

(Research/Review) Article

Analysis of Consistency and Quality of Planning and Budgeting in Infrastructure Development in the Solok City Regional Government

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Abstract: This study examines the consistency and quality of infrastructure planning and budgeting within Solok City's local government in Indonesia, particularly focusing on the Department of Public Works and Spatial Planning (DPUPR) and the Department of Housing and Settlement Areas (Diperkim). The research highlights the challenges in aligning strategic planning documents, such as the RPJMD 2021–2026, with annual implementation frameworks, including RKPD, KUA-PPAS, and APBD. These challenges were intensified by institutional restructuring and fiscal limitations. The research employs a descriptive case study methodology (Yin, 2009), utilizing primary data collected from structured interviews with 11 key government officials. Secondary data included relevant planning and budgeting documents from 2021–2025. To measure consistency, the Planning and Budgeting Consolidation Matrix (MKPP) was used, while quality was assessed based on Baer's (1997) criteria and the SAKIP performance indicators. The findings reveal that initial inconsistencies were evident between 2021 and 2022, largely due to the transfer of water and sanitation programs from Diperkim to DPUPR under Ministerial Decree No. 050-5889/2021. This caused misalignments between the RPJMD targets and the budgetary execution. However, by 2023–2025, the integration of the SIPD digital system and the standardization of nomenclatures led to full consistency (100%). Moreover, the quality of infrastructure planning and budgeting improved from "Adequate" to "Very Satisfactory" (SAKIP-AA) during this period, primarily due to enhanced procedural validity, better stakeholder participation, and a focus on performance-based budgeting. The study concludes that institutional restructuring, technological integration, and regulatory harmonization are crucial for achieving coherence between planning and budgeting. It recommends adopting flexible protocols for future administrative changes to ensure sustained infrastructure governance accountability.

Keywords: Budgeting consistency, Governance quality, Infrastructure planning, Institutional restructuring, Local government.

1. Introduction

Infrastructure planning and budgeting in local governments represent critical governance mechanisms for sustainable development, particularly in rapidly urbanizing regions of Indonesia (Mardiasmo, 2021). This research examines Solok City's infrastructure governance, focusing on the Department of Public Works and Spatial Planning (DPUPR) and Department of Housing and Settlement Areas (Diperkim) during institutional restructuring (2021–2025). Previous studies employed case study methodologies (Yin, 2009) and document analysis to assess planning-budgeting alignment (Sunu Wasana & Abdul Halim, 2018; Orinda, 2016), revealing strengths in contextual depth but weaknesses in quantifying consistency during administrative transitions. Quantitative frameworks like the Planning and Budgeting Consolidation Matrix (MKPP) (Permendagri 19/2020) enabled standardized measurement, yet lacked integration with quality dimensions such as procedural validity and stakeholder responsiveness (Baer, 1997; Kementerian PANRB, 2020).

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The core problem centers on persistent inconsistencies between Solok's medium-term development plan (RPJMD 2021–2026) and annual budgets (APBD), exacerbated by Kepmendagri No. 050-5889/2021 mandating departmental restructuring (Ramdayani, 2024). This triggered misalignment in water/sanitation programs between DPUPR and Diperkim, while fiscal constraints and political interventions undermined target achievement (Sridarnilawati et al., 2021; Yandra, 2011). Crucially, existing studies neglected how digital governance specifically Indonesia's SIPD system could resolve these gaps when combined with performance-based evaluation.

Indonesia's post-reformasi decentralization framework (UU 23/2014) mandates local governments to integrate infrastructure planning (RPJMD/RKPD) with performance-based budgeting (APBD). However, Solok City's implementation reveals systemic tensions between regulatory ideals and on-ground execution. Fiscal constraints evidenced by infrastructure allocations consistently below the 40% mandatory threshold (UU 1/2022) force trade-offs between strategic priorities and political realities (Sridarnilawati et al., 2021). External dependencies, such as unpredictable National Budget (APBN) transfers for critical projects like the Solok Regional Hospital, exacerbate planning volatility (Milfiana, 2024). These dynamics create a governance trilemma: balancing regulatory compliance, fiscal capacity, and community needs a challenge magnified during institutional restructuring when water/sanitation programs shifted between DPUPR and Diperkim (Kepmendagri 050-5889/2021).

This study employs a longitudinal case study design (Yin, 2009) to dissect planning-budgeting coherence across Solok's restructuring period (2021–2025). Document tracing of 172 program trajectories across RPJMD-RKPD-KUA-PPAS-APBD layers was augmented by stakeholder ethnography: 11 key informant interviews illuminated how bureaucratic actors negotiated contradictions between Permendagri 86/2017's technocratic ideals and political interventions. The MKPP matrix quantified alignment gaps (e.g., 2021 sub-activity consistency: DPUPR 74%, Diperkim 70%), while Baer's (1997) quality criteria assessed procedural weaknesses particularly in content validity (divergent program nomenclatures pre-2023) and stakeholder inclusion (Musrenbang participation gaps). Crucially, SIPD digital audits revealed how algorithmic enforcement of Kepmendagri 050-5889/2021 standardized program codes post-2023, reducing ad hoc budgetary revisions by 68%.

Findings demonstrate that resolving planning-budgeting misalignments requires hybrid solutions: regulatory compliance alone is insufficient. Solok's post-2023 consistency (100% across documents) emerged from digitally mediated institutional learning SIPD's real-time validation of program codes prevented political manipulation during APBD negotiations (Wanti et al., 2023). This suggests AI systems could automate three governance functions: (1) predictive fiscal gap analysis when restructuring occurs, (2) dynamic reallocation models prioritizing UU 1/2022 infrastructure targets during budget shortfalls, and (3) blockchain-secured Musrenbang platforms enhancing community oversight. Future research should stress-test these mechanisms in cities facing similar reforms, particularly as Indonesia's Smart City initiatives expand. For now, Solok's experience offers a replicable blueprint: integrate regulatory harmonization (Kepmendagri 050-5889/2021) with adaptive digital systems (SIPD 2.0) to transform infrastructure governance from procedural compliance to outcome-driven accountability.

This study adopts a blended methodological framework integrating four synergistic components: (1) quantitative consistency tracking via the Planning and Budgeting Consolidation Matrix (MKPP) to measure alignment across hierarchical documents (RPJMD → RKPD → KUA-PPAS → APBD); (2) qualitative quality assessment applying Baer's (1997) criteria (content validity, procedural rigor) and SAKIP performance indicators (Kementerian PANRB, 2020) to evaluate governance robustness; (3) structured stakeholder analysis through interviews with planners, budgeters, and implementers to triangulate administrative data with on-the-ground realities; and (4) digital trail auditing of the Sistem Informasi Pemerintah Daerah (SIPD) to map real-time planning-budgeting integration and institutional adaptation patterns during restructuring.

This research delivers four pivotal contributions to infrastructure governance scholarship: first, it generates novel empirical evidence elucidating how institutional restructuring (2021–2023) disrupted fiscal governance coherence in Solok City, specifically quantifying program misalignment between RPJMD mandates and APBD execution; second, it establishes a validated diagnostic framework that interlinks planning-budgeting consistency metrics (MKPP) with SAKIP quality dimensions, enabling holistic performance benchmarking; third, it proposes AI-augmented policy protocols for systems like SIPD to

autonomously detect and correct document inconsistencies during administrative reforms, thereby maintaining statutory compliance (Kepmendagri 050-5889/2021); and fourth, it advances actionable fiscal solutions to address Indonesia's infrastructure funding deficit under UU 1/2022, including dynamic resource reallocation models that prioritize high-impact projects while accommodating political constraints.

2. Preliminaries or Related Work or Literature Review

Decentralization and Infrastructure Governance in Indonesia

Indonesia's decentralization framework, established under Law No. 23/2014, delegates infrastructure planning and budgeting to local governments through instruments like RPJMD (medium-term development plans) and APBD (local budgets) (Mardiasmo, 2021). This paradigm shift aims to align infrastructure investments with local priorities, yet studies reveal persistent challenges. Sridarnilawati et al. (2021) identified political interventions and fluctuating central transfers (DAK funds) as primary disruptors of planning-budgeting coherence. Similarly, Yandra (2011) demonstrated in West Sumatra that only 53% of infrastructure programs in RPJMD were consistently funded in APBD, citing weak fiscal capacity and misaligned performance indicators. These works establish a critical baseline: decentralization's promise remains constrained by implementation gaps between policy design and execution.

Theoretical Anchors: Strategic Planning vs. Fiscal Realities

Bryson's (2018) strategic planning theory posits that integrated RPJMD-RKPD-APBD cycles should ensure goal congruence. However, Osrinda & Delis (2016) contested this in Indonesian contexts, finding that hierarchical document alignment fails when local governments prioritize "administrative compliance" over outcome-based accountability. Permendagri No. 86/2017 mandates participatory Musrenbang forums to bridge this gap, yet field evidence shows community inputs are often overridden during APBD negotiations (Mitang & Nalle, 2024). This exposes a theoretical tension: rational planning models assume linear goal implementation, while political economy frameworks (Kumorotomo, 2010) reveal how power dynamics distort resource allocation.

Consistency Measurement Gaps in Existing Literature

Prior attempts to quantify planning-budgeting consistency, such as Sunu Wasana & Halim's (2018) MKPP matrix in Gunung Kidul, achieved partial success scoring 65% RKPD-APBD alignment but overlooked institutional disruptions. Orinda's (2016) Merangin study reported 100% consistency in RKA-DPA documents yet admitted methodological blindness to restructuring impacts. Crucially, both studies treated consistency as a static administrative output, neglecting how Kepmendagri No. 050-5889/2021's standardized nomenclatures dynamically reshape program trajectories during agency mergers or splits (Ramdayani, 2024). This gap is acute for infrastructure, where transfers of authority (e.g., water management from housing to public works departments) create document-level discontinuities.

Quality Assessment Frameworks: Beyond Compliance

Baer's (1997) seminal plan quality criteria content validity, procedural rigor, and implementation feasibility offer tools to evaluate planning documents. However, Indonesian applications remain compliance-focused. Hanida et al. (2015) found only 30% of Renstra OPDs met Baer's content validity standards due to "copy-paste" RPJMD content without contextual adaptation. Meanwhile, SAKIP assessments (Kementerian PANRB, 2020) prioritize administrative metrics (e.g., indicator completeness) over substantive outcomes like community welfare gains. This reveals a systemic weakness: quality frameworks neglect restructuring-induced contingencies, such as how Diperkim's sudden loss of drainage programs (2021–2022) degraded target target accountability despite "AA" SAKIP scores.

Digital Governance's Unrealized Potential

Indonesia's SIPD (Sistem Informasi Pemerintah Daerah), mandated by Permendagri 70/2019, promises real-time planning-budgeting integration. Maulana & Dewi (2023) documented 40% faster RKPD-APBD synchronization in early adopters like Surakarta. However, Wanti et al. (2023) exposed SIPD's limitations during restructuring: legacy program

codes from pre-merger agencies caused system errors, forcing manual overrides that increased inconsistencies by 28%.

These studies highlight SIPD's passive digitization flaw it automates existing workflows but lacks AI-driven adaptability to reconfigure program hierarchies during institutional changes (BPSDM PUPR, 2024).

Fiscal-Political Constraints in Infrastructure Funding

Law No. 1/2022 mandates 40% APBD allocations for infrastructure, yet Solok City averaged just 32% (2021–2023) due to PAD (local revenue) shortfalls (Milfiana, 2024). Sridarnilawati et al. (2021) attribute this to "political capture," where legislators redirect funds to visible projects (e.g., ceremonial gates) over RPJMD aligned sewers. Meanwhile, Mardiasmo (2021) notes performance-based budgeting's failure to curb this, as output indicators (e.g., "km of roads built") ignore strategic fit. These works converge on an urgent paradox: fiscal inadequacy and political fragmentation jointly undermine infrastructure governance, yet no study has modeled solutions within restructuring contexts.

Synthesizing the Research Gap

This review identifies three critical voids:

- Dynamic Consistency Measurement: No framework quantifies how institutional restructuring (e.g., Kepmendagri 050-5889/2021) fractures program-budget links across RPJMD-APBD layers.
- Quality-Restructuring Nexus: SAKIP/Baer evaluations neglect restructuring-induced quality erosion in planning documents.
- Digital Adaptation Deficit: SIPD's inability to auto-reconfigure during agency mergers perpetuates inconsistencies.

Our study addresses these by integrating MKPP consistency metrics with restructuring-aware quality assessments and SIPD digital ethnography a tripartite approach absent in prior literature.

3. Proposed Method

This study employs a blended quantitative-qualitative approach anchored in a longitudinal case study design (Yin, 2009), executed through five methodical phases.

Phase 1 : Document Mapping and Consistency Quantification

All planning-budgeting documents (RPJMD 2021–2026, RKPD/KUA-PPAS/APBD 2021–2025) from Solok City's DPUPR and Diperkim were cataloged. Quantitative consistency was measured using the Planning-Budgeting Consolidation Matrix (MKPP) (Permendagri 19/2020), calculating alignment percentages at program, activity, and sub-activity levels:

$$\text{Consistency (\%)} = \frac{\text{Number of Consistent Items}}{\text{Total Items}} \times 100 \quad (1)$$

Phase 2 : Quality Assessment via Multi Dimensional Framework

Qualitative quality was evaluated using:

- Baer's Criteria (1997): plan quality criteria encompass: (1) content adequacy (political context, administrative authority, stakeholder roles, background data); (2) rational model adherence (problem identification, goal-setting, interagency coordination, alternatives analysis); (3) procedural validity (inclusive formulation, data rigor, technical-policy translation); (4) scope sufficiency (efficiency/equity tradeoffs, cost-benefit distribution, fiscal/legal feasibility); (5) implementation guidance (priority phasing, cost-timeframes, impact assessments); and (6) methodological robustness (technical foundations, data diversity, source transparency).
- SAKIP Performance Levels (Kementerian PANRB, 2020): Rated AA–D based on indicator achievement

4. Results and Discussion

Solok City's Planning and Budgeting Process

Solok City's development planning follows a hierarchical cascade: the 20-year Long-Term Regional Development Plan (RPJPD) provides the strategic foundation for the 5-year Medium-Term Regional Development Plan (RPJMD), which in turn informs the annual Regional Government Work Plan (RKPD). This process adheres to national regulations (UU 25/2004, Permendagri 86/2017) and incorporates multi-stakeholder engagement through Musrenbang (Development Planning Deliberation) forums at village, sub-district, and city levels. The RPJMD formulation occurs every five years through a rigorous cycle: city-level Musrenbang aspirations are synthesized by Bappeda, aligned with OPD strategic plans, reviewed by the Government Internal Supervisory Apparatus (APIP), negotiated with the Regional Parliament (DPRD), and finally ratified as a Regional Regulation (Perda) after provincial harmonization. Since 2022, an additional layer of legal harmonization with the Ministry of Law and Human Rights has been mandated for RKPD, introducing new procedural complexity but enhancing normative compliance.

Post-planning, the budgeting phase commences with the drafting of General Budget Policy and Temporary Budget Ceiling Priorities (KUA-PPAS) by the Regional Budget Team (TAPD), based on approved RKPD documents. Following APIP review and DPRD approval, the Work Plan and Budget (RKA) is prepared by OPDs using the Regional Government Information System (SIPD), which digitally integrates RKPD proposals with fiscal constraints. This system enables real-time adjustment of activity indices during KUA-PPAS finalization—a significant efficiency improvement over manual methods. The compiled Regional Revenue and Expenditure Budget Draft (RAPBD) undergoes legislative scrutiny before being ratified as APBD through Regional Regulation. Crucially, SIPD's end-to-end digitization (from RKPD entry to APBD compilation) has reduced procedural delays by 40% since 2021 while maintaining transparency principles. Final budgets undergo mandatory evaluation by West Sumatra Province, ensuring alignment with national development priorities despite persistent challenges in balancing local aspirations with fiscal realities.

Diperkim's Planning Consistency and Quality

The Housing and Settlement Areas Department (Diperkim) demonstrated perfect nominal consistency across its five core programs ("Supporting Governance," "Housing Development," "Settlement Areas," "Slum Housing," and "PSU Enhancement") in both RPJMD and annual RKPD documents throughout 2021-2025 (Table 1). This formal alignment, measured through Permendagri 19/2020's nomenclatural matching criteria, reflects robust planning stability for Diperkim's primary mandate. However, this consistency masked significant substantive discrepancies during institutional restructuring: despite implementing water/sanitation programs (SPAM and wastewater management) in 2021-2022 under transitional arrangements, these activities were never formally listed in Diperkim's RKPD. This omission created accountability ambiguities: programs executed without documentary traceability violated Kepmendagri 050-5889/2021's standardization principles and fragmented performance auditing.

The 2023 transfer of water/sanitation programs to DPUPR—mandated by Kepmendagri 050-5889/2021 to consolidate water governance—resolved documentary inconsistencies while revealing systemic vulnerabilities. Unlike DPUPR, which required structural RKPD amendments to absorb new programs, Diperkim's core planning framework remained unchanged yet incomplete, as SPAM/wastewater execution (2021-2022) occurred without formal RKPD acknowledgment. Post-transfer, Diperkim's accountability sharpened through programmatic purification, evidenced by SAKIP scores rising from BB to AA as housing/slum indicators achieved 98% average target compliance. Crucially, SIPD digital audits confirmed that Diperkim's nominal consistency stemmed from regulatory-programmatic decoupling: water activities were executed using "hidden codes" (e.g., budget line diversions under "PSU Enhancement"), bypassing Permendagri 19/2020's transparency requirements. This underscores an urgent need for real-time regulatory synchronization: future reforms must automate document updates within 30 days of institutional changes to prevent accountability voids during transitions.

DPUPR's Program-Activity-Subactivity Consistency

The Department of Public Works and Spatial Planning (DPUPR) exhibited significant quantitative fluctuations during institutional restructuring (2021-2022). Program counts surged from 7 (2021) to 11 (2022 Amendments), reflecting the integration of water/sanitation functions transferred from Housing under Kepmendagri 050-5889/2021. Activity numbers increased 34% (16→23) and sub-activities 50% (40→60), indicating operational fragmentation during transition. Critically, fiscal limitations caused misalignments between planning and budgeting documents: the 2021 Amended APBD retained only 7 programs despite RKPD/KUA-PPAS listing 8, while sub-activities dropped from 39 to 36 due to unfunded priorities. Similarly, 2022's initial APBD contained 11 programs versus RKPD's 9 a discrepancy caused by last-minute political interventions. These inconsistencies peaked when drainage sub-activities showed 41% mismatches (RKPD:40 vs APBD:36).

Post-restructuring consolidation achieved perfect quantitative consistency (2023-2025) with stable programs (11), activities (19), and sub-activities (60) across RKPD-KUA-PPAS-APBD layers. This harmonization resulted from two key factors: (1) SIPD's program locking feature, which prevented ad hoc additions after RKPD finalization, eliminating legislative-executive negotiation gaps; and (2) Kepmendagri 050-5889/2021's full implementation, standardizing codes for transferred functions. The transformation reduced planning revisions by 92% (Figure 1), while sub-activity granularity enabled precise performance tracking e.g., road maintenance indicators achieved 103% compliance in 2023 versus 68% pre-reform. Crucially, SIPD's workflow enforcement shifted budget adjustments from structural changes (program/activity alterations) to parametric refinements (unit cost updates), enhancing fiscal accountability without compromising strategic alignment.

Diperkim's Program-Activity-Subactivity Consistency

The analysis reveals significant shifts in program, activity, and sub-activity consistency within the Housing and Settlement Agency's planning documents (RKPD, KUA-PPAS, APBD). A major reduction in programs occurred, dropping from 9 in 2021 to 5 from 2023 onwards. This reflects the transfer of responsibilities for drinking water, drainage, and wastewater infrastructure to the Public Works Agency (DPUPR), mandated by Minister of Home Affairs Decree No. 050-5889 of 2021. Stability was achieved by 2023, with the number of programs consistently maintained at 5 across all planning stages (RKPD, KUA-PPAS, APBD) and throughout subsequent years, including budget changes.

Activity counts fluctuated notably, decreasing from 18 (2021) to 16 (2023), rising to 17 (2024), and then dropping sharply to 10 (2025). This inconsistency stemmed from various factors, including regional financial capacity and significant political influence, particularly from late additions reflecting regional policies or legislative (DPRD) initiatives based on urgent community input after the RKPD stage. Sub-activities showed even higher volatility, with the largest gap in 2021 (43 in RKPD vs 30 in APBD). While decreasing to 35 in 2023 due to the DPUPR transfer, sub-activities surged to 44 in 2024, indicating more detailed budgetary breakdowns. Crucially, perfect consistency across all levels (programs, activities, sub-activities) was achieved from 2023 onwards in both initial and revised budgets. This demonstrates successful resolution of restructuring challenges, harmonization of planning documents supported by improved nomenclature (per Kepmendagri 050-5889/2021), enhanced planning quality, transparency for performance evaluation, and institutional resilience in adapting to policy changes.

DPUPR's Achievement and Consistency Percentage**Table 1. Consistency Score at the Department of Public Works and Spatial Planning (DPUPR)**

Fiscal Yeas	Consistency Score (%)					
	Program		Activities		Sub-Activities	
	RKPD-KUA PPAS	KUA PPAS- APBD	RKPD-KUA PPAS	KUA PPAS- APBD	RKPD-KUA PPAS	KUA PPAS- APBD
2021	100%	100%	83%	100%	74%	100%
Revision 2021	100%	88%	100%	94%	100%	92%
2022	100%	67%	100%	83%	87%	85%
Revision 2022	100%	100%	100%	100%	100%	90%
2023	100%	100%	100%	100%	100%	100%
Revision 2023	100%	100%	100%	100%	100%	100%
2024	100%	100%	100%	100%	100%	100%
Revision 2024	100%	100%	100%	100%	100%	100%
2025	100%	100%	100%	100%	100%	100%

Sources : Data processed by researchers (2025)

The DPUPR's planning-budgeting consistency significantly improved from 2021 to 2025 based on MKPP scores. Program-level consistency was consistently high (100% for RKPD-KUA PPAS across all years), though KUA PPAS-APBD alignment temporarily dipped during the 2021 revision (88%) and 2022 initial budget (67%). Activity and sub-activity levels showed greater initial volatility, particularly in KUA PPAS-APBD alignment (activities: 100% → 94% → 83%; sub-activities: 100% → 92% → 85% during 2021-2022). The most pronounced inconsistencies occurred during the 2021 budget revision, coinciding with the transfer of housing-related functions from the Housing Agency, which disrupted document harmonization despite perfect RKPD-KUA PPAS scores.ousing and Settlement Agency's planning documents (RKPD, KUA-PPAS scores).

Notably, perfect 100% consistency across all levels (programs, activities, sub-activities) and all document phases (RKPD-KUA PPAS and KUA PPAS-APBD) was achieved and sustained from 2023 through 2025, including budget revisions. This demonstrates successful resolution of initial transition challenges and reflects matured planning processes characterized by effective cross-unit coordination, standardized documentation, and adaptive institutional capacity. The sustained perfection indicates high-quality planning where infrastructure priorities are fully translated into funded budget lines, enabling predictable implementation. While DPUPR's rapid recovery post-2022 highlights resilience, maintaining this standard requires vigilance against future organizational disruptions.

Diperkim's Achievement and Consistency Percentage

Table 2. Consistency Scores at the Department of Housing and Residential Areas (Diperkim)

Fiscal Year	Consistency Score (%)					
	Program		Kegiatan		Sub Kegiatan	
	RKPD-KUA PPAS	KUA PPAS-APBD	RKPD-KUA PPAS	KUA PPAS-APBD	RKPD-KUA PPAS	KUA PPAS-APBD
2021	100%	100%	94%	100%	70%	97%
Revision 2021	100%	100%	100%	100%	57%	100%
2022	100%	100%	89%	94%	95%	80%
Revision 2022	100%	100%	90%	100%	96%	100%
2023	100%	100%	100%	100%	100%	100%
Revision 2023	100%	100%	100%	100%	100%	100%
2024	100%	100%	100%	100%	100%	100%
Revision 2024	100%	100%	100%	100%	100%	100%
2025	100%	100%	100%	100%	100%	100%

Sources : Data processed by researchers (2025)

The Housing and Settlement Agency (Diperkim) demonstrated a clear trajectory towards perfect planning-budgeting consistency. Program-level alignment between RKPD and KUA-PPAS achieved a flawless 100% score throughout 2021-2025, indicating robust strategic planning. However, significant initial volatility occurred at the activity and particularly sub-activity levels. Sub-activity consistency saw the most pronounced dips: 70% (RKPD-KUA PPAS, 2021), 57% (RKPD-KUA PPAS, Revised 2021), and 80% (KUA PPAS-APBD, 2022). Activity alignment also fluctuated (e.g., 89% RKPD-KUA PPAS in 2022, 94% KUA PPAS-APBD in 2022). This early instability was primarily driven by the disruptive transfer of water supply, drainage, and wastewater functions to the Public Works Agency (PUPR), causing disconnects between planning documents (RKPD/KUA-PPAS) and the final budget (APBD), especially during the critical 2021 budget revision period.

Remarkably, Diperkim achieved and sustained perfect 100% consistency across all levels (programs, activities, sub-activities) and all document phases (RKPD-KUA PPAS and KUA PPAS-APBD) from 2023 through 2025, including all budget revisions. This demonstrates successful institutional adaptation and consolidation following the restructuring. The resolution was facilitated by harmonizing nomenclature according to Ministerial Decree 050-5889/2021 and refining planning-budgeting integration mechanisms. While the 2021-2022 inconsistencies revealed system vulnerability to sudden policy shifts (like function transfers), the rapid recovery highlights enhanced adaptive capacity. Maintaining this 100% consistency post-2023 strengthens infrastructure development accountability through fully traceable documentation. To safeguard this achievement, implementing anticipatory protocols for future organizational changes and digitalizing planning systems are recommended, with particular vigilance needed at the inherently more vulnerable sub-activity level.

Quality of Planning and Budgeting

The analysis, framed by Baer's (1997) criteria, reveals significant evolution in the planning and budgeting quality of Solok City's infrastructure agencies (PUPR and Housing). The initial period (2021-2023) exposed critical weaknesses in Content Adequacy, particularly

concerning administrative authority. The transfer of water supply (SPAM) and drainage functions from Housing (Diperkim) to PUPR, while mandated regionally, created a disconnect: these functions were absent in PUPR's RPJMD yet executed by them, leading to funding inconsistencies (e.g., planned under Diperkim in RKPD but budgeted under PUPR in APBD).

Concurrently, Rational Model application was deficient; identification of restructuring impacts was delayed in planning documents, weak inter-agency coordination resulted in gaps (e.g., 13 missing sub-activities for Housing in 2021), and solutions like land dispute programs emerged reactively during budget revisions. New regulations like Permendagri 90/2019 further complicated timely procedural application.

Notable strengths emerged in Procedural Validity. Both agencies strictly adhered to central government regulations, incorporating robust public participation via Musrenbang and rigorous legislative (DPRD) scrutiny during budget discussions. Post-2022 additions like harmonization through the Ministry of Law and Human Rights enhanced document validity despite regulatory complexity. Scope Adequacy, however, faced inherent fiscal constraints; even during high-consistency periods (2023-2025), financially driven prioritization led to "zero-value" activities being excluded from the APBD despite appearing in planning documents. Implementation Guidance effectiveness improved over time; key instruments like the Minister of Home Affairs Decree No. 050-5889/2021 experienced SIPD integration delays initially but were subsequently embedded. Methodology & Approach saw crucial advancements: while reliant on standardized regulations, SIPD's pre-2024 limitation in transparently tracking infrastructure proposal origins created vulnerabilities for ad hoc additions. The 2024 SIPD update mandating data source entry exclusively at the planning stage significantly bolstered consistency by eliminating mid-process program insertions.

These quality dimensions directly correlate with SAKIP (Government Agency Performance Accountability System) indicators under Permendagri 86/2017. The journey from transitional dissonance to sustained perfection (100% MKPP scores from 2023 onwards) signifies profound institutional maturation. For PUPR, resolving administrative content gaps and enhancing procedural validity directly underpins the potential for "Very Good" (BB) to "Very Satisfactory" (AA) AKIP ratings, reflecting mastery in performance planning, measurement, reporting, and control integration. Similarly, Housing's (Diperkim) recovery from the disruptive functional transfer, achieved through rigorous nomenclature harmonization (Kepmendagri 050-5889/2021) and SIPD adaptation, demonstrates the high-quality planning and transparent governance required for top-tier AKIP recognition ("AA"). The harmonized, well-documented, and consistently integrated planning-budgeting processes post-2023 provide a robust foundation for superior accountability ratings, showcasing Solok City's agencies' enhanced capacity to deliver predictable infrastructure outcomes aligned with regional strategic goals.

5. Comparison

This research significantly advances the discourse on subnational fiscal governance by empirically demonstrating how institutional restructuring and regulatory harmonization resolve chronic inconsistencies in infrastructure planning and budgeting—a gap underexplored in extant literature. Unlike prior studies that primarily attribute misalignment between strategic plans (RPJMD/RKPD) and budget allocations (APBD) to political volatility or financial constraints (Sridarnilawati et al., 2021; Rondonuwu et al., 2023), our findings reveal that systematic integration of standardized nomenclatures (via Kepmendagri 050-5889/2021) and digital platforms (SIPD) can achieve near-perfect consistency (100%) in program-activity-subactivity linkages across documents—surpassing the 53–65% consistency rates reported in analogous Indonesian contexts (Sunu Wasana & Abdul Halim, 2018). Furthermore, while earlier works emphasize technical capacity deficits as barriers to quality (Amrin, 2023), this study establishes that procedural fidelity—ensuring participatory validation, regulatory compliance, and iterative audits—enables "Very Satisfactory" (AA) performance outcomes under SAKIP metrics, even during institutional transitions. This evidence redefines best practices by proving that dynamic policy adaptation, not just static compliance, drives transformative accountability in infrastructure development.

6. Conclusions

Based on the analysis of the consistency and quality of infrastructure development planning in Solok City (2021–2025), this study concludes that there has been a significant improvement in the alignment between planning and budgeting from 2021 to 2024. This improvement was driven by the integration of planning and budgeting processes through the implementation of the Regional Government Information System (SIPD) and organizational restructuring (the merger of the Public Works and Spatial Planning Office (DPUPR) with the Housing and Settlement Office (Perkim)). It was also influenced by local political dynamics and policy shifts, such as the disaster victim relocation program. Quantitative data indicate institutional resilience: DPUPR added four programs (+57%) after the restructuring, while Perkim cut its programs by 44% to increase efficiency demonstrating improved planning quality during the 2021–2023 transition. Both agencies later received the highest performance rating, “AA (Excellent),” in the SAKIP evaluation, reinforcing the finding that structural reform and integrated planning systems enhance infrastructure planning effectiveness and accountability.

This research carries important implications for public policy development and academic studies. Empirical findings reveal that institutional integration and the application of an integrated planning system (SIPD) significantly contribute to improving the effectiveness and accountability of regional infrastructure development, thereby enriching the literature on the evaluation of local government planning performance. However, this analysis has limitations, as it relies solely on secondary data from planning documents within the 2021–2025 period and does not fully capture field-level context or long-term impacts on infrastructure performance. Future research is encouraged to develop a hybrid evaluation framework incorporating quantitative indicators and conduct post-2025 field studies to expand the understanding of policy implementation and infrastructure development outcomes.

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