Rajesh Krishnan

Founder and CEO, Brick Eagle Group

GRIHA SUMMIT 2017 - Sustainable is Affordable

India needs 60 million homes to achieve 'Housing for All"

Carbon Footprint of a typical 60 sqm house is ~50 tons of CO_2
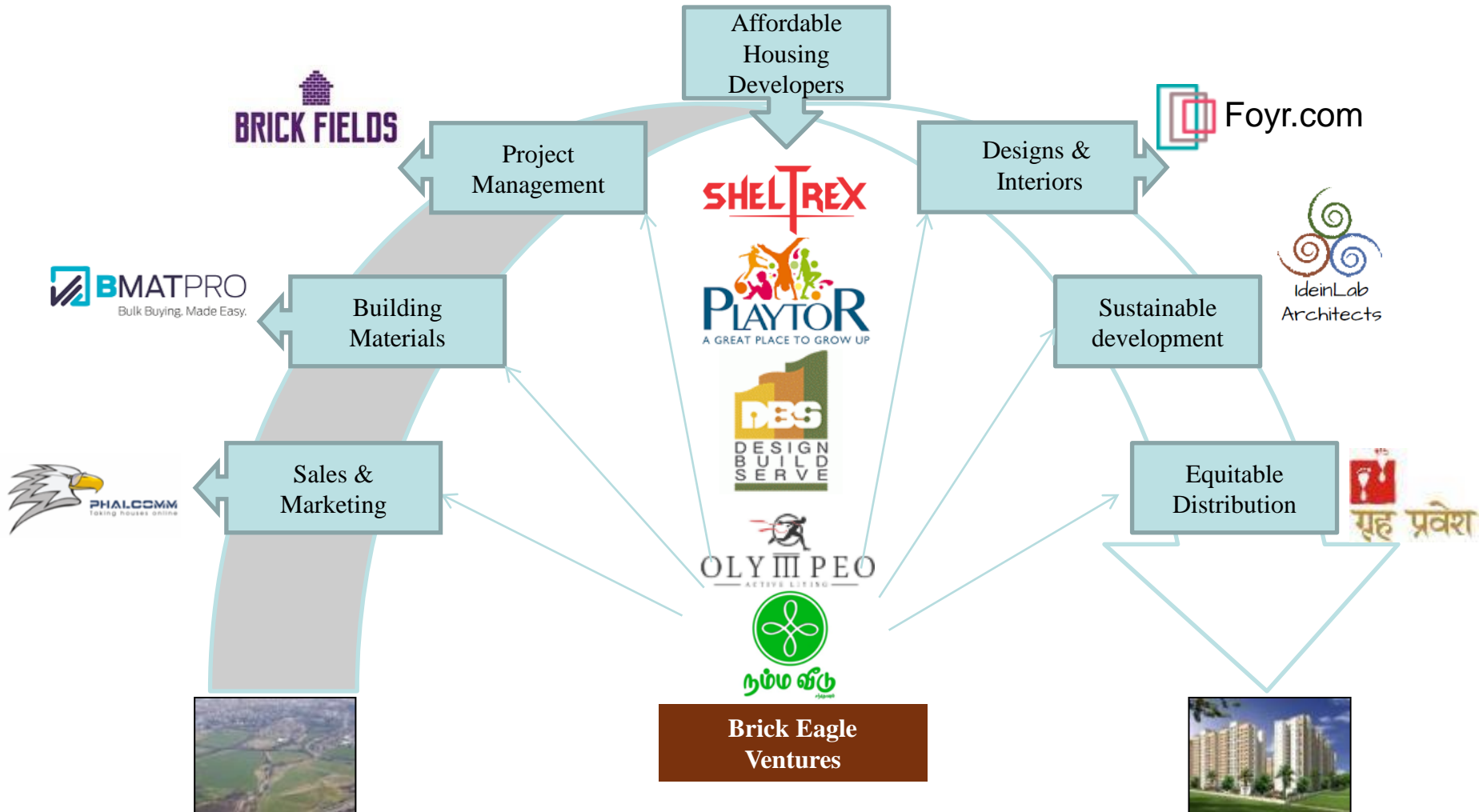
5 trees required to offset 1 ton of CO_2

Carbon footprint of 'Housing for All' is equivalent to
30 billion trees
India has 35 billion trees today!

Brick Eagle Ventures incubates Developers and Service Providers across the Affordable Housing value chain

Sustainability typically involves upfront investments

Cost of Capital for Low Income Customers >24% p.a.

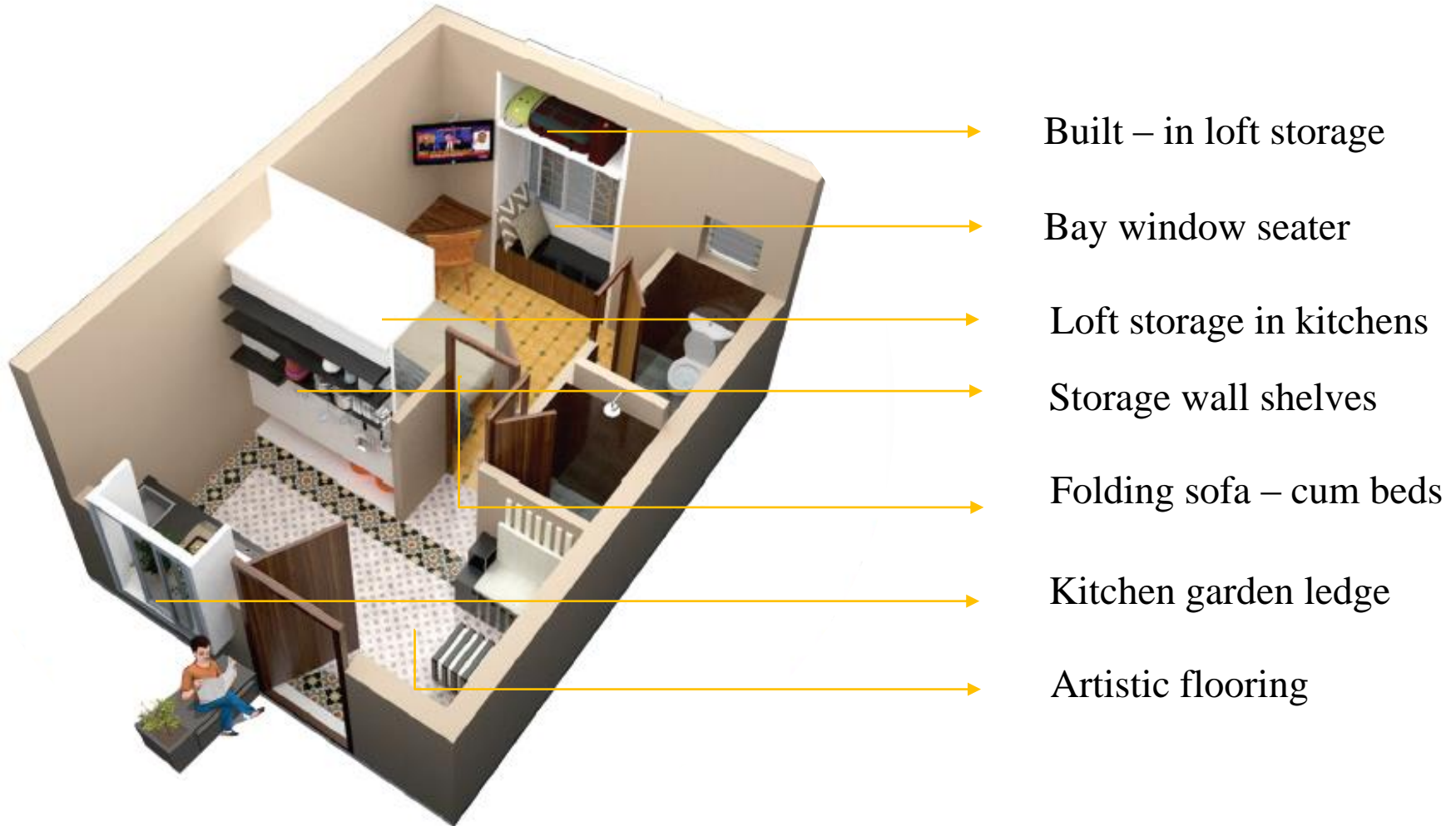**Krish Murali Eswar and Radha Eswar, Co-Founders of IdeinLab Architects**

Conventional buildings are terribly over-engineered.

Value engineer them first
Cut down on steel, cement, concrete and other materials

You can afford to invest the savings in building green

Built – in loft storage

Bay window seater

Loft storage in kitchens

Storage wall shelves

Folding sofa – cum beds

Kitchen garden ledge

Artistic flooring

Namma Veedu Coimbatore 300 sqft home available at Rs.7 Lakhs

Reduction in construction cost by ~Rs 300 per sqft

Reduction in carbon footprint by 30-50% per sqft

Boulder-Concrete Construction Technology

Mould for casting

Cement mixed with Boulders

Pre-Cast Components

Assembly of Components

Construction using Soil Stabilized Blocks

Reduction in construction cost by ~Rs 100 per sqft

Reduction in carbon footprint by 30-40%

Low VOC emmiting
Finishing materials

Broken Vitrified Tiles
Terrazzo mosaic for Dado

'Atthangudi' Tiles
manufactured at site

Un-Plastered exterior
finishes

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PASSIVE SOLAR ARCHITECTURE

ENERGY CONSERVATION

COMPOSTING SERVICES

SOLAR POWER

CYCLING NEIGHBOURHOODS

STORMWATER MANAGEMENT

LOW VOC PAINT

EFFICIENT APPLIANCES

WASTE MANAGEMENT

WASTE WATER RECYCLING
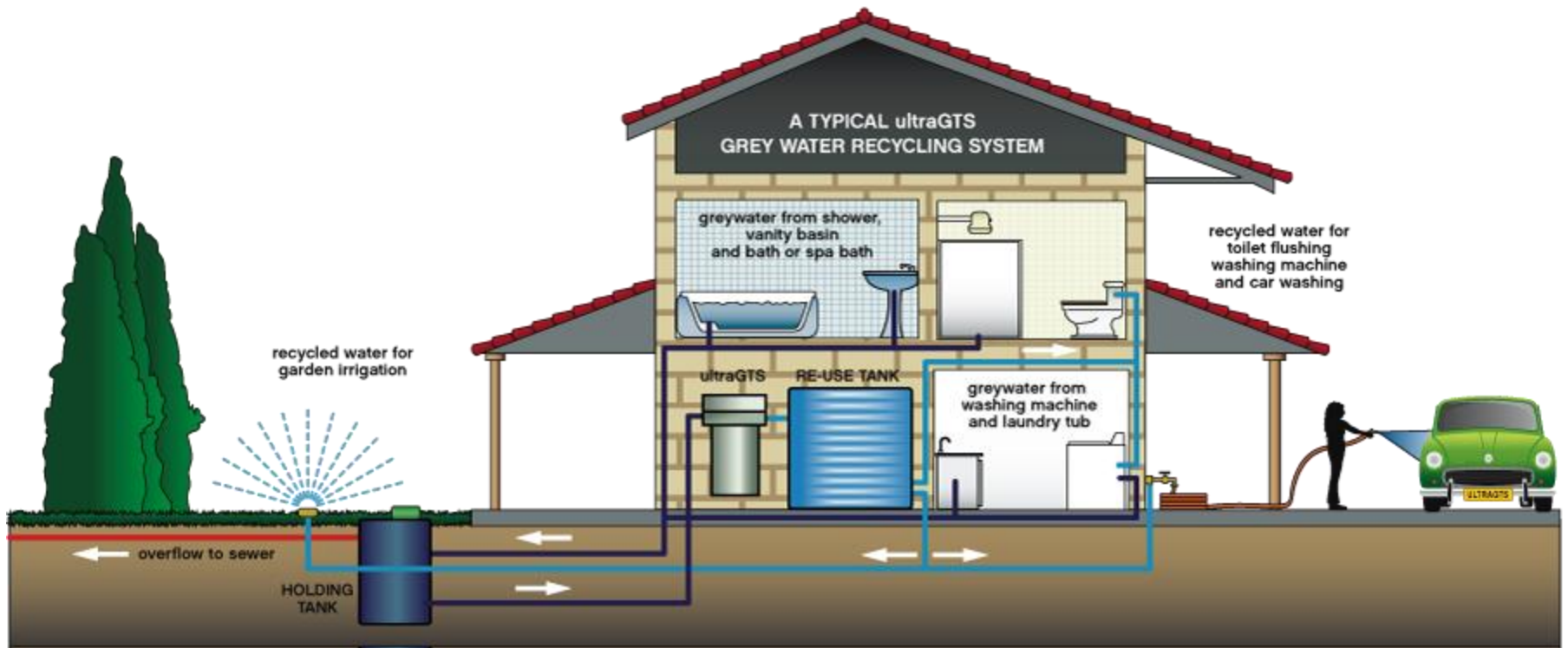
VEGETABLE GARDEN

LED LIGHTING

Resistivity Test to map aquifers

68 million liters of rain water to be harvested each year

Grey water recycling system reduces demand for fresh water by 50%

BRICK EAGLE

Potential savings in power costs using efficient fixtures

Appliance	Move	Yearly Savings (Rs)
Bulbs	From Incandescent to LED	1200
Tube light	From Regular to LED	600
Fans	From regular to BLDC	900
Set Top Box	From HD to normal	1300
Refrigerator(165 lts)	From 1 star to 5 star	1500
Computer	From Desktop to Laptop	1800
TV	From Regular to DC LED TV	600
Total		**7900**

LED Tubelight

BLDC Fan

DC TV

<u>Waste Seggregation</u>
Done in an open shed using
monthly labour maintenance team
at a **capital cost of about Rs. 50 lakhs**

<u>Organic waste compost used for gardening</u>
The campus is designed to have vegetable
gardens and recreational gardens, which will
be fed using locally produced organic manure.

Productive vegetable gardens - reduces dependency on pesticide laden market vegetables. Can be maintained for **Rs 1 lakh per year**

Native landscapes - Uses 30% lesser water and requires 30% lesser maintenance costs compared to exotic gardens

The True Cost of Sustainability is in NOT Going Green