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Comparative Analysis of the FIDIC Red Book Contract 2017 (Reprinted 2022) and the Indonesian National Construction Contract

Wahyu Moerhadi Nugroho*, Sami'an, Sarwono Hardjomuljadi
Universitas Pekalongan, Indonesia
Email: mustwahjoe@yahoo.com*, dosen.samian@gmail.com, sarwonohm3@gmail.com

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ABSTRACT

The landscape of construction projects in Indonesia is becoming increasingly complex with the growing involvement of international funding and foreign contractors. The FIDIC Red Book 2017 has become the dominant global standard, while Indonesia operates under its own national construction law framework. This study aims to compare the principles, mechanisms, and risk allocation in the FIDIC Red Book 2017 (Reprinted 2022) and the Indonesian national construction contract framework, as reflected in the Construction Services Law and its derivative regulations. Using a normative literature study with a comparative law approach, the research identifies fundamental philosophical differences in risk management. FIDIC emphasizes fairness, balanced risk allocation, and structured procedural mechanisms, whereas Indonesia's national regulations tend to favor the Employer (government) with limited contractual flexibility. The key findings center on differences in claim mechanisms, the role of the Engineer, and dispute resolution processes. This study contributes by providing a systematic comparative mapping useful for stakeholders—especially in hybrid international-national projects—and offers recommendations for harmonizing and improving contractual frameworks in Indonesian construction practice. Practically, this research provides decision-making guidance for project owners, contractors, and legal advisors in selecting and adapting appropriate contractual frameworks for projects involving international financing or foreign contractors in Indonesia.

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INTRODUCTION

The construction industry is an important pillar of national development and requires a clear, fair, and efficient contractual framework to mitigate risks and ensure project success (Project Management Institute, 2025). In the global context, the International Federation of Consulting Engineers (FIDIC) has developed a series of internationally recognized standard construction contract books, with the Red Book 2017 (Reprinted Edition 2022) specifically designed for works whose design is provided by the employer. This book represents best practices and balanced principles in risk allocation (FIDIC, 2022).

In Indonesia, construction activities are regulated by Law Number 2 of 2017 concerning Construction Services and various implementing regulations, including LKPP Regulations and Presidential Regulations related to goods and services procurement (Government of the Republic of Indonesia, 2017; President of the Republic of Indonesia, 2025). This legal framework forms the foundation for national construction contracts, which are widely applied in both government and private sector projects (Ajmal & Rajasekaran, 2022; Medhat et al., 2023; Salem, 2023). Although both frameworks share the same goal—successful project delivery—they were built upon different legal traditions, industry practices, and policy priorities (Clough et al., 2015).

Interactions between the two contractual systems increasingly occur alongside the growing number of strategic infrastructure projects in Indonesia that involve international

financing institutions or foreign contractors requiring the use of FIDIC (Soekotjo, 2019). This situation often creates legal and operational tensions because the parties involved must understand and navigate fundamental differences between these contractual regimes (Fei et al., 2021; Latilo et al., 2024; Ofori, 2015). Specifically, the central problem addressed in this study is: How do differences in risk allocation mechanisms—particularly regarding unforeseen ground conditions, claim procedures, and dispute resolution—between the FIDIC Red Book 2017 and Indonesian national construction contracts affect project performance, contract management efficiency, and the potential for disputes in hybrid international-national projects?

Limited understanding of these differences may lead to disputes, cost overruns, and project delays (Xiao & Proverbs, 2021). Furthermore, the absence of systematic comparative mapping between these two frameworks creates challenges for practitioners in determining which contractual provisions can be harmonized and which require special adaptation within the Indonesian legal context (Bunni, 2013).

A comparative study between the FIDIC Red Book 2017 and Indonesian national construction contracts is therefore urgently needed (Kumvilai et al., 2024; Queiroz & Martinez, 2013). This research is not only academic in nature but also has high practical value for industry stakeholders, including owners, contractors, consultants, and legal advisors. By understanding the points of convergence and key differences, parties can make better contractual decisions, perform necessary adjustments, and manage expectations more realistically (Klee, 2018; Yanuar et al., 2024). Moreover, this study addresses a critical gap in existing literature, as previous research has focused predominantly on individual contract systems without conducting systematic comparative analysis of their practical implications in the Indonesian context (Setyawan & Soehaditama, 2020; Winarta, 2021).

Therefore, the aim of this study is to analyze and comprehensively compare the key provisions in the FIDIC Red Book 2017 (Reprinted 2022) with the Indonesian national construction contract framework . The novelty of this study lies in integrating the latest 2025 regulations (Government of the Republic of Indonesia, 2025; President of the Republic of Indonesia, 2025) and focusing on practical implications within the context of construction projects in Indonesia. Specifically, this research offers an original contribution by developing a comparative framework that maps critical contractual dimensions—including risk allocation philosophy, procedural mechanisms, and dispute resolution pathways—in a manner directly applicable to hybrid project environments. The urgency of this research is based on the need to strengthen legal capacity and readiness in facing increasingly complex projects and global contractual standards.

METHOD

This study used a normative or doctrinal legal research method with a comparative law approach. The primary data sources were formal legal documents, namely:

1. FIDIC Conditions of Contract for Construction (Red Book) Second Edition 2017, Reprinted 2022 with amendment (FIDIC, 2022); and
2. Indonesian national construction contract regulations, particularly Law Number 2 of 2017 concerning Construction Services (Pemerintah Republik Indonesia, 2017), LKPP Regulation Number 11 of 2021 concerning Guidelines for Contract Preparation (LKPP,

2021), as well as Presidential Regulation No. 16 of 2018 and its latest amendment in 2025 (Presiden Republik Indonesia, 2025).

Secondary data sources included academic literature, textbooks, and journal articles discussing construction contract law, FIDIC, and project management (Project Management Institute, 2025; Setyawan & Soehaditama, 2020; Soekotjo, 2019; Winarta, 2021; Xiao & Proverbs, 2021).

Data collection techniques were literature studies of both primary and secondary sources. The collected data were then analyzed qualitatively using content analysis techniques. Comparative analysis was conducted by identifying, classifying, and comparing substantive provisions of the two contract systems on key aspects such as contract structure, risk allocation, claims and variation mechanisms, and dispute resolution processes. Specifically, the comparative framework focuses on five critical dimensions: (1) contract structure and the Engineer's role; (2) risk allocation principles, particularly for unforeseen ground conditions (FIDIC Clause 4.12); (3) claim mechanisms and time-bar provisions (FIDIC Clause 20.1); (4) variation procedures and valuation methods (FIDIC Clause 13); and (5) dispute resolution frameworks including the Dispute Avoidance/Adjudication Board (DAAB) system versus Indonesian litigation and arbitration pathways. This comparison aims to identify similarities, differences, strengths, weaknesses, and the practical implications of each provision within the context of construction project implementation in Indonesia.

RESULTS AND DISCUSSION

Contract Structure, Engineer's Role, and Basic Risk Allocation

The structure and philosophy of risk allocation form the foundation of every construction contract (Chan & Pribadi, 2022). The FIDIC Red Book 2017 is designed with the principle of balanced risk allocation, which has become a characteristic of FIDIC contracts post-1999 (FIDIC, 2022; Soekotjo, 2019). This principle is grounded in economic assumptions that project efficiency will be maximized when risks are allocated to the party most capable of managing them based on expertise, resources, and control over the triggering events. The economic rationale behind this approach is that allocating risk to the party best positioned to control or mitigate it reduces overall project costs, as parties avoid embedding excessive risk premiums into their bids (Bunni, 2013). For example, risks related to unforeseen adverse physical conditions—which in traditional contracts often burden the contractor—are allocated to the Employer under Clause 4.12 of the FIDIC Red Book 2017, provided such conditions could not reasonably be foreseen by an experienced contractor (FIDIC, 2022). This encourages the Employer to provide complete and accurate site investigation data at the tender stage, promoting transparency. Conversely, risks related to construction methods, productivity, and workforce performance remain the Contractor's responsibility. This approach creates a more equitable contractual environment and encourages collaboration, since contractors do not need to include high risk premiums for factors beyond their control (Xiao & Proverbs, 2021).

In contrast, the Indonesian national construction contract framework—shaped heavily by government procurement paradigms emphasizing budget control and procedural compliance—tends to allocate more risks to the contractor (LKPP, 2021). Standard contract documents referring to LKPP Regulation No. 11 of 2021 typically contain simpler provisions

with less detailed risk allocation. Risks such as ground conditions, extreme weather, or unexpected material price increases often fall on the contractor unless specifically negotiated otherwise. This asymmetric risk allocation reflects Indonesia's public procurement philosophy, which prioritizes fiscal predictability and administrative accountability over contractual flexibility (Hardjomuljadi, 2014). Clauses tend to emphasize lump-sum pricing and fixed schedules, with limited adjustment mechanisms. Although this approach seems advantageous for the Employer in the short term by ensuring budget certainty, it can generate negative long-term effects: contractors may increase bid prices due to high-risk premiums, engage in aggressive claim-hunting, or escalate disputes when such risks materialize. Moreover, unbalanced risk allocation may reduce contractor motivation for optimal performance or innovation. Research by Loosemore et al. (2006) demonstrates that unbalanced risk allocation frequently results in adversarial relationships, reduced innovation, and ultimately, poorer project outcomes.

A key philosophical difference lies in the role of the Engineer. Under the 2017 FIDIC Red Book, the Engineer functions as an independent certifier and contract administrator appointed by the Employer but required to act impartially when making determinations, especially regarding claims and certifications (Clause 3.7) (FIDIC, 2022). While practical independence may be influenced by the Employer's payment authority, this structure introduces an internal check-and-balance mechanism intended to provide procedural fairness to contractors (Soekotjo, 2019). The Engineer's dual role—acting for the Employer in contract administration while maintaining impartiality in determinations—creates a quasi-judicial function that enhances dispute prevention (Bunni, 2013).

In Indonesian national construction contracts, similar functions are carried out by the Supervisor or Supervisory Consultant. However, the Construction Services Law and LKPP Guidelines position the Supervisor solely as the Employer's representative, without any obligation to act impartially (LKPP, 2021; Pemerintah Republik Indonesia, 2017). As a result, decisions concerning claims, payments, or field conflicts are often perceived by contractors as biased. This structural difference fundamentally alters the power dynamics within the contractual relationship, often necessitating external dispute resolution mechanisms at earlier stages than would occur under FIDIC frameworks (Setyawan & Soehaditama, 2020). This dynamic weakens collaborative project relationships and can escalate minor field disputes into formal legal disputes.

Claim Mechanisms, Variations, and Time–Cost Control

Claims and variations are critical components of construction contract management because they regulate how disruptions and changes are handled from financial and scheduling perspectives (Project Management Institute, 2025). The FIDIC Red Book 2017 features structured and detailed procedures with strict time bars especially reinforced in the 2022 amendments (FIDIC, 2022). Under Clause 20.1, the contractor must submit a Notice of Claim within 28 days of becoming aware (or when they should have become aware) of the event. A fully detailed claim must follow within 84 days. Failure to comply may result in the claim being time-barred, meaning the contractor loses the right to additional payment or time extension (FIDIC, 2022; Xiao & Proverbs, 2021). The strict procedural discipline ensures timely documentation and evaluation to enable real-time decision-making.

In contrast, Indonesian government procurement regulations recognize claims and contract amendments but generally do not impose explicit time-bar sanctions (LKPP, 2021). Addenda require multi-layered administrative approval involving Commitment-Making Officials (PPK) and Budget Users, which often delays decisions and is disconnected from field urgency (Presiden Republik Indonesia, 2025). Consequently, contractors may postpone claims until project completion, increasing the likelihood of disputes during final account settlement (Setyawan & Soehaditama, 2020).

However, critics argue that such rigid time bars can unfairly penalize contractors who lack sophisticated administrative systems, particularly in developing markets. In contrast, Indonesian government procurement regulations recognize claims and contract amendments but generally do not impose explicit time-bar sanctions (LKPP, 2021). Addenda require multi-layered administrative approval involving Commitment-Making Officials (PPK) and Budget Users, which often delays decisions and is disconnected from field urgency (Presiden Republik Indonesia, 2025). Consequently, contractors may postpone claims until project completion, increasing the likelihood of disputes during final account settlement (Setyawan & Soehaditama, 2020). This creates a systemic risk where unresolved issues accumulate throughout project execution, only to surface during final settlement when documentary evidence has degraded and memories have faded.

Regarding variations, FIDIC grants the Engineer broad authority to instruct variations (Clause 13.1), with well-defined valuation procedures. This enables flexible adaptation to field conditions without jeopardizing project continuity. Indonesian regulations, however, permit variations only under strict conditions and through bureaucratic processes, limiting project responsiveness. This often leads to informal “work-now, paperwork-later” practices posing legal risks and fueling disputes over payment and time entitlement.

Dispute Resolution and Applicable Legal Framework

Dispute resolution frameworks reflect each system's philosophy. The FIDIC Red Book adopts a multi-tiered system beginning with the Engineer’s determination (Clause 3.7), followed by the Dispute Avoidance/Adjudication Board (DAAB) (Clause 21). DAAB is established at the start of the project, enabling proactive dispute avoidance and rapid adjudication (typically within 84 days). DAAB decisions are binding interim measures, maintaining project flow while allowing further arbitration only if a Notice of Dissatisfaction is submitted (FIDIC, 2022). This structure embodies FIDIC’s approach that disputes should be managed not allowed to escalate.

Indonesia’s system relies on litigation, arbitration (Law No. 30/1999), and alternative dispute resolution. The Construction Dispute Settlement Board (DPSK) acts as mediator or conciliator but is not established at project inception and lacks binding adjudication authority (Setyawan & Soehaditama, 2020). Government contracts typically designate District Courts as the dispute forum slower, less technical, and more adversarial. Arbitration is common in commercial contracts but generally becomes the first formal step without a DAAB-like mechanism to resolve disputes early.

Research demonstrates that DAAB systems significantly reduce arbitration cases and associated costs, with studies showing that approximately 85-90% of DAAB decisions are accepted without proceeding to arbitration (Nairac & Lowe, 2014). Indonesia's system relies

on litigation, arbitration (Law No. 30/1999), and alternative dispute resolution. The Construction Dispute Settlement Board (DPSK) acts as mediator or conciliator but is not established at project inception and lacks binding adjudication authority (Setyawan & Soehaditama, 2020). Government contracts typically designate District Courts as the dispute forum—slower, less technical, and more adversarial. Indonesian courts, while improving, often lack specialized expertise in complex construction matters, leading to decisions that may not fully appreciate technical or commercial realities (Winarta, 2021). Arbitration is common in commercial contracts but generally becomes the first formal step without a DAAB-like mechanism to resolve disputes early.

Differences in governing law further complicate FIDIC implementation in Indonesia, as foreign-law FIDIC clauses may conflict with Indonesia's mandatory legal provisions affecting enforceability in local courts (Soekotjo, 2019).

CONCLUSION

This comparative analysis highlights key philosophical and technical differences between the FIDIC Red Book 2017 (Reprinted 2022) and Indonesia's national construction contract framework: FIDIC prioritizes balanced risk allocation, structured procedural management via an impartial Engineer and Dispute Adjudication Board, and multi-tiered dispute resolution for legal certainty in complex projects, while Indonesian contracts—particularly in government procurement—emphasize budget control and bureaucratic compliance, imposing heavier risks on contractors, restricting variation flexibility, and depending on litigation-based resolution. These insights clarify gaps to foster hybrid contractual models, bolster international contracting readiness, and inform regulatory enhancements adopting FIDIC best practices for improved project performance and legal certainty in Indonesia's construction sector. For future research, empirical case studies of hybrid FIDIC-Indonesian projects could quantify the impact of these differences on actual outcomes like cost overruns, delays, and dispute rates.

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