

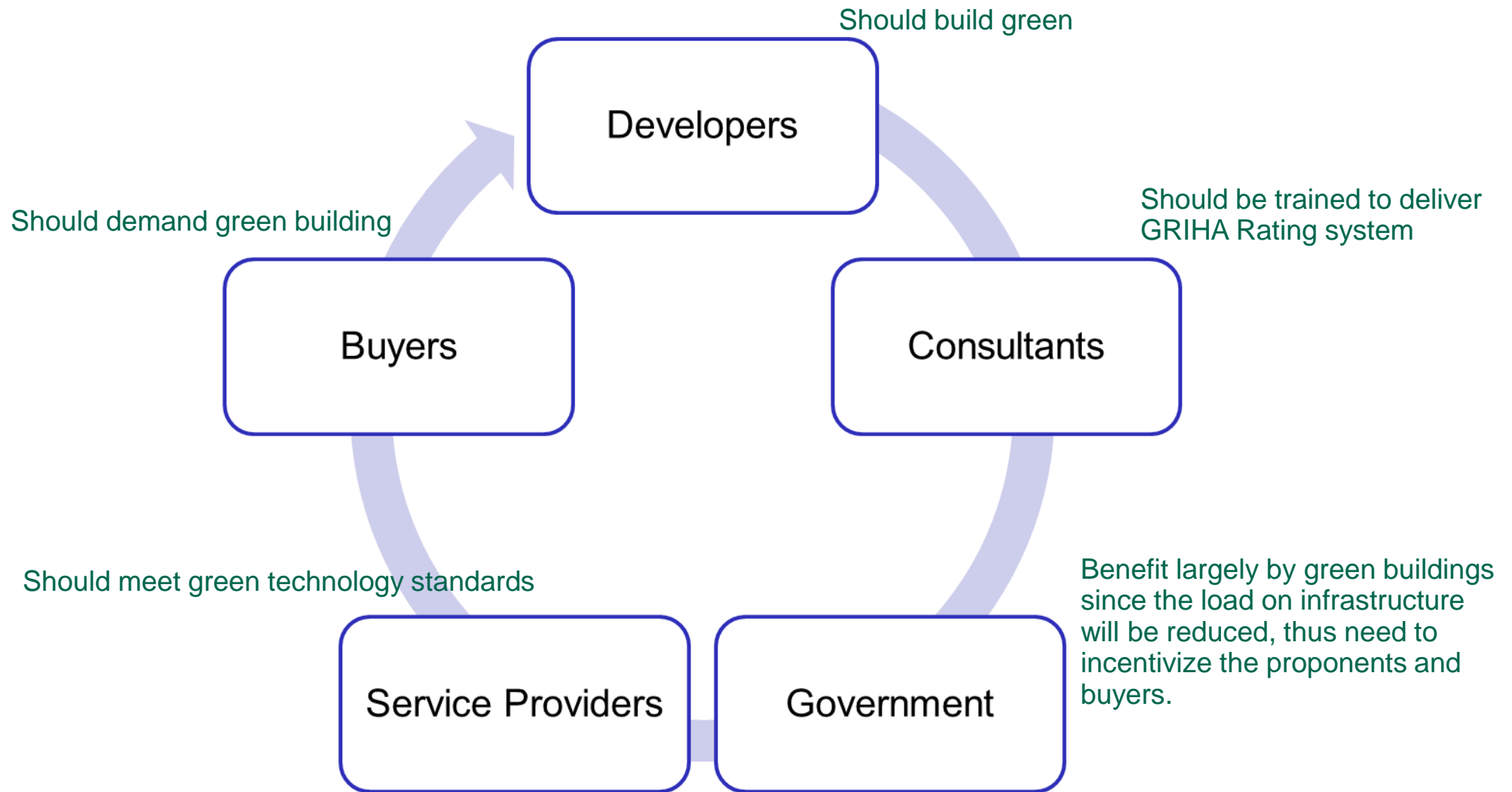
GRIHA- A Game Changer in Implementing Green Guidelines

Presentation by
Sustainability Initiatives

National Conference on Green Design (NCGD) : February 14th, 2013
Ar. Poorva Keskar



Stakeholders of the Green Building Process



Hurdles in implementing Green guidelines

Myths about green building rating systems

No demand for green buildings

Lack of awareness, technical knowledge

Unreliable technologies

Misconceptions about EC & green buildings

Lack of incentives for stakeholders (Carrots)

Lack of pressure from Govt authorities (Stick)

Lack of skilled labour

Certifications based on documentation

Myths about performance vs costs

No reliable case studies

GRIHA- a holistic approach

Stakeholder Consultations

- Feedback mechanism
- Trust Building

Handholding/ Capacity Building

- Knowledge creation and dissemination
- Education, awareness and training

Institutionalization

- Institutionalizing GRIHA in governments
- Creating suitable incentives

Quality Control

- Ensuring on-ground implementation
- Energy audit and monitoring

Long Term Benefits

- Creating a database for better energy future



Sustainability Initiatives (SI) as a Patron in Maharashtra

- A **charitable trust based in Pune**, active in energy and urban- environmental sustainability
- SI has been recognized by GRIHA as their **patron to conduct/ support GRIHA activities in Maharashtra region.**
- Sustainability Initiatives has been instrumental in creating awareness about GRIHA and conducting workshops, training programmes for stakeholders in the region.



Dr Pachuri Interaction with CREDAI-Pune Metro

- In Jan 2011, GRIHA with support from SI, organized a talk by Dr. Pachauri addressing the member developers of CREDAI- Pune Metro on climate change and mitigation through energy efficiency.



Mayor of PCMC speaks, Commissioner of Pune (right)



Dr Pachauri addressing participants



Mr Satish Magar- President CREDAI with Dr Pachauri



PCMC-GRIHA Initiative

- PCMC has now formally adopted GRIHA as their green building rating system
A GR has been published regarding the following scheme of incentives:
 - discounts in premiums for developers
 - tax rebates in property tax for homeowners for GRIHA rated projects
- Feedback: SvaGRIHA system has been developed based on feedback from PCMC. “Building Permissions Process Re-engineering” is being rethought.



PCMC Commissioner Dr Shrikar Pardeshi addressing the participants on PCMC's GRIHA



1-day Training Workshop for PCMC Officers

- SI organized a 1-day GRIHA training for PCMC's engineers and officers from Building Permissions, Environment and other departments regarding the rating system in April 2012.
- This training and interaction was required **to create awareness and build consensus** amongst all departments in PCMC.



GRIHA experts explain the rating system



PCMC officers look on as experts speak



GRIHA Evaluators and Trainers Meet

- In May 2012, SI organized a meet for all trainers and evaluators in the region to connect to them and seek feedback/ engage them GRIHA activities in Maharashtra.
- SI as a **platform to share knowledge, concerns and feedback** regarding GRIHA for all the evaluators and trainers in the region.



Ms Priyanka Kochhar addressing participants



Participants interact with GRIHA officials



3-day Evaluators and Trainers Workshop at Nasik

- SI organized a 3-day GRIHA training for evaluators and trainers at Nasik in May 2012 with about 50 participants from the nearby cities.
- This training workshop and the exam to certify trainers and evaluators was much appreciated by **participants in smaller cities** that came to Nasik and interacted in this 3-day event.



Participants engrossed in training



GRIHA trainer training the participants



“Towards Urban Sustainability”-2nd Regional Conference

- SI successfully organized a two-day conference at Suzlon Campus, Hadapsar, Pune on 12-13 October 2012 with over **250 participants from Maharashtra, Goa and Gujarat**
- Focus on GRIHA as an approach to achieve urban sustainability
- Many eminent national/ international speakers



Former DG of BEE Dr Ajay Mathur



Mayor of Pune inaugurates the conference



“Towards Urban Sustainability”-2nd Regional Conference

- The conference was instrumental in getting **various views regarding sustainability** on the same platform and gather **support from grassroots**.
- The participants brought together professionals and students from smaller cities in Maharashtra such as Solapur, Aurangabad, Nasik, Jalgaon on one platform and interact about GRIHA.



Engrossed participants



Mr Arun Deshpande- experimental scientist from Ankoli



Enabling the MOEF Environmental Clearance Process

- **GRIHA pre-certification criteria has been suitably tailored to map with requirements of Environmental Clearance** by MOEF, Gol. Few of the criteria are now included in the GRIHA precertification to address EC requirements:
 1. Source of water supply
 2. Disposal of sewage
 3. Statutory requirements and NOCs
 4. Zoning and land use
 5. Traffic analysis
 6. Fire safety provisions



Enabling the MOEF Environmental Clearance Process

- **Review and interaction with the GRIHA expert committee** during the pre-certification process provides valuable inputs to the project team.
- This interaction **addresses technical and practical issues** as against the environmental expectations to be met under GRIHA as well as EC criteria, and bridges the gap in on-ground implementation.
- Projects with GRIHA precertification have an advantage of **fast track clearances** and are better prepared for the EC.
- On the other hand, the discrepancies in environmental expectations set by GRIHA and EC are also highlighted by the pre-certification process. This will only upgrade and resolve the systems.



Creating a database for a better energy future

- Developed countries such as EU, USA, Scandinavian countries have mapped their energy consumption across various building types and climate zones, and can thereby continually **measure, track and improve their consumption patterns**. E.g. Energy Star Programmes in USA
- The mandatory **Energy Audit and Validation** Criterion in GRIHA has enabled projects to record the building's resource consumption patterns.
- This will enable creation of **a nation-wide database for energy performance** across different types of buildings in all climate types.
- This will help achieve the national energy goals and ensure implementation of the national schemes such as BEE Star Rating for buildings etc.



Ensuring on-ground implementation

- Site visits for inspection at various stages of the project
- Ensuring and certifying compliance with criteria
- **Energy auditing and monitoring post- occupancy before award of final certification**



Soil harvest



Sedimentation basin





Thank you.

