

GPSDP Project –MORAI

Inferences, Insights and Proposed Interventions



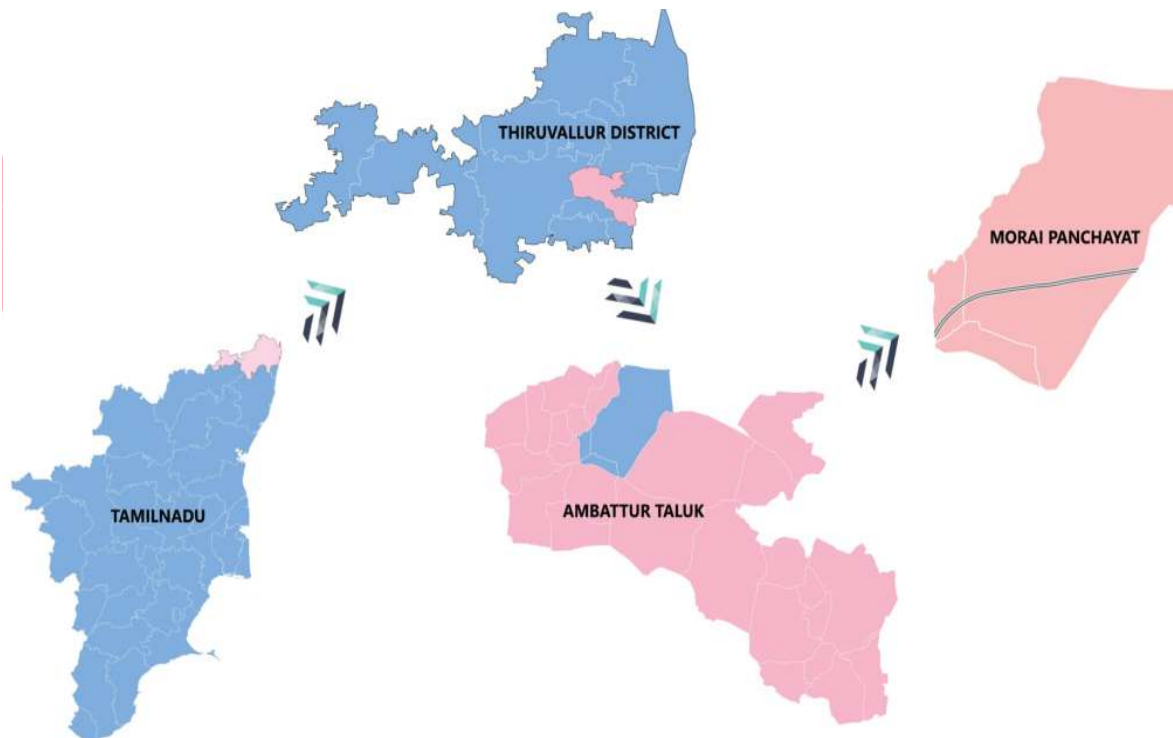
DEPARTMENT OF ARCHITECTURE, SAP,
ANNA UNIVERSITY, CHENNAI

11.11.2020

Contents

- Introduction
- Evolution
- Process
- Demography
- Social Infrastructure
- Physical Infrastructure
- Land use
- Proposals

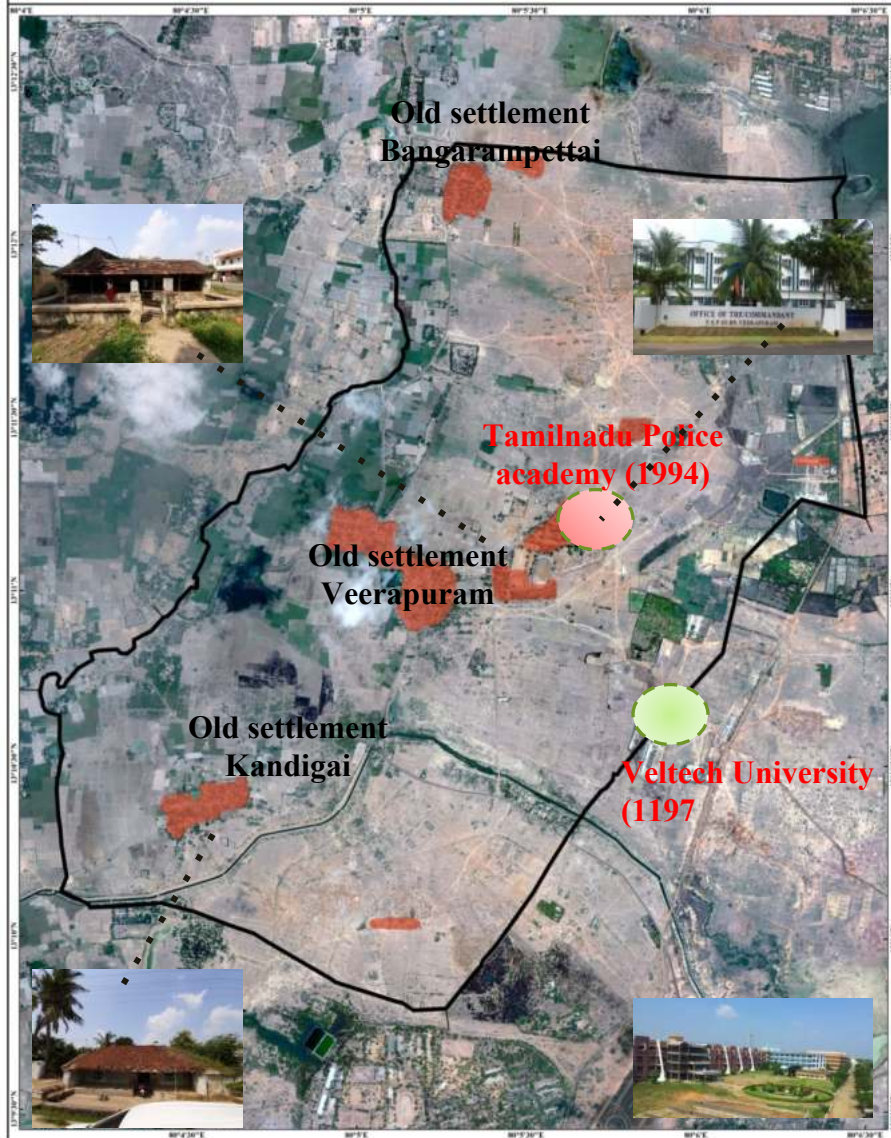
Introduction and Location



MORAI

- C D Block- Villivakkam
- District- Thiruvallur
- State-Tamilnadu
- Area- 1163.09 hectares
- Population- 10,873 (2011);
19850(2019)
- Household- 2,718 (2011);
5700 (2019)

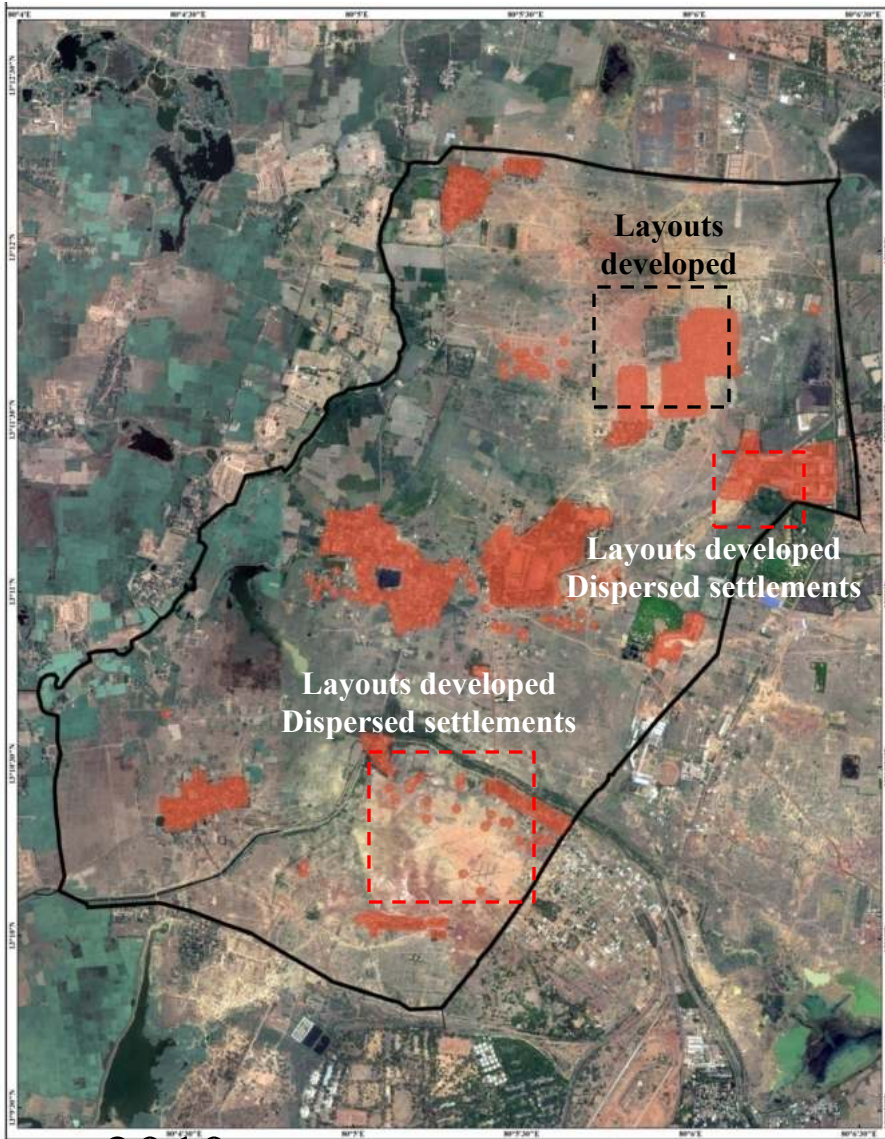
EVOLUTION OF MORAI



2005 – Population: 3373(2001)

- ❑ The village has three old settlements Kandigai, Veerapuram and Bangarampettai.
- ❑ Globalisation and liberalisation policies after - agriculture lands were converted in to plots due to the urban pressure for development.
- ❑ Private institutions Veltech (1997) - 100 acre land developed.
- ❑ The Tamil Nadu Police Academy (1994) - 168 acres in Veerapuram
- ❑ Part of CRPF facilities in the village

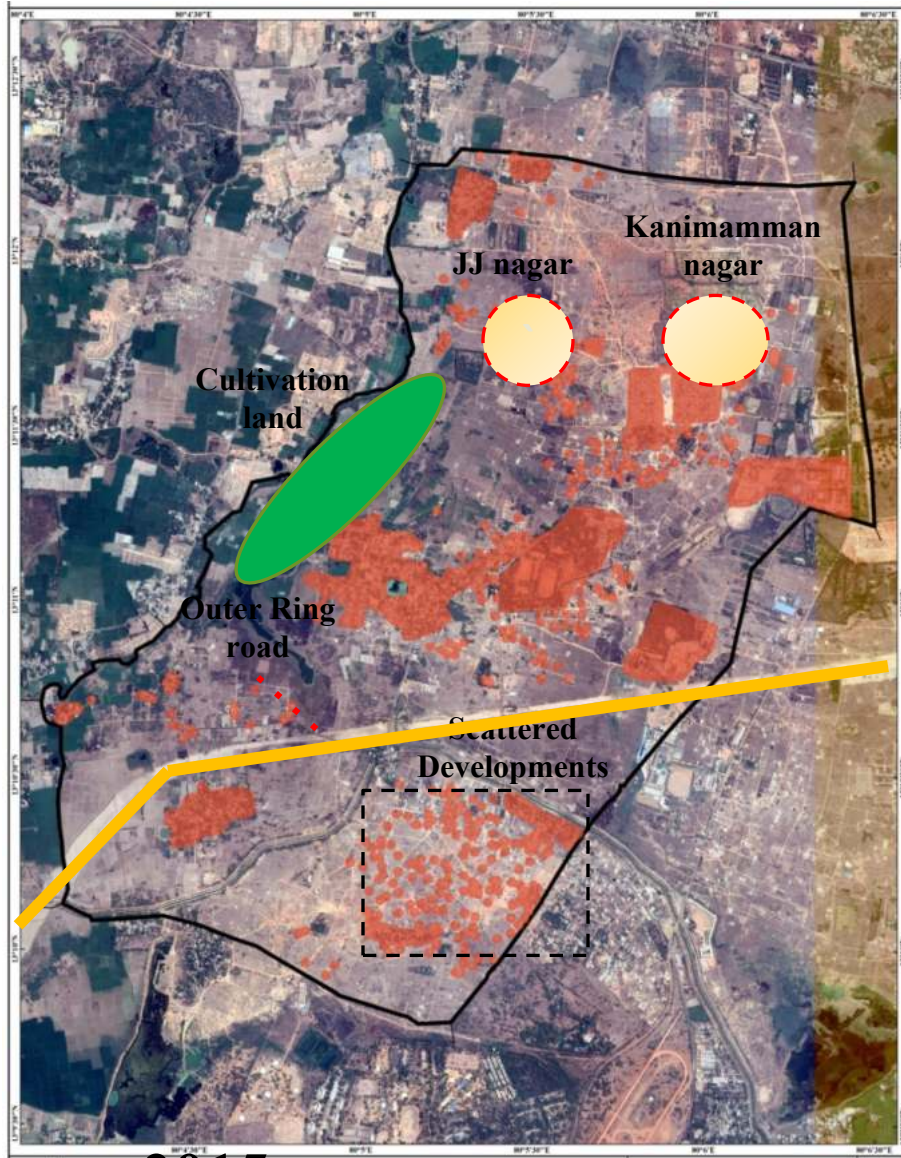
EVOLUTION OF MORAI



2010 – Population: 10873 (2011)

- ❑ Agriculture land changed in to residential layouts and private institutions.
- ❑ Scattered layouts and Dispersed settlements in southern part and eastern part.
- ❑ In New Kanniamman nagar and JJ nagar compact layouts.
- ❑ land grabbing cases - till the village was announced as catchment area by the government.
- ❑ Rise in number of houses in Veerapuram.

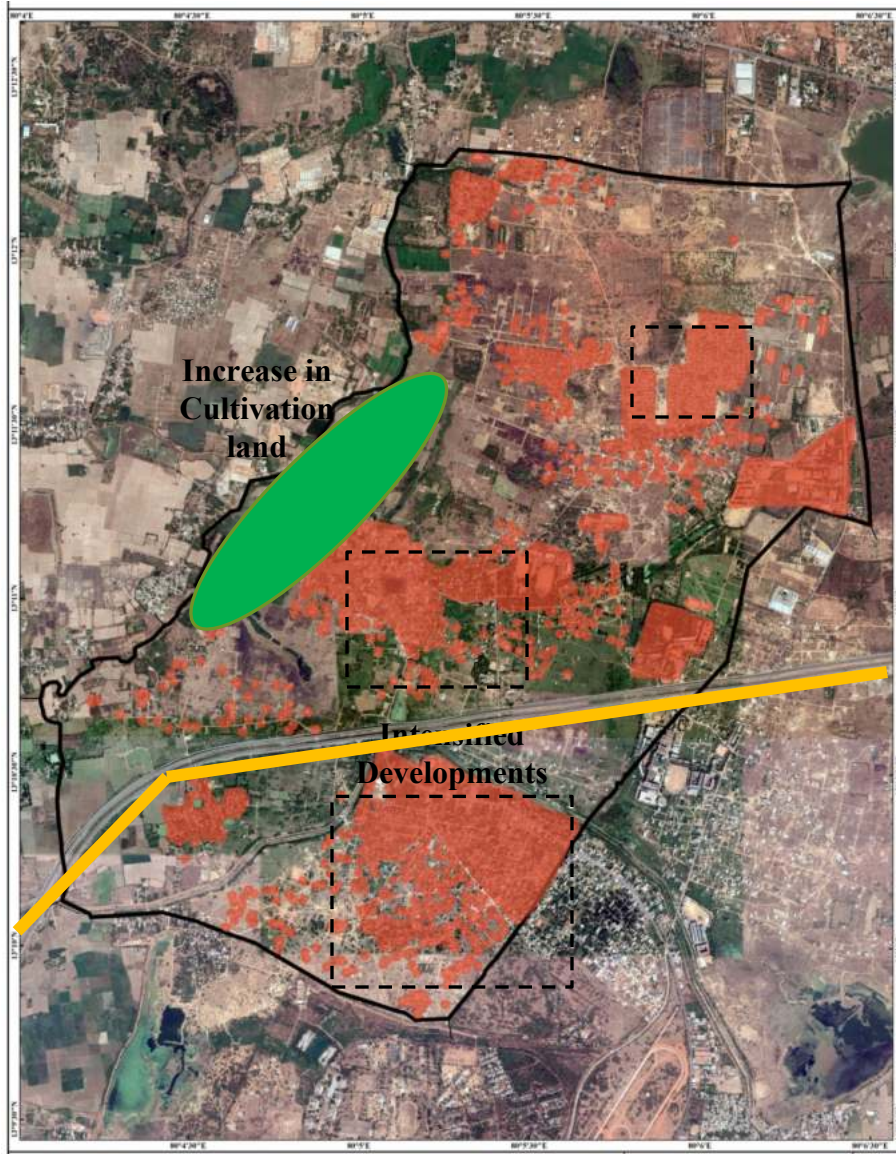
EVOLUTION OF MORAI



2015 - Population: 10873 (2011)

- ❑ Redevelopment of slums from avadi to New Kanimamman nagar and JJ nagar compact layouts.
- ❑ Increased scattered settlements in southern part.
- ❑ The 62 km long Outer Ring Road Vandalur to Minjur passes through Morai.
- ❑ Land value boom from last decade.
- ❑ Increase in land under cultivation.

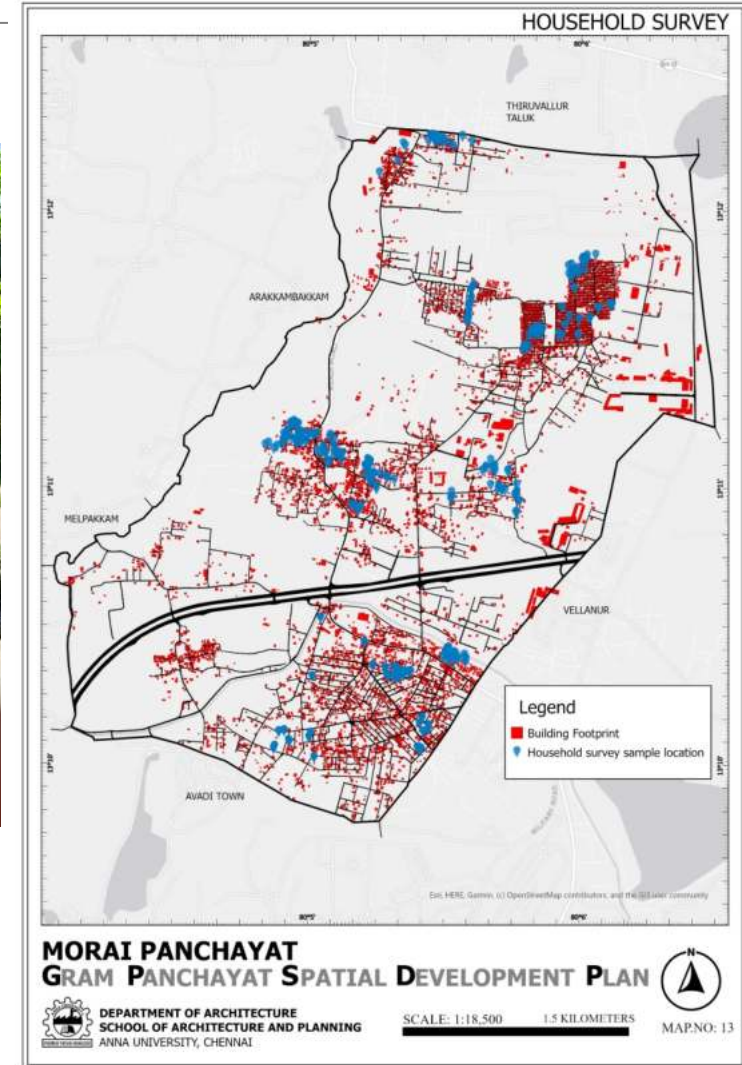
EVOLUTION OF MORAI



2020 — Population: (19850*)

- More intensified development in Veerapuram, Morai 2, New Kanniamman nagar and JJ. nagar compact layouts.
- Agriculture cultivation sustained more scope for self sustaining development in the village.

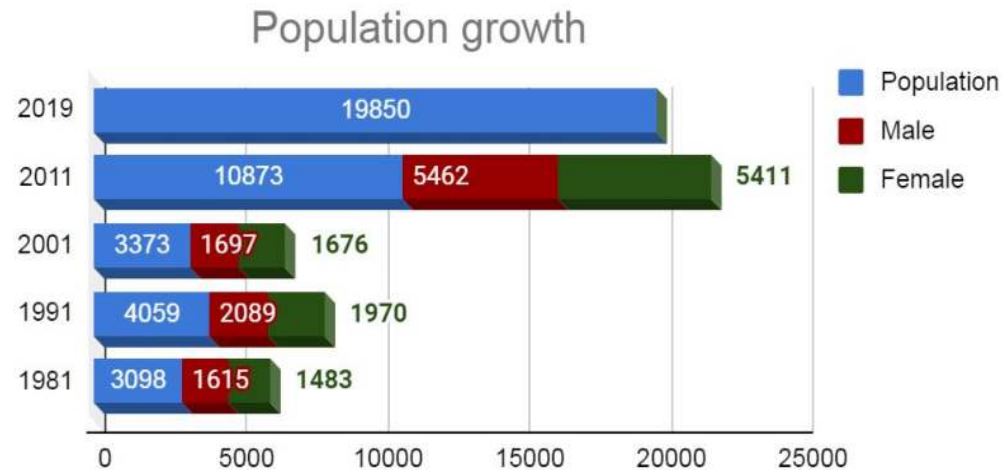
Process



Demography -Population growth trend

- ❑ The village had a population of 10873 in 2011 census, which was about 4059 in 1991.
- ❑ The population of the village is about 19,850* in 2019
- ❑ The village had a steep decadal growth of about 22.23% between 2001 and 2011
- ❑ compared to the state average of 15.6 % but lower than the district average of 35.33%

- ❑ In 2011 the sex ratio in the village was 991, which is higher than the district average of 987 and almost equal to the state average of 996

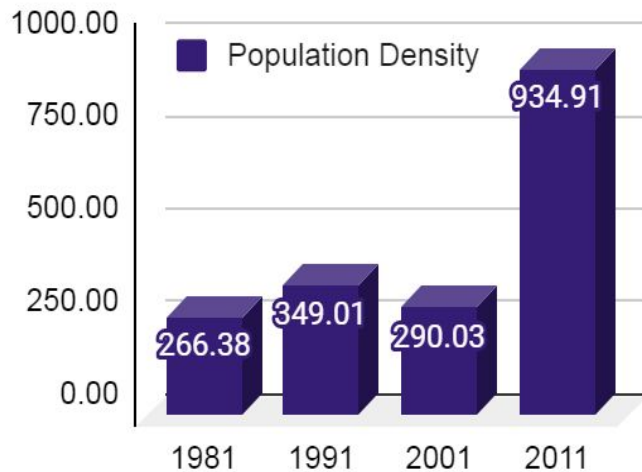


* According to the village panchayat estimate /projection

Source : Census, 2011

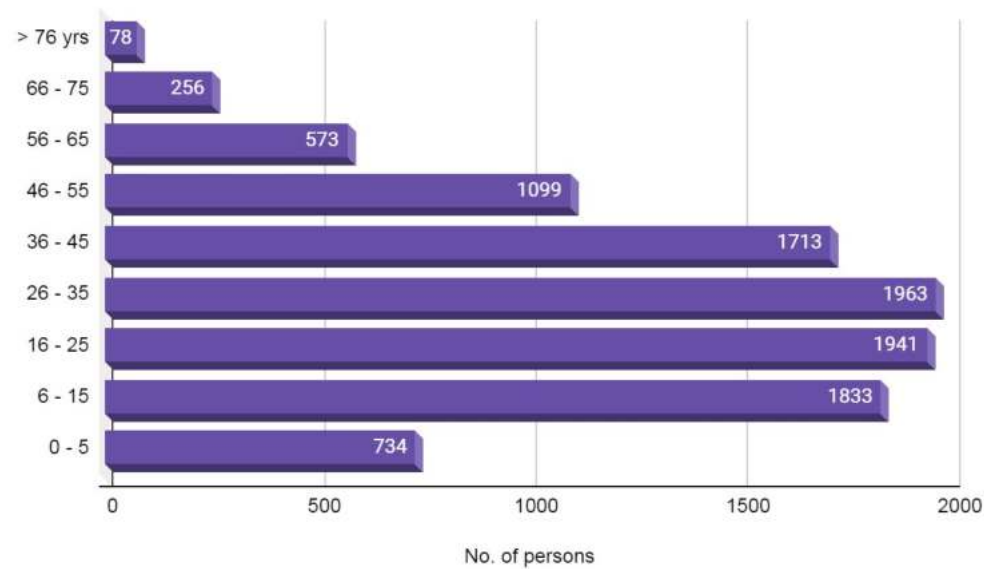
Demography -Population Distribution

- ❑ In village, the distribution of working age population is 71.53%
- ❑ Children below 15 years are about 25.19% and 3.28% of the village population are elderly people
- ❑ The population density of the village in 2011 is 934.91 persons per sq.km whereas it is 1095 in the district level



Population density

Source : Census, 2011



Population distribution

Source : Census, 2011

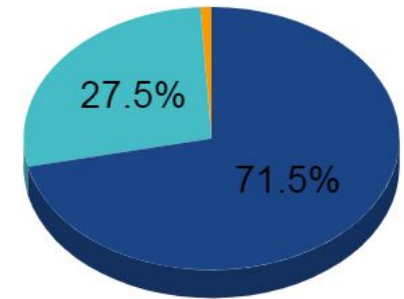
Demography -Population Distribution

❑ The population distribution of SC people has declined from 48.2% in 2001 to 27.5% in 2011

❑ Whereas the ST population has increased marginally from 0.65% in 2001 to 0.94% in 2011

❑ Sex ratio of SC population was 1040 in 2001 and has decreased to 1009 in 2011, even then it is higher than the state average of 1004 in 2011.

❑ In 2011, the decadal growth of SC and ST was 8.4 % and 36.36% respectively



● Others ● SC ● ST
Population Distribution – Category wise



Population Distribution – Category wise

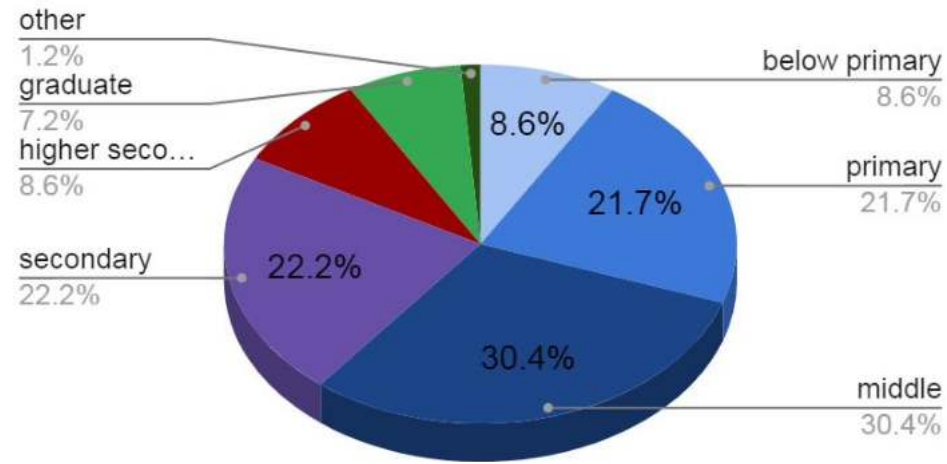
Source : Census, 2011

Demography – Literacy rate

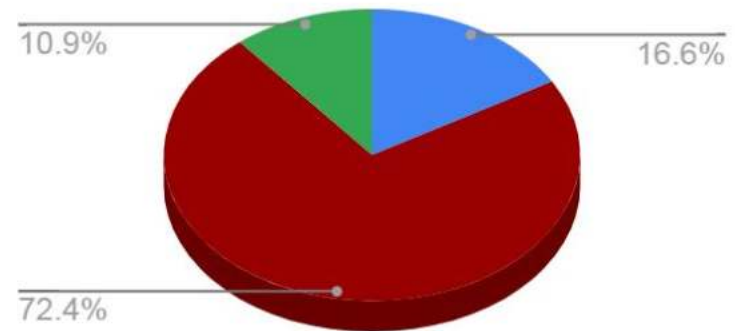
❑ The village has literacy rate of 73.96% lower than the district average of 84% in 2011

❑ The village has about 17%* illiteracy rate and 16.6%* of the population is educated below high school.

❑ The village has 72.4% of its population educated upto high school and 10.9% of the population are graduate and above



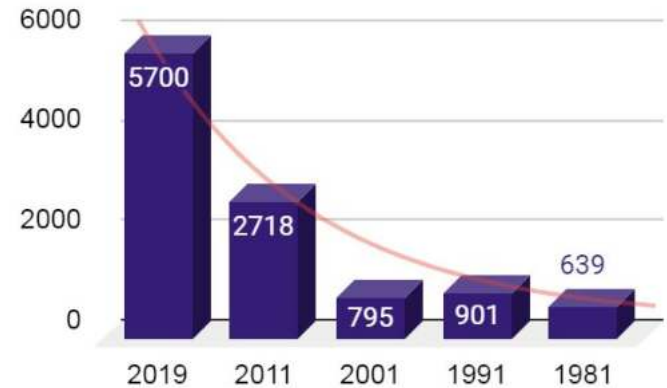
Distribution of levels of literacy Source :SECC 2011



Distribution of levels of literacy Source :

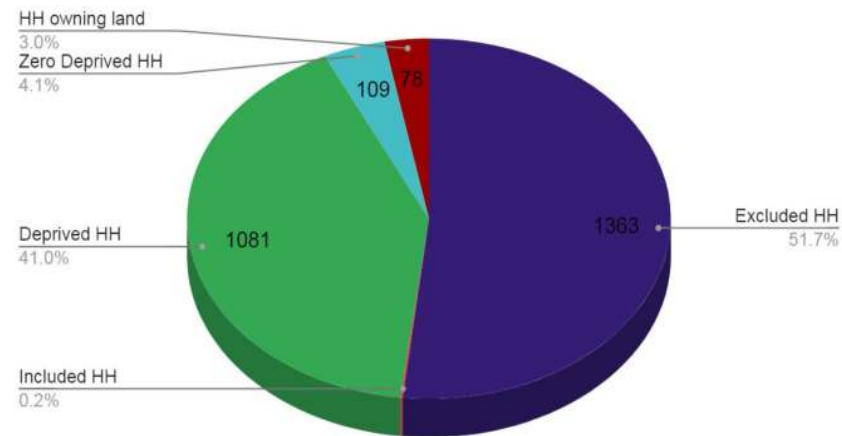
Household Characteristics

- According to 2011 census, the village had 2718 household. The number of households has doubled in the last decade to 5700* in 2019
- The Village had about 41% of deprived households and only about 3% of household owning land
- It has about 4.1 % of zero deprived households.
- 51.7% of households are excluded households



Growth of households 1981 – 2019

Source :Census & primary survey



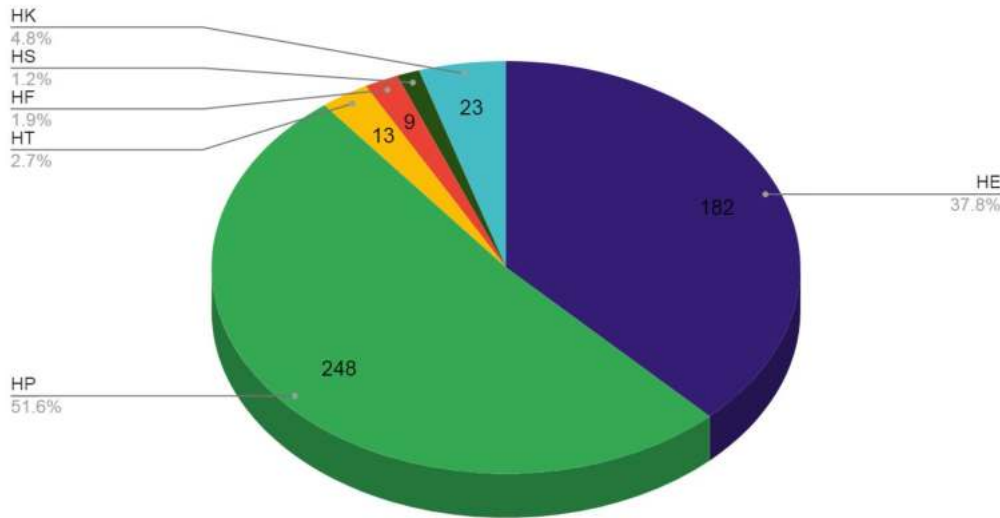
Distribution of Households

Source : SECC, 2011

* According to the village panchayat estimate /projection

Household Characteristics - Excluded households

- ❑ The village has 51.6% of houses with three or more room with pucca walls and pucca roof
- ❑ 4.8% Households have Kisan credit card with the credit limit of Rs.50,000 and above
- ❑ 2.7% and 1.2% of households are owning 2.5 acres and 7.5 acres or more irrigated land with at least one irrigation equipment respectively. 1.9% of households with 5 acre or more land irrigated for two or more crop seasons
- ❑ 37.8% of houses with any member earning more than Rs.10,000 p.m



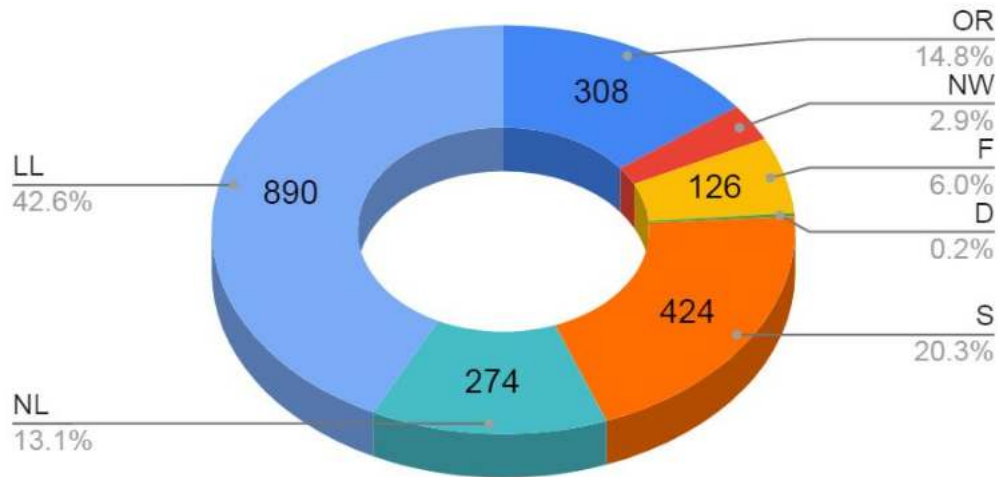
Legend:

- HE - Households with any member earning more than Rs.10,000 p.m
- HP - Households with three or more rooms with pucca walls and pucca roof
- HT - Households owning 2.5 acres or more irrigated land with at least one irrigation equipment
- HF - Household owning 5 acres or more land irrigated for two or more crop seasons
- HS- Households owning 7.5 acres or more land with at least one irrigation equipment
- HK - Households having Kisan credit card with the credit limit of Rs.50,000 and above

Distribution of excluded households Source : SECC, 2011

Household Characteristics – Deprived households

- ❑ The village had 42.6% landless households with major income from casual labour
 - 14.8% of the households has only one room with kutcha wall and kutcha roof
- ❑ 20.3% of the deprived households belong to the SC/ST category



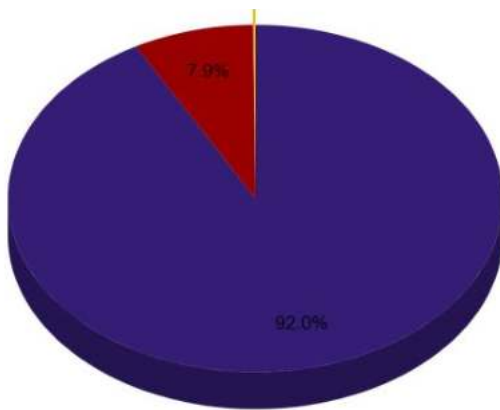
Legend:

- OR - Only one room with Kutcha wall & roof
- NW - No adult member between age 16 to 59
- F - Female headed households with no adult male member between age 16 to 59
- D - Disabled member and no able bodied adult
- S - SC/ST households
- NL - No literate adult above 25 years
- LL - Landless households deriving major part of their income from manual casual labour

Distribution of deprived households Source : SECC, 2011

Housing Characteristics

- ❑ Morai village had 92% households with own house and 7.9% of households staying in rental accomodation and 0.2% in others.
- ❑ The villagers pay rent in the range of Rs.1000 - Rs.8000 with an average of Rs.3240
- ❑ Average year of residence in the village is 20.29 years and the most common range of residents is 5 to 15 years.
- ❑ Almost most of the houses are single storied buildings with about 73% houses of good condition and 25.7% as liveable houses .Most of the houses are built 10 -20 years back.



Ownership of houses

Source : SECC, 2011

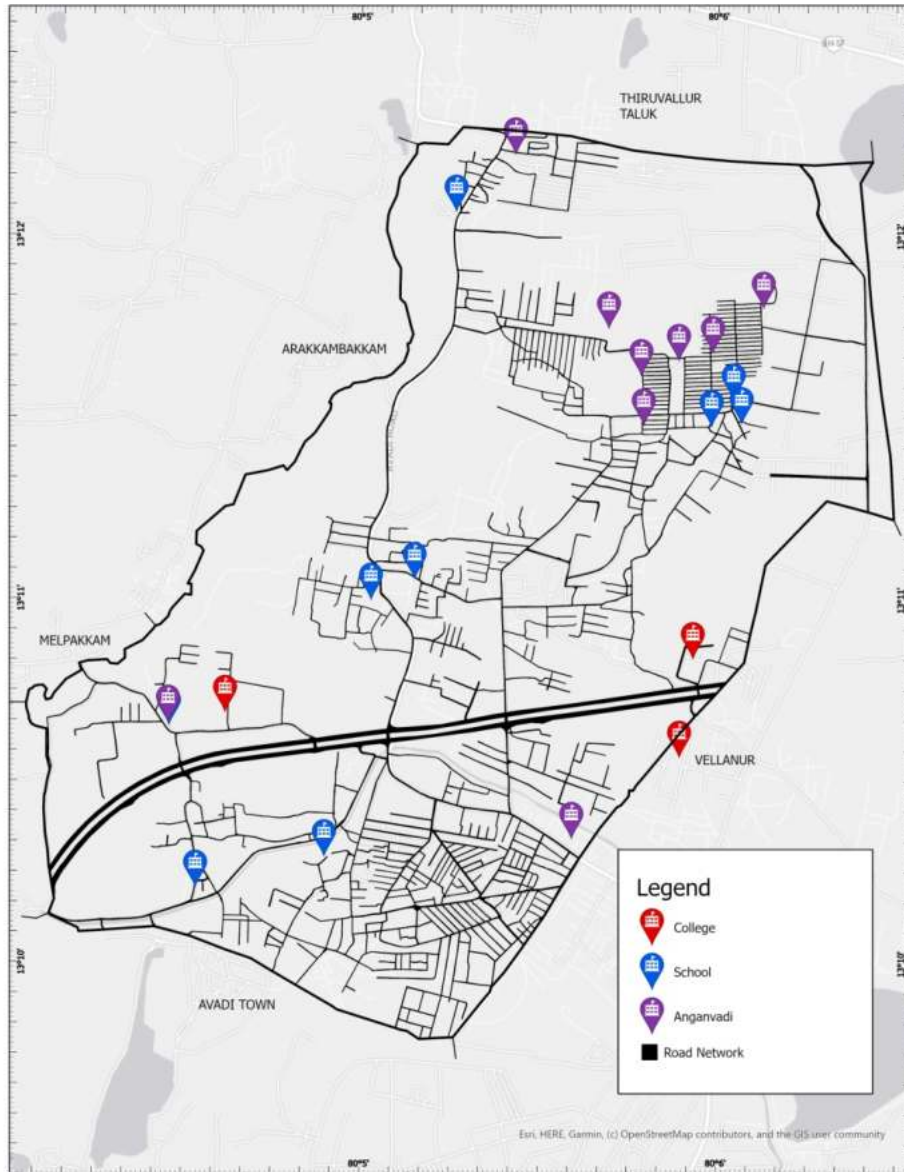
Demography – Inference & Interventions

- ❑ The population density has increased from 290 persons per sq.km to 935 persons per sq.km due to relocation of evacuated residents from Chennai and movement of people from city
- ❑ The district has about 11 industrial estates by State govt ,TANSIDCO and private industries which has led to the increase in influx of population
- ❑ The literacy rate is lower than the district average. Most of the population (72.4%) is educated only till high school level
- ❑ 52% of deprived households
- ❑ 73% of households have earning less than Rs.10000 p.m.

Interventions

- ❑ Schemes for economic upliftment
- ❑ vocational training to be provided
- ❑ High School and higher secondary school to be proposed

Social Infrastructure - Education

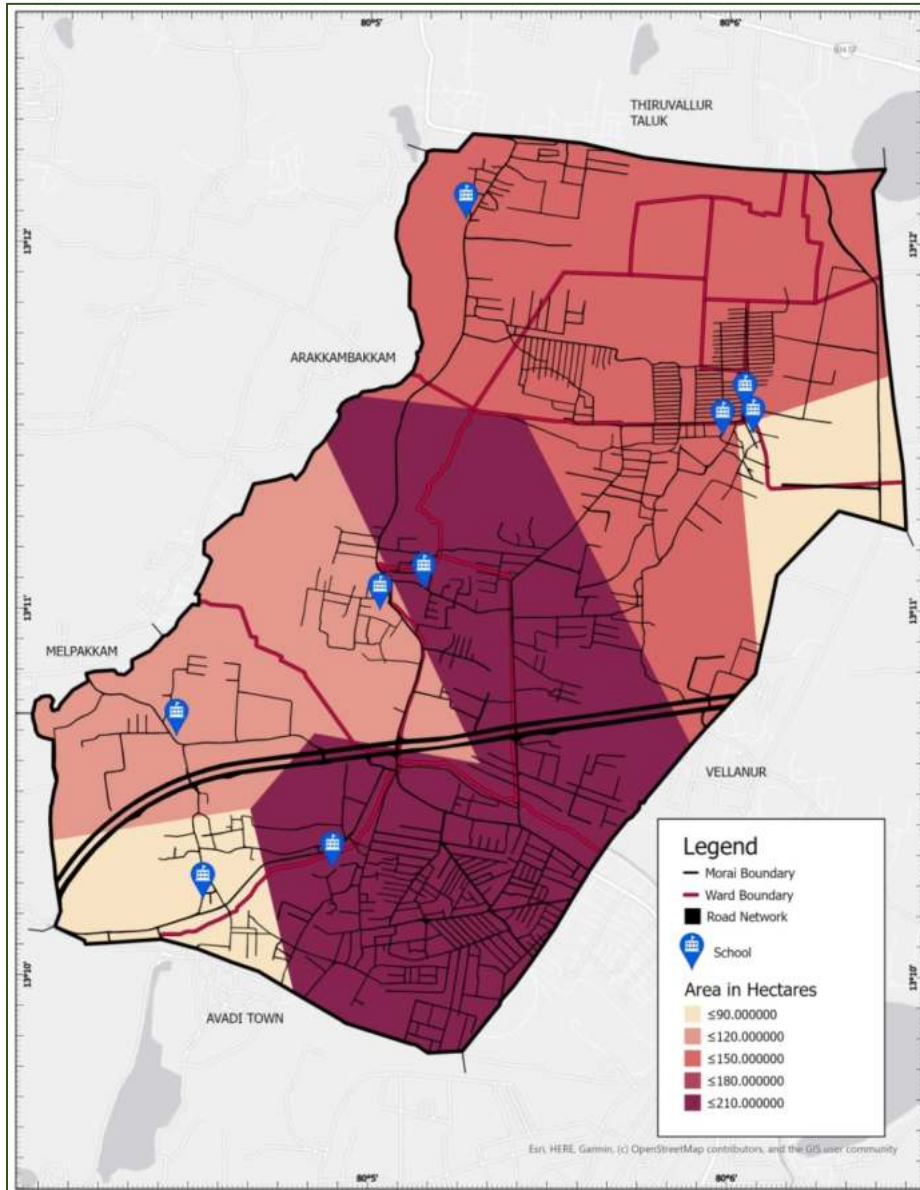


Educational institutions	Norms (RADPFI)	Existing (No.)
Anganwadi	4 (1 for 5000)	9
Primary school	4 (1 for 5000)	3
High school with Primary (1-8)	1 (1 for 15000)	1
Higher Secondary with Primary	-	1
College	-	3

INSIGHT

- ❑ As per the norms, the village has adequate number of Anganwadis, middle school, Primary school for the present population.
- ❑ One Higher secondary school and private College and University are in the vicinity
- ❑ The 2011 census shows, Government school students enrolment is 462 with 17 teachers (1:27) - as per the state government standards.
- ❑ The number of students enrolled is less shows the literacy level is less in the village (73.96% according to 2011 census)

Social Infrastructure - Education



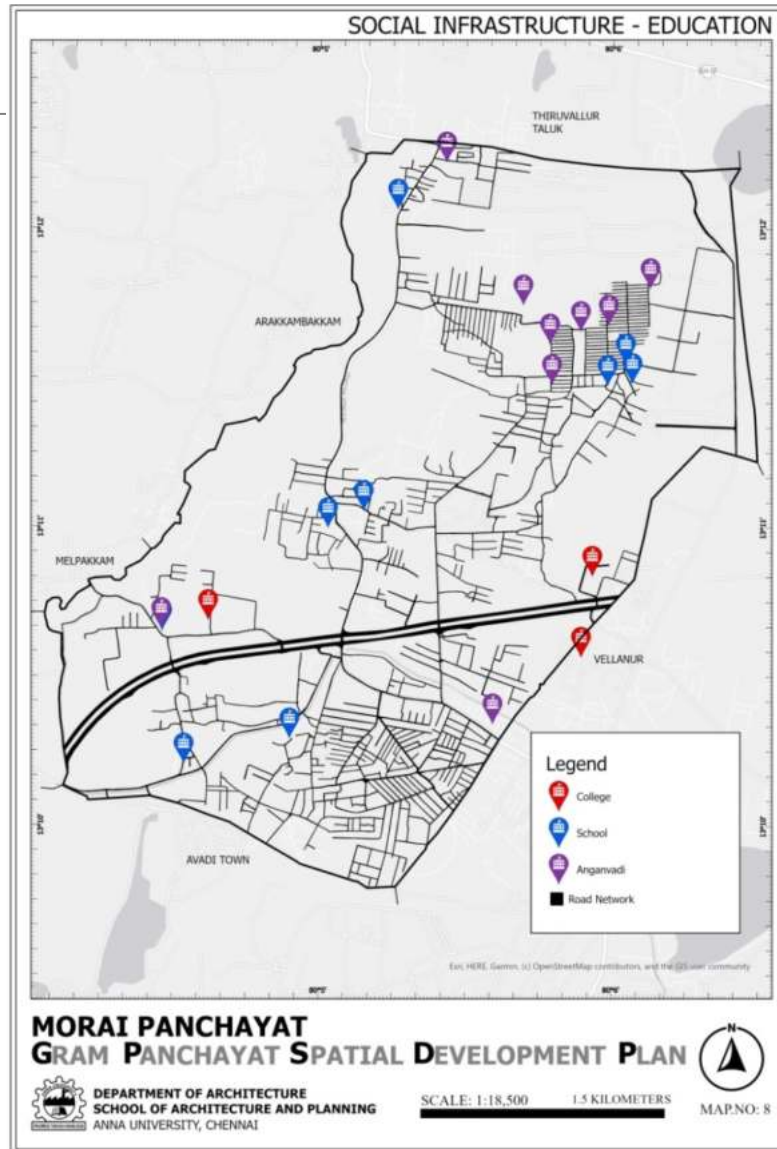
INFERENCES

- ❑ The voronoi diagram show that the schools in the village have covered entire village settlements with high area coverage in veerapuram and morai 2.
- ❑ Accessibility to the school in New Kanniamman nagar and few more was difficult due to poor condition of roads.

INTERVENTIONS

- ❑ 2 slum areas in JJ Nagar and New Kanniamman nagar needs economic up-liftment, which may encourage the parents to send their children's to attend the schools.
- ❑ Kasturba Gandhi Balika Vidhlaya scheme (KGBVS) for SC, ST, OBC and minorities educationally backward

Social Infrastructure - Education



Anganvadi

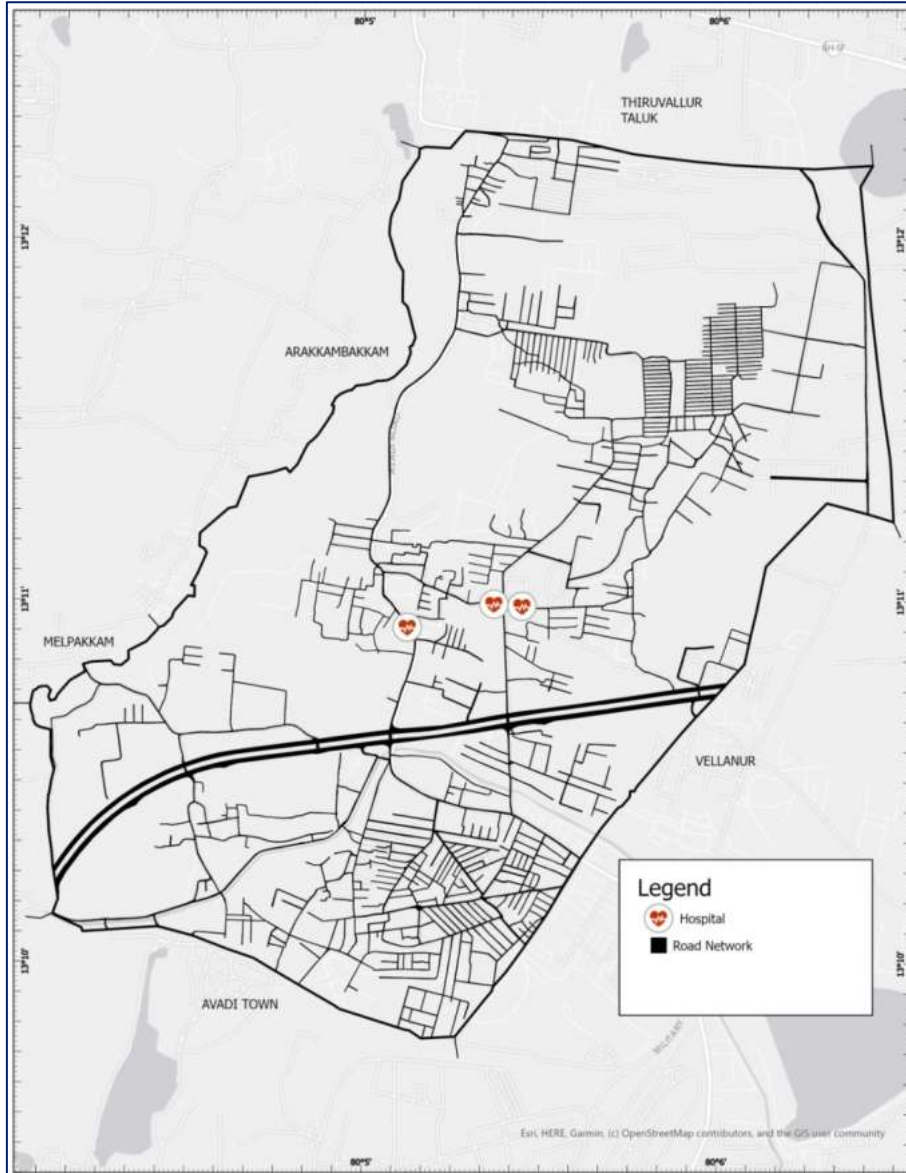


Adi Dravidar Primary school



Higher secondary school

Social Infrastructure - Health



INSIGHT

- The village has 1 health centre and very few private clinics in the village too.

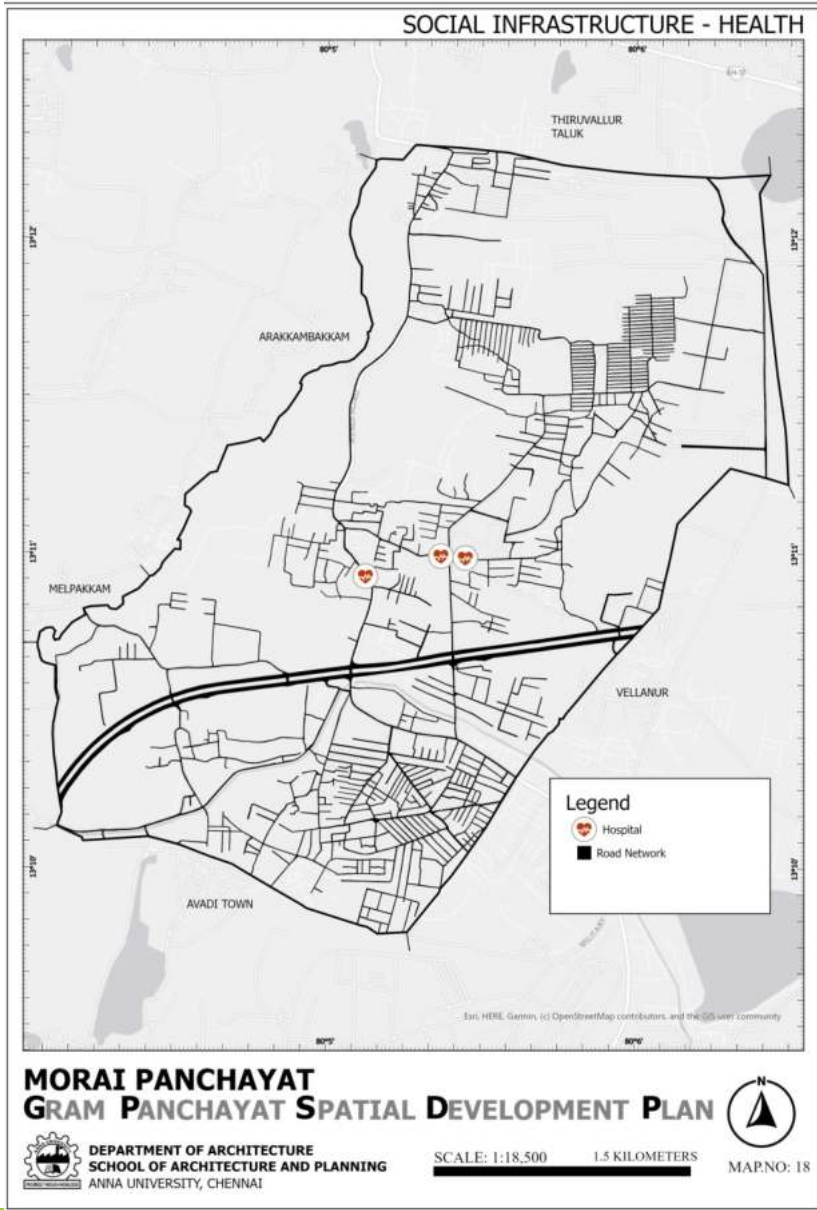
INFERENCES

- The village lack in Health facilities (RADPFI guidelines :1 health centre for 5000).
- The village should have 4 health centre as per the norms but, It has only one health centre with a Doctor and Nurse having 2 bed and dispensary.

INTERVENTIONS

- The Pradhan Mantri Gramodaya Yojna(PMGY) is proposed to be used to revitalize the primary health infrastructure in village.
- National Health rural Mission (NRHM) will be used to have Central, state and local level intervention in filling the gaps in health service the village.

Social Infrastructure - Health

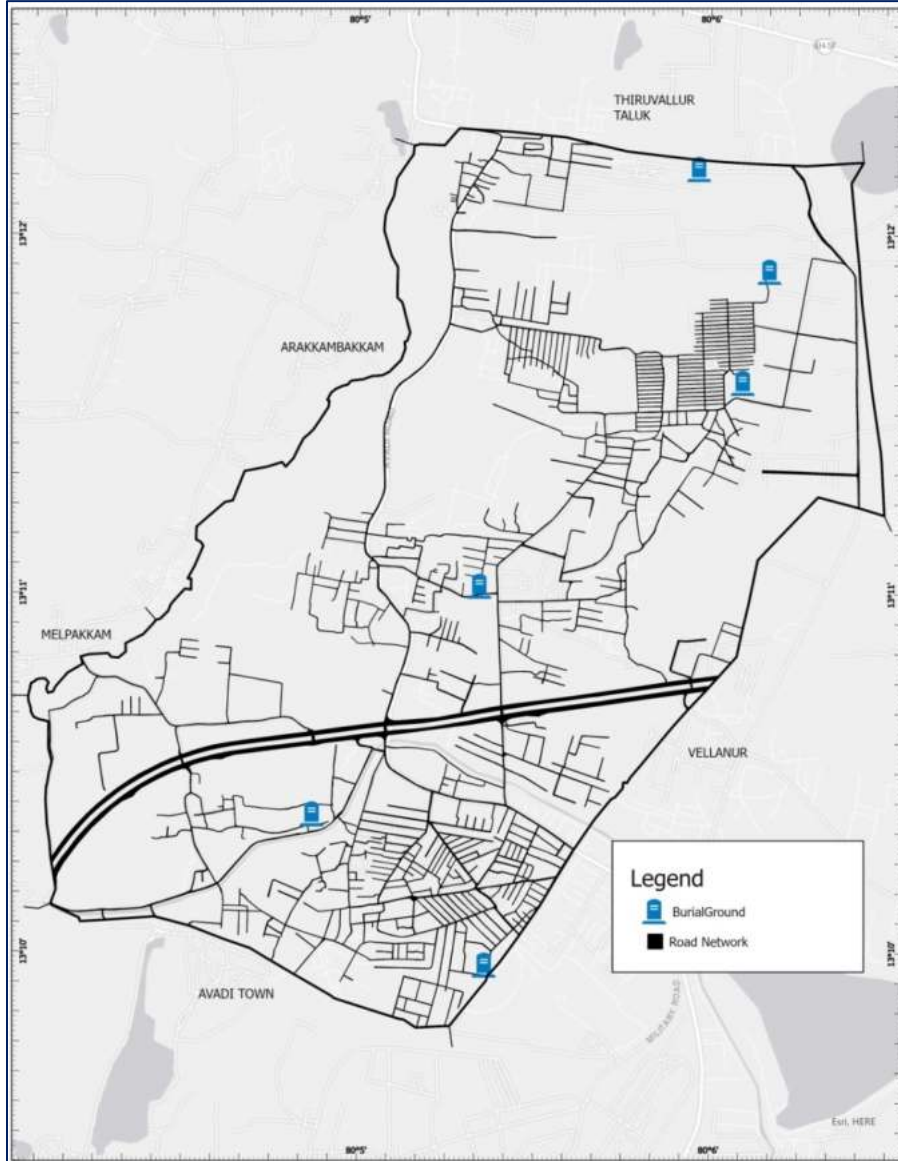


Public health centre



Private Clinic

Social Infrastructure – Socio cultural

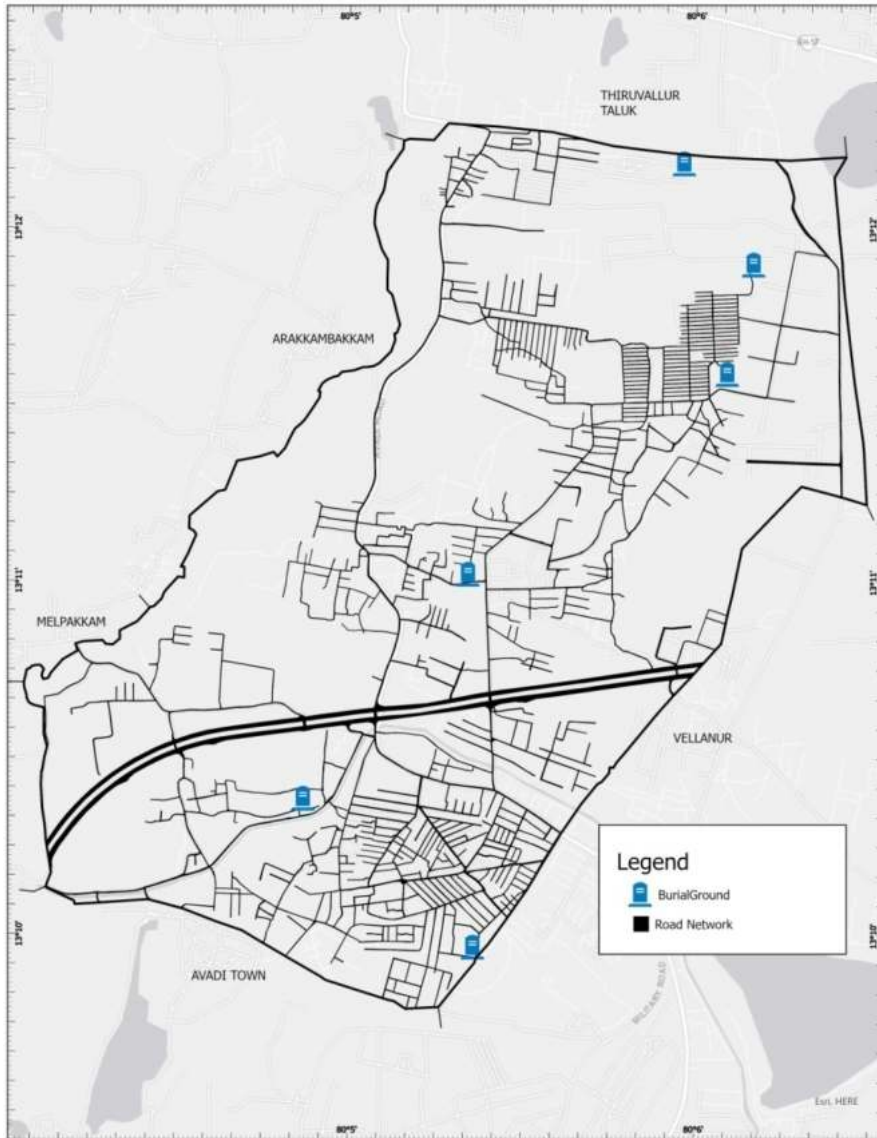


	Public facilities	Norms (RADPFI)	Existing (No.)
1.	Parks	One Housing Park per 5000 population and Neighbourhood (3 nos) park for 15000 population(1 No)	0
2.	Play ground/Ground for fairs and festivals	one per 5000 population – 4nos	0
3.	Religious places	one per 5000 – 4nos	7
4.	Burial ground with Crematorium	one per block	2
5.	Burial ground	One for 5000 – 3 nos.	6

INSIGHT

- ❑ The village has 8 burial ground among which two have crematorium.
- ❑ The village has sufficient number of religious buildings, specifically 3 temples, 3 churches and 1 mosque respectively.

Social Infrastructure – Socio cultural



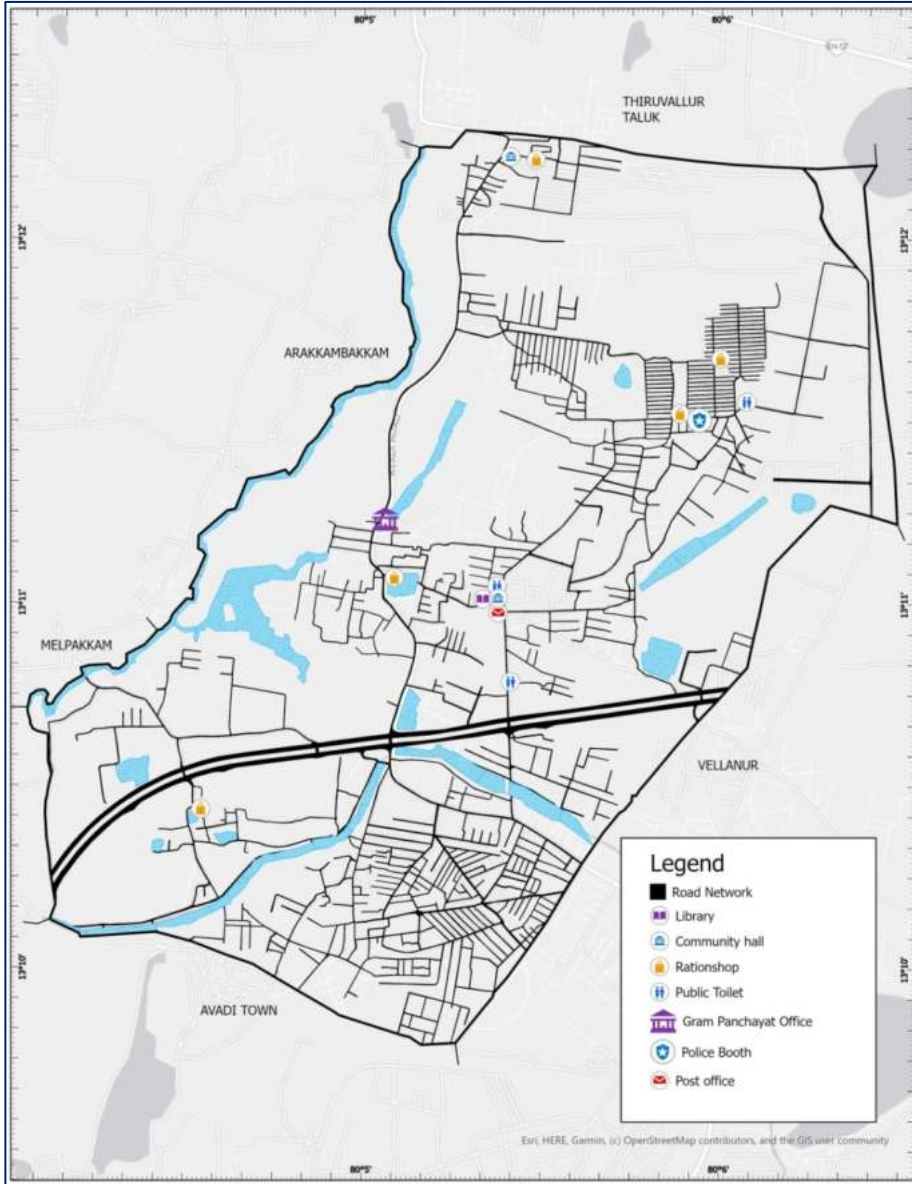
INFERENCES

- ❑ The village does not have any public recreation facilities like community spaces for festivals, parks, playground or any other community gathering spaces.
- ❑ The village has sufficient number of religious buildings, specifically 3 temples, 3 churches and 1 mosque respectively.

INTERVENTIONS

- ❑ Most of the greenery is lost due to rapid urbanization. Tree plantation activity, initiated in village from the past few years is proposed to be maximized in common lands, Roads and around Tanks.
- ❑ Park and playground are proposed for betterment of the neighborhood.

Social Infrastructure – Others



	Public facilities	Norms (RADPFI)	Existing (No.)
1.	Library (indicate level)	-	1
2.	Community hall	3	2
3.	Ration shop	-	5
4.	Public toilet	-	3
5.	Police Outpost	-	1
6.	Gram Panchayat Office	-	1
7.	Post office	-	1
8.	Government Market	-	0

Social Infrastructure – Others

LIBRARY

There is one library in village and the primary survey discussion show that nearly 100 villagers use the library.



COMMUNITY HALL

Insight: The village has only 1 community hall with a capacity of 200 members in Veerapuram.

Inference : As per the RADPFI guideline (1 per 5000) there is a need for 4 community halls.

Intervention: New community halls with public participation can be initiated



Social Infrastructure – Others

PUBLIC DISTRIBUTION SYSTEM

Insight: The study show that there are 5 Ration shop in the village.

Inference : Distribution of rice, wheat, dal, oil and kerosene are distributed 6 days a week. There is no short comings found in the PDS.



PUBLIC TOILET

Insight: Their are 3 Public toilets in the village

Inference : The public toilets are well maintained.

One toilet in Veerapuram is inside the community complex, hence it close in the night needs to be opened 24 hours.



Social Infrastructure – Others

POLICE OUTPOST

The village have a out post.

PUBLIC TOILET

Insight: Their are 3 Public toilets in the village

Inference : The public toilets are well maintained.

One toilet in Veerapuram is inside the community complex, hence it close in the night needs to be opened 24 hours.



GOVERNMENT MARKET

There is no Government market in the village.

The village needs local markets for selling agriculture products grown in the village in near future



Social Infrastructure – Others

POST OFFICE

The village has one post office as per the norms.

There is no issue found in Post office



GRAM PANCHAYAT OFFICE

The Gram Panchayat office is located in Veerapuram. The Gram Panchayat is centrally located and frequently conducts meetings for the benefit of the villagers.

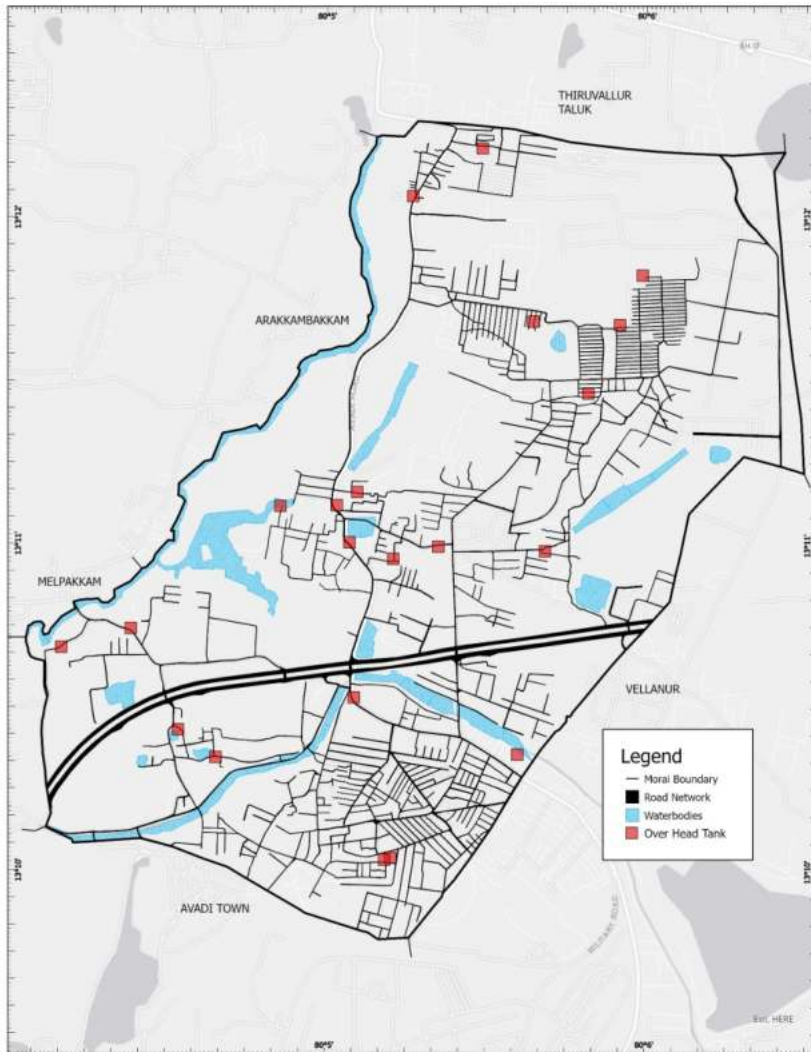
State Government support will enhance the functionality of the Panchayat in important sectors like agriculture, health, etc.



Physical Infrastructure

- Water Supply
- Solid Waste Management
- Liquid Waste Management – Grey Water
- Sanitation
- Road Network
- Electricity

Physical Infrastructure - Water Supply – Inferences



The common sources for Water supply are:

□ Bore wells

- Major source of water supply in the village
- There are 39 borewells across the village reaching up to 150 m depth
- The bore wells with mechanized pumping based piped systems pump water into the 21 Over Head Tanks (OHT) which have a capacity of 30,000 liters

□ Hand pumps

- Nearly 10 handpumps are located at various locations across the village

MORAI PANCHAYAT
GRAM PANCHAYAT SPATIAL DEVELOPMENT PLAN



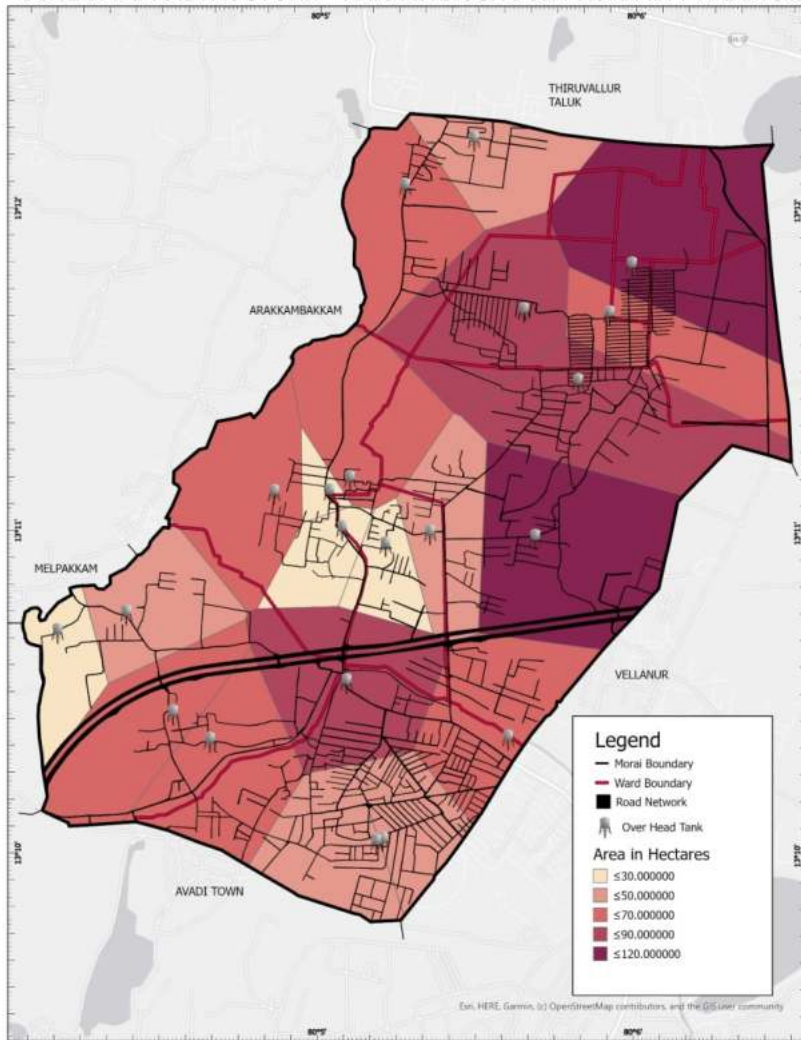
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ANNA UNIVERSITY, CHENNAI

SCALE: 1:18,500 1.5 KILOMETERS



MAP.NO: 9

Drinking Water Supply – Insights on OHT



- ❑ **Single Village Scheme** - There is sufficient groundwater availability and groundwater is free from chemical contamination.
- ❑ The OHT is filled daily twice - once in the morning and once in the evening to its full capacity
- ❑ From the **OHT**, on a **regular basis uninterrupted daily water supply for two (2) hours** in the morning and **two (2) hours** in the evening is provided to the households
- ❑ Few households have Functional Household Tap Connections (FHTC)
- ❑ One (1) Common tap serving eight (8) households is provided across the villa

MORAI PANCHAYAT
GRAM PANCHAYAT SPATIAL DEVELOPMENT PLAN



DEPARTMENT OF ARCHITECTURE
SCHOOL OF ARCHITECTURE AND PLANNING
ANNA UNIVERSITY, CHENNAI

SCALE: 1:18,500 1.5 KILOMETERS

MAP NO: 9

Drinking Water Supply – Insights gained



❑ Domestic Water Supply –

6,30,000 lpd (21 x 30,000 liters)

twice a day

12, 60,000 lpd = 19,850 X 60 liters

❑ Domestic Water Demand –

10,91,750 lpd;

(Total no. of Population X minimum service level) = 19,850 X 55 liters

❑ No Deficit of Water Supply



Drinking Water Supply – Interventions

- ❑ **Source Sustainability** – Sources of water supply can be considered sustainable when it delivers designed quantity of safe water in all seasons. With increase in demand, source sustainability is of utmost importance to maintain proper water supply. To ensure source sustainability the following are proposed;
 - ❑ Bore well recharge structures
 - ❑ Roof top rainwater harvesting structures – Installed at institutional buildings, such as, schools, anganwadis, health centers, gram panchayat buildings
 - ❑ Community soak pits
 - ❑ Rejuvenating the existing ponds
- ❑ **Schemes** – Panchayat has already prepared scheme under the **National Jal Jeevan Mission (JJM Scheme)**, to provide safe and adequate drinking water through individual household tap connections to all households in the village.

Solid Waste Management – Inferences



- Door to Door collection** of solid waste is being practised in the village on a daily basis
- There are 19 various size of vehicles that collect solid waste from each house hold: Tractor - 1; Tricycle – 5; Push cart - 13
- There are 18 personnel for solid waste collection-One (1) sanitation worker is responsible for collecting solid waste from **75 households**
- Nearly **430 kg of solid waste per day** is being generated by the village
- This solid waste is being dumped at the dumping yard
- A solid waste treatment facility is also provided where the dry waste is segregated and the recyclables is sold to merchants who deal in scrap sales /waste recyclable items periodically.

Solid Waste Management – Insights



❑ **Segregation at Source:** Segregation of bio-degradable from non-bio-degradable wastes is not being practised at the source

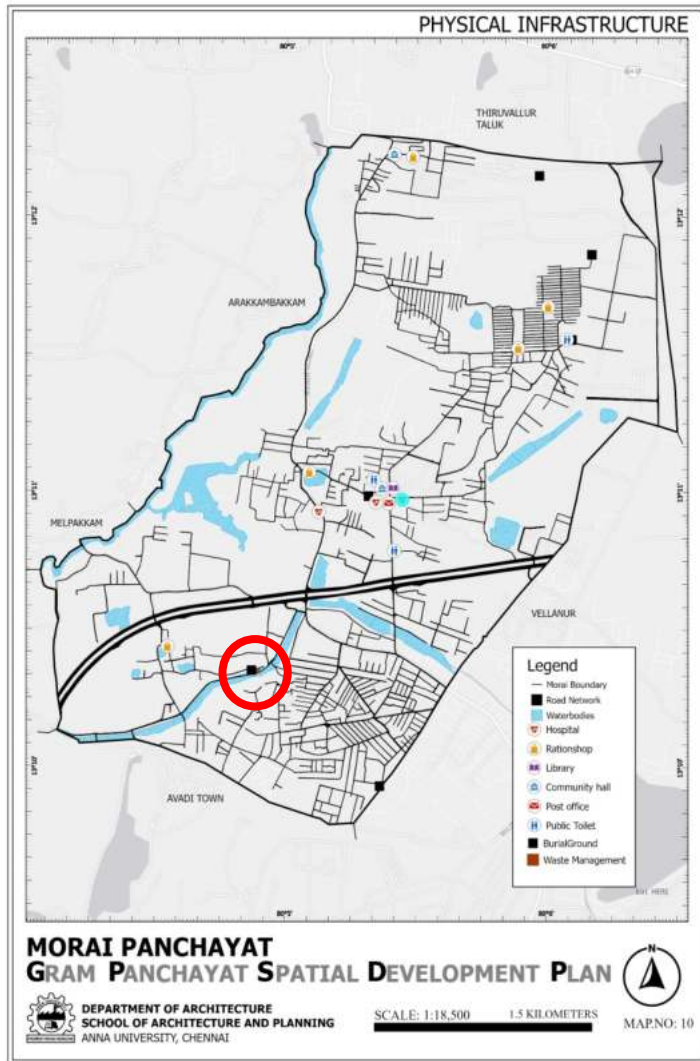


❑ The common dustbins that are provided in certain locations of the village are not being used and waste is thrown outside the bins



❑ Every day collection of waste from the common dustbins and maintenance of the common dustbins, transportation of the waste collected to the dumpyard needs to be carried out.

Solid Waste Management – Insights



❑ This solid waste is being dumped at the treatment facility provided towards the southern part of the city below the outer ring road, located beside the kirshna canal and the burial ground



❑ At this facility landfills of 6m X 3m are provided to dump the waste



❑ Dry waste is segregated and the recyclables (Plastics, papers, bottles and other items) is sold to merchants who deal in scrap sales /waste recyclable items periodically.

Solid Waste Management – Interventions

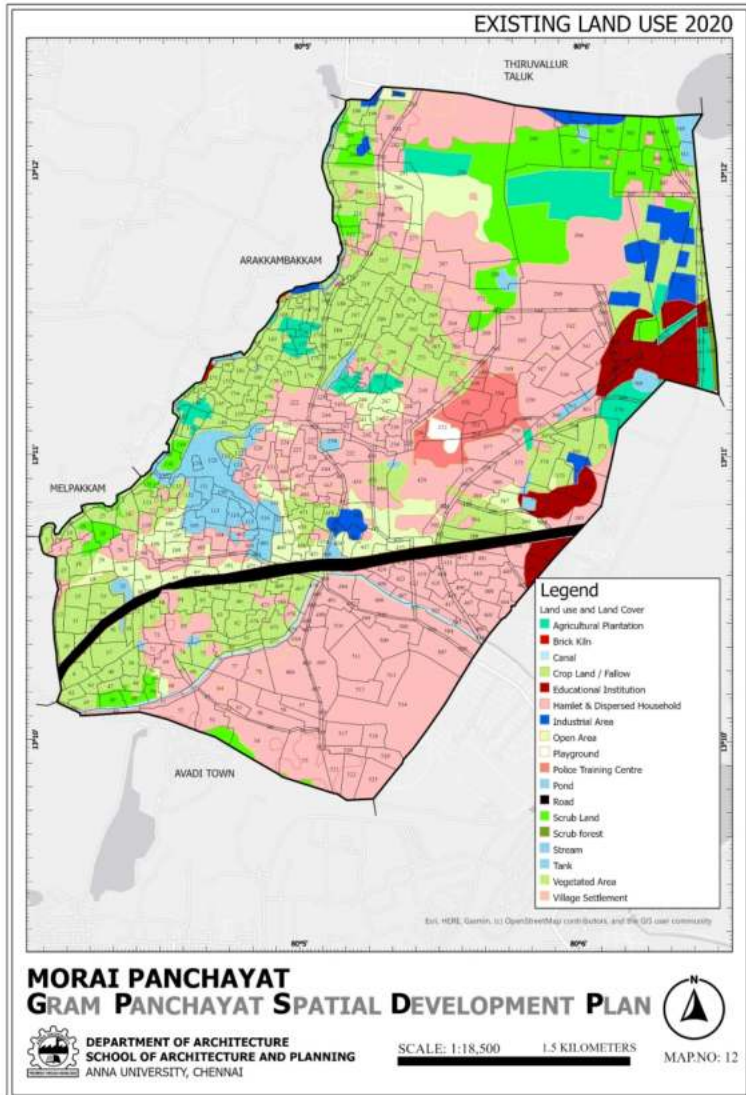
- Separate bins** – Green and red bins can be distributed to households and can be asked to segregate the waste at the source before handing it to the sanitation workers
- Simple windrow composting** for managing wet waste can be practiced
- Vermi-composting** can also be adopted.
- Sanitary landfill** for managing the non-recyclables along with hazardous waste can be practiced
- Complete thrust on **awareness and behavior change**
- Financial sustainability**
- Sale of compost (organic markets, farmers and individuals – Direct and/or Online marketing)
- User fee collection towards the residents

Liquid Waste Management – Grey water – Inferences



- ❑ Discharge of the grey water from the households is discharged onto public streets and also into the existing open storm water drain system. The storm water drains are mostly either broken or choked
- ❑ From few houses, the grey water flows directly onto the streets which is leading to puddles forming in front of the households
- ❑ The discharges from the toilets/bathrooms are also let in to the storm water drains in some areas of the village
- ❑ The grey water gets collected at various points of the village due to nonfunctioning drains and blockages at different points

Liquid Waste Management – Grey water – Insights



- ❑ Constructed Wetlands can be used for management of the liquid waste water.
- ❑ The grey water can be directed towards the scrub land to improve greenery in the village.
- ❑ Considering the Geophysical condition of the village including topography, soil structure & ground water conditions, **Kitchen garden and leach pits can be constructed there by effectively managing the waste water**

Sanitation – Inferences and Insights

Inferences

- In the past 7 years under the **Swachh Bharat Mission - Grameen (SBM) and MGNREGA scheme** nearly 1400 toilets have been constructed.
- There are 3 common toilets located in the village
- Most of the toilets in the village have septic tanks

Insights

- There are few parts in the village that practise **Open defecation**

Interventions

- Pour flush twin leach pit toilet**
 - For a clusters of houses such that for every 10 houses, a **Pour flush twin leach pit toilet similar** to soak pit is built at appropriate places to make the village ODF

Liquid Waste Management – Interventions

❑ Soak Pits and leach pits

- ❑ The system for liquid waste management is broadly based on the system of soak pits traditionally adopted for building toilets in rural areas but with certain modifications to allow for disposal of household waste water
- ❑ The model envisages clusters of houses such that for every 10 houses, a soak pit is built to allow water only from the 10 houses to flow into.
- ❑ The soak pit being constructed will be 2m in diameter and 10m in depth.
- ❑ The water from the houses flow in to these soak pits via underground channels and fall into the soak pit.
- ❑ The water will gradually soak into the sides of the pit and filter down to the ground water table.

Road Networks – Inferences



—The village has a good road connectivity under the **Pradhan Mantri Gram Sadak Yojna**.

❑ **9 meters width** all-weather roads is connecting the village with the outer ring road.

❑ **6 meters wide** all-weather roads is present to take major traffic into the village

❑ Internal roads are **4.5 meters wide** cement concrete village roads

❑ However, **3 meters mud lanes** are also present in some areas of the village



Electricity – Inferences

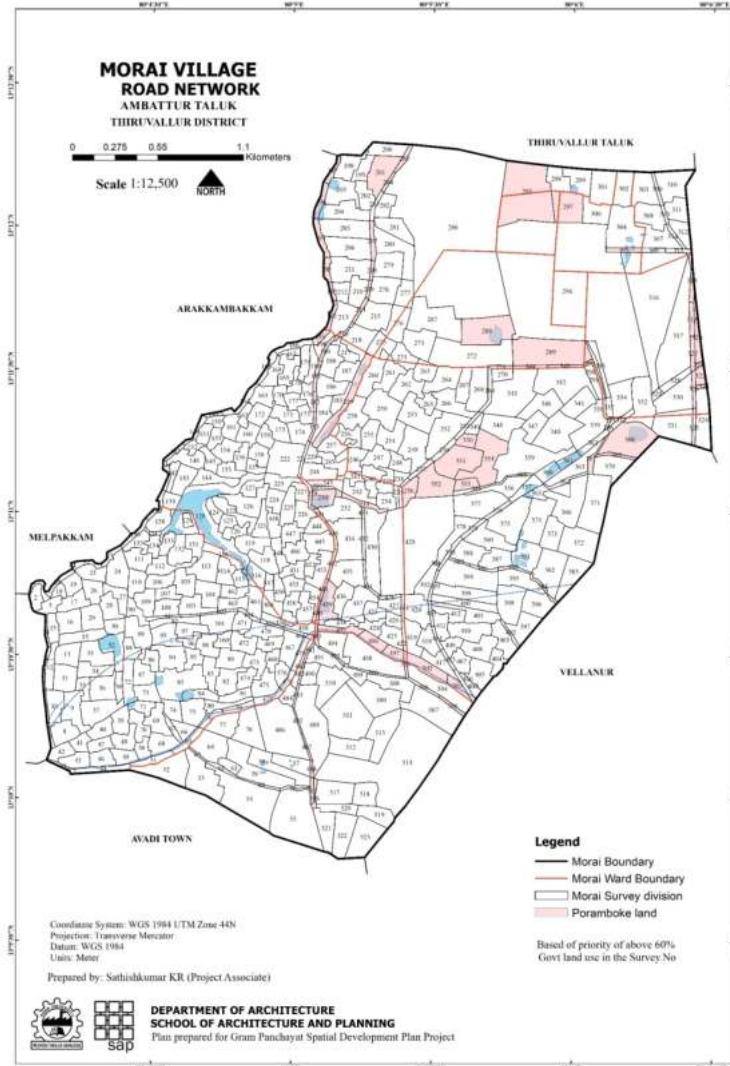


- ❑ The village receives its electricity from Alamatti TNEB
- ❑ Under the state scheme - **Energization of Street Lights with Solar Power**, few of the existing street lights in the Village have been replaced with solar powered street lights with an objective of reduction in the maintenance expenditure and promote the concept of renewable energy in rural areas



- ❑ Under the state scheme - **Chief Minister Solar Powered Green House Scheme (CMSPGHS)** 20 houses with an area of 300 sq.ft with solar powered lighting have been implemented
- ❑ In some parts of the villages CC cameras have also been installed for security and surveillance purpose

Natural Resources -Water -Inference



- ❑ The village is sufficient in terms of water resources.
- ❑ It has a total of 19 water tanks within the village, out of which two are large tanks, whose water is used for irrigation.
- ❑ 5 tanks have been renovated recently. There is need for desilting and renovating the other tanks, especially the two large tanks used for irrigation.

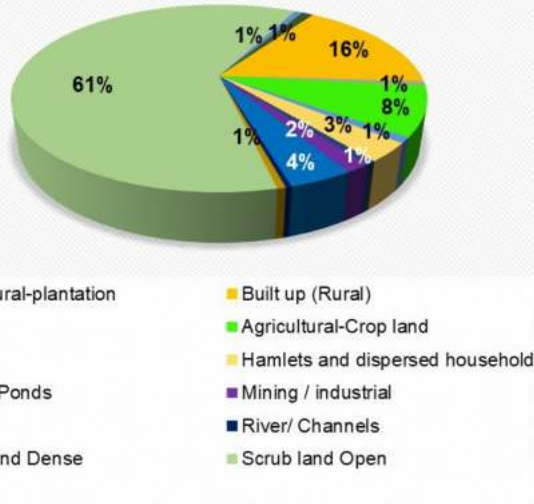
Land use analysis -Inferences

- ❑ There is significant increase in Housing area (14%) and significant loss in open Scrub land (-53%), in the period between 2011 and 2020.
- ❑ Large scale land use conversion of the village has happened in the decade between 2001 and 2011.
- ❑ Factors that led to this land use change –
 - ❑ Outer ring road construction (2010 onwards)- led to land prospecting.
 - ❑ Establishment of Police training academy (1994)
 - ❑ Settlement of people evacuated from the Chennai city, in the village communal grazing land by Tamilnadu state government (New Kaniyamman nagar).
 - ❑ Vel Tech university started within the village in 1997.
- ❑ Further land use conversion has been reduced due to CMDA declaring predominant land as no development zone (coming under Recharge zone for Puzhal reservoir)

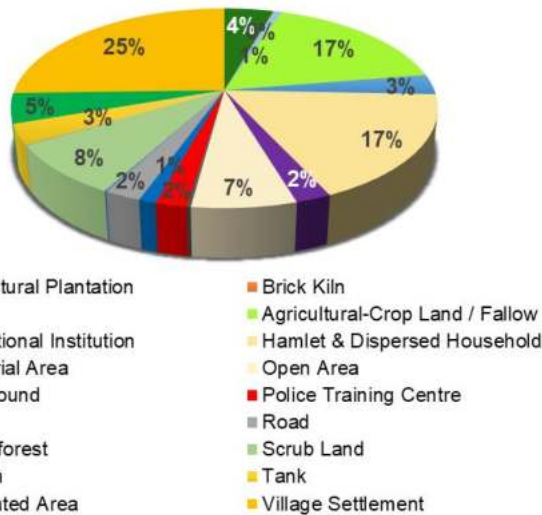
Land use analysis -Inferences

- ❑ An encouraging trend is the increase in land under agriculture (12%).
- ❑ Other than the play ground within the Police training Camp, No open spaces for recreation, especially active recreation.

Morai- Percentage of land uses present - 2011



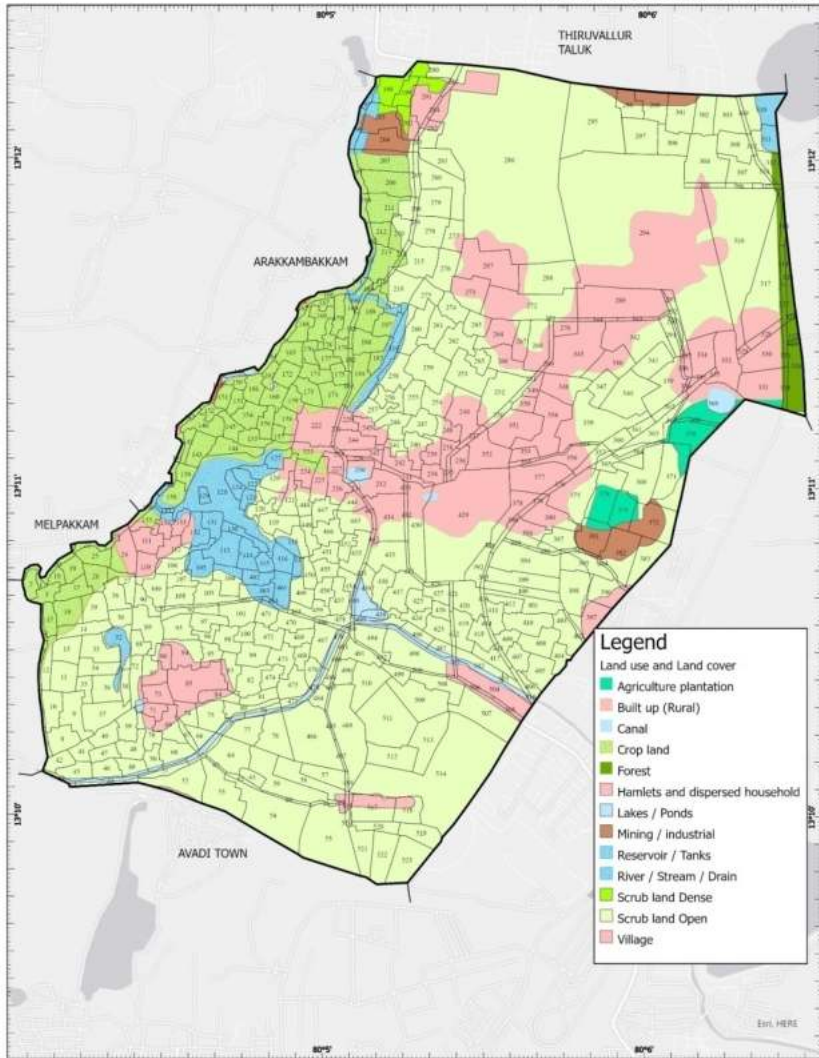
MORAI- Percentage of land uses present-2020



Morai- Percentage of land use change from 2011 - 2020

Land use /Land cover	Area in sq.m-2020	Area in sq.m-2011	% of change
Agricultural-plantation	513222.3927	126797.6234	3.33
Agricultural-Crop Land / Fallow	1998021.655	985650.7179	8.71
Scrub forest	17412.30035	62242.35875	-0.39
Scrub Land	967792.1427	7096927.001	-52.76
Vegetated Area	563108.393	113700.0791	3.87
Pond	129566.5012	73462.66279	0.48
Tank	381328.4967	463799.6361	-0.71
Canal	85229.08993	85144.72789	0.00
Stream	16146.23142	43494.6847	-0.24
Road	272720.6592	272720.66	2.35
Village Settlement	2960971.066	90995.96705	
		Built up (Rural)	
	2960971.066	1920976.107	8.17
Hamlet & Dispersed Household	2030759.289	368660.0203	14.31
Educational Institution	378471.8127	378471.81	3.26
Open Area	779860.6599	779860.66	6.71
Playground	29932.58537	29932.59	0.26
Police Training Centre	232545.1274	232545.13	2.00
Brick Kiln	6711.53899	6711.54	0.06
Industrial Area	265923.9046	186235.1949	0.69
Total area	11116501.45	11618086.78	

EXISTING LAND USE 2011



**MORAI PANCHAYAT
GRAM PANCHAYAT SPATIAL DEVELOPMENT PLAN**

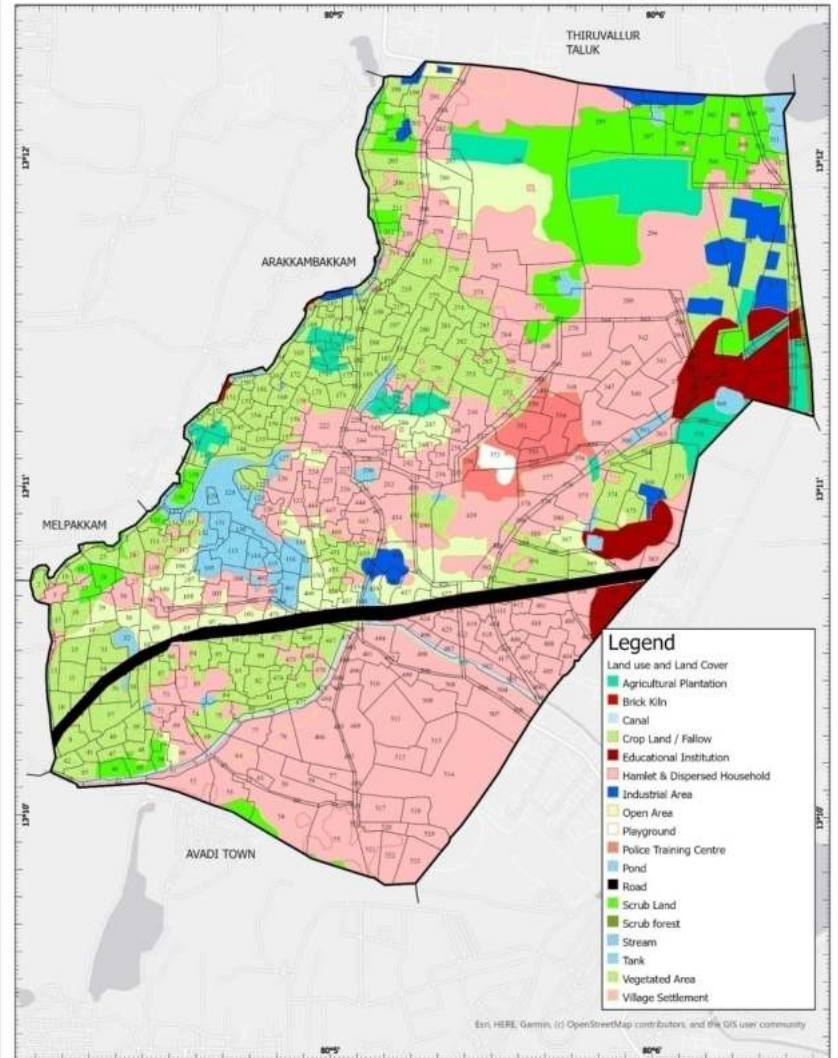
DEPARTMENT OF ARCHITECTURE
SCHOOL OF ARCHITECTURE AND PLANNING
ANNA UNIVERSITY, CHENNAI

SCALE: 1:18,500 1.5 KILOMETERS



MAP:NO: 11

EXISTING LAND USE 2020



**MORAI PANCHAYAT
GRAM PANCHAYAT SPATIAL DEVELOPMENT PLAN**

DEPARTMENT OF ARCHITECTURE
SCHOOL OF ARCHITECTURE AND PLANNING
ANNA UNIVERSITY, CHENNAI

SCALE: 1:18,500 1.5 KILOMETERS



MAP:NO: 12

Insights from Land use

- ❑ Development pressure leading to land use conversion a significant threat.
- ❑ Growing Industrial presence further threat to already diminishing Agriculture.
- ❑ As Outer Ring Road is elevated in this village, has no direct impact on the village. However the increased accessibility it brings has led to increased tendency for land prospecting and growth of industries.

Proposals

- Defining Objectives
- Plan Preparation
- Resources Mobilization
- Implementation & Execution
- Monitoring and Evaluation
- Ensuring sustainability

Key elements of a model village

Quality of Life

- Focus on public health care (Maternity and child welfare)
- Practical and smart education
- Housing and livelihood
- Women empowerment
- Capacity building of all stakeholders
- Water efficiency and conservation
- Hygiene and Sanitation
- Solid waste management

Community involvement

- Planning for Village Development
- Mobilizing resources for the Plan, with active engagement with elected representative
- Monitoring the utilization of government funds to increase accountability
- Influencing personal and community behaviour

Model Village

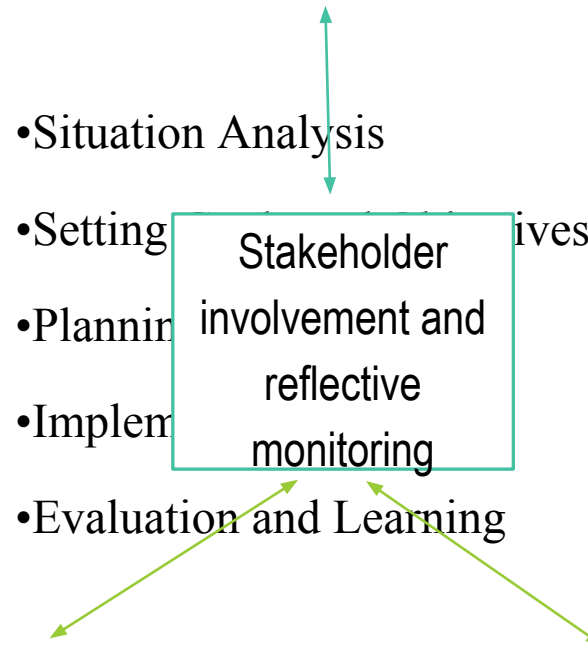
Technology

- Environmental conservation
- Delivery of government services
- ICT in the aid of farmers
- Remote sensing for resource mapping and better utilization of existing assets
- Biometrics for better targeting of services such as PDS, insurance, pension

Connectivity

- Physical connectivity to towns and other places through roads
- Easy and cheap means of transportation
- Digital connectivity and mobile connectivity
- Augmenting power connectivity through off-grid renewable sources
- Financial connectivity

Model Village Plan



Setting Goals and Objectives

Vision : *" By 2030 village will be a place, where people like to live and work, people are well-fed, healthy. Educated and environmentally responsible"*

Goal : Structural Actions:

Activities	Community Action	External Action	Time Period
Physical Infrastructure			
Existing mud roads to be converted to all weather roads	Volunteer Labor	Technical Support, grants through govt or donor	Year 1-2
Water conservation and Management <ul style="list-style-type: none"> ▪ Rooftop rain water harvesting ▪ Desilting of tanks (Kulams) ▪ Strengthening of bunds 	Volunteer Labor, resources contribution	Technical Support, grants through govt or donor	Year 3-10
Water conservation and Management <ul style="list-style-type: none"> ▪ Desilting of Large Tanks used for Irrigation (ERI) 	Volunteer Labor, resources contribution	Technical Support, grants through govt or donor	Year 3-10

Setting Goals and Objectives

Activities	Community Action	External Action	Time Period
Physical Infrastructure			
Preparation of Storm water Drainage Plan (Grassed swale)	Volunteer Labor, resources contribution	Technical Support, grants through govt or donor	Year 2-10
Grey water Management Soak pits and leach pits at individual residence level for grey water	Education and Awareness	Training Programmes	Year 1-2
Sewage Management •Construction of drainage network •Settlement pond		•To be proposed under govt scheme • location to be identified	Year 1-2
Provision of public toilets • Toilet blocks for new kanniyamman nagar • Provision of organic toilets		•To be proposed under govt scheme • location to be identified	Year 1-2

Setting Goals and Objectives

Activities	Community Action	External Action	Time Period
Physical Infrastructure			
Solid Waste Management <ul style="list-style-type: none"> •Source segregation at HH level (two bin system) •sanitary landfill site 	Waste segregation awareness & training	Technical Support, grants through govt or donor	Year 1-2
Solar energy utilization for new projects	Volunteer Labor, resources contribution	Technical Support from TNED, grants through govt or donor	Year 2-3

Setting Goals and Objectives

Activities	Community Action	External Action	Time Period
Social Infrastructure			
Establishing public and Child-Mother Health Care Center – 4 nos	Provision of Land, Volunteer labor, provision of materials	Technical support, Linking with health department	Year 2-3
Educational infrastructure • Up-gradation to higher secondary school • Provision of vocational training centre	Identification of beneficiaries	Technical Support, grants through govt or donor Linking with district education department	Year 3-5
Market - Local market / Sandai			Year 1 -2
Community hall – 3 nos			Year 2 – 5

Setting Goals and Objectives

Activities	Community Action	External Action	Time Period
Socio – Cultural Infrastructure			
Afforestation	Under voluntary action and MGNREGS	Technical Support, grants through govt or donor	2 – 10
Playground and parks		Technical Support, grants through govt or donor	1 – 2
Upliftment of economy			
Godown for agricultural produce		Grants through govt or donor	1 – 2
Milk cooperative society		Grants through govt or donor in cooperation with Aavin	1 – 3
Livestock – veterinary clinics		Grants through govt or donor	1 – 2

THANK YOU