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# ENVIRONMENTAL SOCIAL GOVERNANCE IN VALUING ASSETS - GREEN BUILDINGS

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## ABSTRACT

Environmental, Social, and Governance (ESG) factors are becoming critical in valuing commercial real estate, particularly green buildings. These factors influence asset risks, income generation potential, and investor decisions. As sustainability becomes central to global investment strategies, valuation professionals must adopt ESG-inclusive methodologies. This paper explores ESG integration in commercial property valuation, focusing on green-certified buildings, and incorporates international frameworks and quantitative modeling to show the financial materiality of ESG in real estate.

## 1. INTRODUCTION

Green buildings—commercial properties designed to reduce environmental impact—are at the heart of sustainable development. ESG considerations, once peripheral in valuation, are now pivotal. Stakeholders are demanding metrics that capture long-term value creation, environmental resilience, and social license to operate. Traditional valuation models inadequately address these factors, prompting the need for an ESG-integrated approach.

## 2. ESG Factors in Valuing Green Commercial Property

2.1 Environmental Factors Green buildings feature energy efficiency, water conservation, and sustainable materials. These features reduce operational costs and improve longevity. Location- specific climate risks (e.g., flood zones) also affect value and insurance costs.

2.2 Social Factors Occupant health and well-being, indoor air quality, and access to public transport influence tenant satisfaction and retention. Social responsibility enhances brand value and can attract premium tenants.

2.3 Governance Factors Sound governance in property development and management—such

as compliance with green building codes and transparent reporting—reduces regulatory risk and boosts investor confidence.

## 3. ESG-Integrated Valuation Methodologies

3.1 Income Approach Green buildings often command higher rents and lower vacancies. ESG factors enhance Net Operating Income (NOI) and may result in lower capitalization rates due to perceived stability.

3.2 Market Approach Sustainable properties increasingly serve as comparable. ESG features are becoming marketable assets themselves.

3.3 Cost Approach Valuers must adjust for ESG-related depreciation (e.g., functional obsolescence of non-compliant HVAC systems) and replacement costs of green features.

## 4. Global Standards and Guidelines

IVSC Guidance (2021): Encourages ESG materiality assessment in valuation.

RICS Sustainability Guidance (2022): Advocates for integrating ESG into commercial property appraisals.

EU Taxonomy & SFDR: Directly affect asset managers' disclosure and valuation obligations.

TCFD & ISSB: Emphasize the inclusion of climate-related financial risks in reporting.

## 5. Numerical Model: ESG Impact on Green Commercial Asset

**Valuation Model (Income Approach)**

$$\text{Value} = \frac{\text{NOI}}{\text{Capitalization Rate}}$$

**Assumptions and Scenarios:**

| Variables | Without ESG Integration | With ESG Integration |
|---|---|---|
| Gross Rental Income (Annual) | ₹12,000,000 | ₹13,200,000 |
| Operating Expenses (Annual) | ₹4,000,000 | ₹3,400,000 |
| Net Operating Income (NOI) | ₹8,000,000 | ₹9,800,000 |
| Capitalization Rate | 8.0% | 7.0% |
| **Asset Value** | ₹100,000,000 | ₹140,000,000 |

**Result:** ESG-compliant green building shows a 40% value premium.

6. Scenario Projection: 2025–2030

| Year | Scenario | Gross Income (₹) | Operating Expenses (₹) | NOI (₹) | Cap Rate | Asset Value (₹) |
|---|---|---|---|---|---|---|
| 2025 | Optimistic | 13,992,000 | 3,468,000 | 10,524,000 | 6.8% | 154,764,706 |
| 2030 | Optimistic | 18,724,450 | 3,828,952 | 14,895,500 | 5.8% | 256,819,000 |
| 2025 | Conservative | 13,596,000 | 3,502,000 | 10,094,000 | 7.1% | 142,169,000 |
| 2030 | Conservative | 15,761,490 | 4,059,778 | 11,701,710 | 7.6% | 153,969,900 |

**Figure 1:** Asset Value Projections with ESG Integration (2025–2030) *Graph showing two trend lines: Optimistic (steep upward) vs Conservative (flat/moderate rise)*

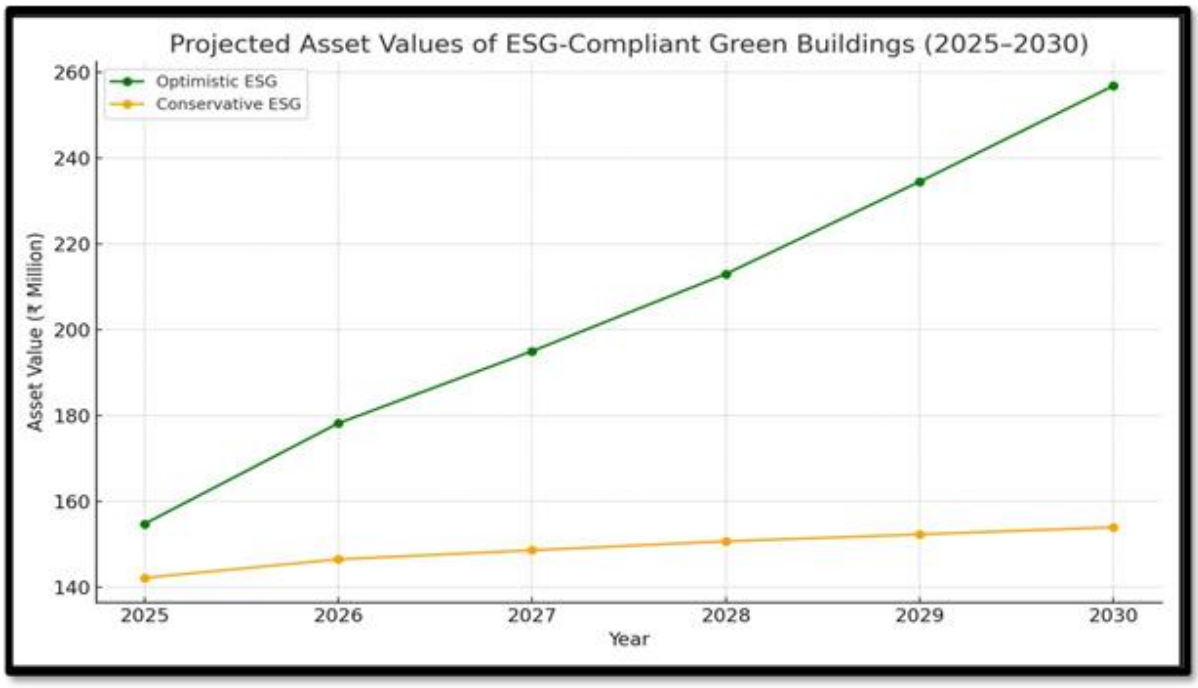


**Figure 1: Asset Value Projections with ESG Integration (2025–2030).**

Graph showing two trend lines: Optimistic (steep upward) vs Conservative (flat/moderate rise)

## 7. **CONCLUSION**

ESG integration is essential for accurate valuation of green commercial properties. Sustainable design and management practices translate into financial advantages—higher rent, lower cost, and more favorable risk premiums. Our model confirms a significant uplift in

asset value with ESG compliance, rising up to 40%, and potentially more over time under favorable investment scenarios.

## Suggestions and Conclusion

To strengthen the integration of sustainability into valuation practices, several measures are recommended. First, there is a need to standardize ESG metrics across organizations such as IVSC, RICS, and national regulatory boards to ensure consistency and comparability in assessments. Second, capacity-building through training should be prioritized so that valuers are equipped with the knowledge and skills to evaluate ESG indicators and understand their financial implications. Third, regulators should mandate ESG-related disclosures at the property level, thereby improving transparency and investor confidence. Fourth, valuation practices can be enhanced **by** leveraging data analytics, artificial intelligence, and big data tools to provide dynamic and real-time ESG insights. Finally, market awareness campaigns should be promoted to highlight the long-term financial and environmental benefits of green building investments, thereby encouraging broader adoption of sustainable valuation practices.

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