



Credentials

- Focus on Affordable Entry level Homes in Indian Market
- Set up in 2011. Promoters have background in Banking and IT Software
- Principal share holders are Carlyle, HDFC, IFC and India Inclusion Fund
- Business Model “ For Profit”
- 8 projects being executed, delivered 1500 apartments and 1800 apartments to be delivered in the next 2 years
- Also promoted a Housing Finance company providing long term loan for low and moderate income households.

Key Learning's



- Cookie Cutter Model , Standardize Prototypes, Version Control
- Advanced Software, Computation and simulations to achieve the optimal results e.g use over 100 years of rain fall, sun rise, sun set data to plan building orientation and rain water harvesting
- Lean Manufacturing Construction is entirely possible
- Meeting IFC Edge Certification cost additional us US \$1.5 per sq.ft
- High Customer Satisfaction



VBHC Framework for Sustainability





VBHC - Sustainable Measures



- Energy Efficient Fans (5 star rating)
- T5 Fixtures for Common Areas
- CFL / LED Fixtures for interiors
- LED Street Lights



- Low Flow Fixtures
- Dual Flush Water Closets



- Dual Plumbing System
- Waste Water Treatment
- Rain Water Harvesting

Reduced Material Wastage through

- Formwork Construction
- Welded Mesh Reinforcements
- Plumbing & Electrical Kits

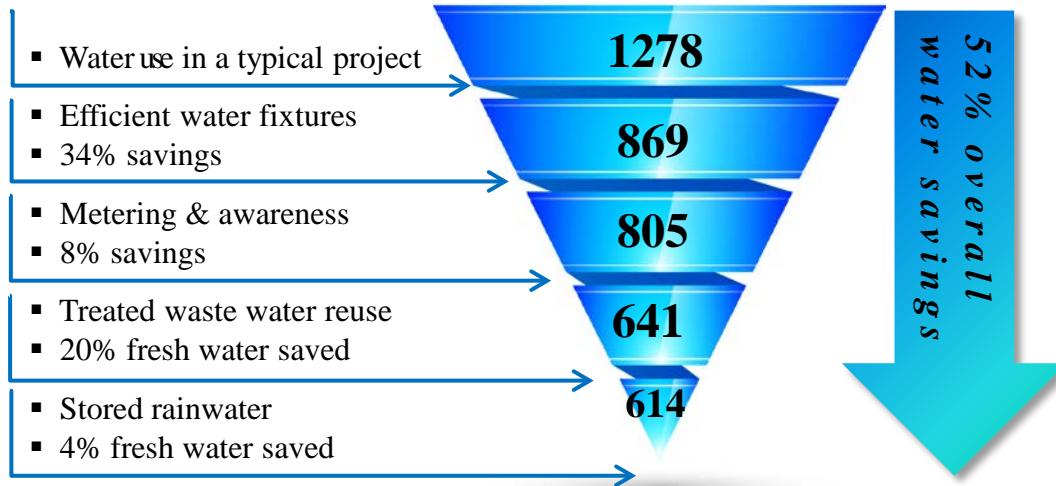


Passive Design Techniques to

- Maximum Day Lighting to all flats
- Shading Design to cut down Solar Radiation
- Building Placement to Minimize Site Impact



Precise quantification of benefits and pay off is possible



Energy saving Intervention	kWh saved every year	GHG Emissions reduction (tCO ₂ e)
LED street lighting	39,420	28
Solar hot water	1,427,293	1013
Biogas plant	109,500	-
Innovative STP	131,400	93
Efficient infrastructure	762,120	541
Using CFL lamps in common areas	139,795	99
Total	2,609,528*	

*Estimated annual savings of Rs. 1 crore for the Vaibhava community



Why Green - Indian Context



High Initial Cost of Green Buildings



Low Public Awareness on Need for Green Buildings

Need to establish processes for knowledge share/success transfer

- Lower maintenance cost resonates with consumers, however there is resistance to pay "premium" for green buildings
- Very little data on performance of green rated building hence low credibility for green certification
- Largely seen as a marketing gimmick by tagging the building as “Green” by developers



Policy measures to support Green Building



Higher Floor Space Index (FSI) between 2-5%



Rebate in Property tax of upto 10%



Reduction in longer tenor mortgage loans of upto 25 bps

Fast track clearance of project meeting Green Standard



No real progress in implementation of policies that were under discussion

Numerous agencies that provide Green Certification, there is no real accepted standard by Government authorities



NHB - Disbursement of construction loan that meet Green Building standard from its concessional pool of funds



IFC/ World Bank Role in Adoption

- Low Awareness/ Visibility for EDGE Program in India. Advocacy with stake holders and end consumers
- Benchmarking or Comparison to local standards - Why it may be a superior measure
- IFC/World Bank Whole Sale Funding through financial institutions for project meeting Green Building standard
- IFC/World Bank Retain Funding through broader range of financial institutions for long term mortgage role
- Engagement with Government for acceptance of EDGE as a Green Building Standard