Rural Housing & Development Strategies: Integrated Approach with Planning, Design & Economic Perspective

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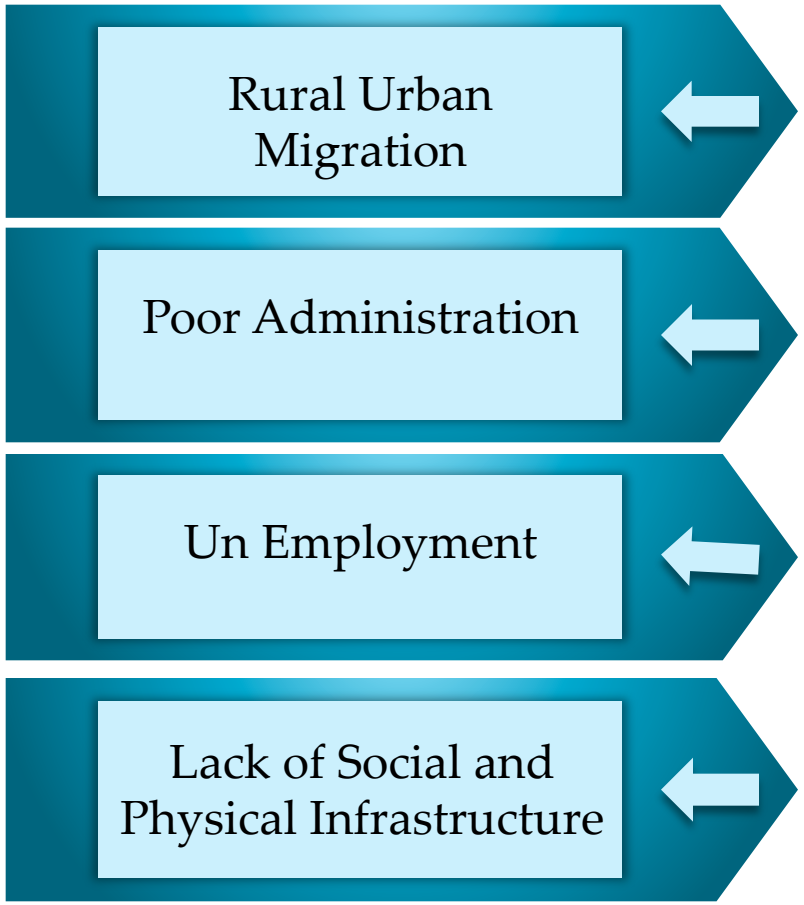
OUTLINE OF PRESENTATION

- Introduction
- Case Studies
- Objectives
- Key Project Areas
- Working Methodology
- Findings & Results
- Proposals
- Way Forward

Rural Development

- Rural areas plays a key role in the economic development of any country. Mostly rural population are engaged in the prime industry but in developing country the rural development is completely neglected.
- In the scenario of Pakistan 32.5% is urban population where as 67.5% population live in rural areas. The economy of Pakistan highly based on agriculture land.
- Agriculture is the largest sector in the economy contributing **25 % of the GDP** and providing **70% of the total value of exports**.
- It is observed that life in villages is somehow shaby due to poor facilities provision.



SUCCESSFUL RURAL DEVELOPMENT

CASE STUDY INDIA

- **AFFORDABLE RURAL HOUSING FOR ALL**
- **THE NAYA GHAR PROJECT OF THE MAHILA HOUSING SEWA TRUST AHMADABAD INDIA**
- **GRAM VIKAS HOUSING PROGRAMME**
- **INDIRA AWAAS YOJANA**

Case study 1: Affordable Rural Housing For All "PAHAL"

Project Start Date:
January 2013
Geographic Coverage:
National and state level
Focus Area:
Poverty Reduction

Project financial assistance

UNDP with GOV.

AIM TO BUILT 30 MILLION HOUSES

5 MILLION HOUSES EVERY YEAR

COMPONENTS OF PROJECT

wider range of choices in terms of
- **Housing designs**
- **Materials and**
- **Construction technologies.**

METHODOLOGY OF PROJECT

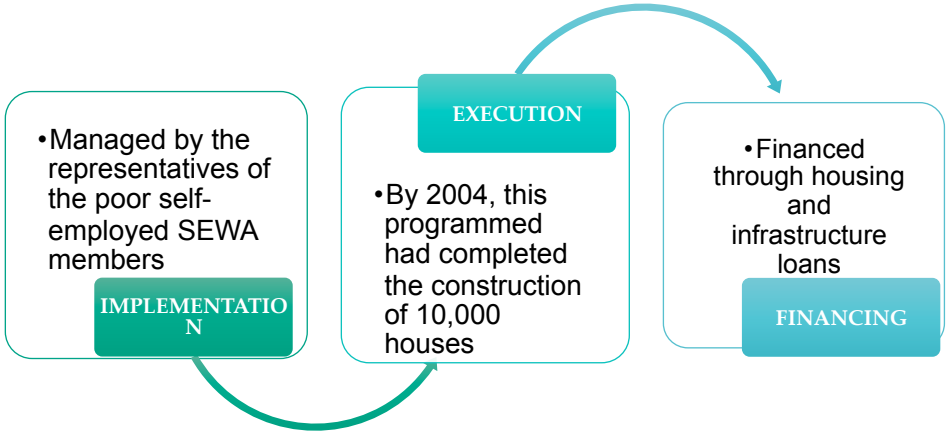
Proposed more than 100 housing designs, approved by the state governments and vetted by a central agency.
Affordable Rural Housing designs 'Pahal'.

MATERIAL USED

- BAMBOO
- MUD
- TIMBER

•Integration of drinking water, sanitation and domestic energy requirements into the housing typologies is underway

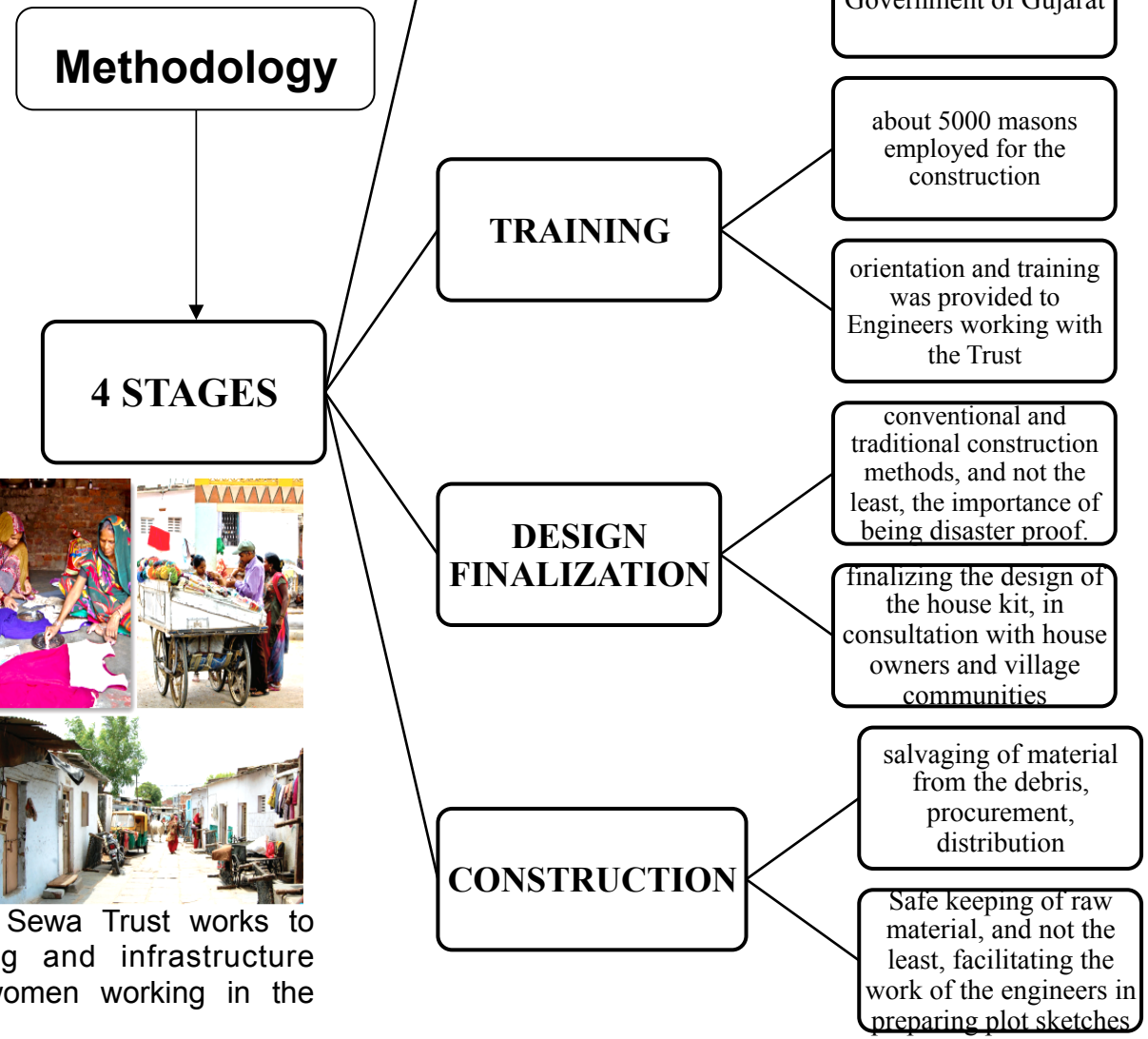
Case Study 2 : THE NAYA GHAR PROJECT OF THE MAHILA HOUSING SEWA TRUST



Of ten houses constructed in India, ***seven are constructed by the people themselves***, ***two by the government*** and ***one by the private sector***.

The ***majority of urban poor prefer*** to build their homes ***incrementally*** with the help of local masons/contractors. MHT supports ***self-constructed***, incremental housing by providing financial and technical support to ensure that the houses are ***structurally safe with efficient layouts*** and access to adequate light, ventilation and basic infrastructure.

The Mahila Housing Sewa Trust works to improve the housing and infrastructure conditions of poor women working in the informal sector.



CASE STUDY 3 :GRAM VIKAS HOUSING PROGRAMME

CONSTRUCTION METHODOLOGY

- Managed and monitored locally by a committee of the village
- Has to be completed in six months, after which the loans are frozen
- The entire loan is repayable over fifteen years, at the standard interest rates charged in housing loans

The amount spent on labor and locally available material is considered as being the initial contribution amount.

Efforts for this project

Provided training, technical guidance, masons and support for ***bulk purchase of building materials***. Social housing involves people at each level and they spend a considerable amount of time collecting materials and contributing labor towards construction of the house.

CASE STUDY 4 INDIRA AWAAS YOJANA

CONSTRUCTION MATERIAL AND REDEVELOPMENT

Promoting **choice of materials and construction technologies** keeping in view affordability, adaptability, employment generation, environmental benefit (green technologies), energy consumption over the life cycle, ease of maintenance and sustainability

Construction of durable houses which would last for at least 30 years with normal maintenance

A kutcha' house is one in which walls and/or roof is made of material, such as un-burnt bricks, bamboos, mud, grass, reeds, thatch, loosely packed stones, etc. which are not durable due to inappropriate application of techniques and are not able to withstand normal wear and tear.

NEWLY CONSTRUCTED HOUSES

REDEVELOPMENT OF KATCHA HOUSES

- Build or upgrade homes to households below the poverty line
- Aim of the scheme is to construct 1cr homes in next 3 years- 33 lakh in 2016, 33.5 in 2017, 33.5 in 2018-19
- Financial assistance for construction of a new house is rs. 70,000/- in plain areas & rs.75,000/- in hilly/difficult/IAP areas.
- At local level, village panchayat or its equivalent will implement

OBJECTIVES

Agriculture
Provision of technical assistance to increase production

Social Services
Ensure Quality of Life to bring social parities

CONNECTIVITY
Connectivity of rural areas with urban areas

INFRASTRUCTURE
Improvement of social & physical infrastructure

HOUSING
Improvements in existing structures and provision of well planned housing units

Key Projects Areas

NABI

LAHORE – KASUR ROAD

JINDRI

BARKI ROAD LAHORE

KAMAHAN

ATTA BAKHSH ROAD

MURIDKE

ALONG NATIONAL HIGHWAY

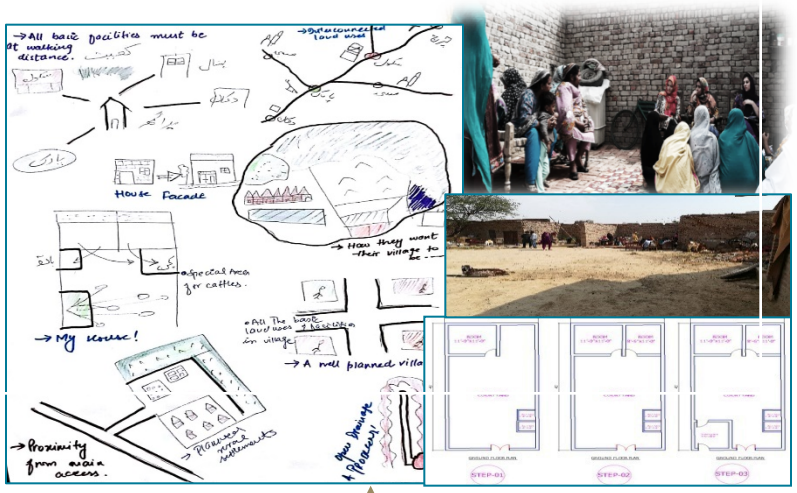
Working Methodology

01 Methodology Techniques

- **Site Selection**
- **Field Survey**

02 Surveys technique

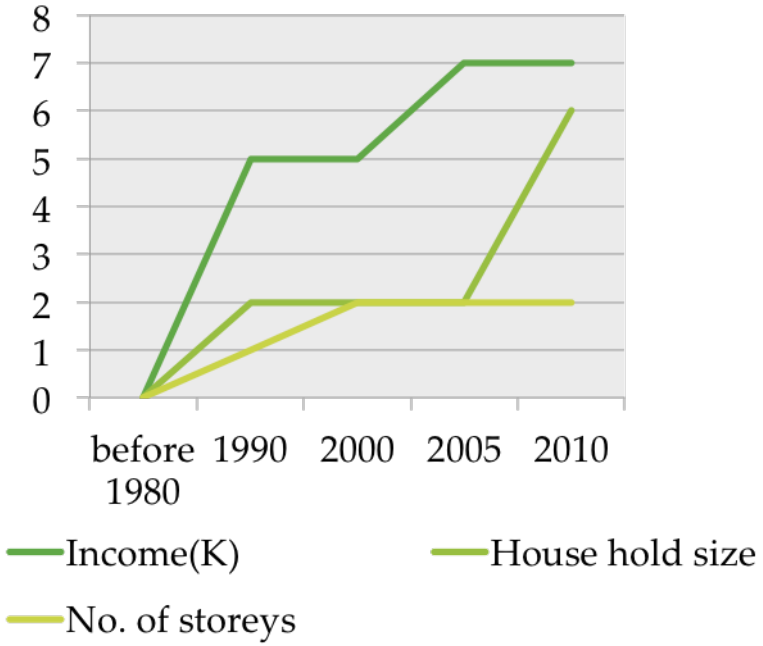
- **Looking & listening surveys**
- **Focus Group**
- **Mental Mapping**
- **Land Use Survey**
- **SWOT analysis**

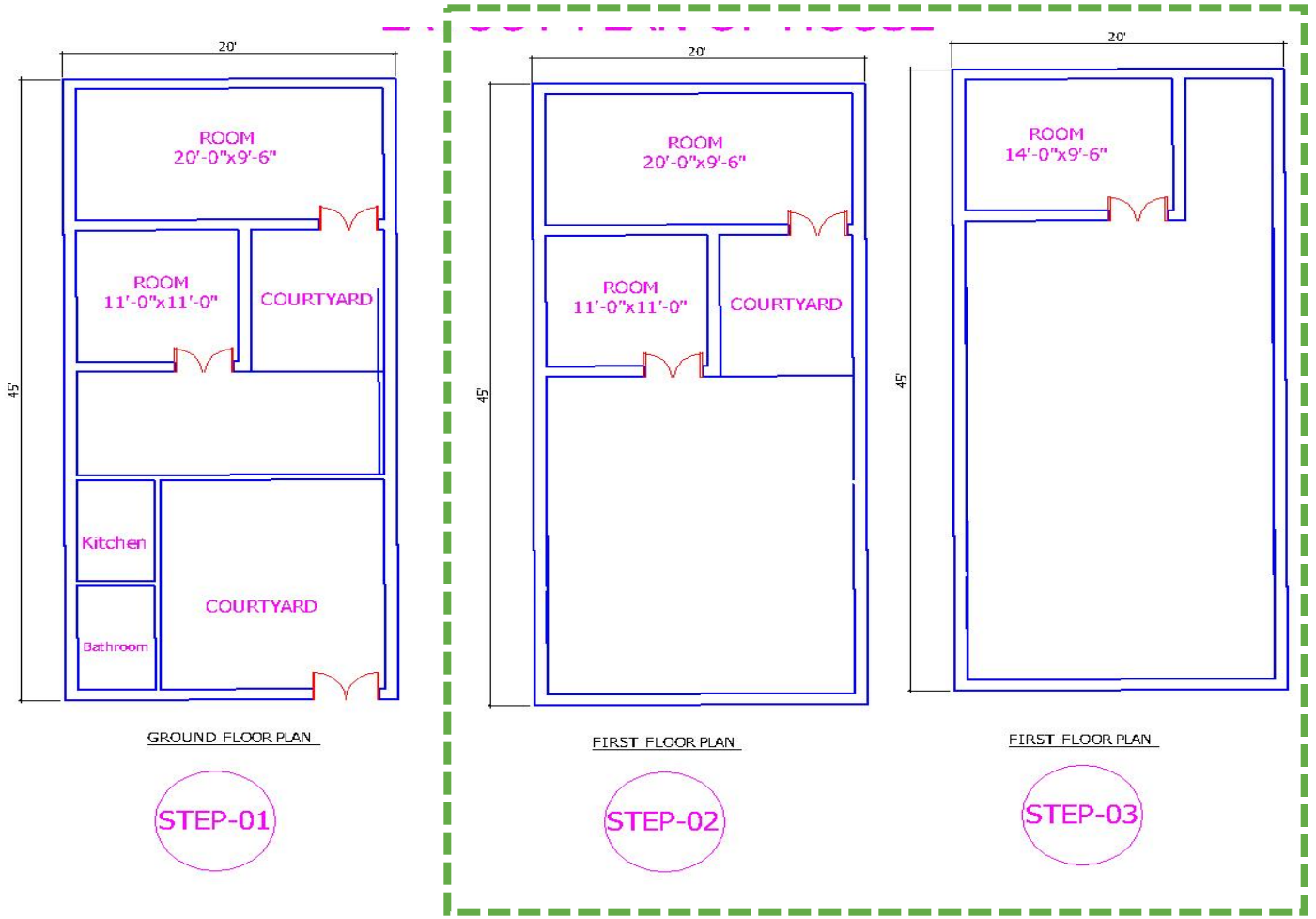


Community Workshops

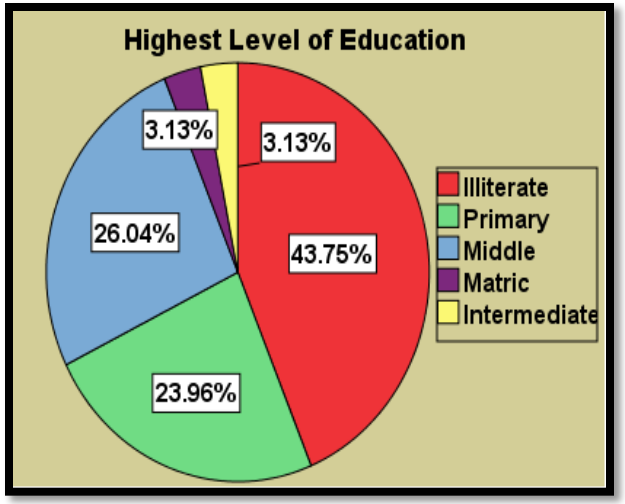
Condition of Buildings and services

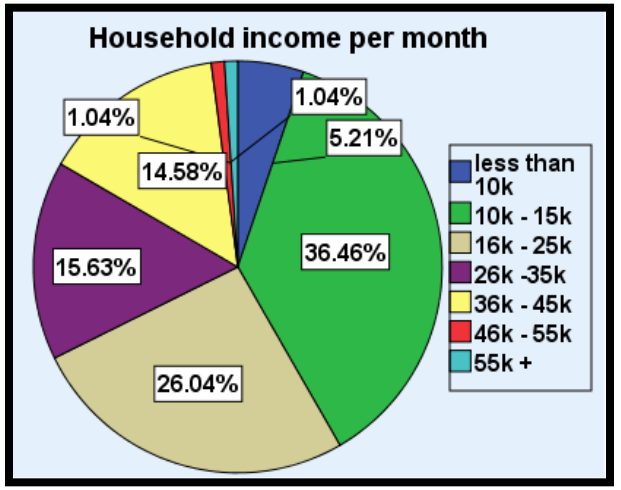
FINDINGS

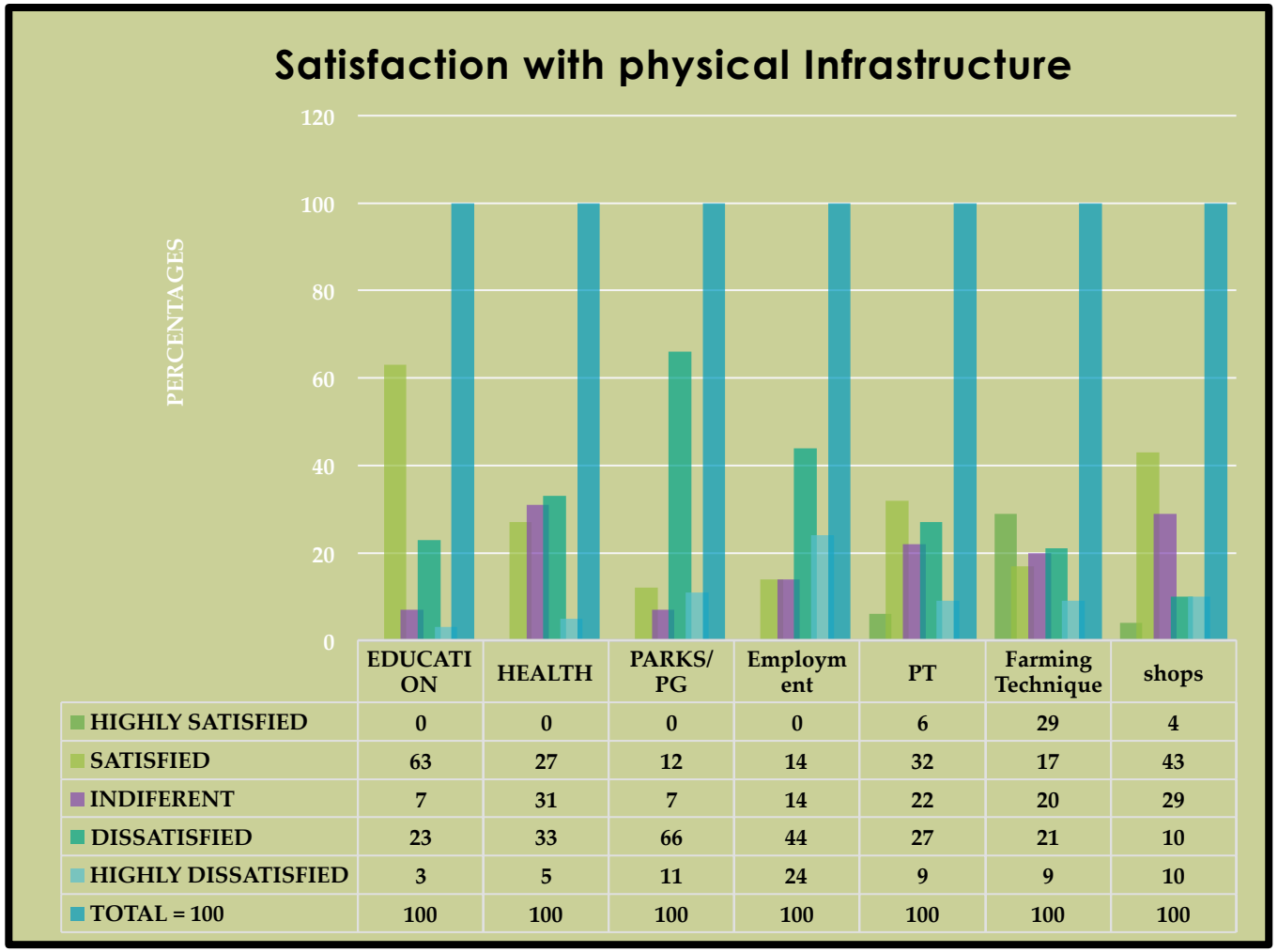

8
7
6
5
4
3
2
1
0
before 1980
1990
2000
2005
2010
Income(K)
House hold size
No. of storeys


20'
45'
ROOM
20'-0"x9'-6"
ROOM
11'-0"x11'-0"
COURTYARD
Kitchen
Bathroom
COURTYARD
GROUND FLOOR PLAN
STEP-01
20'
45'
ROOM
20'-0"x9'-6"
ROOM
11'-0"x11'-0"
COURTYARD
FIRST FLOOR PLAN
STEP-02
20'
ROOM
14'-0"x9'-6"
FIRST FLOOR PLAN
STEP-03

FINDINGS- Social & Physical Infrastructure







	EDUCATION	HEALTH	PARKS/ PG	Employment	PT	Farming Technique	shops
HIGHLY SATISFIED	0	0	0	0	6	29	4
SATISFIED	63	27	12	14	32	17	43
INDIFERENT	7	31	7	14	22	20	29
DISSATISFIED	23	33	66	44	27	21	10
HIGHLY DISSATISFIED	3	5	11	24	9	9	10
TOTAL = 100	100	100	100	100	100	100	100

Major Problems/Issues

OPEN SEWERAGE OR DRAINAGE

POOR INFRASTRUCTURE

IMPROPER HOUSE FACADES

GARBAGE ON ROADS

OPEN KITCHENS

IMPROPER INTERNAL LAYOUTS

01 Infrastructure Development

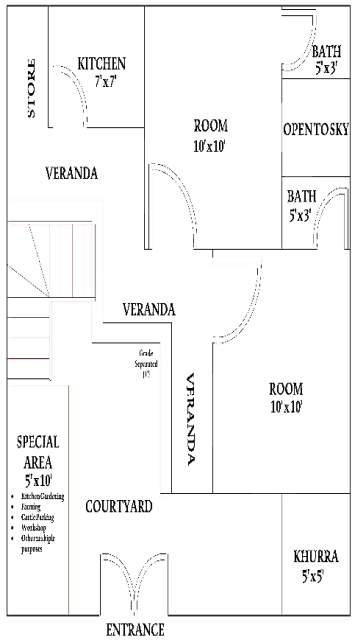
02 Housing Design Layout

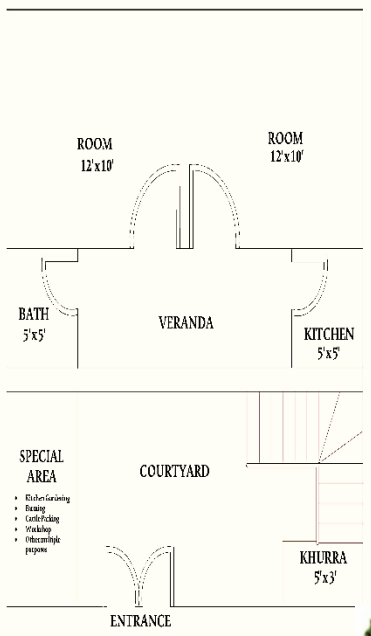
03 Innovation of Affordable Material

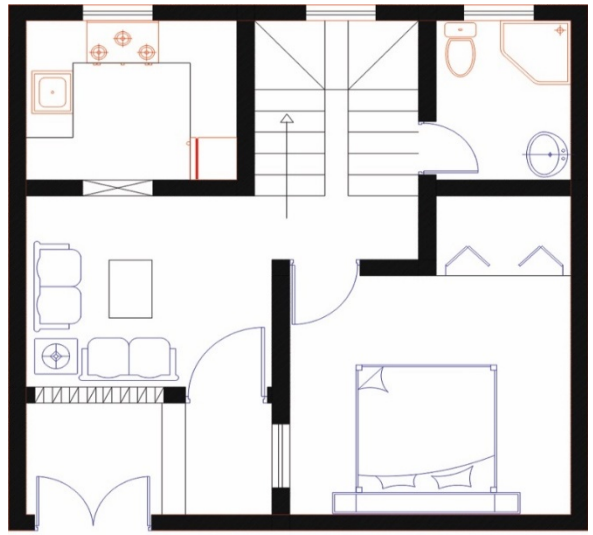
04 Water supply and Waste water treatment

Proposal Designs

HOUSE PLANS DESIGN OPTIONS



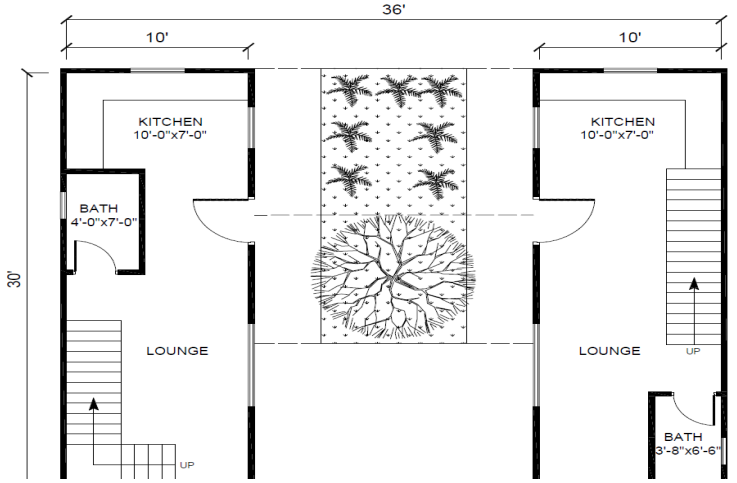


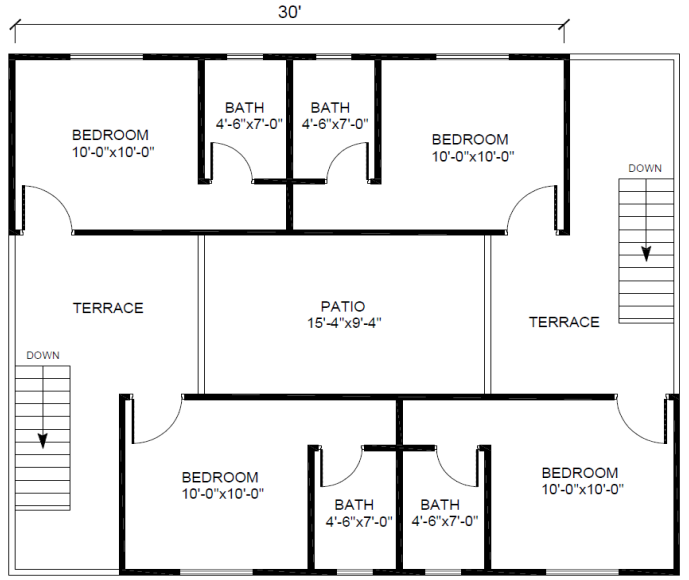


3 MARLA (24'-9" X 24'-9")

1.5 MARLA (28' X 12')

GROUND FLOOR PLAN





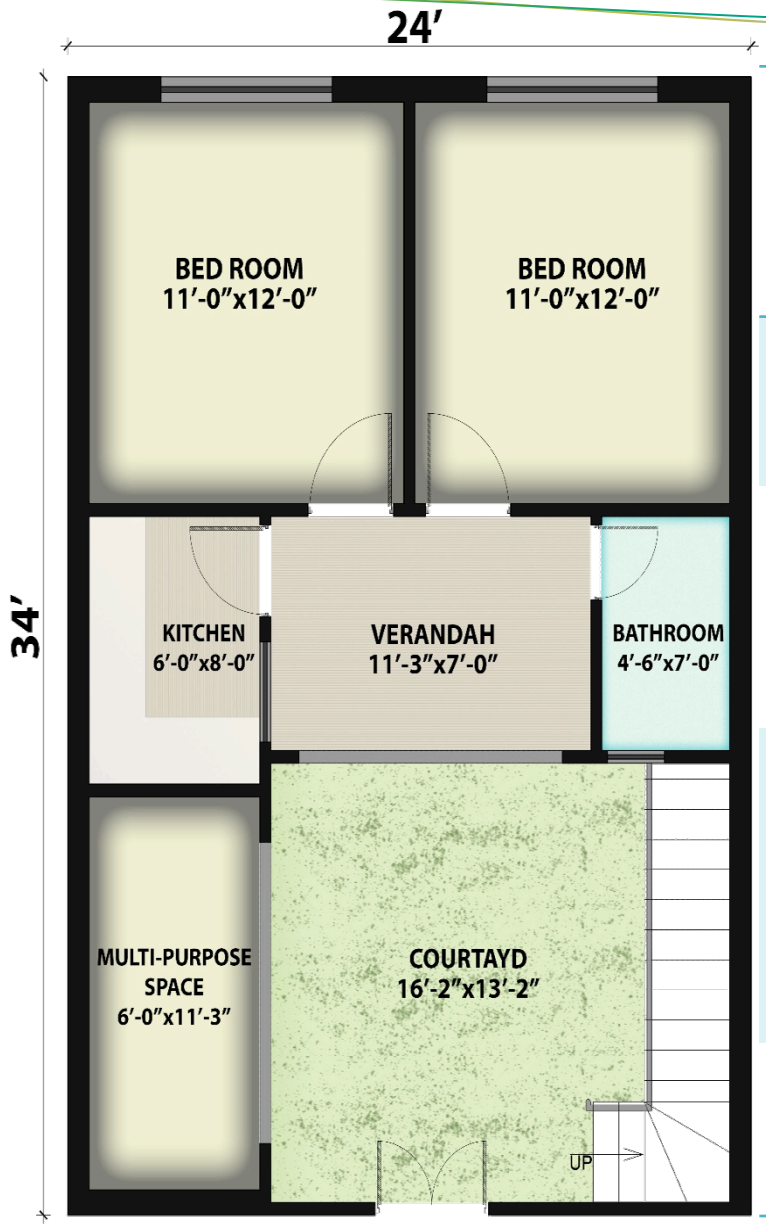
FIRST FLOOR PLAN

ARCHITECTURAL FEATURES

- 2 Bedrooms
- Covered Kitchen
- Verandah
- Multi-Purpose Area
  1. Workshop / Shop
  2. Grain Storage
  3. Animal Bhara
- Open Courtyard

3 MARLA HOUSE

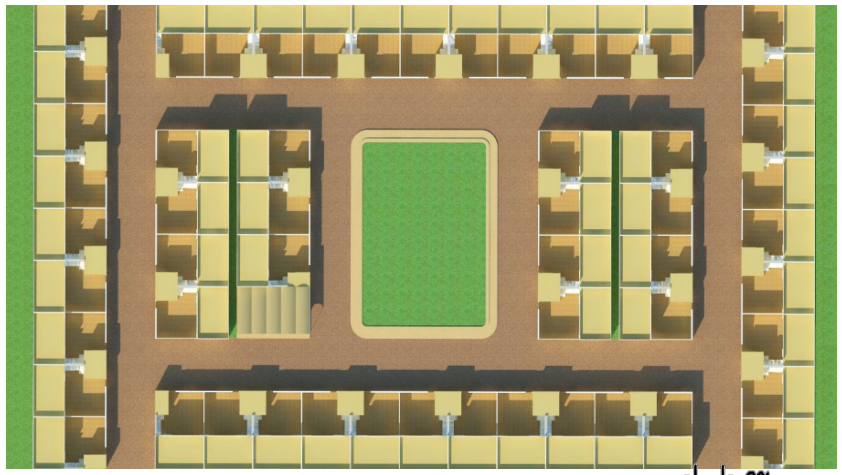
588 sq. ft. Covered Area
588 sq. ft. x Rs.1225= 997,350 Rupees
Total Cost= 1,116,350 Rupees

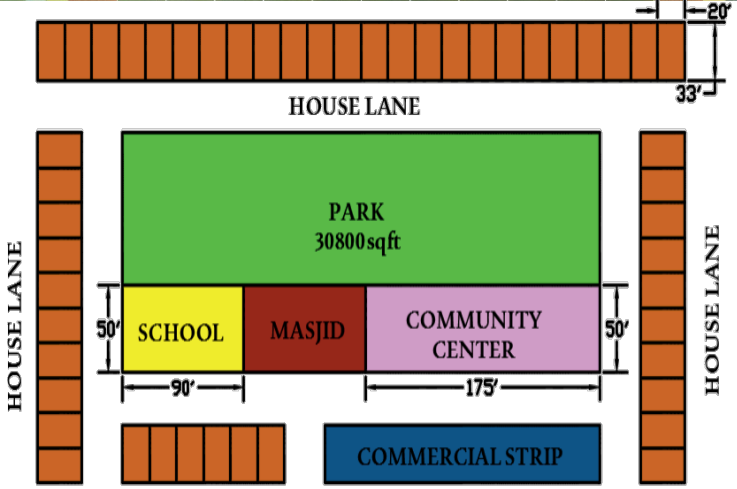


PROPOSED LAYOUT OF 3-MARLA HOUSING UNIT

PHASE	Covered Area in SFT	Provision	Cost in 100,000 With Concrete	Cost in 100,000 With Pre-cast
Initial	415	Core Unit	4.5	4
1st Increment	585	2nd room added	1.8	1.5
2nd Increment	695	Shop area included	1	0.75
			7.3	6.25

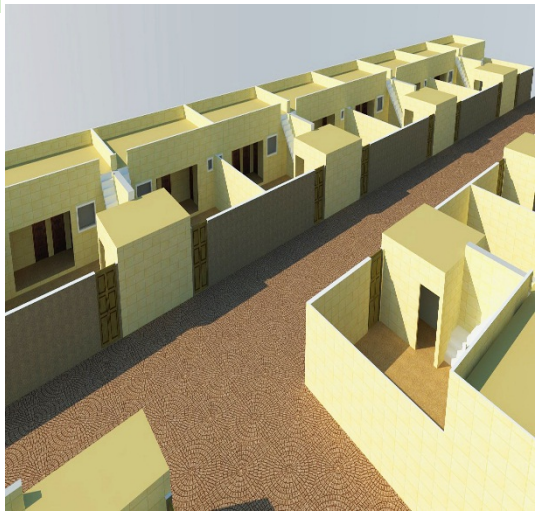
MODEL VILLAGE





Community center, school and masjid is provided for multiple uses in the proposed location:

1. A barrier to park
2. Can be used in rush days (e.g. Jumma, gatherings) to cater maximum number of people.



FEATURES

Cost Effective
Minimum roads and maximum connectivity
Affordable to every socio economic class/ status

Site Area:
480′ X 270′

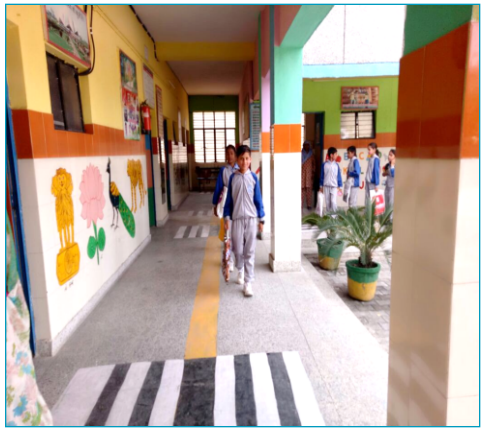
PROVISIONS

- 50 Houses
- 10 Shops
- 1 Park
- 1 School
- 1Community Center

DESIGN PROPOSALS

- Empowering primary schools
- Connectivity and accessibility to colleges
- Introduce Technology and Lab to attract Students
- Provision of furniture and other resources

Educational Sector



Health Sector

- Provision of Basic health units
- Provision of hygienic Environment
- Awareness training among community
- Provision of Emergency equipment's.

DESIGN PROPOSALS

- Innovation in cropping Technique
- Increase in productivity through advance yielding procedure
- Training of labors and masons about techniques
- Restrict use of agricultural land adversely

Agricultural Sector

Physical Infrastructure measures

- Disaster Mitigation and Awareness
- Connectivity with Pacca Roads
- Provision of clean drinking water
- Improvement of drainage and sewerage condition
- Maintenance of Existing resources
- Strong linkages between rural and urban areas

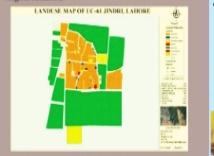
RURAL AREAS PROJECTS

RURAL HOUSING FOR JINDRI VILLAGE

BACKGROUND OF STUDY

We conduct a survey at Jindri village with the local people which are the core part of rural planning and development. Land use map of Jindri has been prepared to distinguish the dispersion of land uses. During survey, we identified the problems of village related to infrastructure (sewerage, clean water availability, waste collection system, low illiteracy, educational institutions, medical, etc.), aware the people for their adverse effects and explore different ideas with detailed discussions to make their environment clean.

Area to whole Jindri village consists of multiple land uses having 29 acres built up area. It is predominantly an agricultural area. The other major land uses are residential area, commercial area and institutional area which includes educational institutions & religious institutions.



ISSUES/PROBLEMS

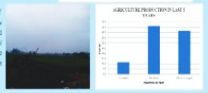
1. LACK OF INFRASTRUCTURAL FACILITIES:

- CONDITION OF HOUSING

In Jindri village 6% residents living in the katcha and single storey house. The walls and/or roof of which are made of un-burnt bricks, bamboo, mud, grass, reeds, loosely packed stones, etc.

- LOW AGRICULTURE PRODUCTIVITY

The agriculture production in last 5 years have seen decreased due to lack of ownership of land and people are not getting their actual price of production of their crops from stakeholders. So the production of agricultural crops is decreasing gradually.



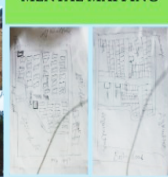
- CONDITION OF ROAD

Only 18% of roads are paved roads which include main access roads and 90% of roads are unpaved which include inner streets of Jindri Village.

- LACK OF WATER AVAILABILITY& SANITATION FACILITIES

Water is available 24/7 to the majority of residents of Jindri Village as most of them use their own electric subsurface water pump and to them availability of water depend on availability of electricity.

There is very poor sewerage system in Jindri. About more than 80% sewerage lines are open and choked which is hazardous to health and atmosphere.



- LACK OF PROVISION OF PUBLIC TRANSPORT

The percentage of people using different modes at public transport 51% of them use rickshaw because they can have their destinations nearby their homes without changing any transportation mode. 9% of them use bus mostly they use buses when traveling intercity, 4% of them use other public transport i.e. vans they use it because that is more economic for them.

- DEFICIENCY OF NEARBY HEALTH FACILITY

There is inappropriate health facilities, no basic health units provided by the government. This shows directly the negligence of the government. This is something that needs to be rectified. Similarly, hospital near to the village is 35 km away. This simply reflects the dispersion of health facilities.

MENTAL MAPPING

CASE STUDY OF INDIA HOUSING FOR ALL

HOUSING FOR ALL (PRADHAN MANTRI AWAS YOJANA)

- SCOPE

With about one in six urban Indians living in informal settlements, the need for additional affordable housing in India is growing exponentially. The Indian Ministry of Housing and Urban Poverty Alleviation (MoHUPA) launched an ambitious Housing for All scheme (Pradhan Mantri Awas Yojana, PMAY) in 2015 with the goal to make India slum-free by 2022. This scheme is based on similar former programs and shows promise regarding the number of houses that will be built with the help of the government's credit-linked subsidies for low-income groups in India. However, the program has many shortcomings, especially from a people-centered perspective; beneficiaries are often perceived as passive, there are few empowerment measures in the scheme, access to benefits is exclusive, and long term effects are neglected.

- IMPLEMENTATION METHODOLOGY

WHO IS ELIGIBLE:

PARTICULARS	MIG I - PMAY (U)	MIG II - PMAY (U)
Household annual Income (Rs.)	6-12 lakh	12-18 lakh
Eligible Loan Amt for Interest Subsidy (Rs.)	9 lakh	12 lakh
Interest Subsidy	4%	3%
Dwelling Unit Carpet Area	160 Sq. mt.	200 Sq. mt.
Max loan tenure (in yrs)	20	20
NPV subsidy	Rs 2.35 lakh	Rs 2.50 lakh

IMPACT OF THE PROJECT

PMAY scheme for MIG buyers may not push up the demand for residential housing much. The benefit of Rs 2.3 lakh/Rs 2.35 lakh may not appeal much considering the cost of houses in the urban areas. The government may consider doing away with the area restriction of 90/110 sq. mt to see an the demand.

SOLUTION/PROPOSAL

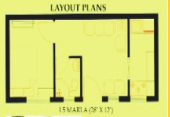
HOUSING FOR ALL (CHOTTA MAKAN, ZINDAGII ASAAN)

A two-bedroom house provides basic housing needs, especially for a small family, and it's pretty much likely that people who build this kind of house would wish to build a bigger house but due to certain constraints such as time taken to complete, available space, money and demand, they choose a smaller house.

COMPONENTS OF A HOUSE

- Foundation
- Walls and superstructure
- Roof
- Doors and windows
- Floor finishes

LAYOUT PLANS



- Lounge-cum-dining room
- 1 bedroom with built in wardrobes Kitchen with built in cupboards & with ceramic tile finish
- Additional finishes as per owner requirement

3 MARLA (25' 9" X 25' 0")

- Lounge-cum-dining room
- 2 bedroom with built-in wardrobes Kitchen with built in cupboards & with ceramic tile finish
- Additional finishes as per owner requirement

HOUSE (MARLA)	LUM SUM COST (Rs)
1.5 MARLA	5.50,000/-
2 MARLA	6.50,000/-
3 MARLA	9.00,000/-

WHY THESE LAYOUT PLANS?

- Economical for low income people
- Sufficient living space
- Conserving agricultural land

Northern Zui-Gas Housing Colony
State Life of Pakistan Housing Society
Punjab Co-operative Housing Society
Khamaha Pind 2-4 Marla Housing.
Aboroo NGO School
Landmark Nodes
PRIVATE
PUBLIC

Kamayan pind is a rural suburbs [2-4 marla found in the direct neighbourhood of middle to upper class housing societies like DHA, Sui-Gas housing society, State Life housing society]. This pind and these middle to upper class housing societies have a similistic relationship. It is argued weather this relationship is turning into a parasitic one

INCREMENTAL HOUSING

CORE OBJECTIVE WAS TO ACCELERATE THE IDEA OF MODULAR HOUSING THAT GETS TO COMPOSE IN SEGMENTS WITH TIME, WHICH PROVIDES THE OCCUPANT WITH AN OPPORTUNITY TO ALTER EXISTING SEQUENCES OF SPACE OR IMPROVISE IT TO A BETTER LEVEL

PROPSITION-A

PROPSITION-B

THIS IDEA OF INCREMENTAL HOUSING CONTINUES TO DISPLACE VERTICALLY FOR AN UNDEVELOPED PLOT. THIS CLUBICAL FRAMING ALLOWS EVERY OCCUPANT TO ALTER THERE FACADES ACCORDING TO PRINCIPLE VIEWS, TEMPERATURE VARIATIONS AND BEAUTIFICATION AT THEIR WILL (GREEN VERTICAL FACE, ONE WITH HORIZONTAL STRIPS, VERTICAL SLITS, MUD CLAIRED BAMBOO FACE AND MANY TO PLUG IN.)

PROPSITION-C

RURAL PLANNING & DEVELOPMENT OF VILLAGE NABI BAKHSHWALA

MAY 2018

PROJECT BRIEF

Village Nabi Bakshwala located along Lahore Kasur road has been selected to survey and analyse the socio economic condition for proposing a viable rural planning & development for the village. The village is located 23.3 km away from Kasur and 31.2 km away from Lahore and it shares a modal positions. Physical and social infrastructure of the village has also been studied and analyzed. Findings of the project have been achieved in light of 100 socio-economic questionnaire and a comprehensive focus group discussion.

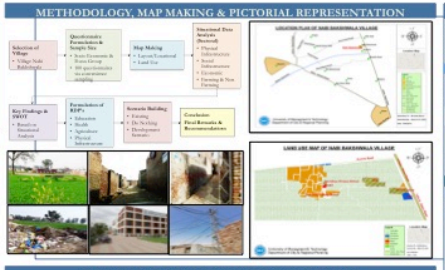
DEMOGRAPHIC & AREA PROFILE OF VILLAGE NABI BAKHSHWALA

Location	Lahore-Kasur Road
Total Area	300 ACRES
Total Population	2000 persons
Total houses	450
Household size	6
House ownership status	Owned
Predominant occupation	Agriculture & dairy
Schools	2 Government, 2 Private
Health	No facility, no basic health unit (BHU)
Role of patwari / numberdaar	Maintaining revenue record

AIM OF THE PROJECT

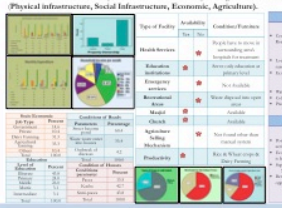
This project is aimed at developing village Nabi Bakshwala keeping in view its existing socio economic condition, and to prepare rural development plans (RDPs) for improving the overall liveability of the rural area. It identifies the reviews and opinions of the residents, for analysing the rural situation through a comprehensive SWOT analysis & by proposing a viable RDP approach. Hence, four sectoral RDPS have been envisioned followed by detailed scenario building for uplifting the status of Nabi Bakhshwala Village.

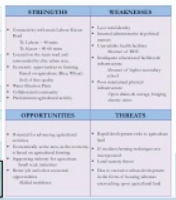
METHODOLOGY, MAP MAKING & PICTORIAL REPRESENTATION



SITUATIONAL ANALYSIS, KEY FINDINGS & SWOT

An SPSS based situational analysis has been attained and key findings of the four weak sectors in the village is presented (Physical Infrastructure, Social Infrastructure, Economics, Agriculture).



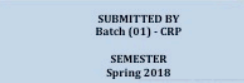


RURAL DEVELOPMENT PLANS (RDPs)

Rural Development Plans aim at developing rural area as whole in terms of culture, society, economics, technology and health and to develop living standards of rural masses. In this regard, **4 RDPs** of villages Nabi Bakhshwala have been proposed.

SCENARIO BUILDING

CONCLUSION



COURSE TITLE
RURAL PLANNING - CRP 333

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Batch (01) - CRP

SEMESTER
Spring 2018

MERE MAKAAN MAIN DUKAAN

Gujrat
Sambrial

A Housing Microfinance Project in Sialkot

Project is aimed to fulfil the requirements and needs of low income housing groups, with the durability in disasters. An affordable house design methodolgy was used to design alternatives of low income hosing in order to minimize cost and environment impact while maximizing the enterprenurship, self help and community development.

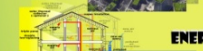
Donate for the Cause
Sponsor A House or A Part through Zakaat & Sadaqah

"Believe in Allah and His messenger, and spend (in charity) out of the (substance) whereof He has made you heirs. For, those of you who believe and spend (in charity),- for them is a great Reward. "(Al-Qura'an, 57:7)

Services

SELF EMPLOYMENT

GREEN ROOFS



ENERGY GENERATION

FLOOD RESISTANT DESIGN

INCREMENTAL HOUSING

CONTAINER HOUSING.
Incremental Housing; Khamayana Pind.

PLANS

GROUND FLOOR
KITCHEN
LAUNDRY
STORE
RESIDENCIAL STORE

FIRST FLOOR
BATHROOM
MASTER BED
CUPBOARD
WORKSHOP SPACE
SAILOR BEDS

SECTIONS

All the workers, craftsmen and like collared heroes come for these areas (like Khamayana Pind) but most have here since they can't afford to settle in these pseudo "utopic" settlements. But settlements like DHA (utopic suburbans) become the income generators for these squatter settlements.

In short, the people living in Kamayan do not have access to the basic necessities of life. There is no infrastructure that supports elementary needs like that of housing, education and health. There are no paved roads or streets, neither a sanitation system. The people even don't have access to clean drinking water. The muddied streets are filled with garbage and dust.

- Spacial design within the living quarters of a singular residence, the spacial sequencing of rooms etc with each other to form a community and further growth of the community.
- Building materiality within the view of sustainable performance and optimizing the cost of construction. (Does the expensive is 500,000 cost of an unfinished brick construction)
- Introduction of a prefabricated modular home assemble by a household; instead of going through multiple payments over a series of phases, one singular model that the user can customize.

MATERIALS & INSULATION

COMMUNITY LAYOUT

Materials

- Locally Available Material
- Cheap/ Economical
- Environment Friendly
- Good for Human Health
- Less in weight
- Low degradability
- Bad conductor of heat
- Durable (10-15 yrs. max)
- Good Strength

Floor

- Stone
- Mud
- Cement

Wall

- Bamboo wall
- Bamboo reinforced Mud floor
- Reinforced mud wall
- Stone mud wall

Roof

- Hand made Tiles
- Bamboo Roof
- Bamboo corrugated sheets
- Grass Roof
- Manufactured tiled roof
- Stone roof
- Other materials

THANK YOU