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The Problem of Legal Regulations Regarding Earten Buildings in Türkiye and Different Countries Around the World

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ABSTRACT

Earthen and adobe structures are not only among the oldest housing solutions in human history but also offer unique potential in terms of today's sustainability and low-carbon emission goals. In Turkey, these structures have been excluded from modern zoning laws and building inspection regulations. Existing Turkish standards and regulations previously covered only the adobe construction technique among earthen construction methods. The adobe construction standards (TS 2514 and TS 2515) were repealed in November 2011 and have not been updated since then to include new regulations or modern techniques (such as compacted earth) to replace them. he current Earthquake Code contains restrictive provisions that hinder rather than encourage the construction of earthen structures, making it difficult to integrate traditional knowledge with modern engineering. While older standards in Turkey primarily focused on "construction rules," performance-based criteria such as durability, thermal insulation, and fire resistance have been insufficient. This situation is interpreted as an indication that Turkey has not yet reached a sufficient level in the field of earthen construction on a global scale. There are no legal regulations in Turkey regarding systems such as compacted earth, in-situ cast earth, or in-situ earth, which are considered modern worldwide.

This study analyzes, from a legal perspective, why adobe structures have lost their "legal status" over time, despite having been included in legislation in the past. By examining gaps in urban planning law, permitting processes, and building inspection regulations, the study conducts a comparative analysis (benchmarking) with successful legal frameworks in developed countries such as Germany, France, the United States and New Zealand. As part of the proposed legislative amendment, this study advocates for the removal of adobe and earthen structures from the category of "temporary or rural structures" and their inclusion in the class of registered and certified structures based on modern engineering calculations, under the title "Regulation on Sustainable, Ecological, and Local Building Materials." In this context, adding the statement "Earth-based composite materials whose compliance with technical, artistic, and health regulations has been certified by accredited laboratories may be used in structural systems provided they meet standards" to zoning regulations will eliminate uncertainty in the permitting process. Similarly, this work grants priority to soil-based construction within the framework of sustainability, particularly focusing on adobe structures for their increased durability against fire, earthquakes, and external shocks like global climate change, natural disasters, and conflicts. In conclusion, it is emphasized that this proposed legal regulation is not merely a technical improvement but also a constitutional necessity in the context of property rights and environmental rights, and it provides a concrete roadmap for the integration of these structures into sustainable urbanization policies.

Keywords: Zoning Law, Earthen Structures, Regulatory Issues, Sustainable Urbanization, Building Inspection, Accredited Materials.