International Construction Law
Academic Monograph

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Balancing Green Standards and Risk Allocation in International Construction Contracts: A Practitioner-Oriented Analysis

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The chapter explores the incorporation of international environmental law into the nascent field of international construction contract law. It is structured around the doctrinal foundations of lex constructionis; the principles of common but differentiated responsibilities and environmental impact assessment; the risk-management devices embedded in the standard forms of the International Federation of Consulting Engineers; and the sustainability policies of multilateral development banks. Comparative analysis yields generic clauses on force majeure, hardship and unforeseen

events that dovetail with green certifications such as LEED, BREEAM, DGNB, WELL and Green Star. The outcome is a transferable model balancing economic performance with environmental protection, thereby enhancing legal certainty and project bankability across borders.

International environmental law is a well-established branch of public international law, recognized by legal scholars worldwide as fundamental in developing mechanisms to prevent transboundary environmental threats and ensure sustainable development. In contrast, international construction law is still emerging as both an academic and practical discipline. Although many foreign experts already regard this field as consolidated — evidenced by seminal works such as W. Breyer's International Construction Law: An Overview (Breyer, 2024), W.K. Venoit's International Construction Law (Venoit, 2009), D. Wightman and H. Lloyd's International Construction Law Review (Wightman, Lloyd, 2002), and C.B. Molineaux's International Construction Law (Molineaux, 1998) — in countries like Russia this discipline began to develop relatively recently. For example, a course on International Construction Law is now offered at the Higher School of Economics in Moscow under Dr. G.A. Pakerman, covering topics such as legal regulation of international construction contracts, the application of FIDIC (International Federation of Consulting Engineers) standard forms, the rules of the International Chamber of Commerce and UNCITRAL, and mechanisms for resolving cross-border disputes. Notably, four of the five founding BRICS countries — Brazil, India, China, and South Africa — are members of FIDIC, underlining the global relevance of these standards (including their importance for Russia).

On the international stage, a more focused subfield is coalescing: International Construction Contract Law (ICCL), concentrating on the terms and conditions of cross-border construction contracts. In Russian-language scholarship, attention is drawn to works like Ya. A. Anosov's Legal Regulation of International Construction Contracting in EAEU Countries (Anosov, 2022) and I.A. Goddard's International and National Legal Regulation of Transboundary Construction Contracts (Goddard, 2018). Globally, doctrinal studies of ICCL include works such as L. Klee's International Construction Contract Law (Klee, 2018) and D.I. Imamova's The Concept of an International Construction Contract (Imamova, 2023).

Principles of lex constructionis and the FIDIC standard contracts play a special role in the formation of ICCL. These model contracts provide universal legal tools for risk management, minimization of disputes, and enhancement of legal predictability in cross-border construction projects. FIDIC forms incorporate detailed risk-allocation clauses and multi-tiered dispute resolution mechanisms (including Dispute Adjudication Boards, DAB/DAAB) that help reduce conflicts and ensure project stability. The role of international financial institutions such as the BRICS New Development Bank (NDB) has also been critical, as they require environmental risk assessments before granting loans or underwriting projects. This demand drives the development of mechanisms to integrate environmental standards into the legal framework of international construction contracts.

According to the 1992 Rio Declaration, sustainable development requires balancing economic growth, social justice, and environmental protection. The United Nations Environment Programme (UNEP) coordinates the implementation of environmental agreements, developing methodologies and guidelines. In this context, O.N. Otrashevskaya et al. (2023) emphasize the significance of quasi-judicial non-compliance procedures for monitoring compliance with international environmental obligations. These mechanisms play a key role in resolving issues related to adherence to environmental norms and in enforcing contractual environmental obligations through specialized compliance committees, such as those established by the Aarhus Convention and other agreements. Furthermore, F.F. Nazirov and T.E. Sedankina (Nazirov, Sedankina, 2024) highlight the supportive role of Islamic law in advancing sustainable development. Grounded in the principles of himma (collective welfare) and haram (the forbidden), Islamic legal systems promote environmental responsibility and sustainable use of natural resources. Countries like Morocco and Saudi Arabia actively integrate these principles into their national legislation and international commitments by ratifying key environmental agreements including the Paris Agreement. The combination of quasi-judicial compliance procedures with the religious-legal principles of Islamic law has been shown to strengthen global initiatives toward sustainable development and adherence to environmental standards.

Recent trends in international environmental law demonstrate a shift from intensifying normative regulation to improving the effectiveness of

implementing existing agreements. Under such mechanisms, measures can range from financial and technical support to restrictive sanctions. For example, the CITES committee is empowered to impose trade bans on certain species if a state violates its obligations to protect natural resources, and the Aarhus Convention's Compliance Committee can limit parties' procedural rights when obligations concerning access to environmental information and justice are not met.

International construction contracts must heed the stringent requirements of international environmental standards established by agreements such as the 2015 Paris Agreement. This underscores the importance of studying international environmental law in the context of construction contracts, where environmental requirements may conflict with the commercial interests of the parties. In their study, I.M. Lifshits, A.S. Smbatyan, and M.R. Saliya (Lifshits et al., 2024) focus on the legal aspects of implementing the Paris Agreement among Eurasian Economic Union (EAEU) countries, aimed at reducing greenhouse gas emissions and achieving carbon neutrality. National legal systems are the primary drivers of these commitments: for example, Russia and Kazakhstan strive for carbon neutrality by 2060, while Belarus and Armenia aim for 2050, which is important for synchronizing environmental and construction measures. The authors note that sectoral nationally determined contributions reflect the desire of countries to account for local conditions while still supporting global climate and sustainability goals. They further argue that developing a common carbon regulation system within the EAEU is necessary for effectively implementing climate measures, especially in sectors that significantly impact the environment such as construction and infrastructure.

The core principles of international environmental law — including the precautionary principle and the concept of sustainable use of natural resources — form the foundation of the global legal framework for sustainable development. The principle of "common but differentiated responsibilities" (CBDR) allocates states' obligations based on their economic capacity and level of development. In international construction contract law, this means developing countries may have relaxed environmental duties compared to developed countries. As L. Rajamani observes, this reflects the need to consider differing economic and technological capabilities when

implementing large infrastructure projects. In recent decades, compliance control mechanisms have become a crucial element of various international agreements, such as the 1997 Kyoto Protocol, the 1987 Montreal Protocol, and the 1998 Aarhus Convention. These procedures establish an international legal framework for environmental protection that states implement in their national laws, ensuring that participants in construction projects observe environmental standards.

Another key aspect is the use of Environmental Impact Assessment (EIA) as a crucial tool for preventing environmental risks arising from large-scale construction projects. The EIA process requires a mandatory preliminary evaluation of the potential impacts a project may have on the environment before implementation. This includes analyzing factors such as effects on ecosystems, air and water quality, and public health. EIA not only promotes a more prudent and responsible approach to project planning but also ensures alignment with sustainable development principles by integrating environmental considerations at early design stages. Professor Alan Gilpin (Gilpin, 1995) notes that incorporating EIA into international construction contracts has become a key element of effective environmental risk management. This process helps minimize negative environmental impacts and creates balanced conditions for reconciling commercial interests with environmental protection requirements. Such an approach is especially pertinent as the scale of construction activity increases and environmental compliance demands grow stricter. Effective use of EIA can help prevent conflicts between commercial projects and environmental interests, enabling more sustainable and safer development of the construction industry at the international level. It is likely that in coming years we will see greater use of "hybrid" contracts combining mandatory legal norms with voluntary environmental standards to reduce the carbon footprint of construction projects.

Furthermore, the integration of international environmental law into construction contracts is evident in parties' commitments to adhere to international environmental standards. This includes applying "green" building benchmarks such as BREEAM and LEED, which help minimize a project's environmental impact (Kubba, 2012). The study found that international environmental standards like LEED, BREEAM, DGNB, Green

Star, and WELL play an important role in the evaluation of projects financed by international banks, including the BRICS NDB and the Asian Infrastructure Investment Bank (AIIB). The sustainability policies enshrined in these banks' documents mandate careful attention to the environmental and social responsibility of projects, aligning with key principles of those standards. Moreover, certification under systems like BREEAM and LEED boosts energy efficiency, lowers operating costs, and minimizes environmental risks, making projects more attractive for international financing. Such certifications also enable banks to issue "green bonds" for sustainable financing and build investor confidence. LEED and BREEAM, being the most widespread standards, are often used to evaluate large-scale infrastructure projects. The German DGNB standard stands out for emphasizing a balance of environmental, economic, and social aspects, while WELL and Green Star focus on user health and biodiversity preservation. These standards enhance project transparency, which is important for long-term international investments. Incorporating environmental criteria into project appraisal ensures that financed projects will be not only profitable but also sustainable, meeting contemporary climate change challenges. As a result, banks that integrate these approaches act as key drivers of the global environmental agenda, setting benchmarks for sustainable development. It can be anticipated that certification schemes will expand to include new biodiversity and climate adaptation indicators.

One of the main challenges facing international construction companies is complying with national and international environmental regulations, which become more stringent each year. L. Zhang et al. (2023) underline the importance of implementing cleaner technologies and improving cost efficiency to achieve sustainable development goals. A telling example of balancing environmental responsibility with investor rights is the arbitration between Costa Rica and Compañía del Desarrollo de Santa Elena S.A. (CDSE). The Costa Rican government expropriated a tract of land owned by CDSE to create a protected natural area. This led to arbitration at the International Centre for Settlement of Investment Disputes (ICSID), where CDSE claimed a violation of property rights and inadequate compensation for the taking. The award in favor of the company highlighted the importance of maintaining a balance between the state's environmental interests and the rights of investors.

Early implementation of EIA during the planning and execution of construction projects often helps reduce potential negative consequences, strengthen resilient infrastructure, and ensure compliance with international environmental obligations.

This study developed universal approaches to integrating principles of international environmental law into ICCL. Particular attention was given to theoretical aspects such as the need to incorporate sustainable development principles into legal constructs, to include environmental risks within general categories of force majeure, and to adapt international standard contracts to domestic conditions. These measures foster the harmonization of legal systems and contribute to the creation of a unified international framework for regulating cross-border construction projects.

On a practical level, it was found that all large-scale construction projects analyzed inevitably faced external, internal, and hybrid types of environmental threats. Including special mechanisms in contracts for identifying, analyzing, and mitigating such risks will help achieve a balance between economic interests and environmental safety. This approach accords with the sustainable development principles enshrined in international agreements and takes into account the requirements of international financial and insurance institutions (such as the NDB) for conducting environmental risk assessments before issuing loans or policies.

Allocating unforeseen and uncontrollable risks among construction participants should be based on lex constructionis principles identified in this research, including the duties of due diligence and good faith. These principles provide the foundation for developing flexible mechanisms to respond to changing circumstances (such as natural disasters or industrial accidents), allowing contractual obligations to be adjusted and ensuring equitable risk distribution. When preparing international construction contracts, special attention should be paid to formulating provisions on unforeseen circumstances, force majeure, impossibility of performance, and excessive onerousness of obligations (hardship). These clauses define mechanisms for responding to changes in conditions during project execution, including extraordinary external events like natural disasters or technological catastrophes, and they enable revision of the parties' obligations

to protect their interests and minimize losses. It is advisable for contracts to include specific clauses requiring timely notice of unforeseen events, mandatory compliance with environmental standards, and the integration of EIA procedures at the contract negotiation stage. (Notably, unlike some civil law systems, English common law — as reflected in House of Lords precedent — does not recognize a broad doctrine of hardship, which makes it all the more important to include explicit force majeure and hardship clauses in cross-border contracts. Similarly, U.S. law codified in the Restatement (Second) of Contracts provides doctrines of impracticability and frustration of purpose that parallel these contractual mechanisms.)

A comprehensive approach to risk allocation — including environmental obligations (such as LEED, BREEAM, DGNB, WELL, and Green Star certifications) at the contract formation stage — is essential. It is recommended to adapt international contract mechanisms (for example, FIDIC standard forms) to account for sustainable development priorities. One concrete measure could be requiring the use of international environmental standards and EIA processes in project contracts. The findings confirm that integrating environmental standards and international regulatory mechanisms (such as FIDIC model contracts), while accounting for local conditions, not only enhances the resilience of infrastructure projects but also strengthens the competitive position of participants in global construction markets. Implementing the proposed mechanisms contributes to the achievement of sustainable development goals and increases legal certainty in transnational construction projects. The approaches developed can be used to adapt FIDIC standards and incorporate environmental standards into the execution of cross-border projects. Adopting these approaches will improve the sustainability of infrastructure projects, bolster the competitive positions of companies internationally, and help realize the objectives of sustainable development.

Note on the publication of the main research results

Academic specialty: 5.1.5. International legal studies.

International environmental law and its role in ensuring sustainable development.

The main research results have been published in the following peer-reviewed article: Белкин, Д. С. Международное экологическое право и механизмы его интеграции в систему правового регулирования транснациональных строительных проектов / Д. С. Белкин // Теория и практика общественного развития. – 2025. – № 1(201). – С. 131-137. – DOI 10.24158/tipor.2025.1.16. – EDN NXDZJJ. DOI: 10.24158/tipor.2025.1.16 EDN: NXDZJJ

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