



Collaborative Governance and Digital Data Interoperability in Poverty and Inequality Alleviation in West Sumbawa Regency

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Abstract

Poverty alleviation in resource-rich regions faces the critical challenge of high Gross Regional Domestic Product (GRDP) levels that have not been effectively translated into reductions in social inequality. This study aimed to analyze the alignment of collaborative governance commitments within regional planning documents and integrated data systems, map the extent of program synergy, and identify governance gaps between the Local Government of West Sumbawa Regency (Kabupaten Sumbawa Barat, KSB) and PT Amman Mineral Nusa Tenggara (AMNT). A qualitative policy document analysis approach was employed using secondary data triangulation, including the KSB Medium-Term Regional Development Plan (Rencana Pembangunan Jangka Menengah Daerah, RPJMD) 2021–2026, technical documentation of the Integrated Social Welfare Data Management Information System (Sistem Informasi Manajemen Data Terpadu Kesejahteraan Sosial, SIMDATUSOS), PT AMNT Sustainability Reports, and official statistics from the Central Bureau of Statistics (Badan Pusat Statistik, BPS) KSB for 2024–2025. The findings revealed that, despite a reduction in KSB's poverty rate to 10.98% and extreme poverty rate to 0.40% in 2025, social interventions remained constrained by a parallel synergy phenomenon. The SIMDATUSOS application's capacity to support the Kartu KSB Maju Sosial program was not yet integrated through Application Programming Interfaces (APIs) with PT AMNT's corporate social responsibility (CSR) database. The absence of digital data interoperability, misalignment between regional annual work plans (Rencana Kerja Pemerintah Daerah, RKPD) and corporate budgets (Rencana Kerja dan Anggaran Biaya, RKAB), and the suboptimal role of the Regional Poverty Reduction Coordination Team (Tim Koordinasi Penanggulangan Kemiskinan Daerah, TKPKD) Secretariat at the Regional Development Planning Agency (Badan Perencanaan Pembangunan Daerah, Bappeda) as a Digital Single Clearing House created significant risks of beneficiary targeting errors. This study recommends the enactment of a Regent Regulation on Cross-Sectoral Data Interoperability to establish a more accurate, accountable, and integrated single source of truth for poverty alleviation governance.

INTRODUCTION

Poverty alleviation and the reduction of socio-economic inequality in resource-rich areas represent some of the most complex challenges in regional development governance. West Sumbawa Regency (Kabupaten Sumbawa Barat, KSB) in West Nusa Tenggara Province provides a relevant illustration of this dynamic. The presence of a large-scale copper and gold mining industry operated by PT Amman Mineral Nusa Tenggara (AMNT) has positioned the mining and quarrying sector as the primary driver of the regional economy. This extractive sector consistently contributes more than 80% of KSB's Gross Regional Domestic Product (GRDP), contributing to a substantial increase in regional income indicators, including GRDP per capita (Central Statistics Agency of West Sumbawa Regency, 2024). However, the capital-

intensive and technology-intensive characteristics of extractive industries limit the absorption of local labor. This condition creates an uneven economic structure in which high GRDP generated from mining commodities does not necessarily translate into equitable welfare improvements across society. This phenomenon reflects the inequality paradox commonly observed in extractive-industry-based regions, where rapid macroeconomic growth often coincides with persistent poverty pockets and unequal distribution of public expenditure (Pratama & Suryani, 2022).

Based on official data released by the Central Statistics Agency, the poverty rate in KSB reached 10.98% in 2025, with an extreme poverty rate of 0.40% and a Gini Ratio of 0.325 (Central Statistics Agency of West Sumbawa Regency, 2024, 2025). Although the poverty rate has declined and approached single-digit levels, the persistence of approximately 10% of the population living in poverty amid substantial mining-based economic activity highlights the urgency of implementing precise, integrated, and collaborative social policy interventions across sectors. Previous literature (state of the art) on poverty alleviation and public-private partnerships in mining regions has been extensively examined by researchers. Most existing studies have focused on the effectiveness of Corporate Social Responsibility (CSR) fund allocation and the legitimacy of corporate-led community empowerment programs (Putra & Setiawan, 2023; Rahman & Huda, 2023). Other studies have emphasized the importance of the Penta-Helix framework and the involvement of non-governmental actors in supporting regional development (Calzada, 2021), as well as the role of Collaborative Governance institutions in addressing complex public issues (Ansell & Gash, 2021; Emerson, 2021). Furthermore, recent studies have highlighted the importance of Electronic-Based Government Systems (Sistem Pemerintahan Berbasis Elektronik, SPBE) and the digitalization of social welfare databases in improving the accuracy of social assistance targeting at the local level (Anshori & Nugroho, 2023; Yusuf & Aulia, 2022). However, previous studies have generally examined digital governance within government institutions and private CSR allocation separately and have not sufficiently explored the integration between regional social welfare databases and corporate databases in extractive industry regions. This gap represents the scientific novelty of the present study.

Unlike previous studies that primarily examined technical aspects of CSR allocation or internal evaluations of government applications, this study specifically analyzed the convergence between the SIMDATUSOS (Sistem Informasi Manajemen Data Terpadu Kesejahteraan Sosial) database, which serves as the foundation for the Kartu KSB Maju Sosial program within the One Data West Sumbawa Barat portal (West Sumbawa Regency Government, 2021, 2023), and the external database of PT AMNT's Community Development and Empowerment Program (Program Pengembangan dan Pemberdayaan Masyarakat, PPM) (PT Amman Mineral Nusa Tenggara, 2024). The novelty of this research lies in its critical examination of governance gaps related to cross-sector data interoperability and the alignment of planning cycles between public and private instruments. The main issue identified in this study was that although the KSB Regional Government and PT AMNT had formal commitments to poverty alleviation, the synergy implemented in practice remained parallel rather than integrated. The management of private social assistance recipient data had not yet fully utilized SIMDATUSOS validation as the primary reference (single source of truth), thereby increasing the risk of targeting errors and overlapping assistance. Furthermore, the role

of the Regional Poverty Reduction Coordination Team (Tim Koordinasi Penanggulangan Kemiskinan Daerah, TKPKD) as a digital clearing house remained suboptimal, creating institutional gaps among stakeholders (Imansyah et al., 2026; Kemiskinan & Indonesia, n.d.; Mahendradhata et al., 2017; Wardhana, 2019; Yunizar & Mayrudin, 2025).

Based on this background and identified problems, the main objective of this study was to analyze the alignment of Collaborative Governance commitments within integrated data system planning and documentation (SIMDATUSOS), map the level of synergy in social interventions between the KSB Regional Government and PT AMNT, and formulate policy recommendations to address gaps in data and institutional interoperability to support accurate social policies in West Sumbawa Regency. This study was expected to provide both theoretical and practical contributions. Theoretically, this research contributes to the development of Collaborative Governance literature, particularly within extractive-industry-based regions, by extending the frameworks proposed by Ansell and Gash (2021) and Emerson (2021) through the integration of digital data interoperability and planning cycle alignment as critical factors for successful collaboration. Practically, the findings provide policy recommendations for the KSB Regional Government, PT AMNT, and other stakeholders in developing accurate and data-driven social policies. In addition, this study may serve as a reference for policymakers in formulating cross-sector data interoperability regulations and strengthening the role of TKPKD as a Digital Single Clearing House. For future researchers, this study provides opportunities for further investigation through quantitative impact evaluation, institutional analysis, and comparative studies involving other extractive-industry regions in Indonesia.

METHOD

This study employed a qualitative approach using policy document analysis to examine the application of Collaborative Governance principles and the integration of digital databases in poverty alleviation in West Sumbawa Regency (KSB). This approach was selected because it enabled an in-depth exploration of policy content, contextual factors, and governance gaps within public planning documents and private sector sustainability reports (Wahyudi & Pratama, 2024). The data consisted of secondary sources collected through documentation and desk research. The analyzed documents included the KSB Medium-Term Regional Development Plan (Rencana Pembangunan Jangka Menengah Daerah, RPJMD) 2021–2026, KSB Regional Government Work Plan (Rencana Kerja Pemerintah Daerah, RKPD) 2024, the Strategic Plan of the KSB Social Service, technical documentation of the Social Welfare Integrated Data Management Information System (Sistem Informasi Manajemen Data Terpadu Kesejahteraan Sosial, SIMDATUSOS) within the One Data West Sumbawa portal, the Regent Regulation on the Regional Poverty Alleviation Coordination Team (Tim Koordinasi Penanggulangan Kemiskinan Daerah, TKPKD), PT Amman Mineral Nusa Tenggara (AMNT) Sustainability Reports and Community Development and Empowerment Program (Program Pengembangan dan Pemberdayaan Masyarakat, PPM) documents, as well as official statistical data released by the Central Statistics Agency (Badan Pusat Statistik, BPS) of West Sumbawa Regency for 2024 and 2025.

The data analysis applied qualitative content analysis combined with policy triangulation techniques (Krippendorff, 2022). The analysis was conducted through four stages: (1) domain analysis, which categorized documents based on public sector (KSB Regional Government)

and private sector (PT AMNT) policy domains; (2) document coding, which identified relevant clauses, program objectives, and data instruments based on the Collaborative Governance framework; (3) triangulation and cross-mapping, which assessed the alignment between BPS data, SIMDATUSOS/KSB Maju Sosial indicators, and PT AMNT PPM fund allocation through comparative matrices; and (4) gap analysis, which identified institutional gaps, planning schedule inconsistencies, and challenges related to digital data interoperability.



Figure 1. Flow of Stages of Policy Document Analysis and Triangulation of Research Data

Source: Author's own work based on document analysis (2026)

(Note: This image shows the linear and systematic stages that are passed in dissecting the regional planning text, the SIMDATUSOS database, and PT AMNT's CSR report to produce the formulation of policy recommendations).

The secondary data triangulation and coding analysis process was validated by examining the consistency between regional regulations, BPS statistical data, and the implementation of digital information system features (Setyawan & Wardani, 2022). This methodological approach enabled the study to produce a comprehensive synthesis of program alignment levels and identify the underlying factors contributing to suboptimal public-private data collaboration in West Sumbawa Regency.

RESULTS AND DISCUSSION

Collaborative Institutional Commitment in Regional Planning Documents and Local Regulations

Based on the qualitative coding analysis of the 2021–2026 West Sumbawa Regency (KSB) Regional Medium-Term Development Plan (RPJMD) document, the KSB Regional Government explicitly adopts a collaborative development framework to respond to the complexity of local socio-economic issues. The structure of the 2021–2026 KSB RPJMD openly acknowledges the limitations of the Regional Revenue and Expenditure Budget (APBD) in overcoming persistent poverty and inequality in the midst of a regional economic structure that is highly dominated by the extractive sector. The copper and gold mining sector managed by PT Amman Mineral Nusa Tenggara (AMNT) accounts for more than 80% of the Gross Regional Domestic Product (GDP) of KSB (West Sumbawa Regency Central Statistics Agency, 2024). However, the capital-intensive and high-tech nature of extractive industries creates the phenomenon of an enclave economy, where the surge in GDP per capita is not automatically absorbed into household income in the lower strata.

In order to overcome the limitations of the APBD in mitigating the impact of inequality, Chapter V and Chapter VI RPJMD KSB 2021–2026 emphasize that the achievement of key regional performance indicators—including reducing poverty and extreme poverty rates—must be supported by the integration of non-APBD resources. It also establishes the mining private sector as the main strategic partner through the Community Development and Empowerment Program (PPM) and Corporate Social Responsibility (CSR) schemes. This formal commitment was strengthened through the issuance of the Regent's Regulation regarding the establishment of the Countermeasures Coordination Team

KSB Regional Poverty (TKPKD) which is chaired directly by the Deputy Regent of West Sumbawa with Bappeda as the operational secretariat. This mandate provides legitimacy for TKPKD to consolidate poverty alleviation programs across Regional Apparatus Organizations (OPD) while opening up space for participation for the private sector.

However, the results of the qualitative text analysis of the 2021–2026 KSB RPJMD text and TKPKD regulations show that the institutional commitment is still at the normative-policy level. The existing regulatory framework has emphasized the importance of collaboration between actors, but has not yet developed binding operational mechanisms regarding program synchronization procedures, data exchange mechanisms, and evaluation of joint achievements in the field. For example, in the clause of the RPJMD Chapter VI on Regional Development Strategy, the sentence used is still a general appeal such as "encouraging business participation in social development", without the inclusion of technical instructions that require companies to integrate their program target data with regional databases.

If read through the perspective of collaborative governance theory, the condition in KSB reflects the unfulfilled dimensions of capacity for joint action and precise operational institutional commitments (Ansell & Gash, 2021; Emerson, 2021). The new KSB regulation succeeds in building an institutional design on the basic value order, but fails to provide technical instruments that can operationalize the cooperation when faced with conflicts of interest between bureaucracy and internal corporate procedures.

Mapping the Synergy and Complementarity of Public-Private Social Interventions

To map the degree of alignment between public planning, regional digital innovation, BPS statistical data, and PT AMNT's social investment allocation, secondary data triangulation based on document analysis was carried out as summarized in the Policy Triangulation Matrix in table 1.

Table 1. Triangulation Matrix of Planning Documents, Digital Data Systems, and CSR Reports KSB

Evaluation Dimension	Statistical Reality Data	Public Sector: Planning & Digitalization	Private Sector: Social Investment	Policy Causal Mechanism Analysis
Focus Issue & Main Target	Persistent poverty (10.98%) and extreme poverty (0.40%).	Fulfillment of basic social safety nets, protection for elderly, persons with disabilities, and highly vulnerable groups.	MSME economic empowerment, educational scholarships, vocational training, and stunting reduction.	Complementary Substance: Government focuses on basic safety nets, while private sector focuses on economic independence.
Instruments & Data Basis	Regsosek Data Collection & BPS Susenas (<i>Macro Level</i>).	SIMDATUSOS (Satu Data KSB / SPBE) & DTKS (<i>By Name By Address</i>).	<i>Social Mapping Survey</i> & Internal Mine Perimeter Area Mapping of PT AMNT.	Data Silo: Two operational databases running without API interconnection.
Flagship Intervention Programs	Regional Development Macro Performance Indicators.	Kartu Sumbawa Barat Maju (KSB Maju Sosial) for local social security validation.	Community Empowerment & Development Program (PPM) Economy & HR Pillars.	Parallel Synergy: Interventions target the same population without a single clearing house mechanism.
Accountability & Evaluation	Official BPS KSB Statistical Publications.	Regent Accountability Report (LKPJ) & SPBE Evaluation.	Corporate Sustainability Report (<i>GRI Standards</i>) & ESDM RKAB .	Indicator Asynchronization: No joint impact measurement instrument (<i>shared metrics</i>) exists yet.

Source: Processed from RPJMD KSB 2021–2026, RKPD KSB 2024, SIMDATUSOS documentation, and PT AMNT Sustainability Report 2023 by the author (2026)

In terms of the substance of the intervention, the coding results show that there is a high level of complementarity between the programs run by the KSB Regional Government and PT AMNT.

The KSB Regional Government through the Social Service focuses on fulfilling the basic social safety net for vulnerable groups. The flagship program of the Sumbawa Barat Maju Card (KSB Maju Sosial) functions to validate and distribute assistance to the abandoned elderly, people with severe disabilities, and extreme poor families. Meanwhile, PT AMNT through the Sustainability Report and PPM document allocates its social investment on four main pillars: local economic development (MSMEs), human resource capacity improvement (vocational scholarships and training), public infrastructure, and health (stunting management).

Theoretically, this division of roles is ideal because the local government handles basic protection while the private sector encourages economic independence.

However, qualitative analysis proves that this working relationship is still held in a parallel synergy scheme. The KSB Regional Government and PT AMNT both contributed to reducing the KSB poverty rate to 10.98% in 2025 with an extreme poverty of 0.40% and a Gini Ratio of 0.325 (Central Statistics Agency of West Sumbawa Regency, 2024, 2025). Nonetheless, both parties act using databases and execution mechanisms that run separately without interconnection at the operational level—a phenomenon that in public policy studies is categorized as an uncoordinated form of institutional (Pratama & Suryani, 2022; Putra & Setiawan, 2023).

The impact of this parallel synergy can be seen in the spatial inequality of program distribution. PT AMNT's PPM programs are centrally allocated in the mining ring area (Sekongkang, Maluk, and Jereweh Districts). On the other hand, non-mining areas in KSB that also have pockets of poverty only depend on limited APBD allocations. The absence of joint intervention mapping causes the accumulation of social assistance to accumulate in certain geographical areas, while other areas experience a protection void.

In-Depth Analysis of Three Governance Gaps

Based on the coding analysis of planning documents, regional regulations, and KSB information system architecture, three main governance gaps were found that fundamentally hindered the effectiveness of collaboration in West Sumbawa Regency:

1. Data Interoperability Gap

West Sumbawa Regency has recorded a leap in innovation through the operation of SIMDATUSOS (Integrated Social Welfare Data Management Information System) which is integrated in the One Data West Sumbawa portal based on the Electronic-Based Government System (SPBE). This application is designed to consolidate poverty data by name by address (BNBA) from the Integrated Social Welfare Data (DTKS) and the results of field verification by the Social Service to support the accuracy of the distribution of the Social Forward KSB Card. This application successfully integrates social welfare data across Regional Apparatus to support Smart City governance and Electronic-Based Government System (SPBE).

However, the results of the document analysis show that the advantages of SIMDATUSOS are still isolated in the internal bureaucracy (intra-governmental integration). The KSB Regional Government has not built a protected data integration bridge—such as an Application Programming Interface (API)—that connects SIMDATUSOS directly with the database of PT AMNT's CSR/PPM team. PT AMNT's CSR team runs the distribution of corporate social programs based on internal social mapping surveys conducted by third-party consultants. As a result, the distribution of corporate social programs runs without using the KSB Maju Sosial Card validation database as the main reference.

The absence of data interoperability across sectors has two crucial impacts:

- a. Inclusion Error and Exclusion Error (Duplication Burden): Without API synchronization, some beneficiary families in the mining area were recorded to receive double assistance—namely receiving APBD social security from the KSB Maju Card as well as receiving business capital from PT AMNT's CSR. On the other hand, poor people outside the mine perimeter who are registered as valid in SIMDATUSOS are not touched by private empowerment programs.

- b. **Data Redundancy and Budget Waste:** The KSB Regional Government and PT AMNT both issue a routine budget every year only to update data separately (double surveys), even though the data is on the same population object.

This operational gap confirms the conceptual argument regarding the importance of data interoperability governance and the establishment of a single database in the effectiveness of regional social policies (Anshori & Nugroho, 2023; Rizki & Utami, 2024; Susanto & Fitriani, 2023).

Table 2. Comparison of the Architecture of the SIMDATUSOS KSB Information System and the CSR Database of PT AMNT

Data Architecture Parameter	SIMDATUSOS (KSB Local Government)	CSR / PPM Database (PT AMNT)	Impact on Policy Governance
Legal Basis of System	Regent Regulation (<i>Perbup</i>) on SPBE & Regent Regulation (<i>Perbup</i>) on Satu Data KSB.	Internal Corporate Policy & Ministry of Energy and Mineral Resources (ESDM) Guidelines.	Legal basis for data sharing obligations is not yet aligned.
Geographic Coverage of Data	All 8 Sub-districts in KSB (<i>By Name By Address</i>).	Specific to Mine Perimeter Area (Sekongkang, Maluk, and Jereweh Sub-districts).	Disparity in intervention coverage outside the mine perimeter area.
Data Exchange Protocol	API Integrated with KSB Internal Regional Government Agencies (OPD).	Isolated Internal Database (Stand-Alone).	Absence of an API bridge triggers data redundancy.
Validation Mechanism	Approval by the Social Services Office & Kartu KSB Maju.	Field Survey by AMNT Internal Consultant Team.	Risk of targeting error & duplication of assistance recipients.

Source: Processed from SIMDATUSOS technical documentation and PT AMNT Sustainability Report 2023 by the author (2026)

2. Planning & Timing Gap

The second root of the problem lies in the timing misalignment between the public budget planning cycle and the corporate budget preparation cycle.

In accordance with regional financial management regulations, the KSB Regional Government is bound by the staged Musrenbang which starts from the village level at the beginning of the year and leads to the determination of the Regional Government Work Plan (RKPD) and the ratification of the APBD in the middle to the end of the current year (West Sumbawa Regency Government, 2021). On the other hand, PT AMNT prepares a Work Plan and Cost Budget (RKAB) as well as the PPM pillar based on the corporate financial year cycle which must obtain technical approval from the Directorate General of Minerals and Coal of the Ministry of Energy and Mineral Resources in Jakarta (PT Amman Mineral Nusa Tenggara, 2024).

The absence of a joint planning window between Bappeda KSB and the Management of PT AMNT causes these two cycles to run without intersections:

- a. When the KSB Regional Government determined the RKPD document in July, PT AMNT's CSR program could not be ensured because the corporate RKAB was still in the internal preparation stage.
- b. When the RKAB PT AMNT was ratified by the Ministry of Energy and Mineral Resources in December or January of the following year, the RKPD and KSB APBD documents were already locked, so that private programs could not be included in the regional Annual Work Plan.

As a result of this synchronization, the allocation of PPM/CSR PT AMNT funds was forced to be executed separately outside the KSB development planning scheme. This phenomenon confirms the theoretical framework regarding the impact of the planning and timing gap that undermines the integration of public-private programs in mining areas (Rahman & Huda, 2023; Susanto & Fitriani, 2023).

3. Institutional Clearing Gap

The third gap found is institutional dysfunction in the KSB Regional Poverty Alleviation Coordination Team (TKPKD). Based on the Regent's Regulation on the Organization and Work Procedures of TKPKD, this institution is actually positioned as a forum for cross-sector coordination in poverty alleviation in KSB.

However, document analysis shows that the TKPKD Secretariat attached to the KSB Bappeda has so far only functioned as an entity that prepares periodic administrative reports, not as a Digital Single Clearing House. This institution does not have the operational authority to screen, verify, and ratify all incoming social assistance proposals—both from the APBD and PT AMNT's PPM funds—before the program is handed down to the community.

The impact of the weak function of the clearing house is the absence of shared performance metrics. The KSB Regional Government measures the success of social policies through the Regent's LKPJ indicators and SPBE assessments, while PT AMNT measures the success of its programs through the international standards of the Global Reporting Initiative (GRI Standards) for Corporate Sustainability Reports. Because there is no single evaluation indicator agreed, the real contribution of PT AMNT's CSR funds to the reduction of poverty rate (10.98%) and Gini Ratio (0.325) of KSB cannot be calculated in detail and tested econometrically. This condition is in line with academic findings regarding the importance of shared metrics in maintaining collaborative governance accountability (Fajri & Kurniawan, 2023; Nugroho & Wibowo, 2024; Wijaya & Saputra, 2023).

Single Clearing House Digital Framework Model Design and Policy Implications

To break the chain of parallel synergy and close the three governance gaps, this study formulated a Digital Single Clearing House policy model based on API Interoperability. as outlined in Table 3.

Table 3. Governance Gap Action Plan Matrix

Policy Gap	Root Cause	Strategic Solution Recommendation	Responsible Actors
Data Interoperability Gap	No API access between SIMDATUSOS & AMNT CSR database.	Enactment of Regent Regulation (<i>Perbup</i>) on Cross-Sector SPBE Data Interoperability &	KSB Communication and Informatics Office (<i>Dinas Kominfo KSB</i>), KSB Social Services Office (<i>Dinas Sosial</i>)

Policy Gap	Root Cause	Strategic Solution Recommendation	Responsible Actors
Planning & Timing Gap	The RKPD cycle (July) & ESDM RKAB cycle (December) are not aligned.	Creation of a Protected API. Establishment of a <i>Joint Planning Window</i> (Pre-RKPD Synchronization Forum) between Bappeda & AMNT.	KSB), & AMNT IT Department. KSB Regional Development Planning Agency (<i>Bappeda KSB</i>) & PT AMNT PPM/CSR Management.
Institutional Clearing Gap	TKPKD does not yet function as a single gateway for assistance validation/approval.	Optimization of Bappeda KSB as a <i>Digital Single Clearing House</i> based on Kartu KSB Maju.	KSB TKPKD Secretariat & KSB Regional Development Planning Agency (<i>Bappeda KSB</i>).

Source: Processed from research findings and policy analysis by the author (2026)

This model transforms the pattern of public-private interaction in KSB from an ad-hoc to a structured digital data-based one.

1. API-Based Data Exchange Architecture

In the proposed model, the KSB Regional Government through the Communication and Informatics Service and the Social Service built a protected data integration bridge (Application Programming Interface / API) that connects the SIMDATUSOS database with PT AMNT's internal CSR database. This data exchange protocol is regulated with strict encryption to maintain the confidentiality of personal data in accordance with personal data protection laws. Through this API, PT AMNT's CSR team can conduct validation queries in real-time when planning the beneficiaries of the empowerment program. If the prospective beneficiary is not registered in SIMDATUSOS or has received similar assistance from the APBD (KSB Maju Card), the system will provide a warning notification (red flag) to prevent duplication of assistance.

2. Institutionalization of Joint Planning Window

In order to overcome the gap in the planning cycle, Bappeda KSB and the Management of PT AMNT are required to institute a Joint Planning Window in the second quarter of every year (around May-June). This forum was held before the final ratification of the KSB RKPD and before the submission of the RKAB PT AMNT to the Ministry of Energy and Mineral Resources. In this forum, the KSB Regional Government presented a map of social intervention needs based on SIMDATUSOS data, while PT AMNT conveyed the indicative allocation of PPM/CSR funds. The results of the agreement from this forum are outlined in the Program Alignment Minutes which are the official attachments to the KSB RKPD and RKAB PT AMNT documents.

3. Strengthening Bappeda as a Digital Single Clearing House

The TKPKD Secretariat at Bappeda KSB has been transformed into a single door for ratification (Digital Single Clearing House). Every allocation of CSR/PPM PPM funds targeting the social and economic development of the community must go through the digital verification (clearing) stage by Bappeda. Bappeda ensures that private programs are focused on areas or groups of poor people that have not been touched by the APBD. In addition, Bappeda and PT AMNT agreed on shared performance metrics, where the success of private

social investment is measured based on its contribution to regional macro indicators, such as reducing the percentage of poverty and inequality in expenditure in KSB.

Through the application of this model, West Sumbawa Regency can transform its poverty alleviation governance from just a "normative collaboration" on paper to a "data-driven collaborative governance".

Academic Discussion and Comparison with Previous Studies

The scientific findings in this study make a significant theoretical contribution to the discourse of Collaborative Governance and Public Policy in areas rich in extractive natural resources. When compared to the results of previous studies, the findings at KSB expand on the theoretical framework developed by Ansell & Gash (2021) and Emerson (2021).

Previous studies conducted by Pratama & Suryani (2022) and Putra & Setiawan (2023) in various mining areas in Indonesia concluded that the main obstacles to CSR and regional partnership failures lie in the lack of political will of local governments and the high conflict of interest between corporations and local elites. However, empirical findings in West Sumbawa Regency show a different phenomenon, namely the political commitment in KSB is actually very strong, as evidenced by the explicit inclusion of private partnership schemes in the 2021–2026 KSB RPJMD, the large allocation of PPM PT AMNT funds, and the presence of the SIMDATUSOS application to support SPBE. Despite strong political commitments, collaboration still suffers from governance failure. This research proves that the determinant of collaboration failure in the modern era no longer lies in the problem of commitment at the top level, but in the absence of interoperability of digital data systems (API Gap) and asynchronization of planning bureaucratic cycles (Planning Gap).

The findings in KSB are in line with the arguments of Anshori & Nugroho (2023) and Rizki & Utami (2024) who state that the main challenges of SPBE and regional digitalization in Indonesia have shifted from the problem of providing application infrastructure (software/hardware) to the problem of data sharing governance between institutions. Thus, this study fills the literature gap by confirming that the integration of digital data architecture and the alignment of planning schedules are absolute prerequisites for the realization of effective Collaborative Governance in extractive industrial areas.

CONCLUSION

Based on the results of the qualitative analysis of regional planning documents, local regulations, and digital data architecture, this study concludes that poverty alleviation in West Sumbawa Regency (KSB), as an extractive industry-based region, remains characterized by the phenomena of “Parallel Synergy” and “Interoperability Governance Gap.” Although the KSB Regional Government and PT Amman Mineral Nusa Tenggara (AMNT) demonstrated strong political commitments through the 2021–2026 Medium-Term Regional Development Plan (Rencana Pembangunan Jangka Menengah Daerah, RPJMD) and corporate sustainability reports, which contributed to reducing KSB’s poverty rate to 10.98% and extreme poverty rate to 0.40% by 2025, social interventions at the implementation level remained fragmented across separate institutional pathways. The primary causes of inefficiency in collaborative poverty alleviation efforts in KSB were identified through three major governance gaps: (1) Data and Interoperability Gap—the absence of an API-based data integration mechanism connecting SIMDATUSOS with PT AMNT’s CSR database; (2) Planning and Timing Gap—the

misalignment between the regional annual planning cycle through the Regional Government Work Plan (Rencana Kerja Pemerintah Daerah, RKPD) and the corporate budgeting cycle through the Corporate Work Plan and Budget (Rencana Kerja dan Anggaran Biaya, RKAB); and (3) Institutional Clearing Gap—the suboptimal role of the TKPKD Secretariat at Bappeda as a Digital Single Clearing House and the absence of shared performance indicators. This lack of operational integration increases the risk of beneficiary targeting errors, overlapping assistance programs in mining areas, and unequal social protection coverage for poor communities outside mining zones.

The findings provide a significant theoretical contribution by extending the Collaborative Governance framework developed by Ansell and Gash (2021) and Emerson (2021), demonstrating that political commitment and normative agreements alone are insufficient in the context of digital transformation. Effective public-private partnership governance requires digital data interoperability through API-based systems and alignment of planning cycles (joint planning window) as essential components of collaborative implementation. To address these gaps, this study proposes four strategic recommendations: (1) issuing a Regent Regulation on Cross-Sector SPBE Data Interoperability to establish mandatory API-based data exchange mechanisms; (2) positioning SIMDATUSOS and the KSB Maju Sosial Card as the single source of truth for social assistance distribution to prevent duplication; (3) institutionalizing a Joint Planning Window during the second quarter of each year to synchronize RKPD and RKAB planning cycles; and (4) strengthening Bappeda’s role as a Digital Single Clearing House supported by shared performance indicators. This study was limited by its reliance on qualitative document analysis at the regional level and its inability to measure quantitative impacts at the household level. Future research should conduct quantitative impact evaluations, institutional analyses of mandatory collaborative governance mechanisms, and comparative studies in other extractive regions, such as Timika, Morowali, and Kutai Kartanegara, to evaluate the applicability of the Digital Single Clearing House model in different contexts.

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