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Legal Disputes in Infrastructure Projects Involving Foreign Companies

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ABSTRACT

The involvement of foreign companies in infrastructure development in Indonesia has increased rapidly over the last two decades, driven by growing needs for capital, technology, and advanced project management standards. However, the complexity of cross-jurisdictional issues and divergent interests among states, state-owned enterprises, investors, and contractors heightens the potential for intense legal disputes. This research examines the characteristics of disputes, their root causes, national and international regulatory frameworks, dispute resolution mechanisms, case patterns, and recommendations for strengthening project governance. Studies show that dispute roots extend beyond technical-contractual matters to include political factors, regulatory disharmony, information asymmetries, and weak contract administration. The research concludes that preventing disputes through appropriate risk allocation, regulatory transparency, and enhanced government capacity represents fundamental steps to mitigate the economic and political costs of high-value infrastructure disputes. The findings imply that, to enhance Indonesia's attractiveness to foreign investors, policymakers should prioritize regulatory harmonization, institutionalize early dispute prevention mechanisms such as the Dispute Avoidance/Adjudication Board (DAAB), and streamline enforcement of international arbitration awards.

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INTRODUCTION

Infrastructure projects form the main foundation of long-term economic growth. Constructing toll roads, ports, airports, power plants, mass transportation, and telecommunications networks requires massive financing and technologies often unavailable in full domestic capacity. This makes partnerships with foreign companies a strategic necessity, through direct investment, engineering procurement and construction (EPC), and public-private partnership (PPP) schemes (Huang, Fu, Chen, & Wen, 2024; Melville, 2016).

However, involving foreign companies brings not only benefits but also friction due to differences in legal systems, technical standards, commercial interests, and the host country's political dynamics. In the Indonesian context, these disputes are increasingly common as the number of proyek strategis nasional (PSNs)—national strategic projects—involving international contractors from China, South Korea, Japan, Europe, and the Middle East grows (Talitha, 2025).

Infrastructure project disputes differ from ordinary commercial disputes. They involve massive contract values, multiple cross-border parties, high technical risks, government licensing provisions, state guarantees, and diplomatic relations (Bogdanowicz, 2015; Brunet-Jailly, 2022; Chang, Iakovou, & Shi, 2020; Chin & Zhao, 2022). Therefore, analysis must incorporate perspectives from international contract law, investment law, public law, construction engineering, and political economy (Kontorovich & Parisi, 2016). This article systematically examines how disputes arise, the legal frameworks governing them, dispute resolution mechanisms, and strategies for Indonesia to strengthen project governance and

reduce high-value conflicts (Abwunza, 2021; Alqershy, Shi, & Feng, 2024; Mbatu & Eliamini, 2025).

Previous studies on infrastructure disputes have largely focused on general themes such as risk allocation mechanisms, FIDIC contract standardization, or enforcement of international arbitration awards. Works by scholars such as Bunni (2005) and Born (2021) provide foundational analyses of international contract law and arbitration frameworks. Similarly, research by the Asian Development Bank (2014) and the World Bank (2019) maps common dispute patterns and governance challenges in public-private partnerships. However, much existing literature is generic, examining infrastructure disputes from global or theoretical perspectives without deep contextual focus on emerging economies like Indonesia. A significant gap persists in studies systematically exploring the intersection of Indonesia's unique legal and regulatory ecosystem—including sectoral inconsistencies, administrative capacity constraints, and evolving arbitration practices—with the operational realities of large-scale, foreign-involved infrastructure projects. This gap is especially pronounced in how disputes are shaped not merely by legal or technical factors but by domestic policy volatility, institutional asymmetries, and challenges enforcing international awards within the national legal system.

Building on this gap, this research's novelty lies in its integrated, context-driven analysis. Rather than treating legal, technical, and governance issues in isolation, the article examines their interactions in generating and escalating disputes across Indonesia’s major infrastructure sectors. It combines a detailed review of Indonesia’s regulatory framework with case-based insights into dispute patterns in projects such as power plants, mass transit, and toll roads to uncover recurring friction points. Furthermore, it critically assesses the effectiveness of current dispute resolution mechanisms—from domestic arbitration (BANI) to international forums (ICC, SIAC, ICSID)—within Indonesia's institutional constraints. This approach provides a holistic understanding of why disputes arise, how they evolve, and where systemic interventions are most needed.

The objectives of this research are threefold: first, to identify and analyze the primary characteristics and root causes of infrastructure disputes involving foreign companies in Indonesia; second, to evaluate the effectiveness of existing national and international legal frameworks and dispute resolution mechanisms; and third, to develop concrete, context-specific recommendations for enhancing project governance, regulatory harmonization, and institutional capacity to prevent and manage disputes more effectively.

The practical benefits of this study are significant. For policymakers and regulators, it offers an evidence-based roadmap for harmonizing regulations, strengthening contract administration, and improving investment climate predictability. For state-owned enterprises and project owners, it highlights critical areas for capacity building in risk management, contract negotiation, and dispute avoidance. For foreign investors and contractors, it provides a clearer view of the Indonesian dispute landscape to enable better risk assessment and strategic planning. Ultimately, by bridging international best practices and local realities, this research contributes to more resilient, transparent, and dispute-resilient infrastructure development in Indonesia, supporting sustainable economic growth and long-term foreign investment.

METHOD

This study employed normative legal methods supported by secondary data. The analysis focused on laws and regulations related to infrastructure and investment, international contracts (especially FIDIC), and international and national arbitration awards. The approaches used included:

1) A legislative approach to examine the Indonesian legal framework;
2) A conceptual approach to understand risk allocation principles and dispute mechanisms;
3) A case approach through the study of dispute patterns in infrastructure projects across various countries.

Primary and secondary legal materials were analyzed qualitatively to identify legal issues, dispute patterns, and implications for their application in projects involving foreign companies.

RESULTS AND DISCUSSION

Characteristics of Infrastructure Disputes Involving Foreign Companies

Disputes on infrastructure projects involving foreign companies have special characteristics that distinguish them from domestic construction disputes. These characteristics stem from cross-jurisdictional complexity, differences in contractual standards, the use of high-risk technologies, and the involvement of the state as the owner of regulatory authority. This section describes four main characteristics that consistently appear in the international literature and in development practice in Indonesia.

Multijurisdictional, Multicontract, and Legal Choice

Large-scale infrastructure projects almost always involve a variety of legal instruments that are subject to different jurisdictions. Major contracts such as Engineering, Procurement and Construction (EPC) may use UK or Singapore law as the governing law, while subcontracts are subject to Indonesian law (Bailey, 2020). In addition, project financing from international institutions such as JICA, AIIB, or export credit institutions usually adds funding contracts that are subject to United States or Japanese law.

Jurisdictional conflicts arise when:

- the terms of the contract are contrary to mandatory laws and regulations,
- there is an overlap between the administrative obligations of the government and contractual obligations,
- dispute resolution requires enforcement of foreign arbitral awards in Indonesia.

In certain cases, jurisdictional differences can result in parallel proceedings when the parties bring different aspects of the dispute to different forums (Brekoulakis, 2011). This condition extends the duration of the dispute and increases litigation costs

The Complexity of Technology and Global Supply Chains

Infrastructure projects involving foreign companies typically use high-standard technologies produced in many countries (Van der Wolf, 2018). This technology is related to the design of structures, electrical systems, automation devices, and machinery that are not produced domestically.This leads to delays and disputes when:

- Global supply chain disruptions,
- The technical specifications do not correspond to the geographical conditions of the project,

- There are differences in interpretation of international standards (e.g. IEC, ISO, AASHTO).

For example, in power plant projects in Southeast Asia, differences in turbine performance testing methods between national standards and those of foreign manufacturers often trigger claims of technical failures (Uff, 2013). The complexity of technology also makes the cost of remedial works very high, so the parties tend to escalate it to arbitration.

Information Inequality and Contractual Capacity

Foreign contractors generally have a lot of experience in international projects and are equipped with a legal and risk management team capable of drafting detailed contract and claims documentation (Loots & Charrett, 2019). In contrast, government agencies or SOEs often lack equivalent analytical and administrative capabilities, especially in reading and interpretation of FIDIC-based contractual clauses, management of notice obligations, handling of the Variation Order, and Critical Path Methodology Based on Delay :

- Reading and interpretation of FIDIC-based contractual clauses,
- Management of notice obligations,
- Handling of the Variation Order,
- Critical Path Methodology Based on Delay.

This inequality of capacity causes many disputes to arise not because of substantial problems, but because of weaknesses in contract administration on the part of the project owner (Lavers, 2016). This inequality is exacerbated by the high turnover rate of public officials, which often hinders the continuity of contract supervision.

International Contract Standards (FIDIC, NEC, AIA)

The use of international contract standards such as FIDIC Red Book (design by employer), Yellow Book (design and build), or Silver Book (EPC/turnkey) has become common practice in projects with foreign contractors (FIDIC, 2017). This standard provides a clear risk allocation structure but requires strict administrative compliance.

Some of the characteristics of FIDIC that are often a source of dispute include:

- the need to provide *a notice* of claim within a certain time limit (usually 28 days),
- the authority of the engineer (*Engineer*) as the initial determinant of the dispute,
- the existence of a Dispute Avoidance/Adjudication Board (DAAB) as a mandatory forum before arbitration,
- a claim documentation structure that must meet detailed quantification and proof requirements.

If the project owner or contractor fails to follow the procedure, the need to reinterpret the FIDIC clause becomes the basis for the dispute (Bunni, 2005). This shows that international contract standards are not only technical tools, but also produce major legal implications.

The Root of Disputes in Infrastructure Projects Involving Foreign Companies

The root of disputes in infrastructure projects involving foreign companies generally stem from the interaction between technical, contractual, regulatory, and public policy aspects. Disputes occur not only due to breach of contract, but also due to inaccurate risk allocation, differences in international technical standards, and the dynamics of national law. The following subsection outlines the four main sources of dispute with the support of academic references.

Delay in Implementation of Work

Delays are the most common cause of disputes in international construction projects (Jones & Bell, 2018). Factors of delay include slow land acquisition by the government, delays in the issuance of environmental permits, logistical and material import constraints, and design incompatibilities submitted by foreign contractors with local conditions (Loots & Charrett, 2019). In FIDIC contracts, contractors are required to provide timely notice to obtain extended time (EOT) and cost compensation.

Variations

Large-value infrastructure projects almost always experience design changes or technical needs that result in variation orders (Bailey, 2020). Differences in interpretation of whether an instruction is a variation and how the method of calculating prices is carried out are often a source of dispute.Differences in interpretation of whether an instruction is a variation and how the method of calculating prices is carried out are often a source of dispute. In international practice, variation disputes are usually related to a lack of field documentation, disagreements over valuation methods, and the occurrence of unanticipated scope creep from the beginning of the contract (Bunni, 2005).

Construction Quality and Work Defects

Work defects occur when construction results do not meet the standards required by the contract. In high-tech projects—such as power plants, mass transportation systems, or energy refineries—technical defects can trigger high-value claims (Uff, 2013). Disputes usually relate to the scope of defects liability, the contractor's limits of liability for damages, and the source of the cause of the defect (design, material, or workmanship). Project owners often demand technical remediation, while contractors seek to prove that the failure was beyond their responsibility.

Policy Changes and Regulatory Factors

Changes in government policies, including tariff adjustments, environmental regulations, revisions to safety standards, or changes in taxation schemes, often give rise to disputes involving foreign companies (Brekoulakis, 2018). Investors usually base claims on the concept of Material Adverse Government Action (MAGA) or change in law to seek compensation. The government often rejects these claims on the grounds that regulatory changes are a manifestation of public authority, not actions that can be demanded contractually. This tension suggests an overlap between state administrative law and international contract law.

Indonesian Legal Framework in Infrastructure Project Disputes Involving Foreign Companies

The legal framework that applies in infrastructure projects involving foreign companies in Indonesia is composed of various intersecting legal regimes, including investment law, contract law, state administrative law, and the mechanism for recognizing international arbitration awards. This complexity affects the structure of the parties' rights and obligations and determines how disputes arise and are resolved.

Foreign Investment Law

Law No. 25 of 2007 on Investment provides basic guarantees for foreign investors, including non-discriminatory treatment, the right to compensation in the event of nationalization, and access to international arbitration forums (Muchlinski, 2007). This

provision not only provides legal certainty but also determines the dispute resolution mechanism that can be used by investors.

Infrastructure Regulation and Government and Business Entity Cooperation Scheme (PPP)

The arrangement of infrastructure projects involving foreign capital is mostly handled through the PPP framework as stipulated in Presidential Regulation 38/2015. The regulation regulates the structure of risk sharing, the provision of government guarantees, investment return schemes, and dispute resolution provisions. Although this framework reinforces contractual certainty, differences in interpretation of the scope of government obligations or policy changes are often a source of dispute.

National Contract Law and Mandatory Rules

International contracts in Indonesia often choose foreign law as the governing law. However, the contract is still subject to Indonesia's mandatory provisions such as environmental regulations, taxation, licensing, and public procurement. A dispute arises when the mandatory provision gives rise to a new obligation that is considered to be contrary to the terms of the contract or imposes an unagreed risk on either party.

Recognition and Enforcement of International Arbitral Awards

Indonesia is a party to the 1958 New York Convention which regulates the recognition and enforcement of foreign arbitral awards, adopted through Presidential Decree No. 34/1981. A foreign arbitral award can be enforced after obtaining *an exequatur* from the Supreme Court. However, this process faces several challenges such as a broad interpretation of the public order doctrine, obstacles to the execution of state-owned assets, and administrative procedures that require significant time. These barriers affect investors' preferences in choosing dispute forums.

Interaction between Public Regulation and International Contracts

Many disputes arise from the common point between international contracts and the regulatory authorities of countries. Changes in public policy such as revisions to technical standards, tariff adjustments, or environmental policies may give rise to claims that the government has violated contractual obligations or undermined investment stability. This context emphasizes the need for harmonization between state administrative law and international contract standards in order to minimize disputes.

Dispute Resolution Mechanism in Infrastructure Projects Involving Foreign Companies

Dispute resolution in international infrastructure projects requires mechanisms capable of accommodating technical complexity and cross-jurisdictional aspects. The difference in interests between project owners, foreign contractors, financing agencies, and the government demands a planned dispute resolution system from the outset. This section outlines the mechanisms commonly used, ranging from preventive efforts to resolution through arbitration or litigation.

Dispute Prevention Mechanism

Dispute prevention efforts are considered the most effective step in the management of international construction projects. Prevention mechanisms typically include:

- Early warning system, which is an early warning system that allows parties to identify potential problems before they cause material impacts.

- Periodic coordination meetings, which serve as a forum for technical and administrative clarification.
- Dispute Avoidance/Adjudication Board (DAAB), an independent panel that oversees the ongoing running of projects and provides technical recommendations as needed.

In the 2017 version of FIDIC, DAAB is structured as a standing board, which functions to monitor problems from the beginning so that potential disputes can be resolved without escalation (FIDIC, 2017).

International Arbitration

International arbitration is the dominant option in infrastructure contracts with foreign parties because it provides a neutral and experienced forum (Born, 2021). The advantages of arbitration include:

- Closed process and maintain confidentiality,
- Flexibility of procedures,
- Arbitrator expertise in construction and investment disputes,
- The international enforceability of judgments through the New York Convention.

The advantages of arbitration include closed process and maintain confidentiality, flexibility of procedures, arbitrator expertise in construction and investment disputes, and the international enforceability of judgments through the New York Convention.

Domestic Arbitration

Domestic arbitration, especially through the Indonesian National Arbitration Board (BANI), is used when the contract requires a local forum or if the character of the project is related to the government's interests (BANI, 2021). The main advantages of domestic arbitration are the relatively lower fees and easier access for the parties.

However, a number of obstacles still arise, such as:

- Variations in the competence of arbitrators,
- Limited experience in handling cross-border disputes,
- Potential administrative interference from the judicial system.

National Litigation

The litigation route is chosen if the contract does not provide for arbitration or if the dispute falls within the jurisdiction of the public, for example when it concerns permits or administrative actions of the government. Litigation is often considered not ideal for foreign parties due to the long duration of settlements, the unavailability of judges who specialize in construction aspects, and the nature of open trials (Greenberg et al., 2011). Therefore, litigation is usually used as a last resort.

Mediation and Conciliation

Mediation offers a more flexible and compromise-oriented approach. This mechanism is widely used when business relationships between parties need to be maintained or when projects are still ongoing. Mediation can be done on an ad hoc basis or through an institution such as the ICC. Empirical studies show mediation often results in faster settlements at a lower cost (McIlwrath & Savage, 2010).

Forum Selection Pattern in International Contracts

International experience shows the following pattern of forum selection:

- FIDIC → DAAB → ICC/SIAC based projects,
- PPP/PPP projects → negotiations → mediation → international arbitration,

- Foreign direct investment → consultation → ICSID.

The choice of forum is usually influenced by the investor's country of origin, the source of funding, and the level of trust in the national judiciary.

Case Studies and Dispute Patterns in Infrastructure Projects Involving Foreign Companies

Disputes in international infrastructure projects arise from a combination of technical, regulatory, and financial factors. Each type of project has characteristics that affect the pattern of conflicts that occur. Through the study of several types of projects such as power plants, mass transportation, toll roads, and digital infrastructure, it can be identified that recurring patterns of disputes in cooperation with foreign companies can be identified.

Disputes on Power Plant Projects (EPC/Turnkey Models)

Power generation projects implemented through EPC or turnkey contracts are one of the biggest sources of disputes in the infrastructure sector (Uff, 2013). The pattern of disputes that arise usually revolve around:

a. Barriers to land acquisition
   Delays in land acquisition by the government often trigger claims for extension of time and additional costs from foreign contractors.
b. Technical differences between national standards and foreign manufacturers
   Disparities in performance standards, especially related to turbine or combustion system testing, give rise to differences in interpretation of the performance parameters to be achieved.
c. Unexpected cost overruns
   Geotechnical conditions that have not been identified since the initial study are often the basis for variation claims, which are then disputed between the contractor and the project owner.
d. Construction defect issues after the project are operational
   Disputes may arise when the project owner makes a claim against the contractor regarding suboptimal equipment functionality during the defect's liability period.

Power generation projects from developing countries show that complex technical issues tend to lead to international arbitration because they involve claims of significant value (Bailey, 2020).

Disputes over Mass Transportation Projects (MRT/LRT/High-Speed Train)

Mass transportation often faces disputes due to the nature of the project involving multiple contractors and cross-border technology. Common conflict patterns include:

a. Design coordination issues between work packages
   Civil works systems, train equipment, and signalling are usually done by different contractors. Design disharmony is one of the sources of delays and additional costs (Van der Meer, 2019).
b. Disputes related to development safety
   Accidents or structural failures that occur during the implementation give rise to disputes regarding the safety standards used and who should be responsible.
c. Impact of government policy changes

Adjustments to freight rates, subsidy policies, or changes in financing structures can trigger contract renegotiation and financial disputes.

d. Inhibition of equipment import and certification
   Railway systems require strict safety certifications. Delays in the issuance of certificates are often the basis for late claims from foreign contractors.

The experience of high-speed rail and MRT projects in Asia shows that disputes in this sector are often multidisciplinary and politically sensitive (Asian Development Bank, 2018).

Disputes over Toll Road and PPP/PPP Infrastructure Projects

In toll road projects and government-business entity cooperation (PPP/PPP), disputes are more predominantly related to financial and public policy issues than technicalities. Some of the tendencies of disputes in this sector are:

a. Economic income that is far from initial projections
   If the traffic volume is much lower than the initial calculation, foreign investors can file a compensation claim for failure to meet economic expectations.
b. Delay or cancellation of fare adjustment
   Changes in tariff policy by the government are often considered to violate the principle of contractual certainty.
c. Differences of opinion regarding government guarantees
   Investors can file a collateral disbursement claim when certain risks—such as a government's failure to meet obligations—are deemed to have occurred.
d. Project debt restructuring problems
   Long-term projects are vulnerable to economic fluctuations; Renegotiation of financing can lead to conflicts with contractors and lenders.

Due to their long-term and public interest litigation nature, PPP disputes tend to be brought to international arbitration (World Bank, 2019).

Disputes over Telecommunications and Digital Infrastructure Projects

Disputes in the telecommunications and digital infrastructure sectors are often related to technical aspects and regulatory compliance. Some dispute patterns include:

a. Inconsistency of interoperability standards, especially in cross-vendor network systems.
b. System performance failures, such as decreased service speed or network instability.
c. Delays in integration with national systems, due to licensing processes or differences in security standards.
d. Data security and privacy issues, especially on projects involving cross-border data transfers.

This sector is moving fast, so disputes often touch on the issues of intellectual property rights, cybersecurity, and regulation of the use of digital devices (International Telecommunication Union, 2021).

Common Patterns of Disputes in International Infrastructure Projects

From the various cases above, several patterns can be identified:

a. Weaknesses in contract administration are the biggest source of disputes
   Many disputes occur because the parties do not comply with *notice* or documentation obligations.
b. Differences in technical standards between the country of origin of technology and local regulations

This can be seen in the energy and transportation sectors.

c. Government policy changes pose a major legal risk
   Especially in long projects such as PPP/PPP.
d. Dispute resolution forums depend on the financing structure and the investor's country
   Projects involving international financing almost always lead to international arbitration.
e. The clash between mandatory rules and international contract provisions
   This is one of the main causes of the escalation of disputes.

Key Challenges in Dispute Resolution of Infrastructure Projects Involving Foreign Companies

The resolution of disputes on infrastructure projects involving foreign companies is influenced not only by the quality of contracts and technical aspects, but also by institutional conditions, policy dynamics, and the alignment of the legal system. In the Indonesian context, a number of structural challenges still hinder the effectiveness of dispute resolution, despite the regulatory tools available. This section reviews the most prominent obstacles in practice.

Regulatory Inconsistency and Legal Framework Complexity

One of the main problems is the lack of harmonization of various regulations that regulate infrastructure development (Sutedi, 2020). Various sectoral rules—ranging from the environment, taxation, to employment and procurement of goods/services—are often not coherently arranged. Such asynchronization causes:

a. Differences in interpretation between government agencies and foreign contractors,
b. Unclear as to which provisions are binding,
c. The risk of policy changes that have a direct impact on project schedules and costs.

International contracts that use FIDIC standards or foreign laws often deal with mandatory national rules, thus opening space for interpretation disputes.

Limitations of Administrative and Technical Capacity of State Apparatus/SOEs

Institutional capacity is a very influential factor in contract management (Lavers, 2016). Many infrastructure disputes arise due to weak contract administration, for example:

a. Lack of understanding of FIDIC-based claims structure,
b. Failure to compile claim documentation in a timely manner,
c. Lack of technical experience in assessing job variations,
d. Changes in project officials that hinder the continuity of supervision.

In contrast, foreign contractors usually have well-trained technical and legal teams, resulting in competency inequities that affect the dispute resolution process.

Unbalanced Risk Sharing

In many cross-border projects, the allocation of risk is not always formulated proportionately (Loots & Charrett, 2019). An imbalance appears when:

a. geotechnical risks are fully burdened on the contractor,
b. The project owner is held liable for risks that are actually beyond his control,
c. The provisions of *force majeure* or change in law are not adequately explained.

Inaccurate risk allocation not only creates uncertainty, but also drives an increase in the number of claims and an escalation of disputes.

Uncertainty in the Implementation of International Arbitration Awards

Although Indonesia is a member of the 1958 New York Convention, the implementation of foreign arbitration awards in Indonesia still faces several obstacles (Van den Berg, 1981). Problems that often arise include:

a. The application of the concept of "public order" which is not always consistent,
b. Obstacles in executing state-owned assets,
c. The length of the administrative process to obtain exequatur.

This condition makes some investors view Indonesia as a forum that lacks certainty of execution.

The Influence of Public Policy and Political Factors

Infrastructure projects are often directly linked to the national development agenda, making them vulnerable to policy changes (UNCTAD, 2020). Tariff adjustments, government budget restrictions, revisions to technical standards, or changes in development priorities can be contentious, especially when investments are long-term. In certain cases, foreign contractors interpret policy changes as a form of political risk that triggers compensation claims.

Challenges in Mastering International Contract Standards

International contract standards such as FIDIC, NEC, or AIA have strict administrative procedures (Bunni, 2005). Many technical disputes arise due to:

a. Non-compliance with the notice requirement,
b. Differences in interpretation of the authority of the Dispute Board,
c. Errors in preparing the calculation of delays or variations of work.

The unpreparedness to understand international standards has led to a number of disputes becoming more complex than they should be.

Weak Implementation of Dispute Prevention Mechanism

In contrast to global practice, the implementation of the standing dispute board or DAAB in Indonesia is still limited. Many large projects do not form dispute prevention panels in the first place (Gerber & Ong, 2013). As a result:

a. minor technical problems are not solved immediately,
b. administrative disputes piled up until the final project,
c. Arbitration became the main forum because there was no mechanism for settlement at the initial stage.

International experience shows that prevention mechanisms can significantly reduce the cost of disputes.

Recommendations for Strengthening Governance and Dispute Resolution of Infrastructure Projects Involving Foreign Companies

Policy recommendations are needed to improve the governance of infrastructure projects and reduce potential disputes with foreign companies. Based on the analysis in the previous chapters, there are a number of strategic steps that can be implemented by the government, SOEs, and business actors. This section presents conceptual as well as operational recommendations to strengthen risk management and dispute resolution systems in Indonesia.

Harmonization of Regulations and Strengthening Legal Certainty

The government needs to ensure that sectoral regulations governing energy, transportation, telecommunications, environment, taxation, and procurement of goods/services

are harmoniously arranged (UNESCAP, 2021). Regulatory inconsistencies are often a trigger for disputes, especially in projects that use international standards. Some steps that can be taken:

a. Preparation of an integrated regulatory framework for large-scale infrastructure projects, especially those involving foreign investors.
b. Periodic review of sectoral regulations, to ensure that there is no conflict of norms between agencies.
c. The application of the concept of regulatory stability, especially in PPP/PPP, so that policy changes do not directly burden the project.

With regulatory harmonization, the level of legal certainty will increase and allow for more effective risk management.

Strengthening Negotiation and Contract Administration Capabilities

One of the roots of the dispute is the weak contract administration and negotiation capacity of the government and state-owned enterprises (Lavers, 2016). For this it is needed:

a. FIDIC, NEC, and international contract standards technical training for project officials,
b. The establishment of a professional contract management unit in each state-owned enterprise in the infrastructure sector,
c. Implementation of a digital administration system for claims documentation, notifications, and job changes,
d. Consistence in human resource placement so that there is no rotation that interferes with project continuity.

This capacity building aims to balance the bargaining position between foreign companies and national entities.

Improved Risk Allocation in Contracts

A good contract should distribute risk proportionally between the project owner and the contractor (Loots & Charrett, 2019). Some important principles in risk allocation:

a. Technical risks such as soil and geotechnical conditions should not be fully imposed on the contractor.
b. Regulatory risks such as changes in environmental policies and taxation need to be regulated through a change in law clause.
c. The risk of delay due to government action must be addressed through clear compensation clauses.
d. Financial risks such as exchange rate fluctuations can be managed through price indexation or hedging.

Proper risk allocation will reduce the number of claims and improve the smooth running of the project.

Strengthening Dispute Prevention Mechanism

Domestic arbitration needs to be strengthened in order to be able to handle international construction disputes more effectively (Born, 2021). To fix it:

a. DAAB needs to be made a mandatory mechanism for national strategic projects (PSN) and PPP,
b. The composition of the DAAB should involve technical experts, contract experts, and independent professionals,
c. The DAAB decision is temporarily binding to prevent stagnation in project implementation.

The strengthening of the DAAB encourages dispute resolution at an early stage, so that arbitration is the last resort.

Reform of the National Arbitration Mechanism

Indonesia needs to develop national standard contract documents that are compatible with FIDIC, NEC, or other international models (Bunni, 2005).

Actionable recommendations:

a. Improvement of arbitrator competence through international certification in the field of construction and investment.
b. Update procedural rules to align with international arbitration practices, including transparency and evidence management.
c. Digitization of the arbitration process, especially the submission of documents and the examination of witnesses remotely.

By strengthening domestic arbitration, Indonesia can reduce its dependence on foreign arbitration institutions.

Simplification of International Arbitration Award Enforcement Procedures

The exequatur process in the implementation of international arbitration awards still leaves several obstacles. Therefore, the government needs to:

a. to develop more measurable "public order" guidelines,
b. speed up the administrative process,
c. establish a special court that handles the execution of arbitral awards,
d. clarify the limits of the execution of state assets.

Improving the efficiency of the execution of arbitral awards will increase the confidence of foreign investors.

Implementation of International Standards in National Contract Documents

Indonesia needs to develop national standard contract documents that are compatible with FIDIC, NEC, or other international models (Bunni, 2005). This effort is important to:

a. Reduce differences in interpretation between local and foreign parties,
b. Improve consistency of contract administration,
c. Simplify risk allocation and claims mechanisms,
d. Strengthening the government's negotiating position.

Transparency and Accountability in Project Decision-Making

Transparency is a key element in preventing disputes. The government needs to:

a. Applying the principle of open contracting in the procurement of large infrastructure,
b. Ensure all contract changes and addendums are systematically documented,
c. Improve periodic audits of project performance.

This step not only prevents disputes, but also improves the effectiveness of public project oversight.

CONCLUSION

Infrastructure development involving foreign companies accelerates national growth by providing capital, advanced technology, and superior project management, yet it introduces complex risks from cross-jurisdictional parties, demanding robust governance and credible dispute resolution beyond mere technical fixes to address interplay among national laws, public policy, international contract standards, and institutional capacity. Key recommendations

include regulatory harmonization, bolstering contractual expertise in government and state-owned enterprises, proportional risk allocation, strengthening preventive tools like the Dispute Avoidance/Adjudication Board (DAAB), and streamlining enforcement of international arbitral awards to ensure legal certainty and investor confidence, ultimately fostering a transparent, competitive, and sustainable infrastructure ecosystem in Indonesia. For future research, scholars could conduct empirical case studies of DAAB implementations in Indonesian proyek strategis nasional (PSN) to evaluate their effectiveness in reducing dispute escalation compared to traditional arbitration.

REFERENCES

Abwunza, A. A. (2021). *Development of a framework for effective construction arbitration: A comparative case study of construction disputes in Kenya*.

Alqershy, M. T., Shi, Q., & Feng, Z. (2024). Exploring governance mechanisms in megaprojects: A mixed-methods systematic review. *Engineering Management Journal*.

Bailey, J. (2020). *Construction law* (3rd ed.). Sweet & Maxwell.

Bank, W. (2019). *PPP risk allocation framework*. World Bank Group.

Bogdanowicz, P. (2015). Cross-border interest and concession contracts: A critical approach. *European Procurement & Public Private Partnership Law Review*.

Born, G. (2021). *International commercial arbitration*. Kluwer Law International.

Brekoulakis, S. (2018). Arbitration in infrastructure disputes. *Journal of International Arbitration*, 35(2).

Brunet-Jailly, E. (2022). Cross-border cooperation: A global overview. *Alternatives*.

Chang, Y., Iakovou, E., & Shi, W. (2020). Blockchain in global supply chains and cross-border trade: A critical synthesis of the state-of-the-art, challenges and opportunities. *International Journal of Production Research*.

Chin, Y., & Zhao, J. (2022). Governing cross-border data flows: International trade agreements and their limits. *Laws*.

FIDIC. (2017). *Conditions of contract for construction*. FIDIC.

Huang, J., Fu, X., Chen, X., & Wen, X. (2024). Supply chain management for the engineering procurement and construction (EPC) model: A review and bibliometric analysis. *Sustainability*.

Jones, D. S., & Bell, M. (2018). *Construction law in Australia*. Thomson Reuters.

Kontorovich, E., & Parisi, F. (2016). *Economic analysis of international law*.

Lavers, A. (2016). Public sector weakness in contract administration. *Construction Law Review*.

Loots, P., & Charrett, D. (2019). *Practical guide to engineering and construction contracts*. CRC Press.

Mbatu, R. S., & Eliamini, F. (2025). The implementation of REDD+ in Africa: The case of REDD+ conflict management. *Journal for Nature Conservation*.

Meer, W. van der. (2019). *Rail infrastructure project delivery*. Routledge.

Melville, D. (2016). *Public–private partnerships in developing countries*.

Sutedi, A. (2020). *Hukum infrastruktur*. Sinar Grafika.

Talitha, T. (2025). Megaprojects as a "space of exception": Unraveling institutional and policy dynamics in Indonesia's national strategic projects agenda. *Environment and Planning C: Politics and Space*.

UNCTAD. (2020). *Investment dispute settlement navigator*. United Nations Conference on Trade and Development.

UNESCAP. (2021). *Infrastructure regulatory governance review*. United Nations Economic and Social Commission for Asia and the Pacific.

Union, I. T. (2021). *ICT infrastructure standards compendium*. International Telecommunication Union.
Wolf, W.-J. van der. (2018). *International construction contracts*. Kluwer Law International.