

Building Certifications and Standards

1. LEED (Leadership in Energy and Environmental Design)

LEED is a globally recognized green building certification developed by the U.S. Green Building Council (USGBC). It provides a framework for designing, constructing, and operating high-performance buildings with minimal environmental impact.

Key Features

- **Rating System:** Applies to various building types—new construction, existing buildings, interiors, homes, and neighborhoods.
- **Credit Categories:** Sustainable sites, water efficiency, energy and atmosphere, materials and resources, indoor environmental quality, innovation, and regional priority.
- **Certification Levels:**
 - Certified (40–49 points)
 - Silver (50–59 points)
 - Gold (60–79 points)
 - Platinum (80+ points)
- **Process:** Project registration, documentation, third-party review, and ongoing performance monitoring.

Benefits

- Lower operating costs and resource consumption
- Healthier and safer indoor environments
- Enhanced property value and marketability
- Recognition for environmental leadership

2. BREEAM (Building Research Establishment Environmental Assessment Method)

BREEAM is one of the world's earliest and most widely used green building assessment systems, established in the UK by the Building Research Establishment (BRE).

Key Features

- **Assessment Scope:** New buildings, refurbishments, and in-use operations for various building types, including commercial, residential, and institutional.
- **Credit Categories:** Management, health and wellbeing, energy, transport, water, materials, waste, land use and ecology, pollution, and innovation.
- **Certification Ratings:**
 - Pass
 - Good
 - Very Good
 - Excellent
 - Outstanding
- **Process:** Third-party assessment based on documented evidence, site inspection, and post-occupancy reviews.

Benefits

- Improved environmental performance and occupant satisfaction
- Reduced environmental footprint
- Enhanced legal and regulatory compliance
- Market differentiation and investor confidence

3. Other Regional and International Green Building Certifications

International Systems

Certification	Origin/Body	Coverage	Distinctive Aspects
WELL	International WELL Building Institute (IWBI), USA	Global	Focus on human health and wellbeing, air, water, nourishment, light, fitness, comfort, and mind in buildings
Green Globes	Green Building Initiative, USA	USA, Canada	Flexible, web-based assessment for sustainability and building performance
DGNB	German Sustainable Building Council	Germany, Europe	Emphasizes life-cycle analysis and European standards
CASBEE	Japan Sustainable Building Consortium	Japan	Context-specific criteria, including building enclosure, energy, and local environment

Regional Systems

- **GRIHA (Green Rating for Integrated Habitat Assessment):** India’s national rating system, adapted for climatic and development conditions in India. Focuses on energy and water savings, and socio-economic impact.
- **IGBC (Indian Green Building Council):** Widely adopted in India for a variety of building typologies, closely aligned with LEED but tailored to Indian contexts.
- **Green Star:** Australia’s national green rating system, rigorously adapted to local environmental priorities.
- **Estidama (Pearl Rating System):** Developed in Abu Dhabi, UAE, for sustainable urban development in arid regions.
- **MINERGIE:** Switzerland, emphasizes low energy consumption in buildings.

Comparative Table: Key Attributes

System	Region	Main Focus	Scoring Levels
LEED	Global	Multicriteria: energy, water, materials, IEQ	Certified, Silver, Gold, Platinum
BREEAM	UK/Europe	Comprehensive, customizable	Pass, Good, Very Good, Excellent, Outstanding
WELL	Global	Health and wellbeing	Silver, Gold, Platinum
GRIHA	India	Water, energy, waste, local issues	One to Five Stars
Green Star	Australia	Ecological impact, innovation	1 to 6 Stars

Selection Considerations

- **Climate and Context:** Regional systems may be better aligned with local regulations, construction practices, and environmental challenges.
- **Building Type and Function:** Some certifications offer specialized tracks for schools, homes, offices, or entire communities.
- **Performance Emphasis:** Some emphasize operational performance, others design intent or occupant health.
- **Market Recognition:** LEED, BREEAM, and WELL are highly recognized by global investors and multinationals.

Summary:

Green building certifications like LEED and BREEAM set benchmarks for environmentally responsible, resource-efficient, and healthy buildings. Multiple regional systems adapt these concepts to local needs, collectively advancing sustainable construction practices worldwide.