

The overall rating for the project is awarded based on the overall impact reduction. The lower the overall impact percentage, the higher the rating for the project.

The net impact on quantitative and qualitative parameters (I_n and I_q respectively) will be totalled and compared against the base case impact of 100 per cent. The following formula will be used for the same:

$$I_t = I_n \text{ (design case)} + I_q \text{ (design case)} \times 100 / I_n \text{ (base case)} + I_q \text{ (base case)}$$

Overall impact I _t	Rating
75%-66%	★☆☆☆☆
65%-56%	★★☆☆☆
55%-46%	★★★☆☆
45%-36%	★★★★☆
35%-25%	★★★★★



GRIHA LD GRIHA for Large Developments

Inception of **GRIHA LD**

The **GRIHA Council**, in association with The Energy and Resources Institute (TERI) and the Ministry of New and Renewable Energy (MNRE), has launched the Green Rating for Integrated Habitat Assessment (GRIHA) in order to address and promote green buildings in India. However, a need was felt to create a framework to assess the environmental performance of larger developments, the singular units which together make up cities – neighbourhood/ townships – and with this focus; GRIHA Council along with TERI has developed a rating system for large developments titled – GRIHA LD (Large Developments). The intent of GRIHA LD is to provide a consolidated framework for assessment of environmental impacts of large scale developments.

Fee Structure

Masterplan Rating & Rating of Each Phase	Only Rating of Each Phase
Masterplan rating: For the entire masterplan - Rs. 3,25,000/-	First Phase**: For First 50 hectares - Rs. 4,00,000/- For every additional hectare in the phase (up to a maximum of 50 additional hectare per Phase) - Rs. 5,500/-
Per Phase (including first phase)*: For First 50 hectares - Rs. 3,00,000/- For every additional hectare in the phase (up to a maximum of 50 additional hectare per Phase) - Rs. 5,500/-***	Each subsequent Phase (after first phase)*: For First 50 hectares - Rs. 3,00,000/- For every additional hectare in the phase (up to a maximum of 50 additional hectare per Phase) - Rs. 5,500/- ***
Taxes as applicable.	Taxes as applicable.

- * Each Phase can have a maximum of 100 hectares of site area. The site area above 100 hectares will be considered as a new phase.
- ** Sites less than 50 ha can also be divided into phases. Fee for each phase will Rs 3,00,000
- *** Only phase-wise rating can also be taken and phase-wise and masterplan rating can be taken together as per project requirement.
 - Fees exclusive of government taxes
 - Fee for orientation workshop is included in the fees mentioned above.
 - All travel and accommodation of GRIHA professionals is not included in the above cost and shall be arranged by the client.
 - Conditions apply

GRIHA Council
A-260, Bhisma Pitamah Marg, Defence Colony, New Delhi - 110 024
Tel. +91 11 46444500/24339606-08, Fax: +91 11 24682144 & 24682145
Email: info@grihaindia.org; Website: www.grihaindia.org

Follow us



About **GRIHA**

GRIHA (Green Rating for Integrated Habitat Assessment) is a Sanskrit word meaning – ‘Abode’. Human Habitats (buildings) interact with the environment in various ways. GRIHA attempts to minimize a building’s resource consumption, waste generation, and overall ecological impact within certain nationally accepted limits/benchmarks. GRIHA Council, is an independent platform (registered as a society) for the interaction on scientific and administrative issues related to sustainable habitats in the Indian context.

WHAT IS GRIHA LD

All sites in their native state sustain various ecological cycles. Construction leads to disruption of various cycles as well as exerts demand for various resources like energy, water, etc. Such construction practices have a detrimental impact on their surroundings. GRIHA LD framework stresses on two aspects; first – reduction of detrimental impacts of the projects on the surroundings and secondly; attempt to achieve self-sufficiency in aspects like energy, water, etc. Therefore, a development with low impact on its surroundings will achieve a higher GRIHA LD rating. In GRIHA LD, the development will be evaluated in six different sections along with one indicative parameter as listed below:

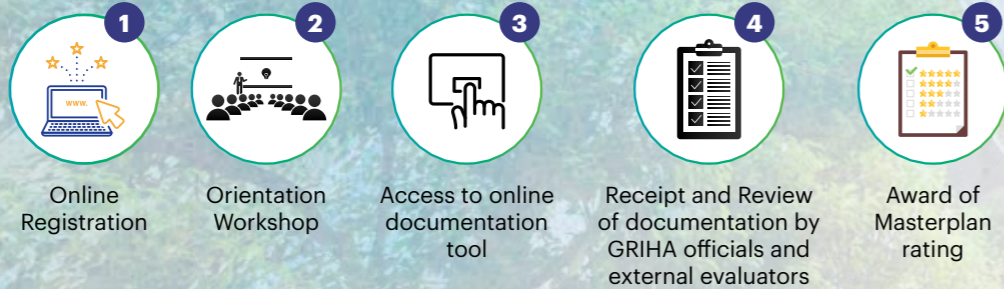
- Carrying Capacity and Carbon Footprint (only indicative)
- Site Planning
- Energy
- Water and waste water
- Solid waste management
- Transport
- Social

ELIGIBILITY

All projects with total site area greater than or equal to 50 hectares (125 acres) may apply for a GRIHA LD rating:

RATING PROCESS-

Masterplan rating: It involves overall planning of resources at site level impact



What is the need for GRIHA LD?

When a large project is planned and implemented, it comprises of multiple buildings and other infrastructural facilities, on a single site.

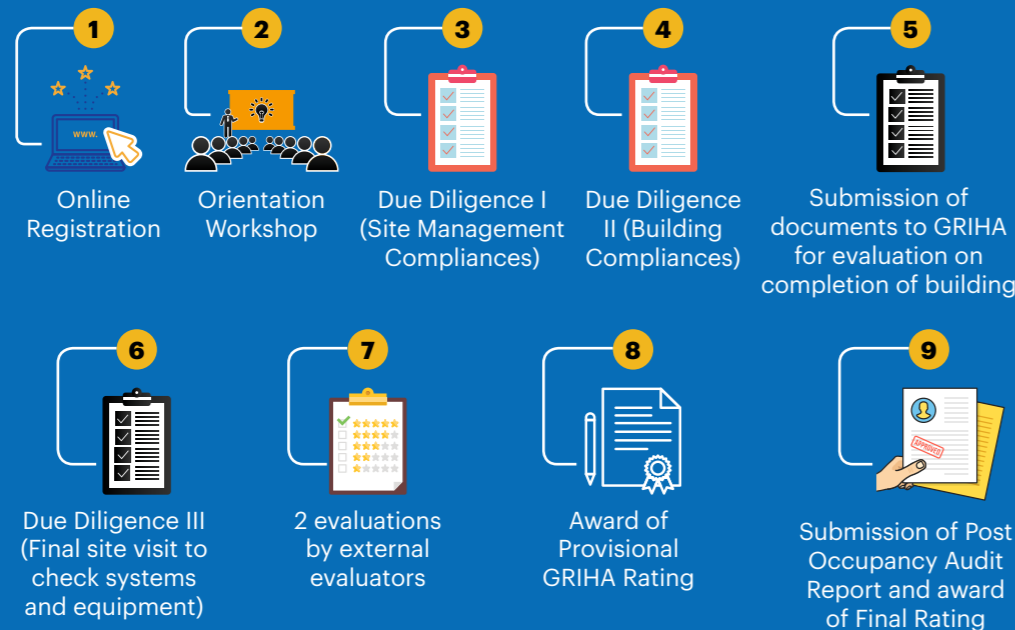
Environmental Performance Assessment for such projects should go beyond the environmental design of each building, and calls for assessment of larger environmental issues, and their effects that are brought out by the built environment.

Emergence of new large-scale developments/ townships/ neighborhoods and the growth of the older ones are bringing in complex changes to ecology, natural resources and environment at local, regional and global scales.

It is high time we pay heed to our planning practices and guidelines that are followed to plan large developments and make them in such a way that they promote sustainable development with lesser impact on environment.

RATING PROCESS

Phase-wise Rating: It involves detailed analysis of phases with building level analysis.



GRIHA LD Framework

A GRIHA LD project is analyzed through two types of appraisals: Self-Sufficiency and Development Quality. Self-sufficiency appraisals deal with total resources (energy, water and organic solid waste) required/treated by the project and focuses on quantitative analysis. Development Quality aspects deal with qualitative analysis based on several parameters.

Self-Sufficiency Appraisals

- The impact on demand for resources is analyzed through Self-Sufficiency appraisals.
- The energy, water and solid waste management sections contain Net-Zero appraisals. In each section, a single resource parameter has been identified

Development Quality Appraisals

- Each section includes several qualitative parameters which enable qualitative assessment of the development.
- For example, implementation of Smart Mini-Grids, meeting water quality norms, transport planning, planning for low-income group populations, etc.

