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## **A COMPARISON AMONG THE RATING SYSTEMS FOR SUSTAINABILITY OF GREEN BUILDING: A REVIEW**

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### **Abstract**

The construction of environmentally friendly structures should prioritize sustainability in all of its forms, not just economic, social, and environmental development. The Green Building Rating System in each country is determined by the suitability of the country's conditions. The purpose of this literature study is to examine the similarities and differences between the rating systems used in tropical countries and the most popular green building rating tools with regards to the most important credit criteria for sustainable pillars. The method is to use the deductive approach, whereas for comparing rating tools in each region and analyzing the harmonized points of three rating systems. The triple bottom line consists of environmental, economic, and social pillars, which are the main goals of sustainable development. Each pillar has been developed based on the situation in each region and its environmental problems. A comprehensive evaluation of the green building rating tool system reveals that no single rating tool is capable of evaluating the similarity of the thirteen criteria. Different temperature zones and inflexible systems in other nations account for these disparities. By comparing the percentage points assigned by the Green Building Index (GBI), Green Mark, and GreenShip, with the categories aligned according to the eight sustainability categories, we may determine which category is emphasized by each system. In the category of energy efficiency, only 25.7% of GBI points are assigned, compared to 35% for GBI and 51.4% for Green Mark. The highest water efficiency rating (20.8%) is for greenhouses. The 5% threshold for measuring pollution in Greenhouse and GBI is identical. Transport, site management, and other sustainable procedures are prioritized nearly equally by all three systems. GBI encourages the deployment of sustainable innovations and other systems and processes by awarding 7% points against Green Mark's 3.5%. It can be concluded that a set of global measuring standards must be incorporated into a worldwide grading instrument. Each country faces its own set of unique sustainability issues and environmental factors that must be taken into account while creating a new grading system.

*Key words:* country, climate, green building, rating systems, sustainability

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