

The Rise of Rural India

**Su-Raj**  
Foundation  
Believes

**SMART VILLAGE**

# SMART VILLAGE

Namami Gange Initiative

Developed By

## SU-RAJ FOUNDATION

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# NAMAMI GANGE

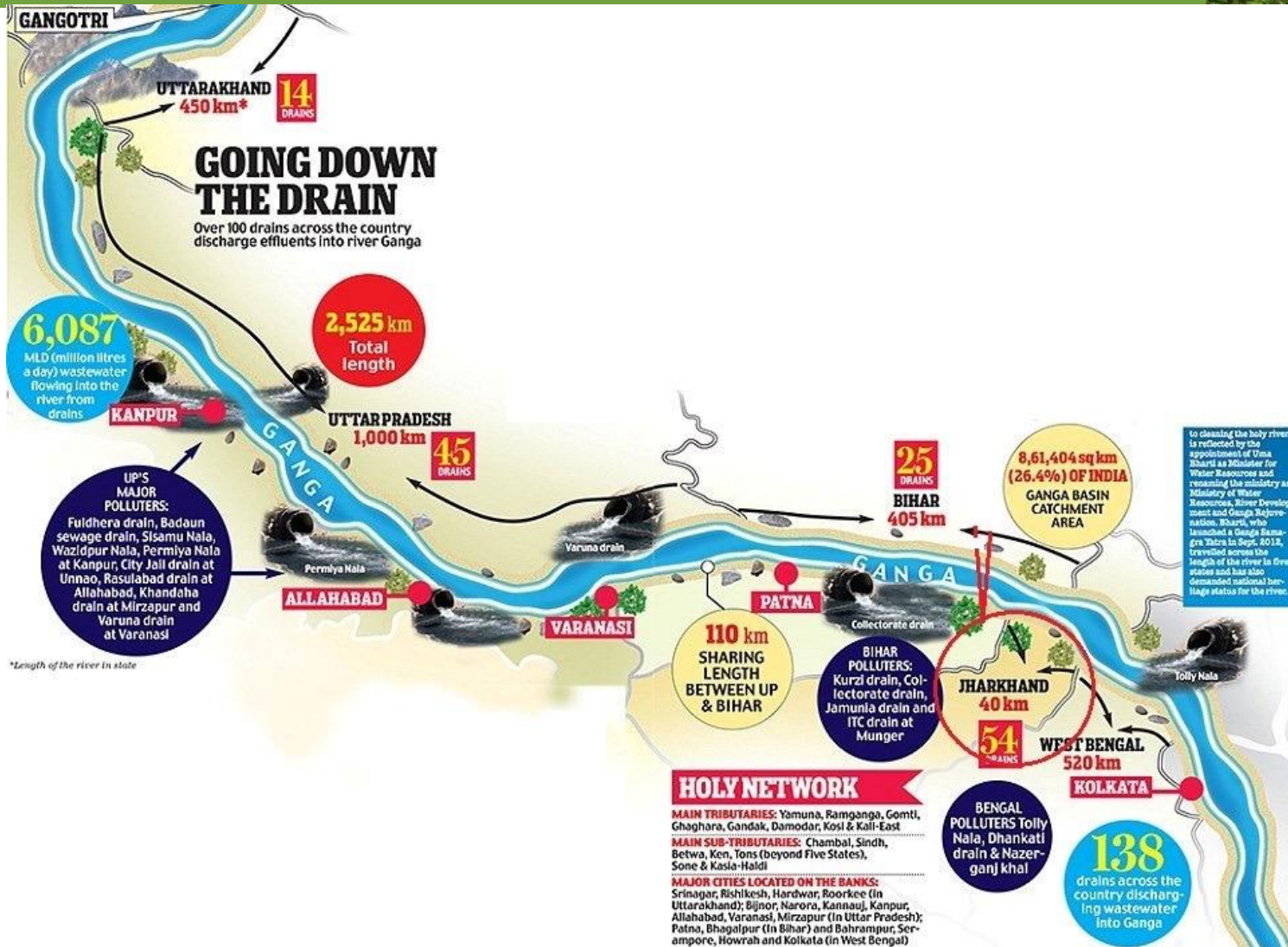
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SMART VILLAGE

Self Sustainable Business model  
For  
"SMART VILLAGE" Development Program  
by  
converting all types of  
Organic wastes to wealth

# VISION

Every Ganga Village is a **"SMART VILLAGE"**

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# CLEAN GANGA THROUGH

1. Prevention of all types of waste falling into Ganga.
2. Conversion of all waste into wealth
3. Development of a self supportive long term sustainable business model.

# TARGET ACHIEVEMENTS

Development of a **Smart Village**– A self sustainable village free from all dependence from outside help.

A smart village is one that is

1. Clean– Free from all types of organic garbage.
2. Green– Ensures soil conditioning
3. Rich– Creates local employment opportunities

# Creation of a **SMART VILLAGE** Through a self sustainable Business Model

The Right BM will be one which will ensure.

1. 100 % self sustainable profit generating model right from Day 1 of operation
2. Payback period as low as 3 years
3. Very low initial investment
4. 100 % inline with the national current policies like Swachh Bharat Abhiyan, Make in India, Start up India Stand up India and skill india
5. Will ensure clean green and rich village
6. Will convert every village into a **SMART VILLAGE** and reverse the process of migration from **“Village to cities”** to **“Cities to villages”**.

# Creation of a **SMART VILLAGE** Through a self sustainable Business Model



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7. Will ensure 100 % “Clean Ganga”.
8. Will offer cheap 24 hours electricity and cooking gas.
9. Will reduce the burden of subsidy on cooking gas.
10. Will promote organic farming and ensure natural fertilizer rich soil.
11. Will generate employment in every village

# BACKGROUND

- India has the Largest cattle population in the world ~ 61.7 crores.
- Majority of this cattle population is based in Rural India, which generates a huge amount of green waste.
- Currently, the waste in the form of cow dung is not being used efficiently.
- However, the potential to generate Green energy from this waste is huge.





# VISION

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- The Rural Development Program—development of a business model is an initiative by CbS Technologies for the self sustainable development of Rural India and the empowerment of its village dwelling population.
- The first phase focuses on creating a sustainable source of clean energy using green waste, which is available in abundance in Rural India



# GREEN WASTE (To Name a Few)



**Food Waste**



**Human Waste**



**Poultry Waste**



**Press Mud**



**Cow dung**

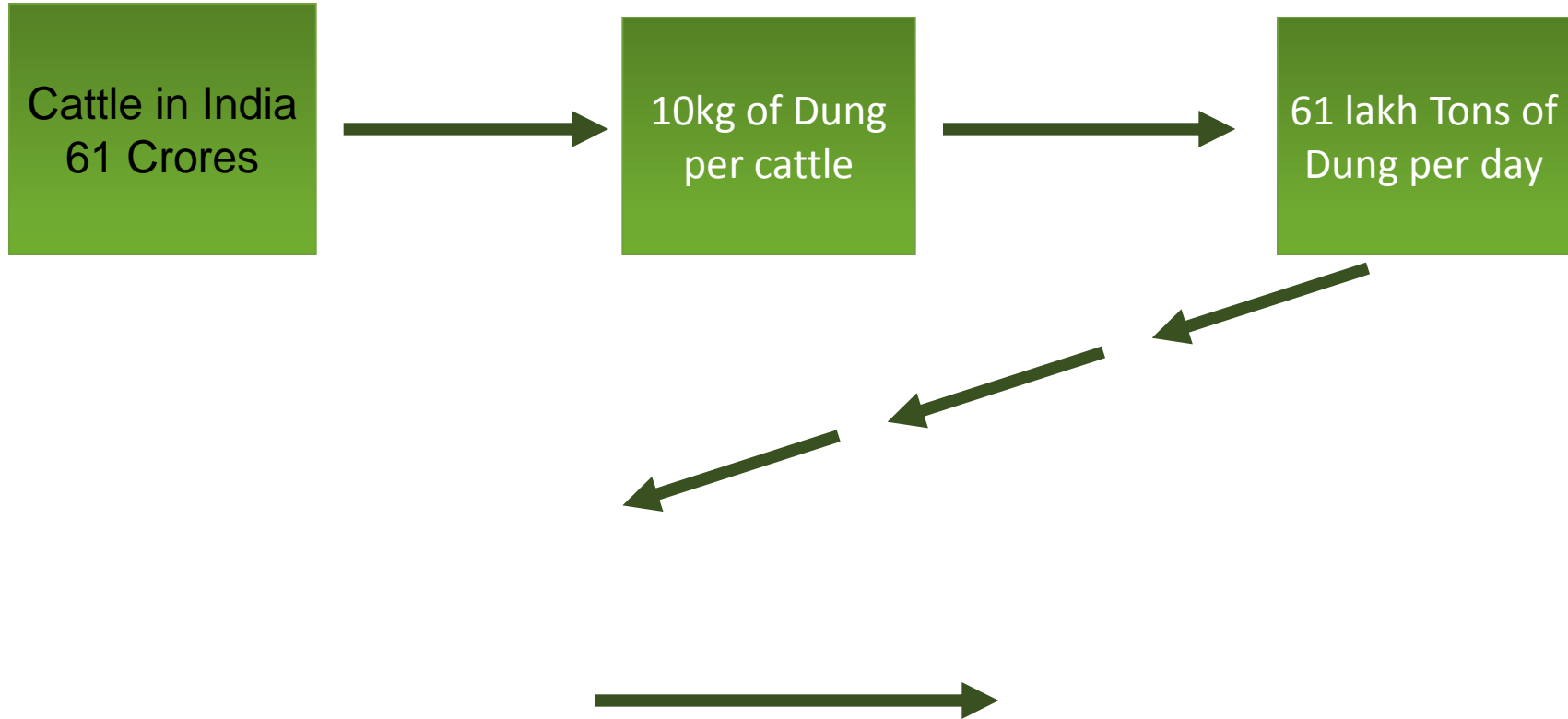


**Land Fills**

# From Waste to Gas

## The National Potential

– “An overview”



# WHY PURIFY RAW BIOGAS ?

- Reduces excessive corrosion (Due to removal of  $H_2S$ ).
- Improves efficiency of the biofuel.
- Has many more applications. Ex: CNG cars, tractors, Electricity, cooking gas, crematoriums, pump sets,
- Less breakdown and lower maintenance cost.
- Value addition = better livelihood for villagers.



# THE PROCESS (Waste to Wealth)

“ Step 1 to Step 6”

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## Green Waste



Step 1

## Digester



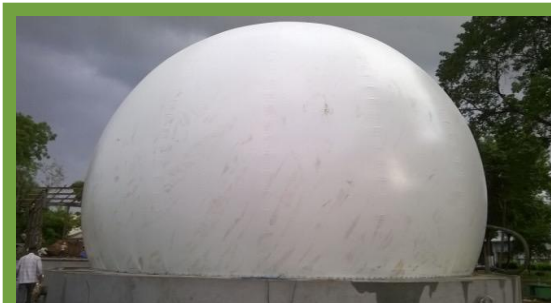
Step 2

By Product



Natural  
Fertilizer

Step 3



Raw Biogas Storage Balloon

Purification (Refinery) System



# PROCESS CONTINUED



Purification (Refinery) System

Step 4



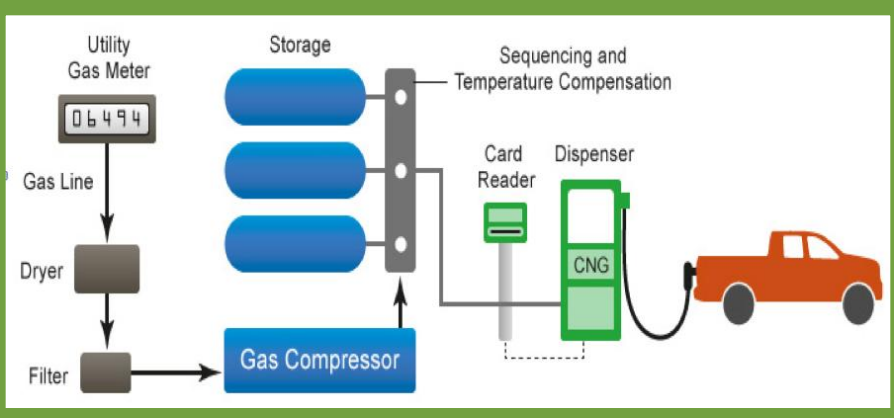
Purified Gas Storage Balloon

Step 5



Booster Compressor

Step 6



Fast Filling Station

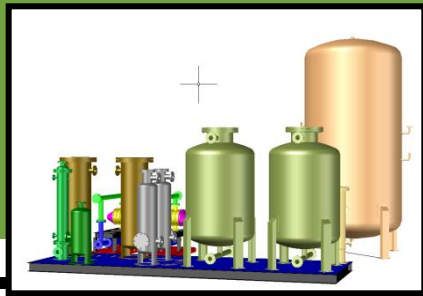
Step 6



Cascade Filling



**RAW MATERIAL  
COLLECTION**



**BIO CNG  
PURIFICATION  
SYSTEM**



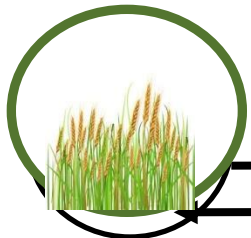
**BIO CNG FILLING STN.**



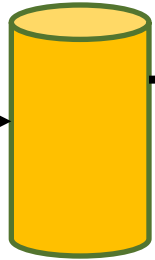
**ORGANIC WASTE**



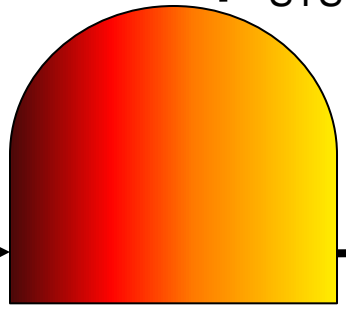
**COW DUNG**



**ENERGY CROPS**



**FEEDING MIXTURE**



**DIGESTER**



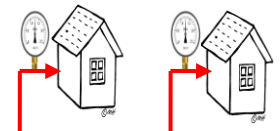
**LIQUID SLURRY**

**BIO CNG FOR ELECTRICITY**



**BIO CNG FOR HOUSE HOLD**

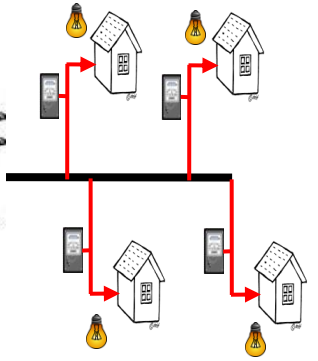
**BIO CNG  
COMPRESSOR**



**GAS  
GEN  
SET**



ClipartOf.com/216129



# WHY BIO-CNG?

- Clean & Green
- Renewable
- Sustainable
- Cost Effective
- Multi-Purpose usage
- Storable
- Usable on demand
- Energy Efficient





# PLANT OVERVIEW (Amul Dairy)

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# A FEW OF BIO-GAS SYSTEMS

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Promove Engineering



AMUL Dairy



Sabar Dairy Engineering



Bharat Biogas

# VIABILITY FOR RURAL BIO GAS

(1000 m3 Plant)

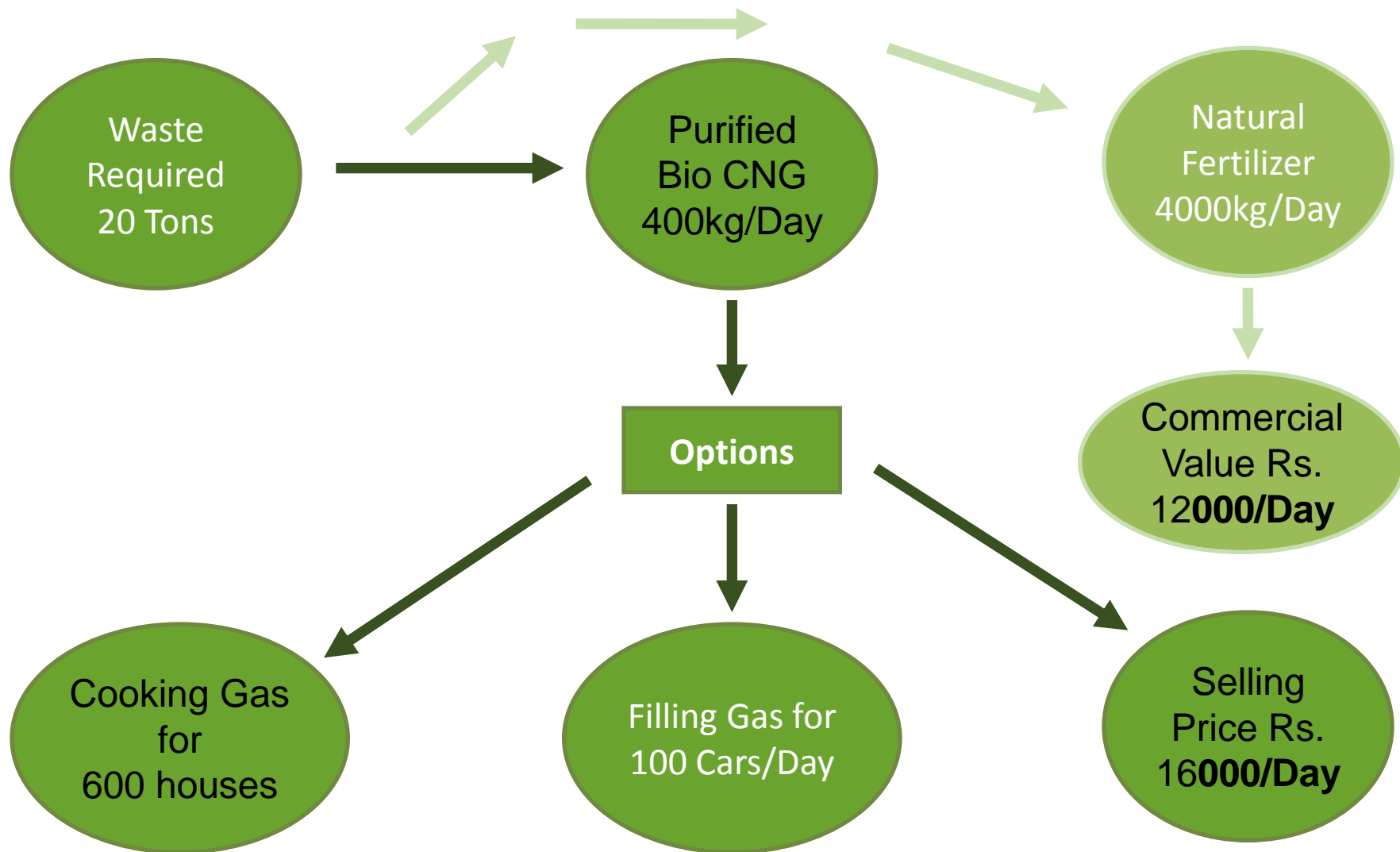
An Overview for Ref. Only

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# SPREAD THE WORD

- Help us spread the message of **Smart Village**.
- This project of "Smart Village" can be taken up as a successful Business model by any business house
- Because a Smart India is possible only through Smart Village.
- Government subsidy & Incentivisation can go a long way..
- The time for Rural India to develop is NOW, Let's make it happen. Let's all Create **SMART VILLAGE**

# PRESENT NATIONAL SCHEMES UNDER WHICH SMART VILLAGE CAN BE POSSIBLE

1. National Mission for clean Ganga
2. Swachh Bharat Abhiyan
3. Sansad Adarsh Gram Yojna
4. Start up India Stand up India
5. Make In India
6. CSR

# BUSINESS MODEL

- Profit and Loss
- Working capital requirement
- Fixed Capital requirement
- Risk and Contingencies
- Incentives and Advantages
- Pay back period

# THANK YOU

## – Su–Raj Foundation

Creating **Smart Villages** all over INDIA through

- S– Skill
- E– Education
- E– Environment
- D– Development