Rethinking ISO 31000 Principles for Local Government Loan Risk Management

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Background and Research Gap

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Context

Decree No. 114-5467 of 2022 sets a formal risk management framework for the Directorate General of Regional Financial Development, Ministry of Home Affairs.

Problem

Local loans are complex: high infrastructure financing needs, fiscal policy dynamics, and loan restructuring in 2025. A formal framework alone is not enough; risk management must become substantive.

Research gap

Most literature on local government loans takes the local government as the unit of analysis. Few studies ask how the central regulator should apply ISO 31000 to its own mandate.

Objective and Method

Objective

Reconceptualise how the eight ISO 31000 principles can guide the central regulator in managing risks of local government borrowing, and formulate how they should ideally be implemented.

1. **Literature review (Snyder, 2019)**
   ISO 31000:2018, relevant regulations, and 31 journal articles chosen purposively for relevance to local borrowing and risk management

2. **Thematic synthesis (Braun & Clarke, 2006)**
   Articles coded into themes and mapped to the eight ISO 31000 principles

3. **Framework formulation**
   Principles grouped into three pillars and one operational foundation

Eight Principles, Three Pillars, One Foundation

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Pillar 1

Integration & Inclusion

Integrated; Inclusive

8

articles mapped

Pillar 2

Continuous Learning

Continual Improvement; Structured

9

articles mapped

Pillar 3

Dynamic Adaptation

Dynamic; Best Available Information

11

articles mapped

Foundation

Operational Foundation

Customized; Human and Cultural Factors

3

articles mapped

8 + 9 + 11 + 3 = 31 articles. Each mapping is justified on the following slides.

Pillar 1: Integration and Inclusion: Findings

Integrated and Inclusive

- Embed risk analysis in the regulator's whole mandate cycle: loan-consideration working paper, monitoring of withdrawal and repayment, problem-resolution coordination
- Risk evaluation must shape every recommendation, not end in the annual risk register
- Involve technical units in preparing the risk register and coordinate with other ministries

Link to Gov. Regulation 1/2024

Arts. 41(7) and 46(5): risk assessment in loan considerations
Arts. 66(1)-(2): monitoring, evaluation, coordination
Arts. 41(10)-(11): joint discussion with regulator-appointed representatives

Pillar 1: Why These 8 Articles

Article	ISO 31000 principle	Reason for mapping
Dwitya (2024)	Integrated	Loans stem from development and public-service needs, so risk starts at planning and must be integrated there.
Jehalut et al. (2024)	Integrated	Borrowing follows project financing needs and PP 56/2018 requirements; risk checks belong inside that process.
Abdurohim (2022)	Integrated	Loans and installments shape regional spending, so risk must be weighed together with budget planning.
Ilmiddaviq (2018)	Inclusive	Transfers and political factors drive borrowing, so managing it involves intergovernmental stakeholders.
Qu et al. (2023)	Inclusive	Regional competition fuels debt and central regulation curbs it, requiring cross-government coordination.
Miao (2016)	Integrated	Debt risk control depends on how authority, responsibility, and interests are designed into decision processes.
Ginting et al. (2023)	Integrated; Inclusive	Risk management runs from planning to oversight of village funds, with citizen participation.
Liwang et al. (2024)	Integrated; Inclusive	Closest ISO 31000 case in local government: risk management embedded in process and involving units.

Pillar 2: Continuous Learning: Findings

Continual Improvement and Structured

- Learn from every restructuring case: analyze root causes and feed them back into updated risk criteria
- Treat audit and inspection as policy-improvement instruments, not compliance enforcement
- Use standard parameters: financial independence, debt ratios, fiscal stress, and DSCR against the 2.5 minimum

Link to Gov. Regulation 1/2024

Arts. 41(7) and 46(5): three criteria (regional authority, planning and budget documents, funding synchronization)
Art. 66(3): debt financing problems
Internal SOPs needed: Decree 114-5467/2022 and the regulation lack technical elaboration

Pillar 2: Why These 9 Articles

Article	ISO 31000 principle	Reason for mapping
Nasution (2024)	Structured; Cont. Improvement	Debt-fiscal stress link gives parameters for policy evaluation and feedback to risk criteria.
Rohmadani et al. (2024)	Structured	Independence and debt-ratio indicators give measurable, repeatable parameters for loan assessment.
Anggraini et al. (2025)	Structured	DSCR measured against the 2.5 minimum is a standard, measurable assessment criterion.
Dewi et al. (2024)	Structured	A DSCR of -76.98 against the 2.5 threshold shows consistent use of standard criteria.
Lewis (2003)	Continual Improvement	Repayment failure reflects unwillingness to pay and permissive central behavior: institutional feedback is needed.
Surya (2016)	Continual Improvement	Compares repayment 5 years before and after the 2008 restructuring: learning from restructuring cases.
Lin et al. (2022)	Structured; Cont. Improvement	The 2015 audit reform reduced excess debt: audit as a structured improvement tool.
Zhang et al. (2024)	Structured; Cont. Improvement	Inspection supervision lowered local debt risk, supporting structured monitoring and review.
Setiawan et al. (2025)	Continual Improvement	Policy aligned with standards but not internalized: shift from compliance to reflective learning.

Pillar 3: Dynamic Adaptation: Findings

Dynamic and Best Available Information

- Respond to external shocks, fiscal pressure, and risk spillovers across regions
- Add an early warning system to detect fiscal deterioration before default
- Base decisions on accurate, current data: ratios, DEA, monthly indices, and text-based deep learning

Link to Gov. Regulation 1/2024

Art. 43(5): extended repayment through agreement amendments in emergencies
Art. 69(1): semester debt reports; enrich with budget realization, fiscal capacity, and environment analysis

Pillar 3: Why These 11 Articles

Article	ISO 31000 principle	Reason for mapping
Wiyanti & Halimatussadiah (2021)	Dynamic	Disasters strain regional fiscal balance: a direct external shock the framework must respond to.
Castillo et al. (2022)	Dynamic	Debt stays sustainable, yet random shocks can worsen finances: risk must be managed adaptively.
Huo et al. (2023)	Dynamic	Fiscal decentralization and competition raise debt risk, with temporal inertia and spatial correlation.
Li et al. (2021)	Dynamic	Debt risk shows spatial correlation and spillovers, so oversight must adapt across regions.
Wei et al. (2026)	Dynamic; Best Avail. Info	Risk varies across space and time; a 1% rise in neighbor risk lifts local risk by 0.2467%.
Fang et al. (2026)	Dynamic	SVAR shows the fiscal position as a transmission hub, with debt risk feeding back into finances.
Li et al. (2022)	Dynamic; Best Avail. Info	Early warning system combining individual, contagion, static, and dynamic risk via machine learning.
Ping et al. (2026)	Best Avail. Info; Dynamic	A monthly risk index (MF-DFM) improves timeliness and shows that risk is not static.
Aribowo et al. (2023)	Best Avail. Info	Ratio-based assessment of financial performance risk from current financial data.
Kluza (2017)	Best Avail. Info	Ratio analysis and DEA allow quarterly monitoring from municipal financial statements.
Guo et al. (2022)	Best Avail. Info	Deep learning on annual government work reports detects concentrations of debt risk.

Operational Foundation: Findings

Customized and Human and Cultural Factors

- Customized: supervision proportional to region, fiscal resources, and issuer type, not generic
- Human and Cultural Factors: turn risk appetite into guidelines analysts can use, and build capacity routinely
- Without a clear risk appetite statement and a risk-aware culture, ISO 31000 becomes a procedural formality

Link to Gov. Regulation 1/2024

Art. 63(2): Regional Heads set debt management strategies including risk control; the regulator supervises their quality
Art. 63(3): capable regional debt management units

Operational Foundation: Why These 3 Articles

Article	ISO 31000 principle	Reason for mapping
Sipayung & Ardiani (2022)	Human and Cultural Factors	Calls for a clear risk appetite statement and a risk culture that makes decisions risk-aware.
Liu et al. (2025)	Customized	Debt governance raises resilience more in the northwest and in fiscally limited areas: context matters.
Wang et al. (2024)	Customized	Implicit debt governance works differently by issuer type and fintech development: fit it to the entity.

Conclusion and Contribution

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Three strategic shifts

1. Integrate risk analysis into the whole decision-making cycle
2. Build a continuous learning system from restructuring cases
3. Adapt dynamically using accurate, real-time data

Supported by a proportional framework and a risk-aware culture.

Contribution

An ISO 31000 implementation guide for the central regulator, moving risk management from an administrative register to the basis of policy decisions.

Limitation and future research

Literature review only, without field validation. Future studies should test the framework through empirical case studies in relevant government agencies.

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Thank You