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Challenges of Green Building Planning in Developing Countries: Iraq As a Case Study

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The Introduction

Over the recent decades, we can see an increase of environmental concern across the world, and the need to create standardized sustainable building system in order to reduce environmental burdens, and enhance the life spares. In this context, construction has seen the introduction of new ideas, most strikingly those associated with the term "green buildings," which emphasizes environmental efficiency as well as economic and social functionality of buildings in both their design and operation.

Although this trend is progressing in developed countries, the application of this phenomenon in developing countries is still hampered by many multidimensional challenges (economic, technical, legislative, and social). Hence, it calls for an analysis of these issues we face and ways to address to it.

Objective — The objective of this research is to explore the actual situation of green buildings in developing countries, using Iraq as a case study. The paper aims to illuminate the basic obstacles to the diffusion of this building typology and to offer theoretical lenses that could address and support its diffusion in the future.

1. Methodology:

The present study is of a descriptive-analytical type that reviews previous literature and theoretical studies carried out in the field of green buildings, especially in the context of developing countries. Thus, it seeks to study the most important obstacles that stand in the way of benefiting from this concept in Iraq, through a systematic theoretical study that will save the researcher from the banality of field studies, and uses examples from the Iraqi reality and international practices to substantiate his argument.

2. Definition of Green Buildings:

Green buildings are defined as a building that is designed, operated, and maintained to minimize the overall impact on the environment during its lifecycle (planning, design, construction, operation and maintenance) by using resources (energy, water and materials) efficiently, minimizing emissions, and improving the indoor environment.

3. Principles of Green Buildings:

- Energy conservation.
- Utilization of green energy.
- Water conservation.
- Use of sustainable materials.
- Benefits for indoor air quality.
- Waste reduction.
- Improved wellness and comfort of its occupants.

4. Expected Benefits:

- Intermediate Operating And Maintenance Expenditure.
- Better building indoor livability.
- Decreased environmental impact and carbon footprint.
- Sustainability of the economy in the long run

5. Objectives of Green Buildings:

- Less natural resource consumption
- This leads to: - Lesser pollution and emissions in the environment.
- Enabling a pleasant and healthy atmosphere for building occupants;
- Lowering operating expenses, thus reasons for the green economy.

6. Why Green Buildings Matter in Developing Nations — World Resources Institute

Considering that a green building is the solution to the environmental and your climatic issues that developing countries are facing, they are a means for sustainable development. They help to reduce environmental degradation and provide opportunities for energy and water conservation and improved public health.

7. Obstacles in Conducting Green Buildings Expanding in Aid Economy:

- Economic issues: Build cost versus traditional buildings is very high, and there are no government incentives
- Technology-related Problems: Limited local expertise for design and execution, inadequate appropriate sustainable materials.
- Political Problems: Non-Existent Policies, No Legislative Environment Regulations and Weak Enforcement
- Cultural and social issues: New concept of green buildings are not familiar in public and people are not actually ready to such changes on their old building style

8. Case study: Iraq

State of the Construction Industry in Iraq: There are many challenges facing the construction sector in Iraq including archaic transport infrastructure and the widespread use of traditional methods which overlook environmental factors.

9. Green Building Concept Adoption:

Although there were few efforts here and there but still the concept is limited into few places due to unavailability of favourable policies and lack of awareness among masses and local authorities.

10. Key Obstacles and Challenges:

- Insufficient government support and e.g. environmental policies.
- Insufficient technical skill.
- High initial costs.
- Building Culture is Sustainable? Absence of

11. Conclusions:

Findings indicate that green buildings are needed for sustaining development in developing nations. On the one side, a huge gap between theory and practice exists, especially in Iraq. The answer is diligent public-private partnership to pave the way for this model to take hold.

12. Proposals and Recommendations:

- Create and implement guidance legislation to implement green buildings and ensure compliance with the law by the respective authorities.
- Tax and financial incentives for investors and project owners who follow sustainable building standards.- Intensification of training workshops for engineers and architects competent in green building technology.
- Continuous media and educational campaigns to inform the public about the need for green buildings.
- Supporting collaboration between private sector and civil services to build pilot projects based on green building patterns.
- Research funding for sustainability topics related to the classroom and integration of green building topics into academic curriculum.
- Enhancing interdepartmental coordination to enable the implementation of environmental standards in construction.

Conclusion

Green buildings are viewed in this research as an essential strategic choice for sustainable development in developing countries such as Iraq, which suffers from several combined environmental and economic challenges. While significant barriers exist to the adoption of this model, carefully conceived policies in conjunction with broad institutional and technical support do offer a genuine opportunity to facilitate such steps in the construction sector.

Ensuring successful transition to green buildings could, however, take place through a comprehensive strategy involving legislation development, technical capacity building, investment stimulation, public awareness raising and reinforcement of cooperation among all relevant stakeholders at local, country and global level. The future asks for green buildings and there shall be no more luxury buildings as green buildings are no longer a choice but a pressing need in order to preserve the environment and have a better life for the future generations.

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