



Rudia

A SMART Village in Waiting

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Introduction to Rudia

- Rudia, a village located on the outskirts of Birla Institute of Technology, Mesra, Ranchi is one of the ten villages adopted by National Service Scheme, BIT Mesra.
- Rudia in our aspects is just a move and motive away from becoming a smart village, free from all problems faced by the villagers in present times.
- Rudia, today is a home of multiple problems and is a few steps away from eradication if we join hands and work for the development.
- The expected journey for the development of Rudia is shown with the help of this presentation .

ABOUT THE VILLAGE:

- The village is no different from any other rural village of India , despite the fact that it is not completely an agriculture based village but a majority of its residents primarily depending on private jobs such as working as peons in private firms, in private security agencies etc. Still a major portion of the population is affected of poverty may it be due to large family size or some other reasons.
- Lack of proper implementation of the government programs and then lack of proper income sources has made the village a home for poor living conditions. As a result of which, the only choice left for the villagers is to stay with the problems and live in a really pathetic condition. The people have lost faith in the system and are really hopeless making them sad from the inside.
- The people are willing to work but they don't find any work. If guided properly, they can do miracles and this will prove to be an example with other such striving villages.

ABOUT THE VILLAGE HEAD

- **NAME : SUBARNO DEVI**
- **VISION :** To create a Rudia in which every men and women holds the power to create opportunity for themselves and others. And everyone has the access to all basic amenities of life resulting in their all round development.
- **MISSION :** By the end of the tenure, ensure proper toilet installations in all the houses of the village. To provide all the villagers with facilities of potable water with assured cleanliness and purity. Strive forward with at most serenity to ensure employment of the youth of the village. Devote time for empowerment of women of my village and ensure their proper education.

FACTS AND FIGURES

AREA OF SURVEY	COUNT
NUMBER OF HOUSES	226
MALE POPULATION	623
FEMALE POPULATION	599
AREA OF WALLS	9270 sq. ft
ROAD CONNECTIVITY	3 km
NUMBER OF WELLS	5 (only 1 potable well)
NUMBER OF HANDPUMPS	3 (only 1 working in winter season)

Road To Modern Rudia

- **Phase I**

- Sanitation
- Solid and liquid waste management
- Village streets and drains
- Intervillage road connectivity

- **Phase II**

- Skill development training
- Fully equipped mobile health unit
- Provision of piped water supply
- Digital Literacy

Drainage mess
from the entrance
itself!

**WELCOME TO
RUDIA**



DIFFICULTIES AND REQUIREMENTS

Almost all the houses sewage are directly open towards the open land or the unused lands making the land worst for any use and also has the potential to cause bacterial diseases.

Some of the houses have tried to connect their house sewage to the underground pit, solving the problem temporarily as they have to vacate it every 3-4 years or even have to make the new one costing Rs. 40,000-50,000.

Others have just tried to make some temporary drain line towards their house and then it all just comes to the open land.

In fact the scenario is that houses have drainage line which one has to cross before entering the house which can cause problem for the children and old and even not a aesthetically good view which is just another point to look into.



The Present Drainage Condition at Entrance



Welcoming with the PIT

Outlet from
home; discharge
in open



DRAINAGE CONSTRUCTION PROPOSAL:

The idea is to construct and repair the drainage system for the whole village with a well equipped main drainage line throughout the village road and by it the houses their can connect their house drainage .

The construction is to make the drainage line in two phases

Phase 1:

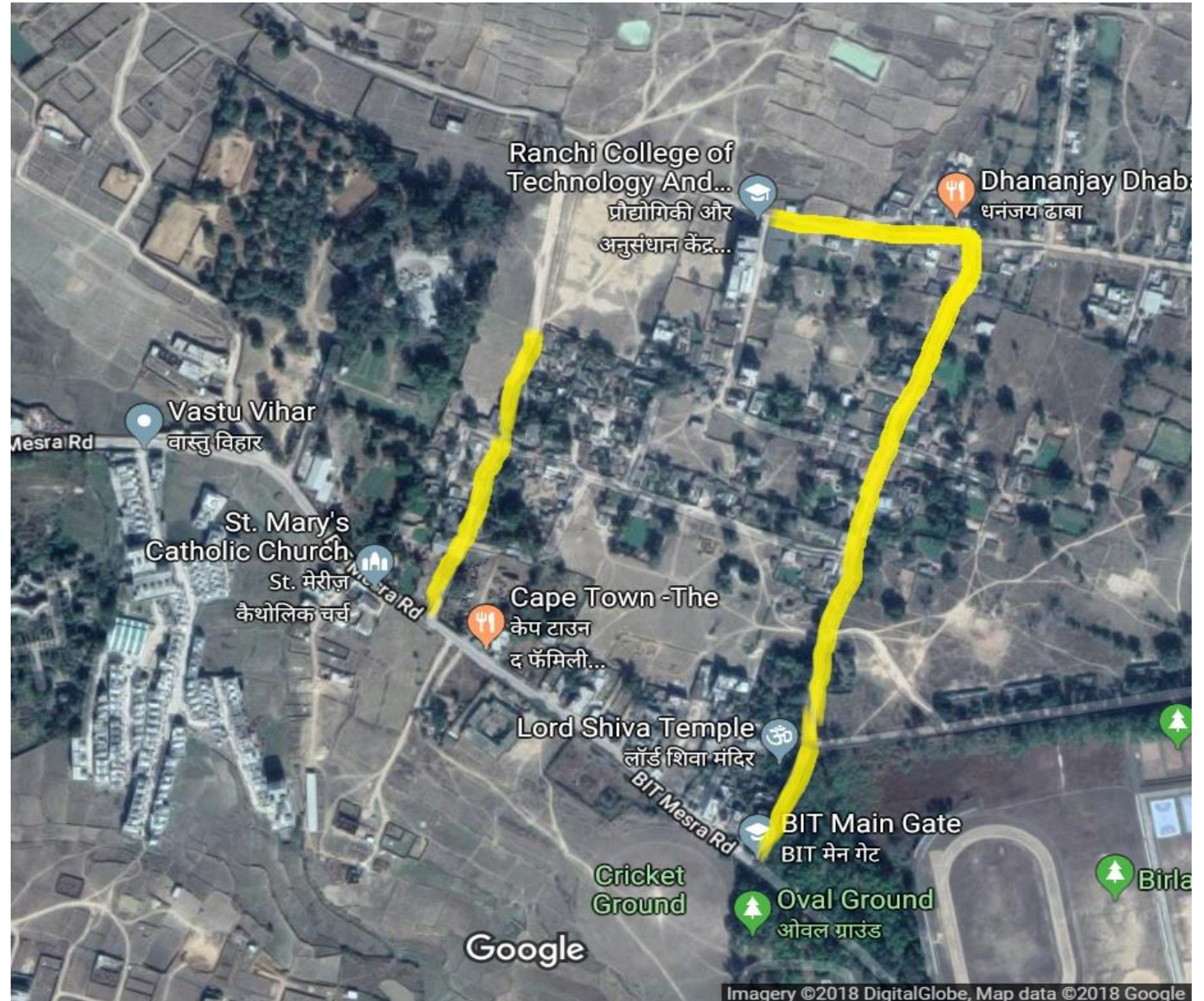
It coves **840 meters** of the main road in the village which has a proper RCC work and a genuine width and depth and if possible have a cover slab.

Phase 2:

786 meters covering the intermediate parts connecting the houses with the drainage facility coming to the main drainage line. It may have varying dimension as feasible at the construction site under site engineer supervision.

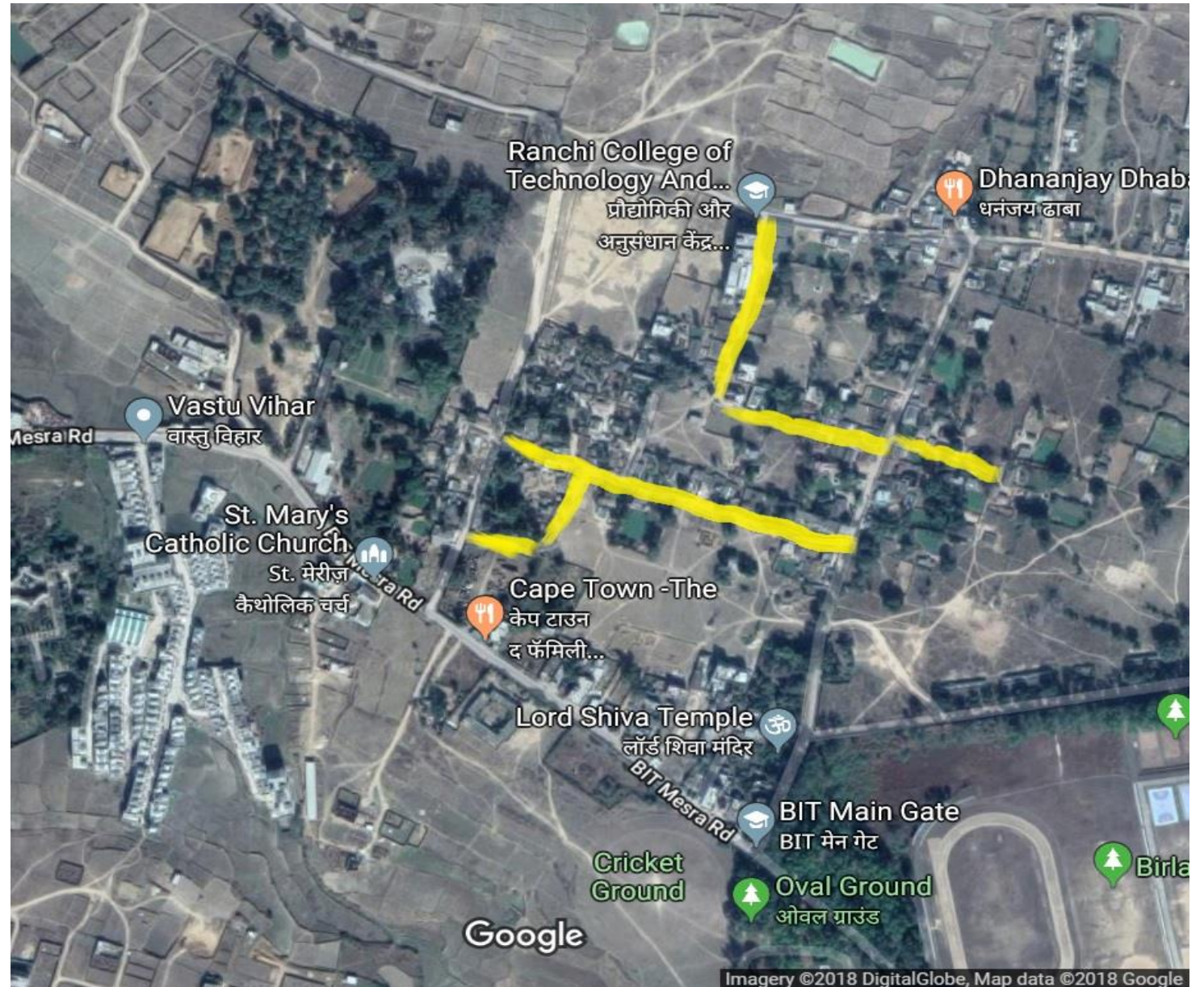
Phase 1

- Total Length:**840 m**
- Dimension:
 - Depth=0.4-0.5m
 - Width=0.5m
 - Slab thickness=10mm
 - Below RCC work=20cm
 - Road solders=2-2.5m
- Specification:
 - Reinforcement-8mm
 - M25 RCC
- Estimated Cost:10.005Lakhs(including supplementaries)



Phase 2

- Total Length: **786m**
- Dimension: Adjustable according to site
- Estimated cost: 2-2.5lakhs



Site Proposal



Proposed Initial Site for main drainage



Pre-existing drainage line to connect the proposed drainage

Incomplete Drainage System requiring repairment



Needs further construction from the main line

Roads

- In the Survey conducted by our volunteers, we found out that the network of roads is not well maintained.
- Roads are extremely damaged.
- Even the maintenance is very poor as the road once constructed is left as it is in the exposed climate and the pressure load more than its capacity.
- The village has some parts still unconnected from the pucca roads and is worst in case of the rainy season.
- During rainy season water gets collected in the small pits created and the undulation in the road.
- Even the drain water from the drain line comes to the road at some parts due to the lack of proper slope and construction of drainage.

Damaged Roads of Rudia



DRINKING WATER : A MAJOR PROBLEM OF RUDIA

- As per our survey, only 5% houses have access to pipe water supply, whereas rest are dependent on hand-pumps or dug wells.
- Along with inadequate availability, water quality is also affected by various contaminants.
- In the families having their women working , the small girls have to collect water that negatively affects their education.
- And the wells are open, attracting various contaminants resulting in major health problems among the villagers.



SOLUTIONS TO DRINKING WATER PROBLEM

- Covering all the wells by a net so that the water in the wells does not get dirty .
- Providing water supply to the nearby areas from overhead tanks using pipelines .
- Installing new handpumps in places where there is no source of pure drinking water .
- Fixing and repairing old handpumps in places where they are already installed , but not functioning properly .
- Proper cleaning and maintenance of wells .



Wall Paint

- A Survey was conducted in Rudia Village and the total area of walls to be painted was found to be 9270sq.ft.
- As a first step for village beautification, we are proposing to paint the exterior walls of the houses.
- Apart from the beautification it can also be used as a means of spreading awareness about different government plans and other important social issues.
- Also ,people tend to contaminate the place which is already contaminated . There will be much less chances of people throwing garbage in front of a clean painted wall.

Sample Wall Paintings

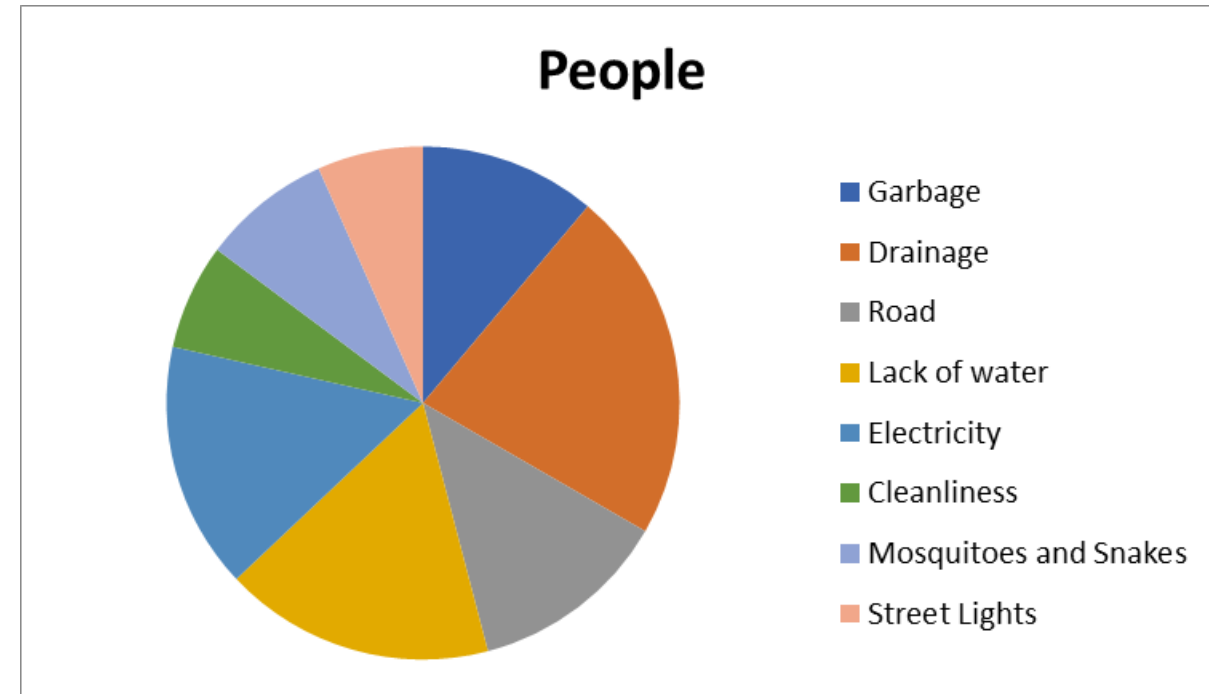
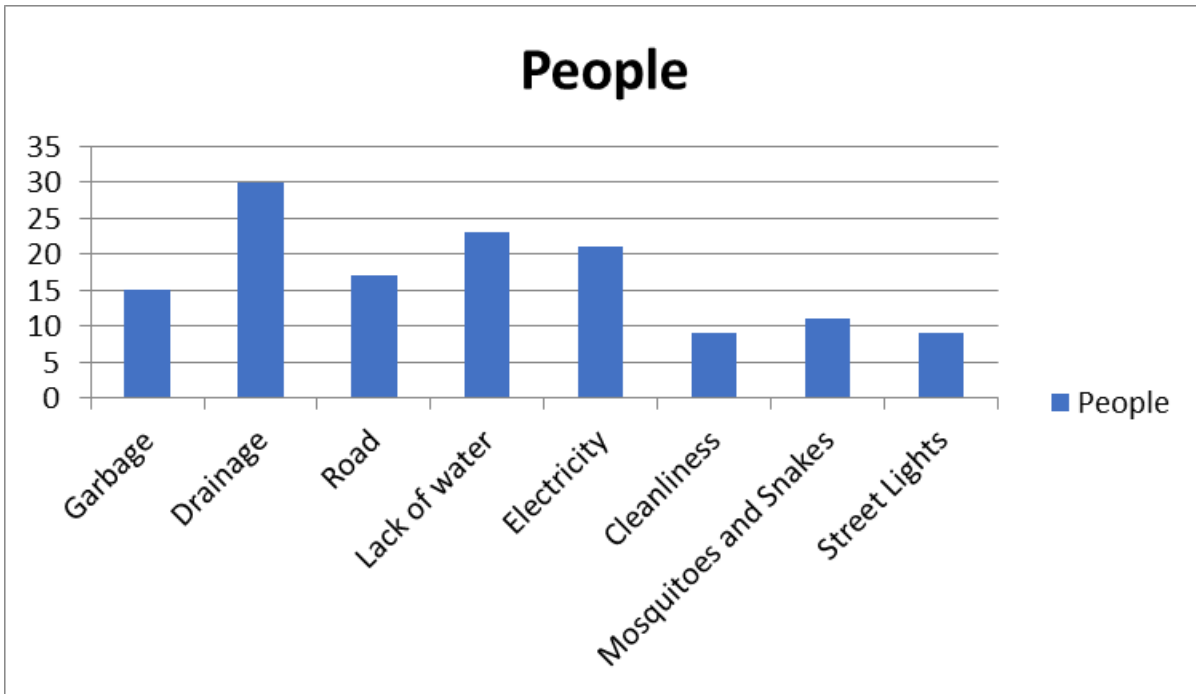


Proposed Designs of Wall Paintings

Street Lights

- Light, the life line of existence seems to vanish from the life of residents of Rudia.
- Due to interrupted power supplies, frequent voltage fluctuations with added problem of unavailability of street lights ensure complete shortage of connectivity at night within the village.
- Moreover lack of street lights at night poses a threat of robbery and theft.
- Lack of proper roads accompanied with lack of street lights poses threats of accidents.

Problems Identified by villagers



Problems identified by us while our visit to Rudia:

- Popular culture of alcohol consumption in a heavy amount resulting in family problems as well as health issues.
- Lack of awareness drives about the programs of government for their betterment.
- Lack of awareness about their rights in this democracy.
- Need of better access to internet and educating them about how it can prove to be a boon for their development.
- Need for upliftment of the girl children making them get the respect and importance they deserve.

Time Estimate

- Drainage Solutions : 3-4 weeks
- Road Improvement : 4 or more weeks
- Drinking Water Solutions : 2 weeks
- Wall Painting : 2 months
- Street Lights Repair and Installations : 1 month

- Total Expected Time : 3-4 months

Assistance Required

- Monetary assistance
- Human Workforce
- Material Resources







