Architecture Image Studies

Vol.7, Issue 1, pp.618-636, 2026
DOI: https://doi.org/10.62754/ais.v7i1.890

https://journals.ap2.pt/index.php/ais/index

Sustainability Reporting in Emerging Markets: An Analysis of IFRS S1 and S2 Implementation at Telkom Indonesia

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Abstract

This research undertakes a focused analysis of the implementation of IFRS S1 and S2 principles within Telkom Indonesia, a prominent state-owned enterprise and market leader in the nation's telecommunications and digital services sector. Given its strategic importance, Telkom's approach to sustainability reporting serves as a critical case study for the broader Indonesian and emerging market contexts. The methodology employed involves a comprehensive document analysis, primarily scrutinizing Telkom Indonesia's 2024 Sustainability Report, complemented by an understanding of relevant global reporting standards and local regulatory developments.Key findings indicate Telkom's strong proactive alignment with IFRS S1 and S2 principles across governance, strategy, risk management, and metrics, demonstrating a mature approach to integrating sustainability. While showcasing significant achievements in transparency and commitment, the analysis also identifies inherent challenges, including the complexities of data collection and integration, alongside opportunities for further enhancement. The implications extend beyond Telkom, offering valuable insights for other emerging market companies navigating the new reporting landscape and informing policymakers on the critical role of regulatory support and capacity building in fostering a truly sustainable financial ecosystem.

Keywords: *IFRS S1, IFRS S2, Sustainability Reporting, Climate-related Disclosure, Corporate Governance, SDG 9: Industry, Innovation and Infrastructure, SDG 12: Responsible Consumption and Production, SDG 13: Climate Action, SDG 16: Peace, Justice and Strong Institutions.*

Introduction

The dawn of the 21st century has brought an undeniable shift in global priorities, characterized by escalating concerns over climate change, persistent social inequality, and recurring governance failures. These multifaceted challenges have increasingly underscored the imperative for corporations to move beyond purely financial performance and embrace a broader commitment to sustainability. This paradigm shift has not only been driven by ethical considerations but also by pragmatic business realities. The ability of companies to manage their environmental footprint, foster equitable social practices, and uphold robust governance structures is now widely recognized as a critical determinant of long-term value creation and resilience. This evolving landscape has, in turn, fuelled an escalating demand from a diverse array of stakeholders – including investors, regulators, customers, and civil society organizations – for transparent, comparable, and reliable sustainability information. The evolution of sustainability reporting practices has increasingly aligned with global development priorities such as the SDGs, with research trends emphasizing links to stakeholder engagement, governance, and transparency (Raman, et al., 2023). In response, Environmental, Social, and Governance (ESG) factors have rapidly ascended to prominence, becoming integral considerations in investment decisions and risk assessments across global capital markets.

Sustainability Reporting in Emerging Markets

While the global momentum towards corporate sustainability is undeniable, its manifestation in emerging markets presents a unique and complex tableau. These economies are characterized by

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rapid economic growth, often accompanied by a significant reliance on natural resources and rapidly evolving regulatory landscapes. Furthermore, the maturity of corporate governance frameworks can vary considerably across these regions. These unique characteristics give rise to specific challenges in sustainability reporting, including the pervasive issue of data availability and quality, limited capacity within organizations to collect and analyze sustainability metrics, and the influence of cultural factors and political dynamics on corporate transparency. Nevertheless, emerging markets also present substantial opportunities. They possess the potential to "leapfrog" older, less comprehensive reporting standards, directly adopting cutting-edge frameworks. This proactive approach can significantly enhance their attractiveness to a growing pool of sustainable investment capital, thereby fostering more resilient and equitable economic development.

The Advent of IFRS Sustainability Disclosure Standards (S1 & S2)

Recognizing the urgent need for a globally consistent and comparable baseline for sustainability disclosures, the International Financial Reporting Standards (IFRS) Foundation established the International Sustainability Standards Board (ISSB) in November 2021. The ISSB's genesis represents a culmination of various international initiatives, notably drawing heavily from the recommendations of the Task Force on Climate-related Financial Disclosures (TCFD) and the industry-specific guidance provided by the Sustainability Accounting Standards Board (SASB (Telkom Indonesia, 2024)). In June 2023, the ISSB released its inaugural standards: IFRS S1, "General Requirements for Disclosure of Sustainability-related Financial Information," and IFRS S2, "Climate-related Disclosures." Companies that have adopted the TCFD Recommendations are significantly better prepared to comply with the disclosure requirements [of IFRS S2] (Baboukardos, Seretis, Slack, & Tsalavoutas, 2022).

IFRS S1 sets out the overarching requirements for disclosing material sustainability-related financial information, emphasizing the connectivity between sustainability and financial statements. It mandates disclosures across four core content areas: governance (how the organization oversees sustainability-related risks and opportunities), strategy (how sustainability factors influence the organization's business model and strategy), risk management (how the organization identifies, assesses, and manages sustainability-related risks), and metrics and targets (performance measures and goals related to sustainability). Building upon the robust framework of TCFD recommendations, IFRS S2 specifically addresses climate-related disclosures, mirroring the four core content areas of S1 but with a distinct focus on climate-specific governance, strategy, risk management, and metrics and targets, including Scope 1, 2, and 3 greenhouse gas emissions. The fundamental aim of these pioneering standards is to establish a truly global baseline of high-quality, comprehensive, comparable, and verifiable sustainability-related financial information, enabling informed decision-making by investors and other capital market participants.

Telkom Indonesia as a Case Study

This paper elects to focus on Telkom Indonesia as a compelling case study to examine the practical implications of adopting the IFRS Sustainability Disclosure Standards. Telkom Indonesia, as the leading state-owned telecommunications company in a prominent emerging market, holds significant economic and social influence within the nation. Its extensive scale and intricate operational landscape render it a particularly relevant subject for analysing the complexities of sophisticated sustainability reporting. Furthermore, given its prominent position, Telkom Indonesia is highly likely to be at the forefront of sustainability initiatives and early adoption efforts among Indonesian companies, making its experience a valuable harbinger for broader market trends.

Research Questions

This study seeks to answer the following research questions:

- How has Telkom Indonesia historically approached sustainability reporting?
- To what extent do Telkom Indonesia's current sustainability disclosures align with the principles and requirements of IFRS S1 and S2?
- What are the key opportunities and challenges faced by Telkom Indonesia in implementing IFRS S1 and S2?
- What are the implications of Telkom's experience for other emerging market companies seeking to adopt IFRS S1 and S2?

Structure of the Paper

The remainder of this paper is structured as follows: Section 2 provides a comprehensive review of the relevant literature on sustainability reporting, ESG integration, and the development of international sustainability standards. Section 3 outlines the research methodology employed in this study, including data collection and analysis techniques. Section 4 presents the findings of the historical analysis of Telkom Indonesia's sustainability reporting. Section 5 assesses Telkom Indonesia's current disclosures against the requirements of IFRS S1 and S2. Section 6 discusses the opportunities and challenges of IFRS S1 and S2 implementation for Telkom Indonesia. Finally, Section 7 concludes the paper with a summary of key findings, implications for other emerging market companies, and recommendations for future research.

Literature Review

The burgeoning interest in corporate sustainability and its disclosure is underpinned by a rich and evolving body of literature and several foundational theoretical perspectives. This section delves into the historical trajectory of sustainability reporting, explores the unique landscape of its implementation in emerging markets, provides a detailed overview of the newly introduced IFRS Sustainability Disclosure Standards (S1 & S2), and finally, articulates the theoretical frameworks that lend analytical rigor to this study.

Evolution of Sustainability Reporting Standards

The journey of corporate sustainability reporting has been one of gradual maturation, transitioning from nascent, voluntary disclosures to increasingly standardized and globally harmonized frameworks. Early initiatives in the late 20th century primarily focused on Corporate Social Responsibility (CSR) reports, often ad-hoc and philanthropic in nature, alongside environmental reports that detailed a company's ecological footprint. These early efforts, while commendable, often lacked comparability and verifiability, limiting their utility for external stakeholders.

In addition to the global momentum toward standardized sustainability disclosure, academic literature also emphasizes the economic rationale behind making such standards mandatory. Standards are a public good that neither investors nor companies have the economic incentive to provide. Comparability is not entity-specific and so is a positive externality that is likely to be under-provided in the absence of standards (Barker, 2025). This underscores the critical role of regulatory bodies in ensuring that sustainability reporting does not rely solely on market forces, which are insufficient to guarantee transparency and comparability across entities.

A significant leap forward came with the development of the Global Reporting Initiative (GRI) in 1997. GRI swiftly emerged as the de facto global standard for sustainability reporting, providing a comprehensive framework for reporting on economic, environmental, and social performance. Its modular structure and emphasis on stakeholder inclusivity led to its widespread adoption by thousands of organizations worldwide. Over the years, GRI has continuously evolved, introducing updated versions (e.g., G4, Universal Standards) to enhance clarity, relevance, and impact (Global Sustainability Standards Board (GSSB), 2023). Its dominance established a common language for sustainability disclosures, even if its voluntary nature meant varying levels of adoption and quality. However, increasing standardization may not always lead to increased transparency. A longitudinal study of Norwegian firms showed that while report content rose by 90% and GRI standards expanded by over 500%, actual transparency improved by only 18%, suggesting diminishing returns from excessive standardization (van Oorschot, Aas Johansen, Lynes Thorup, & Aspen, 2024). This insight raises concerns about the unintended effects of complex sustainability frameworks and calls for a more balanced approach.

However, quality challenges remain. These include ongoing debates around the nature of materiality particularly single versus double materiality as well as the need for better contextualization to improve comparability and credibility. Additionally, assurance has not been mandatory under GRI, although recent EU-level developments may drive the incorporation of GRI principles into primary assurance standards (Luque-Vílchez, Cordazzo, Rimmel, & Tilt, 2023). Building on the GRI's success in standardizing sustainability disclosures, the concept of Integrated Reporting (IR) subsequently gained traction, advocated by the International Integrated Reporting Council (IIRC) formed in 2010. IR sought to bridge the traditional divide between financial and non-financial reporting by presenting a holistic view of a company's value creation process across different capitals (financial, manufactured, intellectual, human, social and relationship, natural). The core aim was to demonstrate how an organization's strategy, governance, performance, and prospects in the short, medium, and long term relate to the external environment.

Concurrently, a growing recognition of the financial implications of climate change spurred the creation of the Task Force on Climate-related Financial Disclosures (TCFD) in 2015 by the Financial Stability Board (FSB). TCFD's recommendations provided a robust framework for companies to disclose climate-related financial risks and opportunities across four pillars: governance, strategy, risk management, and metrics and targets. Its emphasis on financial materiality and forward-looking disclosures significantly influenced the landscape of climate reporting. In parallel, the Sustainability Accounting Standards Board (SASB) developed industry-specific disclosure standards focusing on financially material sustainability issues for 77 industries. SASB's emphasis on financial materiality and its industry-specific approach made its standards particularly relevant for investors.

The proliferation of various standards, while offering choice, also created fragmentation and complexity for both preparers and users of sustainability information. This fragmentation ultimately propelled a global convergence movement, culminating in the formation of the International Sustainability Standards Board (ISSB) under the IFRS Foundation in 2021. The ISSB's mandate is to develop a global baseline of high-quality, comprehensive, comparable, and verifiable sustainability-related financial disclosures. This convergence effort, heavily leveraging the work of TCFD and SASB, directly led to the issuance of IFRS S1 and S2, aiming to bring sustainability reporting into closer alignment with financial reporting standards.

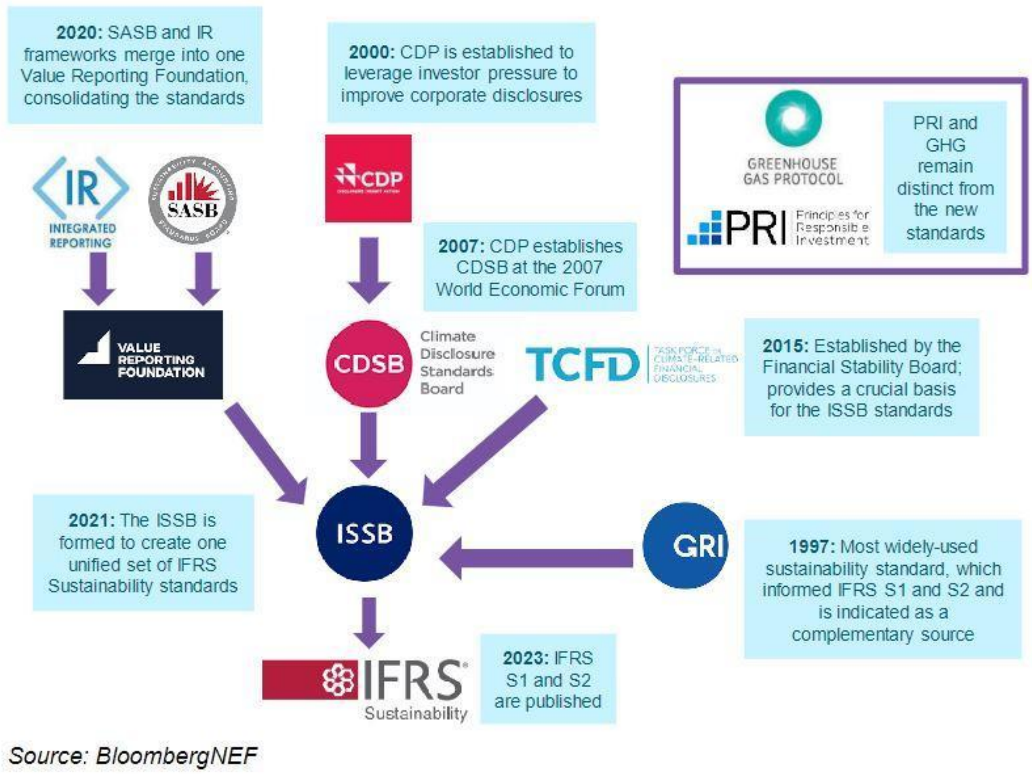

Figure 1. The Evolution of Sustainability Reporting Standards

Figure 2. Challenges and Opportunities of Sustainability

Sustainability reporting in emerging markets presents a distinct set of challenges and opportunities that differ significantly from those in developed economies challenge**s** include:

a. Data Quality and Availability: Often, the infrastructure for collecting and verifying robust sustainability data is less developed. Data may be fragmented, inconsistent, or simply unavailable, making comprehensive and accurate reporting difficult.

b. Regulatory Enforcement and Evolving Landscapes: While regulations are emerging, their enforcement can be inconsistent. The regulatory environment itself is often in flux, requiring companies to constantly adapt to new requirements and interpretations.

c. Capacity Building: There is often a significant gap in the expertise and human resources required to effectively implement sustainability reporting frameworks. This includes a lack of trained professionals in data collection, analysis, and reporting.

d. Cost of Reporting: Implementing comprehensive reporting frameworks can be resource-intensive, particularly for smaller companies or those with limited financial capacity. This includes costs associated with data management systems, external assurance, and training.

e. Greenwashing Concerns: The risk of "greenwashing" – companies misrepresenting their environmental or social performance – is heightened in environments with weaker regulatory oversight and less sophisticated stakeholder scrutiny.

f. Varying Stakeholder Expectations: Emerging markets often have a diverse array of stakeholders with different priorities, from local communities focused on immediate social impacts to international investors prioritizing global best practices. Reconciling these varied expectations in reporting can be complex.

g. Cultural Factors and Political Influence: Cultural norms and political dynamics can sometimes influence corporate transparency and the willingness to disclose potentially sensitive sustainability information.

Despite these challenges, significant opportunities exist:

a. Improved Access to Capital: Adopting international sustainability reporting standards can enhance a company's attractiveness to a growing pool of socially responsible and impact investors, opening doors to new sources of financing at potentially lower costs of capital.

b. Enhanced Reputation and Brand Image: Transparent and credible sustainability reporting can significantly boost a company's reputation among consumers, employees, and the wider public, strengthening its social license to operate.

c. Better Risk Management: The process of preparing sustainability reports compels companies to identify, assess, and manage sustainability-related risks (e.g., climate risks, supply chain disruptions, social unrest), leading to more robust enterprise risk management.

d. Operational Efficiencies: Reporting often uncovers opportunities for operational improvements, such as energy efficiency measures or waste reduction, leading to cost savings and improved resource allocation.

e. Meeting Regulatory Requirements: Proactive adoption of standards can help companies meet existing and anticipated regulatory requirements, avoiding penalties and fostering a smoother transition to a more sustainable operating model.

Overview of IFRS S1 (General Requirements for Disclosure of Sustainability-related Financial Information)

IFRS S1, "General Requirements for Disclosure of Sustainability-related Financial Information," serves as the foundational standard for sustainability disclosures, setting out the overarching requirements that apply to all sustainability-related financial information. Its core principles are materiality, emphasizing that information is material if omitting, misstating, or obscuring it could reasonably be expected to influence decisions that primary users of general purpose financial reports make on the basis of those reports, which provide financial information about a specific reporting entity. It also stresses connectivity, requiring disclosures to be linked to the financial statements and other general purpose financial reports, providing a holistic view of value creation. Finally, it demands fair presentation, ensuring that information accurately and completely reflects the sustainability-related financial information.

The standard requires disclosures across four key content areas, mirroring the TCFD framework:

a. Governance: This section mandates disclosure of the governance processes, controls, and procedures used to monitor, manage, and oversee sustainability-related risks and opportunities. This includes information on the board's oversight, management's role, and the processes for identifying and assessing material sustainability issues.

b. Strategy: Companies must describe the sustainability-related risks and opportunities that could reasonably be expected to affect their business model, strategy, and cash flows, access to finance, or cost of capital. This includes how the company's strategy addresses these issues and its resilience to related risks.

c. Risk Management: This area requires a description of the processes used to identify, assess, and manage sustainability-related risks, including how these processes are integrated into the entity's overall risk management.

d. Metrics and Targets: Companies are required to disclose metrics and targets used to measure and monitor their performance in relation to sustainability-related risks and opportunities, including progress towards achieving those targets.

A critical emphasis of IFRS S1 is on "sustainability-related financial information," meaning information that is useful for investors and other capital market participants in assessing the enterprise value of a company.

Overview of IFRS S2 (Climate-related Disclosures)

IFRS S2, "Climate-related Disclosures," builds directly on the recommendations of the TCFD and is designed to provide comprehensive, specific disclosures on climate-related risks and opportunities. Its direct lineage from TCFD means it also structures its requirements around the same four pillars:

1) Governance: Requires detailed disclosure of the organization’s governance around climate-related risks and opportunities, including the board’s oversight and management’s role in assessing and managing these issues.

2) Strategy: Demands information about the actual and potential impacts of climate-related risks and opportunities on the organization’s businesses, strategy, and financial planning. A key element here is the requirement for scenario analysis, where companies must assess the resilience of their strategy to different climate-related scenarios, including a 1.5°C scenario. This forward-looking element is crucial for investors.

3) Risk Management: Companies must describe the processes used to identify, assess, and manage climate-related risks, and how these processes are integrated into the organization's overall risk management.
4) Metrics and Targets: This section requires disclosure of the metrics used to assess and manage climate-related risks and opportunities. Crucially, it mandates the disclosure of Scope 1, 2, and 3 greenhouse gas (GHG) emissions, providing a comprehensive view of the company's carbon footprint. It also requires information about climate-related targets and progress made towards achieving them.

Furthermore, IFRS S2 emphasizes the importance of disclosing companies' transition plans to a lower-carbon economy and their strategies for building climate resilience, demonstrating how they are adapting to the physical and transition risks of climate change.

Theoretical Frameworks

Table 1. Theoretical Frameworks in Analyzing Telkom Indonesia's Sustainability Reporting

Framework	Core Idea	Relevance to Telkom Indonesia
Legitimacy Theory	Organizations seek societal approval to maintain legitimacy and reduce threats to their operations.	Telkom, as a state-owned enterprise, adopts IFRS S1/S2 to reinforce public trust and maintain a social license.
Stakeholder Theory	Companies are accountable to a broad range of stakeholders, not just shareholders.	Adoption of IFRS S1/S2 responds to growing demands from investors, regulators, and customers for transparent ESG data.
Institutional Theory	Organizations conform to environmental pressures (coercive, mimetic, normative) for legitimacy.	Telkom faces coercive (regulatory), mimetic (peer influence), and normative (professional norms) pressures to comply with ISSB standards.
Resource-Based View (RBV)	Unique internal capabilities, including sustainability practices, can offer competitive advantages.	High-quality IFRS S1/S2 reporting is seen as a strategic asset—enhancing reputation, efficiency, and innovation.

This study employs several theoretical frameworks to provide a robust analytical lens for understanding Telkom Indonesia's sustainability reporting practices and its transition to IFRS S1 and S2:

1. Legitimacy Theory: This theory posits that organizations continuously seek to ensure their operations are perceived as legitimate by society. Companies report sustainability information to gain or maintain a "social license to operate," thereby minimizing threats to their legitimacy from various stakeholders. For Telkom Indonesia, as a state-owned enterprise (SOE), maintaining legitimacy with the government, the public, and its customers is paramount. Adopting internationally recognized sustainability standards like IFRS S1 and S2 can be seen as a strategic move to reinforce its legitimacy and societal acceptance in the face of evolving expectations.
2. Stakeholder Theory: Developed by Edward Freeman, this theory argues that organizations are accountable to a broader set of stakeholders beyond just shareholders. These stakeholders include employees, customers, suppliers, communities, and regulators, all of whom have a legitimate interest in the company's operations and performance. Sustainability reporting, under this lens, is a mechanism for organizations to communicate with and respond to the diverse needs and expectations of these varied stakeholder groups. The adoption of IFRS S1 and S2 is a direct response to the increasing demands from investors, regulators, and other capital market stakeholders for high-quality sustainability information.
3. Institutional Theory: This framework suggests that organizations conform to institutional pressures from their environment to gain legitimacy and resources. These pressures can be categorized as:

a. Coercive pressures: Arising from regulations, laws, and mandates (e.g., government requirements for sustainability reporting). The adoption of IFRS S1 and S2, potentially mandated by regulators, falls under this category.

b. Mimetic pressures: Occurring when organizations imitate successful or reputable peers, especially in times of uncertainty. Telkom Indonesia might observe leading global or regional companies adopting ISSB standards and follow suit to reduce perceived risk and enhance credibility.

c. Normative pressures: Stemming from professionalization, industry associations, and shared norms. The growing professionalization of sustainability reporting and the advocacy of international bodies like the ISSB exert normative pressure on companies to adopt best practices.

4. Resource-Based View (RBV): While traditionally focused on internal resources leading to competitive advantage, RBV can be extended to sustainability. This theory suggests that sustainability practices, including robust sustainability reporting, can be a source of inimitable and valuable organizational resources. By effectively managing environmental and social impacts, companies can enhance their reputation, attract and retain talent, improve resource efficiency, and foster innovation – all of which contribute to sustainable competitive advantage and long-term value creation. From an RBV perspective, the effort and investment in high-quality IFRS S1 and S2 reporting could be seen as developing a valuable, difficult-to-imitate organizational capability that yields strategic benefits.

Research Methodology

This section outlines the methodological approach employed to address the research questions concerning Telkom Indonesia's sustainability reporting practices in the context of IFRS S1 and S2 adoption.

Research Design

This study adopts a qualitative research approach, specifically a case study design. A case study is particularly appropriate for an in-depth investigation of a contemporary phenomenon within its real-life context, especially when the boundaries between phenomenon and context are not clearly evident (Yin, 2018). Given the complexity of corporate sustainability reporting and the nascent stage of IFRS S1 and S2 implementation, a single case study of Telkom Indonesia allows for a rich and nuanced understanding of the challenges and opportunities involved. The research is primarily exploratory, aiming to understand how Telkom Indonesia has historically approached sustainability reporting and to identify the emergent issues surrounding IFRS S1 and S2. It is also descriptive, providing a detailed account of Telkom's current disclosure practices and their alignment with the new standards.

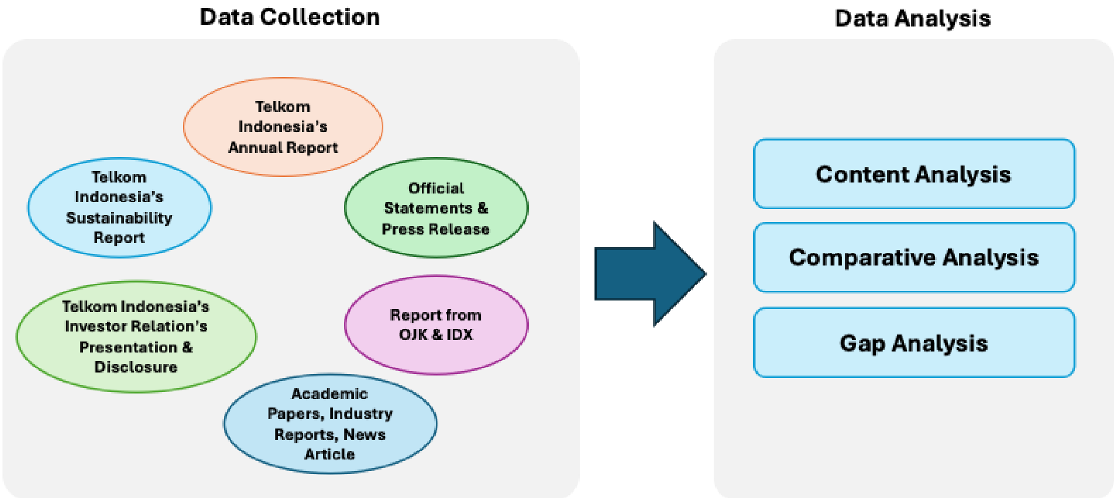

Figure 3. Research Design

Data Collection

The study primarily relies on secondary data to analyse Telkom Indonesia's sustainability reporting. While direct primary data collection, such as semi-structured interviews with Telkom's sustainability or finance personnel, would offer invaluable insights into internal processes and strategic considerations, it is deemed beyond the feasible scope of this paper due to access constraints and time limitations.

The secondary data sources include:

a. Telkom Indonesia's Annual Reports (past 3-5 years): These reports are crucial for understanding historical financial performance and, increasingly, for preliminary sustainability disclosures embedded within general corporate reporting.

b. Telkom Indonesia's Sustainability Reports (most recent available): These dedicated reports are the primary source for detailed non-financial performance, including environmental, social, and governance aspects.

c. Telkom Indonesia's Investor Relations presentations and disclosures: These documents often highlight the company's strategic priorities, including ESG initiatives, presented to the investment community.

d. Official statements and press releases from Telkom regarding ESG, sustainability, or IFRS: These provide real-time information on the company's public commitments, regulatory responses, and progress in sustainability.

e. Reports from the Indonesian Financial Services Authority (OJK) or stock exchange (IDX) related to sustainability reporting requirements: These documents offer insights into the regulatory landscape and expectations for listed companies in Indonesia, including the potential for IFRS S1 and S2 adoption.

f. Relevant academic papers, industry reports, and news articles: These sources provide broader context on sustainability reporting trends in Indonesia, the telecommunications sector, and general discourse surrounding the ISSB standards.

Data Analysis

The collected data will be subjected to a multi-pronged analytical approach:

a. **Content Analysis:**

This involves systematically analysing the textual content of Telkom's annual and sustainability reports, investor presentations, and official statements. The analysis will focus on identifying keywords, phrases, and specific disclosures related to the core requirements of IFRS S1 and S2, such as governance structures for sustainability, strategic integration of sustainability risks and opportunities, climate-related risk management, and the reporting of specific metrics and targets (e.g., GHG emissions).

b. **Comparative Analysis:**

Telkom Indonesia's current sustainability disclosures, identified through content analysis, will be rigorously compared against the explicit principles and requirements outlined in IFRS S1 ("General Requirements for Disclosure of Sustainability-related Financial Information") and IFRS S2 ("Climate-related Disclosures"). This comparison will aim to discern the extent of alignment, categorizing disclosures as fully aligned, partially aligned, or not aligned with the ISSB standards.

c. **Gap Analysis:**

Building upon the comparative analysis, a specific gap analysis will be performed. This will precisely identify and highlight areas where Telkom's current reporting falls short of the comprehensive requirements of IFRS S1 and S2, particularly in terms of detail, scope, and specific metrics (e.g., granular breakdown of Scope 3 emissions, scenario analysis outputs, specific governance processes related to climate).

Limitations of the Study

This study acknowledges several limitations inherent in its design and data sources:

1) Reliance on publicly available data: The analysis is restricted to information publicly disclosed by Telkom Indonesia. This means that internal processes, unstated challenges, or nuanced strategic considerations not made public may not be fully captured.
2) Interpretive nature of qualitative analysis: While systematic, content and comparative analysis involve a degree of interpretation. Efforts will be made to maintain objectivity and transparency in coding and categorization, but some subjective judgment is unavoidable.
3) IFRS S1 and S2 are relatively new: Given that IFRS S1 and S2 were issued in June 2023, and their adoption period in Indonesia is likely to be phased, Telkom Indonesia's full implementation may still be in progress. The current public disclosures might not yet reflect the complete picture of their future compliance efforts, potentially leading to an underestimation of their eventual alignment.

Telkom Indonesia's Sustainability Reporting Landscape and IFRS S1/S2 Implementation Analysis

Overview of Telkom Indonesia's Business and Sustainability Context

Telkom Indonesia stands as the nation's dominant telecommunications provider, with a core business spanning mobile and fixed-line connectivity, alongside an expanding portfolio of digital services. This includes enterprise solutions, data centres, and various digital platforms, all crucial in driving Indonesia's digital transformation. As a state-owned enterprise (SOE), Telkom carries significant strategic importance, not only as a market leader shaping the telecommunications landscape but also as a key enabler of national development and digital inclusion across the vast archipelago.

Telkom has long recognized the imperative of integrating sustainability into its operations. Their existing initiatives reflect a multi-faceted approach, emphasizing digital inclusion by extending connectivity to underserved areas, thereby bridging the digital divide and fostering economic growth. Environmental stewardship is another critical pillar, with efforts focused on minimizing their carbon footprint through energy efficiency and responsible waste management within their extensive infrastructure. Furthermore, Telkom is deeply committed to community development, investing in programs that empower local communities through digital literacy and economic opportunities. To communicate its sustainability performance, Telkom currently leverages established reporting frameworks such as the Global Reporting Initiative (GRI), which provides a comprehensive structure for disclosing their environmental, social, and governance (ESG) impacts. In addition, they likely employ internal frameworks to track specific performance indicators relevant to their unique business context and national development mandates. These frameworks collectively ensure transparency and accountability in their journey towards sustainable business practices.

Table 2. Analysis of Telkom's Current Sustainability Disclosures Against IFRS S1 and S2

IFRS Standard	Pillar	Telkom Indonesia's Practice	Alignment with IFRS
IFRS S1	Governance	Clear governance structure involving BOD, BOC, GMS, and a dedicated Risk Management & Sustainability Department.	Strong alignment
		Director of Finance leads and coordinates sustainability initiatives.	
	Strategy	Telkom Sustainability Strategy and 2030 Targets embedded into core business, with climate risks considered in strategy via GoZero.	Strong alignment
	Risk Management	Integrated ESG risks in enterprise risk framework (ISO 31000:2018), monitored by Risk Management Department.	Strong alignment
	Metrics & Targets	KPIs across E-S-G disclosed, including energy use, GHG reductions, e-waste, diversity, and external assurance by TUV Rheinland.	Substantial alignment

IFRS S2	**Governance**	Climate oversight by same Risk Management & Sustainability structure. Future broader Sustainability Committee planned.	Aligned
	Strategy	Net-zero by 2060 (GoZero), renewable energy focus, climate risk integrated into business planning. Scenario analysis not detailed.	Moderate to strong alignment
	Risk Management	Climate risks integrated into risk management system, including both physical and transition risks.	Aligned
	Metrics & Targets	Scope 1 & 2 GHG disclosed (7% reduction YoY); long-term target set; Scope 3 and carbon pricing not fully covered.	Partial alignment

Analysis of Telkom's Current Sustainability Disclosures against IFRS S1

Telkom Indonesia's 2024 Sustainability Report, published on April 21, 2025, provides a comprehensive look at their sustainability efforts, allowing for an analysis against the principles of IFRS S1. IFRS S1, effective for annual reporting periods beginning on or after January 1, 2024, aims to provide users of general purpose financial reports with information about an entity's sustainability-related risks and opportunities that could reasonably be expected to affect its cash flows, access to finance, or cost of capital.

Governance:

Telkom's Sustainability Report elaborates on its governance structure for sustainability. The company has a clear management structure involving the General Meeting of Shareholders (GMS), Board of Commissioners, Board of Directors, and various committees. Crucially, the Directorate of Finance and Risk Management, specifically the Risk Management & Sustainability Department, is designated as the unit responsible for managing sustainability/ESG within TelkomGroup, acting as an orchestrator and Center of Excellence. The Director of Finance and Risk Management serves as the primary coordinator for leading, coordinating, evaluating, and reporting sustainability initiatives across the Telkom Group. This indicates a strong commitment at the board/management level to overseeing sustainability. The report further mentions the future incorporation of the TJSL Committee into a broader Sustainability Committee, suggesting an ongoing refinement of their governance for consolidated ESG programs. Telkom discloses its processes for monitoring and managing sustainability-related risks and opportunities through its integrated risk management framework, discussed further below. This detailed articulation of roles, responsibilities, and oversight mechanisms aligns well with IFRS S1's governance requirements, which mandate disclosure of the processes, controls, and procedures used to monitor, manage, and oversee sustainability-related risks and opportunities, and the responsibilities and competencies of those charged with governance.

Strategy:

Telkom's 2024 report highlights the establishment of the Telkom Group Sustainability Strategy and 2030 Targets as a strategic roadmap to integrate sustainability across environmental, social, and governance dimensions. This demonstrates a clear intent to embed sustainability into their core business strategy. The report also addresses the identification of sustainability-related risks and opportunities, noting that these are integrated with their business model and operational activities. For instance, in their Climate Risk Report (following IFRS S2 and TCFD guidelines), Telkom discusses how climate risks and opportunities impact their strategy. This includes efforts to reduce carbon emissions and explore renewable energy alternatives, indicative of their strategy's resilience to climate transition risks. The report's emphasis on achieving "zero emissions by 2060" through initiatives like the GoZero program further illustrates how climate considerations are shaping their long-term strategy. This comprehensive approach to integrating sustainability into their strategic planning and assessing the resilience of their strategy against sustainability-related changes is largely consistent with IFRS S1's strategy disclosures, which require entities to explain how sustainability-related risks and opportunities impact their business model, value chain, and decision-making, and to assess the resilience of their strategy.

Risk Management:

Telkom's sustainability report provides insight into its processes for identifying, assessing, and managing sustainability-related risks, including climate, social, and cyber risks. The company explicitly states that it manages business risks within its main risk profile and mitigates ESG risks, identifying them and applying the precautionary principle. The Risk Management & Sustainability Department periodically monitors and evaluates these risks, submitting findings to the Director of Finance and Risk Management and the Committee for Planning and Risk Evaluation and Monitoring (KEMPR). The holistic risk management framework at Telkom refers to ISO 31000:2018, encompassing principles, framework, and process. Examples of risk mitigation provided include coordination for sea cable security against natural disasters, energy efficiency programs for emissions, and enhanced cybersecurity measures. This demonstrates a robust integration of sustainability risks into their enterprise-wide risk management frameworks. This level of detail on risk identification, assessment, prioritization, and monitoring, and its integration into overall risk management, aligns strongly with IFRS S1's risk management requirements.

Metrics and Targets:

Telkom's 2024 Sustainability Report presents a range of key performance indicators (KPIs) and targets across environmental, social, and governance aspects . Environmental KPIs include energy consumption, GHG emission reductions (e.g., 7% reduction in scope 1 & 2 by 2023 compared to 2022), e-waste management targets (e.g., 5 tons reduction by 2030, 15% annual growth in modem reutilization by 2025), and water utilization. Social KPIs encompass employee diversity (e.g., female employee percentages, employees with disabilities), customer experience (Net Promoter Score targets), and community engagement. While specific financial metrics tied to sustainability are not always explicitly delineated as separate financial KPIs in the provided snippets, the report's overall objective suggests a connection to financial performance. The targets generally appear time-bound and measurable, such as the 2030 sustainability targets and specific percentages for emission reductions and waste management. Telkom also highlights engaging an independent external party, TUV Rheinland Indonesia, for external assurance on its 2024 Sustainability Report, which speaks to their commitment to data quality and credibility (Telkom Indonesia, 2024). This comprehensive disclosure of KPIs, measurable and time-bound targets, and external assurance demonstrates a substantial alignment with IFRS S1's metrics and targets requirements, which seek to enable users to understand an entity's performance in relation to its sustainability-related risks and opportunities, including progress towards any targets set.

Analysis of Telkom's Climate-related Disclosures against IFRS S2 Principles:

Below is an analysis of Telkom's climate-related disclosures against IFRS S2 principles, based on the Telkom Indonesia 2024 Sustainability Report, which was published on April 21, 2025.

IFRS S2 specifies requirements for disclosing information about climate-related risks and opportunities.

Governance:

Telkom's report indicates that the Risk Management & Sustainability Department, under the Directorate of Finance and Risk Management, is responsible for managing sustainability and ESG issues, including climate-related matters (Telkom Indonesia, 2024). The Director of Finance and Risk Management oversees and coordinates sustainability initiatives. This suggests specific board/management oversight of climate-related issues. The future incorporation of the TJSL Committee into a broader Sustainability Committee further emphasizes the importance of ESG governance. This aligns with IFRS S2's focus on the governance body or bodies, and individuals or groups to whom they report, with oversight of climate-related risks and opportunities (Telkom Indonesia, 2024).

Strategy:

The report highlights Telkom's commitment to achieving "zero emissions by 2060" through its **GoZero** program, demonstrating the integration of climate considerations into its core business strategy (Telkom Indonesia, 2024). The Climate Risk Report, prepared following IFRS S2 and TCFD guidelines, discusses the impact of climate-related risks and opportunities on Telkom's business, strategy, and financial planning. This includes efforts to reduce carbon emissions and explore renewable energy alternatives. While the use of specific climate scenario analysis isn't explicitly detailed in the provided snippets, the report's discussion of climate risks and opportunities and the long-term emissions target suggests a forward-looking approach. This aligns with the view that climate scenario analysis can serve as a critical decision-support tool to assess physical climate risks and inform resilience strategies (Bertrand, Chabot, Brusset, & Courquin, 2024). However, as observed in other markets, climate disclosures can often fall short due to inappropriate scenario selection, limited tools, or unclear risk assessments. (Lee, et al., 2024). Thus, while Telkom's approach reflects alignment with IFRS S2's expectations, continued refinement of scenario analysis practices will be essential to ensure decision-useful and credible disclosures.

Risk Management:

Telkom identifies and manages climate-related risks as part of its broader risk management framework. The Risk Management & Sustainability Department monitors and evaluates these risks, reporting to the Director of Finance and Risk Management and the Committee for Planning and Risk Evaluation and Monitoring (KEMPR) (Telkom Indonesia, 2024). The company uses the ISO 31000:2018 framework for risk management. Examples of climate risk mitigation include energy efficiency programs. This demonstrates a process for identifying, assessing, and managing climate-related risks, including both physical and transition risks, and integrating them into overall risk management, as required by IFRS S2.

Metrics and Targets:

Telkom reports on several metrics relevant to climate change, including energy consumption and GHG emission reductions (Telkom Indonesia, 2024). For example, they reported a 7% reduction in scope 1 & 2 emissions by 2023 compared to 2022. The report also mentions renewable energy initiatives. While specific details on Scope 3 emissions and carbon pricing are not available in the provided snippets, the report does include time-bound targets, such as the 2060 net-zero emissions goal. These disclosures align with IFRS S2's requirement to disclose metrics used to assess performance in line with the entity's strategy and risk management, including Scope 1, Scope 2, and, if appropriate, Scope 3 greenhouse gas (GHG) emissions; and targets used to manage and monitor performance.

Opportunities and Challenges in IFRS S1/S2 Implementation at Telkom Indonesia:

Table 3. Opportunities and Challenges in IFRS S1 & S2 Implementation at Telkom Indonesia

Category	Details
Opportunities	Enhance access to global ESG capital and investor confidence.
	Position as leader in Indonesia's ESG space.
	Strengthen internal risk & resource management.
	Early readiness for future local regulations (OJK's PSPK 1 & 2).
Challenges	Complex data collection across subsidiaries, especially for Scope 3.
	Requires new systems, capacity building, and external assurance.
	Technical integration with financial statements can be difficult.
	Risk of greenwashing if disclosure lacks scrutiny; need strong ESG-washing detection mechanisms.

The implementation of IFRS S1 and S2 at Telkom Indonesia presents both significant opportunities and notable challenges.

Opportunities:

Telkom's proactive adoption of IFRS S1 and S2, as evidenced by its 2024 Sustainability Report, positions it to attract international sustainable investment. By providing globally comparable and reliable sustainability disclosures, Telkom enhances its appeal to ESG-focused investors seeking transparency and robust risk management. Recent evidence also suggests that investors positively value climate scenario analysis disclosures, particularly when they offer concrete, decision-useful insights into how climate risks affect firm performance (Ding, Jona, Potter, & Soderstrom, 2025). This also bolsters Telkom's reputation as a responsible corporate citizen and a leader in the Indonesian market, potentially leading to a lower cost of capital. Furthermore, aligning with these standards improves Telkom's internal risk management by mandating a more systematic identification and assessment of sustainability-related risks and opportunities. This can lead to greater operational efficiencies, for instance, through optimized energy consumption and resource allocation. Proactive implementation also prepares Telkom for potential future domestic regulatory requirements, as Indonesia's Financial Services Authority (OJK) is developing local standards (PSPK 1 and PSPK 2) based on IFRS S1 and S2, with mandatory reporting anticipated by 2027. A recent study of Australian-listed companies highlights similarly mixed readiness, with low incidence of forward-looking climate disclosures such as scenario analysis and time horizons (Jubb & Liu, 2024).

Challenges:

Despite the opportunities, Telkom faces several challenges. Data collection and ensuring its quality and consistency across a large, diverse organization like Telkom Group is a complex undertaking, especially for Scope 3 GHG emissions and other nuanced sustainability metrics. This necessitates significant capacity building and training for personnel to understand and accurately report on the new requirements. Key challenges include carbon data availability, recognition of carbon assets and liabilities, determining reporting boundaries, selecting appropriate greenhouse gas (GHG) accounting methodologies, and integrating climate-related risks and opportunities into traditional financial statements (Amel-Zadeh & Tang, 2025). The cost of implementation, encompassing technology upgrades, new systems, and external assurance, can be substantial. The inherent complexity of IFRS S1 and S2, coupled with the need to integrate these new reporting mechanisms with existing systems, poses a considerable technical and organizational hurdle. Lastly, balancing global standards with the unique local context of Indonesia's telecommunications landscape and national development priorities requires careful navigation to avoid the perception of "greenwashing" while ensuring the disclosures are genuinely impactful and relevant. Moreover, inadequate scrutiny in sustainability reports may conceal greenwashing behaviors, investigations using an ESG-washing Severity Index (ESGSI) reveal substantial variation in ESG-washing across industries and geographies, highlighting the importance of stronger detection mechanisms in corporate disclosures (Lagasio, 2024).

Discussion

Telkom's Progress and Strategic Positioning

Telkom Indonesia's 2024 Sustainability Report demonstrates a strong and proactive stance in aligning its sustainability disclosures with the nascent IFRS S1 and S2 principles. Its well-defined governance structure, with clear responsibilities assigned to the Directorate of Finance and Risk Management, signals a mature approach to integrating sustainability oversight at a strategic level. The explicit development of a Telkom Group Sustainability Strategy and 2030 Targets, alongside the preparation of a Climate Risk Report following IFRS S2 and TCFD guidelines, illustrates a commendable integration of sustainability into its core business strategy and risk management frameworks. Furthermore, the reporting of key performance indicators (KPIs) and measurable, time-bound targets for environmental and social aspects, coupled with external assurance, indicates a commitment to data quality and transparency that is increasingly expected under these new global standards.

Telkom's current practices strategically position it for future compliance with sustainability reporting mandates. As regulatory bodies like Indonesia's Financial Services Authority (OJK) are developing local standards (PSPK 1 and PSPK 2) based on IFRS S1 and S2, with mandatory reporting anticipated by 2027, Telkom is already well ahead of the curve. This early adoption not only provides them with valuable experience in data collection, system integration, and internal capacity building but also establishes Telkom as a pioneer and benchmark for other Indonesian companies. Its comprehensive disclosures can serve as a practical example for peers, facilitating knowledge sharing and potentially influencing industry best practices in a market where robust sustainability reporting is still evolving.

Broader Implications for Emerging Markets

The implementation of IFRS S1 and S2 presents a critical juncture for emerging market companies, including those in Indonesia. The "readiness" of these entities varies significantly. While large, publicly traded companies like Telkom may possess greater resources and technical expertise to navigate these complex standards, many smaller and medium-sized enterprises (SMEs) face substantial hurdles. Common challenges include limited data infrastructure, a lack of specialized personnel trained in sustainability accounting, and the financial burden associated with adopting new systems and conducting external assurance.

Addressing these challenges necessitates concerted regulatory support, comprehensive capacity building, and collaborative initiatives. Regulatory bodies must provide clear, practical guidance and consider phased implementation to allow companies sufficient time to adapt. Capacity building, through workshops, training programs, and readily accessible resources, is crucial to equip companies with the necessary knowledge and skills. Furthermore, collaborative platforms involving industry associations, professional bodies, and financial institutions can foster knowledge exchange and shared solutions. A vital aspect for emerging markets is balancing global comparability, which IFRS S1 and S2 aim to achieve, with local relevance and national development priorities. While adherence to global standards is important for attracting international capital, disclosures must also resonate with local stakeholders and reflect unique socio-economic contexts. Ultimately, the potential for IFRS S1 and S2 to drive greater transparency and accountability in emerging markets is immense, leading to more informed investment decisions and fostering a more sustainable allocation of capital.

Role of Regulatory Bodies in Indonesia

In Indonesia, regulatory bodies such as the Financial Services Authority (OJK) and the Indonesia Stock Exchange (IDX) play pivotal roles in shaping the landscape of sustainability reporting. Indonesia, through OJK, has signalled its intent to adopt IFRS S1 and S2 into local sustainability disclosure standards (PSPK 1 and PSPK 2), with full mandatory adoption targeted by 2027 (Deloitte, 2025). This aligns Indonesia with a growing global trend of harmonizing sustainability reporting with international best . This move is crucial as it will provide a clear legal and regulatory framework for sustainability disclosures in the country. The anticipation of mandatory adoption for listed companies by 2027 underscores the growing emphasis on non-financial reporting (Otoritas Jasa Keuangan, 2021).

For a smooth transition, OJK and IDX need to provide clear, granular guidance to companies, specifying reporting methodologies, data requirements, and assurance expectations. A phased implementation approach, perhaps starting with larger entities and gradually extending to smaller ones, could alleviate immediate burdens and allow companies to build capacity over time. Continuous dialogue between regulators and the private sector is essential to address practical challenges and ensure that the standards are implementable. The potential for mandatory adoption in the future will significantly elevate the importance of sustainability considerations in corporate governance and strategy, fostering greater market discipline and rewarding companies with robust ESG performance.

Connecting IFRS S1/S2 to Value Creation

The adoption of IFRS S1 and S2 by Telkom and other companies goes far beyond mere compliance; it presents a significant opportunity for genuine value creation across multiple dimensions. This stands in contrast to widespread practices of selective sustainability disclosure or “decoupling,” where up to 69% of negative sustainability events go unreported, undermining transparency and stakeholder trust (Roszkowska-Menkes, Aluchna, & Kamiński, 2024). From a financial perspective, robust and transparent sustainability disclosures, aligned with global standards, can significantly lower Telkom's cost of capital. Empirical findings indicate that detailed climate scenario disclosures are associated with improved investor perceptions and market value, suggesting a clear financial incentive for firms to go beyond boilerplate climate risk statements (Ding, Jona, Potter, & Soderstrom, 2025). By providing clearer insights into its sustainability-related risks and opportunities, Telkom becomes more attractive to the growing pool of ESG-focused investors and sustainable finance instruments, potentially unlocking more favourable lending terms and equity valuations (Hewa, Mala, Chen, & Dumay, 2025).

Beyond finance, enhanced brand image and reputation are tangible benefits. Demonstrating a strong commitment to sustainability can improve customer loyalty, attract top talent who prioritize ethical employers, and strengthen relationships with local communities and government bodies. Furthermore, the rigorous processes required by IFRS S1 and S2 for identifying and managing sustainability risks can lead to operational efficiencies. For instance, a deeper understanding of climate risks can drive investments in energy efficiency and renewable energy, leading to cost savings and reduced environmental impact. This systematic approach also fosters innovation, prompting Telkom to develop new, sustainable products and services that cater to evolving market demands and address societal challenges. Credible reporting, supported by independent external assurance, further enhances trust and legitimacy of these efforts, playing a key role in restoring stakeholder confidence in sustainability disclosures (Pizzi, Venturelli, & Caputo, 2024). Ultimately, by integrating sustainability into its core operations and strategy, and effectively communicating this through IFRS-aligned reports, Telkom is not just meeting regulatory expectations but strategically positioning itself for long-term resilience, competitive advantage, and holistic value creation for all its stakeholders .

Conclusion and Recommendation

Connecting IFRS S1/S2 to Value Creation

The growing urgency of global challenges like climate change and social inequality has profoundly elevated the importance of comprehensive and standardized sustainability reporting. The advent of IFRS S1 and S2 marks a pivotal moment, ushering in a new era of globally comparable and decision-useful sustainability disclosures designed to bridge the gap between financial performance and sustainability impacts.

Our analysis of Telkom Indonesia's 2024 Sustainability Report reveals a commendable proactive stance in aligning with these emerging global standards. Telkom demonstrates a strong foundation in governance, with clear oversight mechanisms for sustainability embedded within its leadership structure. Its strategic integration of sustainability, including the ambitious GoZero program and adherence to TCFD guidelines in its Climate Risk Report, showcases a forward-thinking approach. The company also exhibits robust risk management processes for sustainability-related exposures, integrated into its broader enterprise risk framework. Furthermore, Telkom's commitment to transparent metrics and targets, supported by external assurance, highlights a dedication to accountability. While Telkom has made significant strides, potential gaps might exist in the detailed granular reporting of all Scope 3 GHG emissions or in the explicit quantification of climate-related financial impacts, areas that will likely see increased scrutiny as IFRS S2 matures.

Telkom's journey underscores the broader opportunities and challenges facing emerging markets. For Telkom, adherence to IFRS S1 and S2 presents an unparalleled opportunity to attract international sustainable investment, enhance its reputation, and drive operational efficiencies. However, it also confronts challenges inherent to large organizations in emerging economies, such as the complexity of data collection and quality, the need for extensive capacity building, and the substantial cost of implementation. Across emerging markets, these challenges are compounded by varied levels of "readiness" and the crucial need to balance global comparability with local developmental priorities.

Ultimately, robust sustainability reporting, underpinned by frameworks like IFRS S1 and S2, is not merely a compliance exercise. It is a fundamental driver for sustainable development, fostering greater transparency, accountability, and ultimately, directing capital towards responsible investments. For emerging markets, embracing these standards represents a transformative step towards building more resilient economies and contributing meaningfully to global sustainability goals. The future of corporate reporting undoubtedly lies in this integrated approach, where financial and sustainability performance are inextricably linked.

Recommendations

For Telkom Indonesia, a formal gap assessment against the precise requirements of IFRS S1 and S2 is recommended to identify specific areas for enhancement beyond their current commendable efforts. Continued investment in training and capacity building for all relevant personnel, from data collectors to senior management, will ensure a deeper understanding and more efficient implementation of the standards. Strengthening data collection systems and internal controls specifically for sustainability information is crucial for accuracy and reliability. While already engaging external assurance, expanding its scope to cover an even broader range of key sustainability metrics, especially forward-looking climate data, would further enhance credibility. Integrating formal, quantitative climate scenario analysis more explicitly into strategic planning will also build greater resilience.

Indonesian Regulators, specifically OJK and IDX, should prioritize providing clear, practical guidance and detailed roadmaps for the adoption of IFRS S1 and S2, taking into account local market nuances. Fostering collaborative platforms among companies, academics, and practitioners can facilitate knowledge sharing and address common implementation challenges. A phased mandatory adoption approach, starting with larger, publicly listed entities, would allow the market to gradually build capacity and expertise.

Finally, for all emerging market companies, proactively assessing their current readiness for global sustainability standards is paramount. Recognizing sustainability reporting not merely as a compliance burden but as a strategic imperative for long-term value creation and attracting responsible investment is key to unlocking its full potential.

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APPINDICES

APPENDIX A: LIST OF SPECIFIC SUSTAINABILITY INITIATIVES BY TELKOM INDONESIA

The following table outlines selected sustainability initiatives undertaken by Telkom Indonesia as part of its commitment to environmental, social, and governance (ESG) principles. These initiatives are based on disclosures in the company's Annual and Sustainability Reports (2024):

Category	Initiative	Description
Environmental	Renewable Energy Transition	Installation of solar panels in Telkom office buildings and BTS towers to reduce dependence on fossil fuels.
	Green Data Center	Implementation of energy-efficient cooling systems and server optimization in Telkom's data centers.
	E-Waste Management (EDUVICE)	Development of programs for proper disposal and recycling of electronic equipment used in operations.
Social	Digital Talent Development	Capacity building through programs such as "Digistar" supporting youth in tech fields.
	Village Empowerment (BUMDes Program)	Collaboration with local communities to digitize small business operations in rural areas via internet access and platform support.

	Inclusive Infrastructure	Deployment of accessible infrastructure in public service units, such as ramps and braille signage in Telkom buildings.
	Employee Well-being Programs	Health initiatives, flexible working arrangements, and psychosocial support for employees.
Governance	Cybersecurity Governance	Strengthened data protection protocols and incident response systems in line with ISO/IEC 27001 standards.
	ESG Risk Integration	Integration of ESG risks into enterprise risk management (ERM) framework, including climate-related scenario analysis.

APPENDIX B: MAPPING OF TELKOM INDONESIA'S SUSTAINABILITY DISCLOSURES TO IFRS S1 AND IFRS S2 REQUIREMENTS

This appendix provides a summarized mapping of Telkom Indonesia's 2024 Annual Report and Sustainability Report against the requirements outlined in IFRS S1 and IFRS S2, published by the International Sustainability Standards Board (ISSB). The mapping reflects the extent to which Telkom's current disclosures align with the key thematic areas defined by the IFRS Sustainability Disclosure Standards.

IFRS S1: GENERAL REQUIREMENTS FOR DISCLOSURE OF SUSTAINABILITY-RELATED FINANCIAL INFORMATION

Thematic Area	No. of Aligned Disclosures	Proportion of Total (%)
Governance	9	15%
Strategy	27	46%
– a. Sustainability-related risks and opportunities	3	11%
– b. Business Model and Value Chain	2	7%
– c. Strategy and decision-making	3	11%
– d. Financial position, performance, and cash flows	12	44%
– e. Resilience	2	7%
Risk Management	9	15%
Metrics and Targets	14	24%
Total	**59**	

IFRS S2: CLIMATE-RELATED DISCLOSURES

Thematic Area	No. of Aligned Disclosures	Proportion of Total (%)
Governance	9	8%
Strategy	49	45%
– a. Climate-related risks and opportunities	4	8%
– b. Business Model and Value Chain	2	4%
– c. Strategy and decision-making	8	16%
– d. Financial position, performance, and cash flows	10	20%
– e. Resilience	20	41%
Risk Management	9	8%
Metrics and Targets	41	38%
– a. Climate-related metrics	17	41%
– b. Climate-related targets	21	51%
Total	**108**	

Note: The mapping process involves a qualitative review of Telkom Indonesia's disclosures in relation to the IFRS criteria, focusing on both completeness and alignment of narrative and quantitative data. Percentages are rounded to the nearest whole number. A more granular item-level mapping is available upon request.