNAE's primary mandate is nutritional security and educational support, and its promotional impacts are most evident through market creation for family farmers and longer-term human capital development. By guaranteeing a stable institutional market through its procurement rules, the programme improves access to markets for small-scale producers, including women farmers, Indigenous communities and Quilombola groups. Recent policy emphasis on procuring food specifically from women-led family farms further strengthens inclusion, supporting their formalisation and financial access through predictable, state-guaranteed transactions.

Evidence also points to positive spillover effects on income for family farmers supplying produce to schools and on educational outcomes for students, including improved grades. These outcomes suggest potential longer-term benefits in terms of income opportunities and human capital accumulation, even though the programme is not explicitly designed to support entrepreneurship, higher education pathways or asset accumulation.

However, there is limited evidence that participation in PNAE leads to systematic livelihood diversification or the creation of new livelihood opportunities beyond agriculture. The programme does not include mechanisms for planned labour mobility, migration or placement and does not aim to transition participants towards alternative income sources. A notable strength in the promotion domain is PNAE's institutionalised participatory governance. CAE provide structured opportunities for target populations to engage in decision making and oversight, enhancing transparency, accountability and social inclusion even as broader livelihood transformation remains outside the programme's core design.

The scorecard for the PNAE programme based on ASPIRE analysis is presented in Table 2.

BOX 2. WHAT THE ASPIRE ASSESSMENT INDICATES FOR PNAE'S READINESS TO DELIVER ANTICIPATORY SOCIAL PROTECTION

PNAE seems ready from a delivery systems perspective. It operates at national scale, has mature administrative foundations through the School Census and FNDE allocation mechanisms, institutionalised decentralised implementation and strong social accountability through CAE. The programme has also demonstrated its ability to adapt delivery modalities rapidly during crises, as seen during the COVID-19 pandemic and recent flood responses.

From an anticipatory social protection perspective, however, readiness is uneven. PNAE is not designed around early warning triggers, anticipatory financing, climate vulnerability mapping or a layered risk approach. Its strength currently lies in responsive adaptation once shocks occur, rather than in pre-agreed mechanisms that protect nutrition outcomes and farmer supply chains ahead of climate hazards.

Table 2. PNAE scorecard

PROGRAMME DESIGN		Total: 50%	PROGRAMME FUNCTION		Total: 75%
PROGRAMME EFFICACY			PREVENTION		
Coverage	5		The programme offers anticipatory support before a crisis to prevent communities slipping into further poverty and vulnerability	3	
Benefit incidence	5		The programme offers services or support that protect health, livelihoods and income before the onset of a crisis	4	
Benefit adequacy	2		The programme encourages community-level advance planning and interventions (for example, planning for cyclone shelters, evacuation planning) to prepare communities to deal with a future crisis	1	
Average per capital transfer	2		The programme offers subsidised healthcare and food aid	4	
PROGRAMME EFFECTIVENESS			The programme offers skill training to the target population	3	
Benefit–cost ratio	1		The programme supports asset creation	1	
INNOVATIVE DRM INSTRUMENTS			The programme promotes awareness of resilience among the target populations	3	
The programme uses EWS to provide anticipatory support to the target groups by assessing trigger points of climate hazards	1		PROTECTION		
The programme uses anticipatory risk financing instruments	1		The programme offers humanitarian cash transfer assistance	4	
The programme adopts a layers of risk approach (in other words, assessing the probability and severity of risks) that distinguishes among the continuum of frequent but less damaging events through to the rare but catastrophic disasters, and then manages this risk through a variety of instruments	1		The programme offers food aid and non-food aid	4	
The programme uses a national database registry for its operations	4		The programme offers support to access health facilities under post-shock conditions	4	
The programme uses platforms that enhance efficiency and effectiveness of the delivery (for example, the Jan Dan-Aadhaar-Mobile trinity in India)	4		The programme provides income-earning opportunities through public works programmes	4	
CLIMATE-FOCUSED APPROACH			The programme offers fee/tax waiver/relaxation benefits to the target populations in the event of climate hazards	3	
The programme maps out geographical areas, livelihood groups, social groups, etc, that are vulnerable to climate change impacts, and planning for scaling up of the programme and allocation of resources are done based on the degree of vulnerability	1		PROMOTION		
The programme undertakes environmental rehabilitation-related interventions (for example, soil or water conservation)	1		The programme offers support for livelihood diversification	1	
The programme undertakes interventions on improving water management (for example, rehabilitating water bodies)	2		The programme supports the target populations to build entrepreneurial skills	4	
The programmes focuses on climate-proofing physical infrastructure (for example, roads, bridges)	1		The programme offers support for promotion of new livelihood opportunities	1	
The programme envisages constructing community-based disaster risk-reduction assets (for example, storm shelters)	1		The programme implements guided labour mobility and migration interventions	1	
			The programme supports improved access to markets, natural resources, government departments, financial inclusion, community infrastructure, etc	4	
			The programme encourages participation of the target populations in decision making processes	4	

3.4.3 Bolsa Família

Programme efficacy

Coverage: Bolsa Família is one of Brazil's largest and most established social assistance programmes. Based on ASPIRE and World Bank data, the programme reaches approximately 78.4% of the population living in poverty and extreme poverty. This reflects its role as the backbone of Brazil's income-based social protection system and its extensive geographic reach across all states and municipalities.

Benefit incidence: Benefit incidence data indicate that around 34.75% of total benefits accrue to the poorest population groups. While Bolsa Família is explicitly targeted at poor and extremely poor households, the benefit incidence figure reflects the programme's scale and the breadth of the eligible population, rather than weak targeting. The use of the Cadastro Único as a shared national registry underpins this targeting approach and supports inclusion of vulnerable households across diverse contexts.

Benefit adequacy: Evidence from the World Bank database suggests that benefit adequacy stands at around 35.21%. This indicates that transfers make a meaningful contribution to household consumption and poverty reduction but are not designed to fully offset income losses or livelihood shocks. Adequacy therefore supports consumption smoothing and basic needs, rather than comprehensive shock absorption.

Average per-capita transfer: Average per-capita transfers are estimated at approximately US\$0.65 per day. This relatively modest transfer size reinforces the programme's primary role as an income support and human capital investment instrument, rather than being a mechanism for compensating large economic losses arising from crises or climate shocks.

Programme effectiveness

Benefit–cost ratio: Available data report a BCR of approximately 0.26. While this figure does not reflect Bolsa Família's full range of long-term social and economic impacts, it reflects measurable gains relative to programme costs. Extensive literature documents positive effects on poverty reduction, health outcomes, school attendance and labour market participation over time, even if these broader benefits are not fully captured in a single BCR metric.

Innovative disaster risk management instruments

Bolsa Família is not designed as an anticipatory disaster risk management programme. The evidence consistently indicates that EWS are not embedded within programme design to trigger anticipatory support for beneficiaries. Although Brazil has well-developed disaster monitoring and alert systems at the national

level, these systems do not automatically interface with Bolsa Família to enable pre-emptive scaling or advance payments before climate or disaster shocks occur. Legislative approval requirements for emergency measures are highlighted in the literature as a constraint that can slow rapid activation in crises.

Similarly, there is no evidence that Bolsa Família incorporates anticipatory risk financing instruments such as contingency funds, parametric insurance, catastrophe bonds or weather-indexed mechanisms. Emergency expansions of income support, most notably during the COVID-19 pandemic, were delivered through parallel instruments such as the Auxílio Emergencial, rather than through pre-agreed financial mechanisms embedded within Bolsa Família itself.

There is no indication that Bolsa Família differentiates between frequent low-impact shocks and rare catastrophic events, or that it manages these risk layers through distinct financial or delivery instruments. Risk management within the programme appears to be reactive.

A clear strength, however, lies in administrative systems and delivery platforms. Bolsa Família relies on the Cadastro Único. Benefit payments are delivered through efficient electronic platforms, including personalised social cards and simplified bank accounts managed by Caixa Econômica Federal. These systems significantly enhance delivery efficiency, transparency and scalability, even if they are not currently leveraged for anticipatory disaster response.

Climate-focused approach

Bolsa Família does not integrate a climate-focused approach within its programme design. There is no evidence of climate vulnerability mapping being used to prioritise geographic areas, livelihood groups or population segments exposed to climate risks. Research indicates that while income transfers improve consumption and welfare, they are often insufficient on their own to manage climate-related risks such as food insecurity during droughts.

These findings show that Bolsa Família functions as a generic income support programme, with climate resilience expected to be addressed through complementary sectoral or environmental programmes rather than through the cash transfer itself.

Functions

Prevention: Bolsa Família contributes to prevention primarily by reducing baseline poverty and strengthening human capital. Through regular cash transfers, combined with conditional payments related to education and health, the programme supports household consumption, improves nutrition, increases school attendance and strengthens access to preventive health services. These effects reduce underlying

vulnerability and help interrupt the intergenerational transmission of poverty.

However, the programme does not provide anticipatory support before crises. There is no evidence of forecast-based transfers, advance payments or pre-emptive scaling linked to climate or disaster risks. Community-level advance planning, including, for example, preparedness activities, evacuation planning or risk-reduction investments, is also not part of the programme design.

Bolsa Família indirectly supports asset accumulation at the household level. Evidence suggests that women beneficiaries often save part of the transfer to purchase household assets such as appliances or furniture, which can strengthen coping capacity. Nevertheless, this asset creation is incidental rather than planned and the programme does not systematically support the creation of climate-relevant or community-level protective assets.

Protection: The programme's protective role is strongest during and after crises, rather than before them. Bolsa Família provides a predictable monthly income that helps households maintain consumption during shocks. Evidence also shows positive spillovers in access to health services, particularly for children, through strengthened engagement with primary health care systems.

During major crises, additional protection has been provided through extra programmatic measures, rather than through Bolsa Família itself. This highlights the programme's importance as an entry point for crisis response, while also underscoring the absence of built-in mechanisms for rapid humanitarian scaling.

The programme does not include explicit insurance mechanisms, compensation for non-economic loss and damage or climate-linked waivers or subsidies. Protective responses therefore rely on discretionary policy decisions and parallel instruments rather than automatic triggers within Bolsa Família.

Promotion: Bolsa Família's promotional impacts are largely indirect and long term. By improving school attendance and educational attainment, the programme supports future income opportunities and labour market participation, with evidence indicating increased formal employment among younger cohorts over time. Conditionalities related to education and health play a central role in these outcomes.

The programme does not directly promote livelihood diversification, entrepreneurship or new livelihood creation. Where beneficiaries access skills training, employment services or productive inclusion initiatives, these are delivered through complementary programmes rather than through Bolsa Família itself.

A notable strength lies in women's empowerment and intrahousehold decision making. Evidence shows that Bolsa Família has increased women's control over household resources and decisions, reflecting the design choice to direct payments primarily to women. This has important implications for social inclusion and empowerment, even though formal participatory governance mechanisms at the community level are limited.

The scorecard for the Bolsa Família programme based on ASPIRE analysis is presented in Table 3.

BOX 3. WHAT THE ASPIRE ASSESSMENT INDICATES FOR BOLSA FAMÍLIA'S READINESS TO DELIVER ANTICIPATORY SOCIAL PROTECTION

Bolsa Família demonstrates high readiness from an administrative and delivery perspective. It operates at national scale, relies on a mature and widely used social registry and uses efficient digital payment systems that allow rapid expansion in response to political and fiscal decisions.

From an anticipatory social protection perspective, however, readiness is more limited. The programme is not designed to act before shocks occur. It lacks early warning triggers, anticipatory risk financing, climate vulnerability targeting and structured risk layering. As a result, Bolsa Família's strength lies in reactive protection and long-term human capital investment, rather than in preventing climate and disaster impacts before they escalate.

Strengthening anticipatory readiness would therefore require linking Bolsa Família more explicitly to EWS, pre-agreed financing mechanisms and complementary climate resilience interventions, without undermining its core role as Brazil's flagship income support programme.

A list of secondary sources and evidence used for this review of Brazil's social protection policy, systems and programmes using the ASPIRE tool is provided in Appendix 1.

Table 3. Bolsa Familia scorecard

PROGRAMME DESIGN		Total: 46.88%	PROGRAMME FUNCTION		Total: 75%
PROGRAMME EFFICACY			PREVENTION		
Coverage	4		The programme offers anticipatory support before a crisis to prevent communities slipping into further poverty and vulnerability	2	
Benefit incidence	4		The programme offers services or support that protect health, livelihoods and income before the onset of a crisis	4	
Benefit adequacy	2		The programme encourages community-level advance planning and interventions (for example, planning for cyclone shelters, evacuation planning) to prepare them to deal with a future crisis	2	
Average per capital transfer	2		The programme offers subsidised healthcare and food aid	4	
PROGRAMME EFFECTIVENESS			The programme offers skills training to the target population	3	
Benefit–cost ratio	2		The programme supports asset creation	4	
INNOVATIVE DRM INSTRUMENTS			The programme promotes awareness on resilience among the target populations	4	
The programme uses early warning systems to provide anticipatory support to the target groups by assessing trigger points of climate hazards	1		PROTECTION		
The programme uses anticipatory risk financing instruments	1		The programme offers humanitarian cash transfer assistance	4	
The programme adopts a layers of risk approach (in other words, assessing the probability and severity of risks), that distinguishes among the continuum of frequent but less damaging events through to the rare but catastrophic disasters, and then manages this risk through a variety of instruments	1		The programme offers food aid and non-food aid	1	
The programme uses national database registry for its operations	4		The programme offers support to access health facilities under post-shock conditions	4	
The programme uses platforms that enhance efficiency and effectiveness of the delivery (for example, the Jan Dan-Aadhaar-Mobile trinity of India)	4		The programme provides income-earning opportunities through public works programmes	4	
CLIMATE-FOCUSED APPROACH			The programme offers fee/tax waiver/relaxation benefits to the target populations in the event of climate hazards	1	
The programme maps out geographical areas, livelihood groups, social groups, etc that are vulnerable to climate change impacts, and planning on scaling up of the programme and allocation of resources are done based on the degree of vulnerabilities	1		PROMOTION		
The programme undertakes environmental rehabilitation interventions (for example, soil or water conservation)	1		The programme offers support for livelihood diversification	3	
The programme undertakes interventions on improving water management (for example, rehabilitating water bodies)	1		The programme supports the target populations to build entrepreneurial skills	4	
The programmes focuses on climate-proofing physical infrastructure (for example, roads, bridges)	1		The programme offers support for promotion of new livelihood opportunities	2	
The programme envisages constructing community-based disaster risk-reduction assets (for example, storm shelters)	1		The programme implements guided labour mobility and migration interventions	3	
			The programme supports improved access to markets, natural resources, government departments, financial inclusion, community infrastructure, etc	3	
			The programme encourages participation of the target populations in decision-making processes	2	

4

Recommendations for strengthening anticipatory social protection in Brazil

This section sets out recommendations for strengthening Brazil's readiness to deliver anticipatory social protection, building on the ASPIRE assessment findings presented in Section 3. While Brazil demonstrates strong policy intent, mature delivery systems and proven capacity to scale social protection responses during crises, the assessment highlights gaps in institutionalising early risk-informed action before shocks occur. These recommendations therefore focus on translating existing strengths into anticipatory capability by embedding forecast-based triggers, pre-arranged financing and clearer coordination protocols across programmes.

4.1 Institutionalising anticipatory action within social protection policy

Brazil's social protection framework is strongly grounded in rights, equity and inclusion, and the country has repeatedly demonstrated its ability to rapidly scale and adapt programmes once crises materialise. However, these actions are dependent on exceptional political and administrative decisions rather than being embedded as a routine mode of operation across policy, systems and programmes.

Institutionalising anticipatory social protection therefore requires a shift in how risk is treated within social protection policy moving from an ex-post, discretionary response model towards an ex-ante system based on

pre-agreed rules, triggers and responsibilities. This shift could begin by formally recognising anticipatory social protection as a policy objective within overarching strategies such as Brazil Without Hunger and related interministerial frameworks. These strategies already acknowledge multidimensional vulnerability, food insecurity and climate-sensitive livelihoods, but they stop short of defining early action as a standard response modality within social protection. Explicit articulation would help align ministries, clarify expectations and legitimise the use of forecasts and risk information in social protection decision making.

Evidence from other contexts illustrates the value of such policy anchoring. In Ethiopia, the Productive Safety Net Programme embedded anticipatory principles through formal contingency financing and early response mechanisms within national social protection policy, enabling predefined scale-up rules to be activated by early warning data (World Bank, 2013). In the Philippines, anticipatory action has similarly been institutionalised through national social protection and disaster risk management frameworks, allowing social assistance programmes to activate early support linked to typhoon forecasts rather than relying solely on post-event relief (World Food Programme, 2023).

Brazil already has many of the institutional conditions required for a comparable shift. The priority, therefore, is not to introduce a new anticipatory policy layer, but to use existing policy review and reform processes to

integrate anticipatory principles more explicitly. This could include requiring major programmes to assess how climate and disaster risks affect their target populations and specify whether and how early action should be triggered within programme rules.

4.2 Linking EWS to social protection triggers and decision making

Brazil's constraint in operationalising anticipatory social protection is not the absence of risk information, but the lack of institutionalised links between EWS and social protection decision making. Brazil has relatively advanced disaster monitoring and forecasting capabilities and strong administrative platforms such as Cadastro Único and SUAS that can identify and reach vulnerable populations. However, these systems largely operate in parallel. Early warning information informs disaster response and civil defence actions, but it does not systematically trigger anticipatory adjustments within social protection programmes.

Strengthening anticipatory readiness therefore requires moving beyond data availability towards formal integration of early warning information into social protection rules, protocols and operational thresholds.

A pragmatic starting point would be to define a limited set of hazard-specific triggers with clear social protection relevance, such as droughts affecting rural livelihoods, floods disrupting food access or heat stress affecting urban populations. Evidence from adaptive social protection systems suggests that beginning with a small number of well-defined triggers increases institutional uptake and reduces resistance, compared to attempting comprehensive integration from the outset (Bowen, 2020).

It is also important to note that triggers should support decision making rather than replace it. The objective is structured early action, not full automation. For example, agreed drought thresholds could activate preparatory measures such as advance payments, temporary flexibility in eligibility updates or early procurement under food-based programmes. Section 3 of this report shows that Brazil already applies many such measures reactively; formalising trigger-based activation would reduce delays and uncertainty.

Clear institutional roles will also be essential. International experience highlights that anticipatory systems function best when responsibility for trigger validation and response activation is clearly assigned. In Brazil, coordination tends to intensify once emergencies are declared, but anticipatory coordination remains weak. Strengthening readiness would require explicit protocols linking disaster risk management institutions and social protection authorities, clarifying how early warning information is assessed, shared and acted upon.

Clear communication about which triggers are used, how they are applied and what actions they activate will also help manage expectations and reduce the risk of politicisation. In Brazil's rights-based context, this transparency is critical to ensure that anticipatory actions are seen as extensions of existing entitlements rather than discretionary interventions.

4.3 Establishing anticipatory and layered financing arrangements for social protection

Brazil's main constraints to anticipatory social protection are not in overall fiscal capacity, but in how financing is structured and released in response to risk. Brazil allocates substantial resources to social protection and has demonstrated its ability to mobilise financing at scale during crises. However, these responses remain largely ex post, relying on budget reallocations, supplementary appropriations or emergency decrees rather than pre-positioned, trigger-linked financing mechanisms.

For anticipatory social protection to function effectively, financing must be available before impacts materialise and be aligned with clearly defined decision rules. This requires moving from financial flexibility alone towards anticipatory and layered financing arrangements that match different sources of finance to different levels of risk.

A layered risk financing approach can provide a practical framework to address this shift. Under such an approach, frequent, lower-intensity shocks are managed through pre-allocated contingency resources within programmes, enabling early adjustments such as advance payments or temporary benefit top-ups. Less frequent, higher-impact events can be addressed through supplementary budget lines or contingent credit, while extreme shocks continue to rely on extraordinary fiscal measures and international support.

Evidence from the World Bank and others shows that this approach improves predictability, reduces delays and limits fiscal volatility (World Bank and Asian Development Bank, 2017). Importantly, it does not require all resources to be held upfront, but rather requires clarity on which instruments are used for which risks and how quickly they can be accessed once triggers are met.

To further improve predictability, Brazil could adopt insurance-linked prepayment mechanisms integrated with existing social protection programmes. Such a mechanism would transfer the financial risk of major disasters to international markets, providing immediate cash when a crisis hits. This would ensure that the government does not need to redirect funds from other essential services during a disaster, while guaranteeing that affected communities can still access support (see Box 4 on how such a mechanism might work for Bolsa Família).

BOX 4. EXAMPLE OF HOW INSURANCE-LINKED PRE-PAYMENT MECHANISMS COULD BE USED FOR ANTICIPATORY ACTION THROUGH BOLSA FAMÍLIA

An insurance-linked pre-payment mechanism would offer a practical way to enable anticipatory cash-based support through Bolsa Família, without changing the programme's core mandate or delivery architecture. Rather than operating as a standalone insurance scheme, this approach can use parametric or forecast-based risk financing to release resources early, which would then be channelled through Bolsa Família's existing systems.

In practice, a parametric insurance or contingent risk financing instrument would be linked to a small set of clearly defined climate triggers, for example, a drought-severity index, prolonged rainfall deficit or flood-risk threshold generated by national monitoring institutions such as the *Centro Nacional de Monitoramento e Alertas de Desastres Naturais* (National Centre for Monitoring and Early Warning of Natural Disasters — CEMADEN) or the *Instituto Nacional de Meteorologia* (National Institute of Meteorology — INMET). When these trigger points are met, funds would be automatically released to the federal government (or a designated financing window), enabling pre-agreed adjustments to Bolsa Família in affected areas. These adjustments could include temporary benefit top-ups, advance payments or short-term vertical expansion for households already registered in Cadastro Único, without waiting for emergency decrees or post-disaster budget reallocations.

Bolsa Família offers several strategic advantages as a pilot for this model. The programme already has national coverage, a mature social registry and efficient digital payment systems, allowing rapid and targeted delivery once financing is available. An insurance-linked pre-payment mechanism would not replace public funding or entitlements. Rather, it would provide rapid liquidity at the moment when early action is most effective, complementing budgetary resources and reducing reliance on ad hoc emergency measures.

From a cost-effectiveness perspective, early cash support delivered through existing systems is consistently shown to be cheaper than late humanitarian response. By acting before households are forced into distress strategies, such as reducing food intake or selling assets, anticipatory payments can lower both social and fiscal costs over time.

Within the ASPIRE Roadmap, this approach is well suited for phased testing. Initial pilots could focus on a single hazard (for example, drought), a limited set of municipalities with high climate exposure, and predefined benefit adjustments under Bolsa Família. Philanthropic or concessional finance could help absorb early design and risk costs, while public institutions retain control over triggers, targeting and delivery. Successful pilots could then be scaled and integrated into Brazil's broader anticipatory financing framework.

In Brazil's context, a feasible entry point would be to pilot anticipatory contingency envelopes within a small number of flagship programmes, explicitly linked to forecast-based triggers. For example, modest contingency windows could enable early payments or temporary expansions in high-risk municipalities without requiring emergency legislation. Brazil's emerging use of innovative financing instruments, including its Sovereign Sustainable Bond Framework, also offers opportunities to complement core budget financing for higher risk layers. This aligns with international best practices in layered risk financing, as seen in countries such as Mexico and Colombia, which utilise diverse instruments to manage different levels of disaster severity (World Bank, 2017).

As international experience shows, anticipatory financing arrangements must be accompanied by clear governance and accountability rules. Activation criteria, eligible uses, reporting requirements and replenishment mechanisms need to be specified in advance to prevent politicisation or diversion of funds. Brazil's strong public

financial management and audit systems provide a solid foundation for this, but anticipatory financing would need to be explicitly codified within programme and budgetary rules.

4.4 Integrating climate risk and vulnerability into programme design choices

The ASPIRE assessment shows that Brazil's social protection system is relatively strong in defining who is vulnerable, but much weaker in systematically linking vulnerability to where and when climate risks materialise. Strengthening anticipatory social protection therefore requires moving from static definitions of vulnerability towards dynamic, risk-informed frameworks that account for the timing and location of hazards. This does not imply redefining eligibility or transforming social programmes into climate programmes. Rather, it involves complementing existing vulnerability frameworks with spatial and

temporal climate-risk information so that programmes can act earlier where risks are known to be emerging.

Brazil already has many of the technical building blocks needed to support this shift. Institutions such as CEMADEN, INMET, *Agência Nacional de Águas e Saneamento Básico* (National Water and Sanitation Agency — ANA) and state-level climate agencies generate detailed hazard and climate data, while agricultural climate-risk zoning provides insights into climate-sensitive livelihoods. Because these datasets are spatially specific, a practical entry point for the roadmap is geographic prioritisation. Climate-risk layers can be used to identify municipalities or regions where anticipatory scale-up is most likely to be effective. Within these areas, existing registries and eligibility rules can then be used to identify households most likely to be affected, preserving rights-based and income-based targeting while adding a forward-looking risk dimension.

A second entry point lies in adjusting the specific operational features of Brazil's major programmes. For example, features such as early procurement, flexible delivery modalities or temporary benefit adjustments could be activated in response to a forecast risk, provided these adjustments are defined in advance and triggered by agreed conditions rather than discretionary post-shock decisions.

4.5 Phasing implementation through an ASPIRE Roadmap

Our findings suggest that Brazil does not need to build anticipatory social protection from scratch. The country already has many of the institutional, programmatic and delivery foundations required. What is needed in order to achieve anticipatory protection is a pragmatic, sequenced approach that allows anticipatory action to be embedded progressively, balancing ambition with feasibility and political economy considerations.

A phased ASPIRE Roadmap provides a practical framework to guide this shift, moving from today's predominantly reactive model towards a more anticipatory system through three distinct stages:

Phase 1: Foundational readiness. The priority in the initial phase will be to implement 'no-regret' actions that strengthen system readiness regardless of specific climate scenarios. This includes formalising coordination mandates for anticipatory planning, clarifying how existing registries and delivery systems can be used for early scale-up and developing simple protocols that link early warning information to predefined decision options, even if activation remains discretionary at first.

Phase 2: Targeted piloting and operational learning. The second phase will move from planning to testing through targeted pilots. Rather than attempting immediate system-wide reform, Brazil can test anticipatory mechanisms in selected high-risk geographies or specific risk contexts where climate exposure is well understood and administrative capacity is strong. These pilots will allow institutions to refine trigger thresholds, financing arrangements and delivery protocols in practice, generating the evidence and operational confidence needed for broader rollout.

Phase 3: System institutionalisation. In the final phase, the goal will be to embed anticipatory mechanisms as standard operating practice. This will involve integrating triggers into national programme rules, establishing pre-agreed financing arrangements for early action and systematically incorporating climate risk and vulnerability data into planning and targeting processes. At this stage, anticipatory action should no longer depend on exceptional political decisions but be treated as a routine part of how social protection manages risk.

Across all phases, continuous learning and adaptation will be essential. Brazil's experience with iterative policy reform, large-scale programme redesign and evidence-informed decision making provides a strong foundation for this approach. Regular review of triggers, protocols and outcomes, combined with transparency and stakeholder engagement, can help ensure that anticipatory social protection remains credible, flexible and responsive to evolving risks.

A phased ASPIRE Roadmap therefore offers a realistic pathway for Brazil to move from capacity to practice. By sequencing reforms and building on existing strengths, Brazil can strengthen anticipatory social protection in a way that is technically sound, fiscally realistic and institutionally sustainable.

5

Conclusion

This assessment shows that Brazil is well positioned to advance anticipatory social protection because many of the core foundations are already in place. The ASPIRE analysis highlights a social protection system that is mature, rights-based and capable of operating at scale, with strong delivery platforms, national registries and demonstrated capacity to respond rapidly once crises occur. At the same time, the assessment makes clear that anticipatory action remains uneven and largely dependent on exceptional decisions rather than being embedded as a routine, risk-informed mode of operation.

The ASPIRE Roadmap provides a practical strategic framework for translating these recommendations into action. Rather than proposing a single reform or blueprint, the roadmap approach emphasises a sequenced progression, moving from foundational readiness and targeted piloting towards full system institutionalisation. This phased evolution will allow Brazil to build operational confidence and evidence in high-risk contexts before scaling, ensuring that anticipatory reforms are technically sound, fiscally sustainable and deeply rooted in national systems.

Developing and implementing an ASPIRE Roadmap for Brazil will require engagement well beyond the social protection sector alone. While government leadership is essential, anticipatory social protection sits at the intersection of climate risk management, public finance, food systems, and insurance and risk transfer markets. Institutions responsible for disaster risk management, climate services and hydrometeorology are critical for defining and validating triggers. Ministries of finance and planning play a central role in enabling pre-agreed financing and risk layering.

At the same time, non-state actors have an important complementary role to play. Insurance and reinsurance actors, for example, can support the design of layered risk financing approaches, particularly for higher-impact, lower-frequency risks where contingent credit,

parametric instruments or sovereign risk transfer may be appropriate. Philanthropic organisations can help absorb early-stage risk by supporting pilots, innovation and learning, especially where public systems are testing new anticipatory approaches. Development finance institutions can provide catalytic financing and technical support to integrate anticipatory mechanisms into national systems at scale, rather than through parallel projects. Private sector actors, particularly in digital finance, logistics and data services, can strengthen last-mile delivery, payment systems and interoperability where gaps remain.

The ASPIRE Roadmap development process is therefore as much about convening and alignment as it is about technical design. Bringing together social protection authorities, climate and disaster risk institutions, finance ministries, insurers, development partners and civil society around a shared Roadmap can help ensure that anticipatory social protection will be treated as a system-wide public good rather than a series of disconnected initiatives. This collaborative approach will also help manage political and institutional risks by spreading ownership and grounding early action in shared evidence and agreed rules.

Looking ahead, Brazil has an opportunity to position itself as a global leader in anticipatory social protection, demonstrating how large, rights-based social protection systems can evolve to address climate and disaster risks proactively, without undermining inclusion or entitlements. Brazil has the opportunity to turn this potential into practice, translating the ASPIRE Roadmap into a reality that can protect millions.

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This paper assesses Brazil's readiness to deliver anticipatory social protection using the ASPIRE framework. It finds that while Brazil has strong policy intent, mature delivery systems and proven crisis-response capacity, its current approach to climate risks remains predominantly reactive, relying on emergency measures after shocks occur. The paper sets out a practical roadmap for embedding early, risk-informed action into existing social protection systems to protect communities from climate shocks and other risks. By linking early warning data to pre-agreed triggers and financing, Brazil can shift from reacting to crises to protecting vulnerable communities before climate shocks escalate.

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