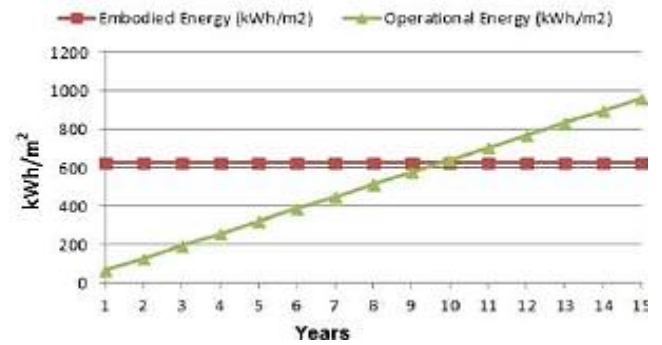


SUSTAINABILITY SERVICES

AFFORDABLE GREEN HOMES: FUTURE OF SUSTAINABLE INDIA

HOUSING SCENARIO IN INDIA:

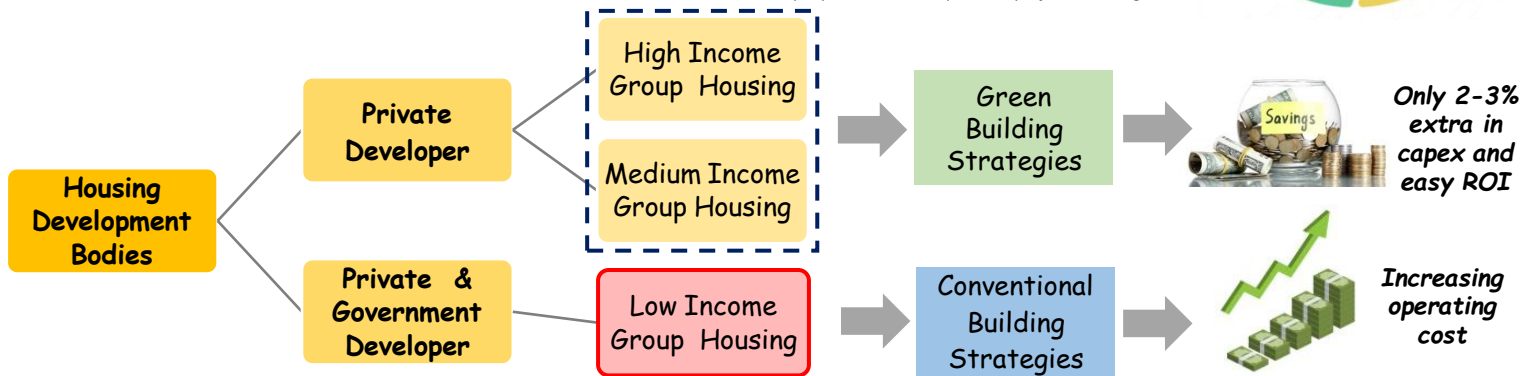
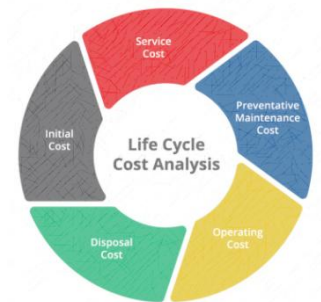
The construction sector in India emits about 22% of the total annual emission of CO2 resulting from the Indian economy. In a business as usual scenario, catering to the huge housing demand will dramatically accelerate climate change and the depletion of natural resources. Thus, there is an urgent need to fundamentally alter construction practices towards a more sustainable development pathway. There is considerable scope to reduce both the embodied and the operational energy consumption of housing units with simple and cost-efficient building alternatives. Housing as a commodity must be affordable to the people. The cost of the house, but also of utilities, operation, and maintenance, are decisive factors in determining whether the low income group can sustain their occupancy.



Comparison of embodied and operational energy for a typical low rise (G+3) residential building in Delhi Source: Studies carried out by Development Alternatives



A Green Home is environmentally friendly, enhances people's health and provides profit in the long run



With government of India pledging housing for all by 2022 there will be a major boost expected in the affordable housing segment. Hence it is imperative to make upcoming affordable houses sustainable. This article deals with ideas to facilitate sustainability in the affordable housing segment without compromising economical viability for all stakeholders.

COST AFFECTIVE DESIGN STRATEGIES FOR AFFORDABLE GREEN HOMES:

- ❖ Site selection and access to basic amenities
- ❖ Building Orientation and shadow analysis
- ❖ Window size optimization and optimized shading devices
- ❖ Use of high SRI materials for exposed roof and non roof areas
- ❖ Maintaining existing topography, designing maximum vegetated spaces on ground
- ❖ Universal Accessibility
- ❖ Climate responsive building envelope
- ❖ Maximum daylight and cross ventilation
- ❖ Use of Aerators for water fixtures
- ❖ Waste water treatment & Reuse
- ❖ Rain water harvesting
- ❖ Use of local materials
- ❖ Use of materials with high recycled content
- ❖ Use of low VOC materials
- ❖ Solid waste management
- ❖ Encouraging use of bicycles



At Ecofirst as a part of Sustainable Building Consultancy we ensure cost effective green building strategies are implemented in our green home projects which provide long term profits to the developer and the occupants.