Sustainability

PROFITABLE

AFFORDABLE

Sustainability

PROFITABLE
WE LIVE IN A WORLD WHERE A TREE IS WORTH MORE DEAD THAN ALIVE. WE MUST CHANGE THE WAY OUR ECONOMY WORKS.

“THIS RELIGION OF PROFIT AT ALL COST MUST END”
Consumptionism

- An ideology, or system of beliefs, that prioritizes consumption and spending above all else.

Most of us practice this, while our credit lender encourages it.
From mindless consumption to mindful utilisation

- Prime Minister Modi, COP26
On 1st and 2nd October 2019, international experts will gather in Hamburg at the City Science Summit to discuss which digital technologies will shape everyday life in future cities. The conference title “Cities without...” invites us to open up spaces for thought and fill vacancies with visions for the city as a living space.
The Power of Without

- Kent Larson and Norman Foster, MIT Media Lab
SANITATION WITHOUT SEWERS
URBANITY WITHOUT ROADS
POWER WITHOUT GRIDS
The Power of WITHOUT

HOUSING WITHOUT CONSTRUCTION
SANITATION WITHOUT SEWERS
MOBILITY WITHOUT CARS
COMMUNICATION WITHOUT CARRIERS
FOOD WITHOUT SOIL
The Power of WITHOUT

CITIES WITHOUT

-Kent Larson & Norman Foster,
MIT Media Design Lab
PROFITABLE SUSTAINABLE DEVELOPMENT
Does Sustainable Development Cost More?

TO DESIGN?

TO BUILD?

TO OPERATE?
**CASE STUDY**

**2013**

**CONVENTIONAL BUILDING**

**SHAPATH V**

IGBC Gold Certified

4,50,000 sq. ft.

Difference per sq. ft.

INR 114.11

Percentage Difference

6.35%

Cost of Construction:

2000 Rs / sqft

**2017-2018**

**CONVENTIONAL BUILDING**

**PRAGYA-1**

IGBC Platinum Certified

4,50,000 sq. ft.

Difference per sq. ft.

INR 22.67

Percentage Difference

1.02%

Cost of Construction:

2400 Rs / sqft
CASE STUDY

2022-2024

CONVENTIONAL BUILDING

Cost of Construction: 2800 Rs / sqft

PRAGYA-2

Targeted: IGBC Platinum Certificate

Projected

4,50,000 sq. ft.

Difference per sq. ft. INR 0.28

Percentage Difference 0.001%
**GREEN HOMES**

**CASE STUDY**

**BASECASE VS SHIVALIK BUILDINGS**

**SHIVALIK AVENUE**

- **2020**
  - 3,00,000 sq. ft.
  - Percentage Energy Savings: 15%

**SHIVALIK SHARDA HARMONY**

- **2021**
  - 4,50,000 sq. ft.
  - Percentage Energy Savings: 22%
<table>
<thead>
<tr>
<th>Year</th>
<th>Efficiency</th>
<th>SFT/TR</th>
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<tbody>
<tr>
<td>2022</td>
<td>Operational</td>
<td>750</td>
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<tr>
<td></td>
<td>Conventional</td>
<td>150</td>
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</tbody>
</table>
### SHAPATH V HVAC SYSTEM & ENERGY EFFICIENCY:

Savings calculation in comparison to standard conventional Split AC system:

**Standard TR**: 125 Sq.FT per Ton (on carpet area)

**Standard unit rate**: Rs. 8 / KWH

**Standard working hours**: As per actual

**Standard working Days**: As per actual

**Diversity**: 0.80

Calculation of bill as per conventional:

\[ \text{Conventional Bill} = \text{Conventional TR} \times \text{Unit Factor} \times \text{Unit Rate} \times \text{Working Hours} \times \text{Working Days} \times \text{Diversity} \]

\[ = 60540 \]

**Actual Bill from HVAC System** = 41523

**Total Savings** = 31%

**8 - 9 Rs./Sq.ft. Savings in Operational Cost**
The Cost of a Building

Do we not have a very myopic view of calculating cost?
Value Creation of Sustainable Development

Do we not have a very myopic view of calculating cost?
Value Creation of Sustainable Development
Value Creation of Sustainable Development

Based on the interrelationship between a workplace, employees, the users, and the business.

Each of these three parameters interact amongst themselves in a direct interface and holistically as well, where one affects the other and their cumulative performance affects the overall productivity of the business.
Value Creation of Sustainable Development
Profit = Revenue - Environmental Cost - People Cost

Financial Profit = Societal Profit + Environmental Profit
TRIPLE BOTTOMLINE

Financial Profit + Societal Profit + Environmental Profit

1. Factory Processes
2. Longevity
3. Circularity
4. Manufacturing Miles
5. Company Kindness
The challenge is **LEADERSHIP**

COURAGE

PASSION

STUBBORNNESS

...is compassion for others
Moral Courage is rarer than bravery in battle but is the one quality that will change the world.