



# POORNIMA UNIVERSITY

## REPORT ON GRIHA-3 DAYS TRAINING PROGRAM

**Griha- Green Rating For Integrated Habitat Assessment** Myself **Ar. Kush Kumar Saxena, Assistant Professor in Department of Architecture**, and I had successfully completed 3-days GRIHA Training for Certified Professionals & Evaluator.

GRIHA is an acronym for Green Rating for Integrated Habitat Assessment. GRIHA is a Sanskrit word meaning - 'Abode'. Human Habitats (buildings) interact with the environment in various ways. Throughout their life cycles, from construction to operation and then demolition, they consume resources in the form of energy, water, materials, etc. and emit wastes either directly in the form of municipal wastes or indirectly as emissions from electricity generation. GRIHA attempts to minimize a building's resource consumption, waste generation, and overall ecological impact to within certain nationally acceptable limits / benchmarks.

Going by the old adage 'what gets measured, gets managed', GRIHA attempts to quantify aspects such as energy consumption, waste generation, renewable energy adoption, etc. so as to manage, control and reduce the same to the best possible extent.

GRIHA is a rating tool that helps people assess the performance of their building against certain nationally acceptable benchmarks. It evaluates the environmental performance of a building holistically over its entire life cycle, thereby providing a definitive standard for what constitutes a 'green building'. The rating system, based on accepted energy and environmental principles, will seek to strike a balance between the established practices and emerging concepts, both national and international.

The rapid increase in Indian population and growth of Gross Domestic Product (GDP) has given rise to an enormous demand for buildings with a subsequent pressure on availability of resources. Another key challenge for the built-environment of Indian cities is the diminishing availability of water for urban areas.

In order to be sustainable, the environmental pressures of increased demand for resources coupled with a rapidly changing climate are being addressed by policy makers at various levels. Several policy and regulatory mechanisms to address the urban challenges, implemented through national plans and programmes have been devised. The Ministries and agencies at the Centre have designed frameworks such as the Environmental Clearance to ensure efficiency in resource use for large projects (i.e. more than 20,000 sq m built up area), the Energy Conservation Building Code (ECBC) applicable to air conditioned commercial buildings with connected load more than 100 kW and

the Solar Buildings Program for Energy Efficient Buildings, for implementation by the designated State agencies and municipal bodies.

However as in most countries, there is a huge scope to optimize the effectiveness of policy by encouraging a more holistic life-cycle approach to building. Lack of disincentives for noncompliance, agencies and systems working in factions (i.e. various departments at Centre and State).

Ar. Kush Kumar Saxena **GRIHA-3 DAYS TRAINING** 29<sup>th</sup> to 31<sup>th</sup> Aug.2018 looking at issues related to energy efficiency, renewable energy, water resources, waste management independently; as opposed to a holistic approach that would address the building sector encompassing water, energy etc. as a whole); and implementation of codes and standards prior to verification on site, leading to implementation challenges on site are some of the difficulties faced during implementation of policies on sustainable habitats.

In view of the above, and with an overall objective to reduce resource consumption, reduce greenhouse gas emissions and enhance the use of renewable and recycled resources by the building sector, TERI has played a crucial role in convergence of various initiatives, essential for effective implementation and mainstreaming of sustainable habitats in India. With over two decades of experience on green and energy efficient buildings, TERI has developed GRIHA (Green Rating for Integrated Habitat Assessment), which was adopted as the national rating system for green buildings by the Government of India in 2007.

Internationally, voluntary building rating systems have been instrumental in raising awareness and popularizing green design. However, most of the rating systems devised have been tailored to suit the building industry of the country where they were developed.

This tool has been adopted by the Ministry of New and Renewable Energy. This tool, by its qualitative and quantitative assessment criteria, is able to 'rate' a building on the degree of its 'greenness'.

### **Training of GRIHA trainers and evaluators:**

Design and development of Green Infrastructure necessitates large pool of qualified professionals in all parts of the country. To enable the active dissemination of knowledge and skills necessary for designing new green buildings, GRIHA Council organizes a series of open registration workshops across the country. These workshops are aimed at practicing professionals who are working on Green Building projects and are interested in GRIHA certification. Exams are held at the conclusion of the workshops to certify trainers who could further take up similar program in their region. Professionals with considerable experience in Green Buildings are also encouraged to become GRIHA evaluators. The pool of evaluators spread across the country is engaged in the review process of GRIHA projects. They are also a valuable resource for updating the rating system in-line with transformation of the building industry.

Training was of 3 days 29 Aug 2018 to 31 Aug 2018. Training was scheduled in 6 modules.