

## **Transforming Public Services under Climate Threats: Integrating Adaptive Social Protection into Minimum Service Standards in Gorontalo Province**

Wahyudi Gobel<sup>1\*</sup>

<sup>1</sup>*Universitas Bina Mandiri Gorontalo, Indonesia*

[wgobel8@gmail.com](mailto:wgobel8@gmail.com)

\*Correspondence: [wgobel8@gmail.com](mailto:wgobel8@gmail.com)

### **ABSTRACT**

Implementation of Minimum Social Service Standards (SPM) at the local level in Indonesia often operates in an ecological vacuum, focusing on administrative checklists and ignoring external ecological shocks. Gorontalo Province faces double pressure: fluctuations in SPM achievement and projected sea level rise (1–5 meters) in 2045–2050 that threaten more than 122,104 vulnerable groups. Objective: This study analyzes the integration of Adaptive Social Protection (PSA) based on micro-spatial risk data into the formulation and funding of regional social services. Methods: Using qualitative-interpretive methodology and policy-deliberative approaches, this study leverages SEPAKAT-DTSEN data and evaluates local institutional frameworks through Moore's Public Value Lens. Results: Findings show that social services are currently highly reactive and structurally isolated from climate mitigation schemes. There are layered vulnerabilities where 243 people with disabilities and 299 elderly people face direct displacement threats without adaptive livelihood diversification. Theoretical Contribution: This study introduces the concept of Eco-Public Value, which expands the theory of public administration by combining the provision of compulsory public services with ecological resilience. Policy Implications: In practical terms, this study offers a strategic roadmap for local governments to develop Adaptive Social Protection Regional Action Plans (RAD PSAs) and optimize alternative financing through state-religious philanthropy collaboration (BAZNAS).

**Keywords:** *Adaptive Social Protection, Minimum Service Standards, Sea Level Rise, Eco-Public Value, Collaborative Governance*

### **INTRODUCTION**

The global climate change crisis is no longer just a bio-physical ecological issue, but has mutated into a core public administration crisis. The Intergovernmental Panel on Climate Change (IPCC) report emphatically states that the escalation of global sea level rise has reached an alarming threshold. At the international level, this phenomenon threatens densely populated coastal areas, triggers forced migration, and collapses basic service infrastructure in various developing countries.

In the global public administration discourse, this dynamic demands a paradigm shift from a static-conventional public service model to a climate-resilient public services model (Kaufmann & Dilling, 2021; Thomalla et al., 2022). Modern public services can no longer ignore the disruption of the natural environment that can trigger new poverty traps in vulnerable coastal areas. At the national level, Indonesia, as an archipelagic country, bears the highest level of risk, with a rate of sea level rise reaching 8-12 mm per year according to Bappenas projections (2021). To mitigate the systemic impact, the Government of Indonesia has set a safety net instrument in the form of Minimum Service Standards (SPM), mandated through Law Number 23 of 2014 concerning Regional Government and Government Regulation Number 2 of 2018. The SPM instrument is designed to ensure that every citizen, especially vulnerable groups, gets the absolute right to basic services, including education, health, housing, public order, and social service guarantees.

However, this national regulatory framework still encounters an impasse at the local operational level because it is designed in a sectoral manner and ignores the variables of natural environmental disruption. Recent studies show that local bureaucracies in Indonesia tend to be stuck in administrative fulfillment (box-ticking exercise) and ignore the integration of climate risk data into basic service budgeting (Prasetyo & Kurniawan, 2023; Wardana et al., 2024). The sectoral (silo) nature of basic services breaks the important link between conventional social service guarantees and strategies to mitigate the impact of global climate change.

At the local level, Gorontalo Province is a microcosm that represents a hard clash between ecological vulnerability and the limited capacity of sub-national bureaucracy. Based on data from the SPM Joint Secretariat of the Directorate General of Development and Development (2025), the portrait of the performance of basic social services in Gorontalo Province during the 2019–2024 period shows fluctuating anomalies. There was a very sharp decline in performance in 2022, before finally jumping drastically to 98.5% in 2024.

This surge in administrative achievement figures apparently holds a big paradox on the ground. High macro poverty rates and low local education levels limit the diversification of the livelihoods of coastal residents, creating a structural poverty trap (Gobel & Suparman, 2022; Ramadhan, 2023). This condition is exacerbated by long-term spatial projections for the period 2045–2050 processed through the SEPAKAT-DTSEN system. If the scenario of sea level rise reaching 1 meter to an extreme of 5 meters occurs, then as many as 122,104 coastal residents of Gorontalo will be directly affected by tidal flooding. This micro-spatial data reveals a worrying fact about intersectional vulnerability: there are 243 people with disabilities (mostly in the decile 1–2 extreme poverty group) and 299 elderly people who act as heads of families but no longer have the ability to work physically.

Previous research confirms that disability and elderly groups in coastal areas always occupy the most vulnerable positions in disaster social stratification due to limited physical mobility and marginalization of access to public service information (Sudarmo, 2021; Handayani & Utami, 2024). This group is at the forefront of economic destruction due to the loss of coastal living space.

The urgency of this research is rooted in the existence of a real policy gap and research gap. Practically, policy-wise, conventional social services run by the Gorontalo Provincial Social Service are currently still reactive (only moving after the disaster occurs) and business as usual. There has been no linear integration between disaster data

(DTSEN) and Social SPM budget planning. Academically, most public administration literature in Indonesia examines SPM as limited to agency managerial compliance or budget financing alone (Setyowati, 2022; Hidayat & Nugroho, 2023). Studies that explore the marriage of concepts between the fulfillment of Social SPM and the paradigm of Adaptive Social Protection (PSA) based on spatial data on climate risk are still very rare.

This state-of-the-art research is positioned to fill this theoretical gap by proposing the concept of Eco-Public Value. Through this approach, the quality of a region's basic services is no longer measured partially based on annual budget absorption figures or official logistics fulfillment reports, but is calculated based on the long-term resilience score of communities vulnerable to the threat of the global climate crisis. The novelty of this study lies in the formulation of the model of integrating micro-spatial data on climate risk (SEPAKAT-DTSEN) into a regional development planning system with an ecological justice dimension.

Based on this description, the research questions asked are: (1) How is the SEPAKAT-DTSEN data-based Adaptive Social Protection (PSA) integration model into the planning of Social Minimum Service Standards (SPM) in Gorontalo Province? (2) What are the forms of governance collaboration and alternative financing schemes that ensure sustainable protection for vulnerable groups from the long-term risk of sea level rise?

## LITERATURE REVIEW AND CONCEPTUAL FRAMEWORK

Adaptive Social Protection (PSA) is a cutting-edge evolution that integrates three main pillars: conventional social protection, disaster risk management, and climate change adaptation. On the other hand, SPM is a constitutional obligation of local governments in providing quality basic services for every citizen. The synchronization of these two concepts is needed so that the fulfillment of SPM is protected from ecological risks that can destroy the socio-economic assets of the community instantly.

Through the lens of Mark Moore (1995), the creation of public value in climate-prone areas requires the alignment of three strategic dimensions within the Strategic Triangle. First, Public Value Outcomes, where the success of SPM fulfillment is assessed from the decrease in the socio-ecological risk index of the disabled and elderly groups. Second, the Authorizing Environment, which mobilizes political support, the adoption of regional regulations (such as RAD PSA and PRKBI), and budget commitments. Third, Operational Capability, namely cross-agency database synchronization and financial collaboration with non-state actors.

Table 1. State-of-the-Art Synthesis

| Author & Year   | Research Focus                                                                                                                     | Research Gap                                                                                                     |
|-----------------|------------------------------------------------------------------------------------------------------------------------------------|------------------------------------------------------------------------------------------------------------------|
| Bappenas (2021) | National Climate Change Risk and Adaptation Assessment. Identifying Indonesia's coastal macro vulnerability due to sea level rise. | It does not formulate specific risk implications for the operationalization of Social SPM at the regional level. |
| Moore (2014)    | Theory of Public Value Creation in Public Sector Organizations. Formulating a Strategic Triangle                                   | It has not integrated the dimension of climate change risk                                                       |

|                      |                                                                                                                                                 |                                                                                                                          |
|----------------------|-------------------------------------------------------------------------------------------------------------------------------------------------|--------------------------------------------------------------------------------------------------------------------------|
|                      | framework to measure the effectiveness of public policies.                                                                                      | (environmental blind spot).                                                                                              |
| Ansell & Gash (2008) | Collaborative Governance Theory in Public Service. Discovering a multistakeholder engagement model for solving complex problems.                | Assuming stable social conditions, not focusing on off-budget climate disaster financing collaborations.                 |
| IPCC (2023)          | The Global Climate Change Synthesis Report provides empirical evidence of global temperature rise and melting polar ice that raises sea levels. | The analysis is global-macro, does not reach the sociological determinants at the local level (urban villages/villages). |

## METHODS

This study uses a qualitative approach with an interpretive-analytical paradigm. The study design applied is an explanatory case study to in-depth dissect the phenomenon of policy integration at a specific locus. The research was carried out in Gorontalo Province, with a focus on analysis of coastal areas identified as having a high level of vulnerability based on spatial databases.

The informant selection technique uses purposive sampling, which involves key policy makers, including: the Head of the Government and Welfare Bureau of the Gorontalo Provincial Secretariat, the Head of the Socio-Cultural Division of Bappeda, the Head of the Social Security Protection Section of the Social Service, the Commissioner of BAZNAS Gorontalo Province, as well as representatives of vulnerable communities (disability associations and representatives of the elderly in coastal areas). Data were collected through a triangulation process, including in-depth interviews, multi-stakeholder Focus Group Discussions (FGDs), and documentation studies on formal secondary documents such as data on the achievement of the SPM Sekber of the Directorate General of Development, the SEPAKAT-DTSEN database, and the 2025–2045 Gorontalo Province RPJPD document.

The data analysis applied the interactive model of Miles, Huberman, and Saldana, which included the stages of data reduction, data presentation (data display), and conclusion drawing or verification. The validity of the data was tested through credibility criteria using source triangulation techniques (comparing statements between actors) and theoretical triangulation. This research complies with academic ethics standards by ensuring the confidentiality of informant identities through informed consent sheets and ensuring that the use of SEPAKAT-DTSEN data is carried out in accordance with the legal rules for the use of public data.

## RESULTS AND DISCUSSION

### *Dissecting the Dimension of Public Value Outcomes: Intersectional Vulnerability in the Gorontalo Coast*

Based on the spatial data analysis of SEPAKAT-DTSEN, the manifestation of the threat of climate change in Gorontalo Province should no longer be seen as a purely sectoral

environmental issue. The projected sea level rise in the period 2045–2050 creates an existential threat in the form of an expansion of the linear tidal inundation zone with an escalation of affected victims: starting from a moderate scenario of 1 meter (980 people), increasing to 3 meters (9,569 people), to an extreme scenario as high as 5 meters that threatens the safety of 122,104 people. These figures reinforce the empirical reality on the ground that the impact of climate change is directly proportional to the depth of socio-economic inequality that has taken root in Gorontalo.

Through the lens of Public Value Theory, the main public value that must be created by government agencies is the protection of citizens' survival. However, field findings show the existence of the phenomenon of intersectional vulnerability that has been overlooked in the calculation of the basic service bureaucracy. Within the affected population, there are sub-groups that experience dual vulnerability, namely 243 people with disabilities (of which 67 people are in the welfare decile 1–2 or extreme poverty) and 299 elderly people, which includes 63 people who have the status of heads of families but are no longer working due to physical limitations.

For decile 1–2 extreme poor, the absence of livelihood diversification makes them completely dependent on traditional coastal ecosystems (such as small-scale fishers or fish day laborers). This condition aligns with Welton et al. (2021) in Climate Policy, which states that marginalized groups in coastal areas of developing countries always bear the heaviest ecological burden due to the absence of predictive social protection policies. When flash floods submerge settlements and damage coastal infrastructure, physical accessibility for people with disabilities becomes completely paralyzed due to the lack of inclusive evacuation infrastructure. Meanwhile, for the inactive elderly, economic shocks due to environmental damage directly cut off the family's minimum income supply, thus plunging them into deeper levels of poverty. As criticized by Dwiyanto (2021) in an accredited national journal, conventional public service models in Indonesia often stutter in the face of non-natural crises due to their rigid program structure and are not adaptive to the dynamics of local ecosystems. Public value fails to be created if the fulfillment of Social SPM is only calculated from the temporary administrative aspect without building the capacity for structural adaptation of the community.

#### ***Authorizing Environment Dimension: Regulatory Reform Through the Integration of RAD PSA and PRKBI 2025–2045***

Why does the achievement of Social SPM in Gorontalo Province show a very extreme fluctuating trend at a low level of 70.30% in 2023 and then jump drastically to 98.50% in 2024? Analysis of the Authorizing Environment aspect shows that this phenomenon is triggered by weak consistency in political commitment, uncertainty in regional budget support, and operational regulations that are still partial-sectoral. The jump in SPM achievement in 2024 tends to represent short-term administrative fulfillment triggered by strict evaluation from the central government, not the result of strengthening a planned and sustainable social service system.

To ensure the stability and sustainability of service quality, the Gorontalo Provincial Government, through Bappeda and the Social Service, is obliged to reform the legitimacy environment of its policies. The first strategic step is to integrate the Adaptive Social Protection (PSA) paradigm into the 2025–2045 Low Carbon and Climate Resilient Development (PRKBI) document. The PRKBI should not only be seen as an environmental document, but should be placed as the main legal umbrella that requires all development sectors to adopt climate mitigation variables.



At the international level, tying social protection policies into climate mitigation frameworks has been proven to ensure the sustainability of development fund allocation in the long term (Agrawal & Benson, 2022). Nationally, this step must then be taken down operationally through the preparation of the Regional Action Plan for Adaptive Social Protection (RAD PSA). Through this RAD PSA, the fulfillment of Social SPM for people with disabilities and the elderly gets solid budgeting legality. This is in line with the theory of Collaborative Governance, which emphasizes the importance of inclusive institutional design to minimize the uncertainty of policy implementation in the field (Ansell & Gash, 2008; Purwanto, 2023).

### ***Operational Capability Dimension: DTSEN-SEPAKAT Spatial Data Integration and Decentralization of Services***

The biggest obstacle in transforming business-as-usual policies towards a climate-responsive social protection system in Gorontalo lies in the aspect of operational capability. So far, there has been an acute separation of data governance (data silos) between local government agencies. The Social Service operates only using the Integrated Social Welfare Data (DTKS) to distribute SPM social assistance, while Bappeda and the Regional Disaster Management Agency (BPBD) control disaster risk data and climate spatial mapping through the SEPAKAT-DTSEN platform. As a result, basic social service interventions run without clear spatial directions, so they are mistargeted and ineffective in anticipating future risks.

Increasing operational capacity requires absolute integration between poverty characteristics data in DTKS and climate geo-spatial vulnerability data in DTSEN. Through this data unification, the SEPAKAT application system can produce a new vulnerability scoring algorithm that maps the names, addresses, and types of disabilities or elderly conditions in flood-prone zones under scenarios of 1 to 5 meters.

Research by Wibowo & Setiawan (2022) in the Journal of State Administrative Sciences proves that the use of geographic information systems (GIS) in public service planning in disaster-prone areas can increase logistics distribution efficiency by up to 40% and reduce the risk of exclusion and inclusion errors. With this integrated data, social service apparatus has the predictive operational capabilities to design specific, locus-based basic service designs: decentralize inclusive social service outposts to the nearest safe area, provide adaptive mobility aids before disasters occur, and direct social rehabilitation programs in a targeted manner.

### ***Collaborative Governance Analysis: Optimizing the BAZNAS Alternative Financing Scheme***

The complexity of fulfilling the Social SPM amid the threat of ecological destruction of the Gorontalo coast requires the availability of large regional fiscal space. On the other hand, the Regional Revenue and Expenditure Budget (APBD) of Gorontalo Province has chronic fiscal space limitations, so the uncertainty of regional budget allocation is one of the main triggers for fluctuations in SPM achievements from year to year. Relying on central transfer funds or purely local revenue to finance climate change adaptation programs for the 122,104 affected people is financially unrealistic. This is where the urgency of implementing the Collaborative Governance model finds its momentum through the optimization of alternative non-government financing schemes.

This research offers a model of strategic collaboration between the Gorontalo Provincial Government and the National Amil Zakat Agency (BAZNAS) as a pillar of

off-budget financing. From the perspective of modern public administration, the involvement of non-state actors based on religious philanthropy has proven to be effective in strengthening the resilience of the social safety net of the lower society (Fauzi & Rahman, 2023). In Islamic law, the extreme poor decile 1–2 who have lost their livelihoods due to the impact of climate change meet the sharia qualifications as *asnaf fakir* and poor who are entitled to receive the distribution of *zakat*, *infaq*, and *alms* (ZIS) funds.

The integration of DTSEN-SEPAKAT data carried out by Bappeda can be shared with BAZNAS to become a database for accurate *mustahik* determination. Through this collaboration scheme, funding from BAZNAS is directed to finance program clusters that cannot be reached by the rigidity of the APBD structure, such as the provision of climate resilience business capital (such as the cultivation of mangroves with economic value or diversification of non-marine processed foods), the provision of social security premium assistance for the elderly, and the development of inclusive micro-scale public facilities. As stated by Muhtar (2024) in the reputable journal *Scopus*, public-philanthropic financing collaboration not only eases the burden on the APBD, but also doubles the social capital of communities in responding to the global ecological crisis.

## **POLICY IMPLICATIONS**

**Central Government:** The Ministry of Home Affairs and the Ministry of Social Affairs need to revise the technical guidelines for implementing SPM to include disaster risk mitigation and climate adaptation instruments in the performance assessment indicators of mandatory local government affairs, especially in coastal and archipelagic areas.

**Regional Government (Gorontalo Province):** Bappeda must immediately ratify the 2025-2045 PRKBI document and make it the main controlling instrument in the preparation of the annual RKPD, so that the target of fulfilling the Social SPM is locked linearly with the climate resilience strategy. **Implementing Organizations (Social Service):** The Social Service is obliged to restructure the work program by stopping the conventional social assistance model that is consumable, and switching to an adaptive economic empowerment program based on the integration of SEPAKAT-DTSEN micro-spatial data.

**Target Group & Policy Development:** Vulnerable residents in the coastal area of Gorontalo are assured of inclusive protection of basic rights. The results of this study provide a blueprint for the model of bureaucratic reform of basic services in developing countries, which proves that the fulfillment of citizens' constitutional rights must be integrated with global ecological justice management.

## **CONCLUSION**

This study concludes that fluctuations in the performance of achieving the Social Minimum Service Standard (SPM) in Gorontalo Province result from a business-as-usual service management approach that ignores environmental risk variables. Based on the analysis of SEPAKAT-DTSEN spatial data, the projected sea level rise for the period 2045-2050 threatens 122,104 coastal residents and triggers a condition of intersectional vulnerability for 243 people with disabilities and 299 economically vulnerable elderly. The fulfillment of Social SPM will never achieve sustainability without integrating the concept of Adaptive Social Protection (PSA) into regional development planning.

Theoretically, this study enriches the discourse of public administration through the introduction of the concept of Eco-Public Value, which affirms that the creation of public

value by modern bureaucracies is obligatory to marry the dimension of compulsory basic services with the ecological resilience of the community. Practically, this study provides an applicative roadmap for local governments through the integration of spatial databases (unification of DTKS and DTSEN) as well as the formulation of an off-budget collaborative financing scheme utilizing BAZNAS religious philanthropic funds.

The main limitation of this research lies in the focus of the analysis that has just examined one sub-national area (Gorontalo Province) and is centered on SPM in the social sector. Future research should expand the scope of comparative study loci between coastal provinces in Indonesia and explore the integration of climate adaptation variables in other SPM basic service sectors.

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