

# AMARAVATI CAPITAL CITY DEVELOPMENT PROJECT



## FINAL SOCIAL IMPACT ASSESSMENT REPORT PITCHUKULAPALEM VILLAGE

OCTOBER 2016



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## **1. EXECUTIVE SUMMARY OF PITCHUKULAPALEM VILLAGE**

### **1.0. Project and Public Purpose**

The Andhra Pradesh Reorganization Act 2014 (Central Act 6 of 2014), came into force on 2<sup>nd</sup> June, 2014, provided for the reorganization of the existing state of Andhra Pradesh. One of the most critical priorities for the new state is the formation of the New Capital city, which is very important from the perspective of economic development, cultural integrity and administrative functioning.

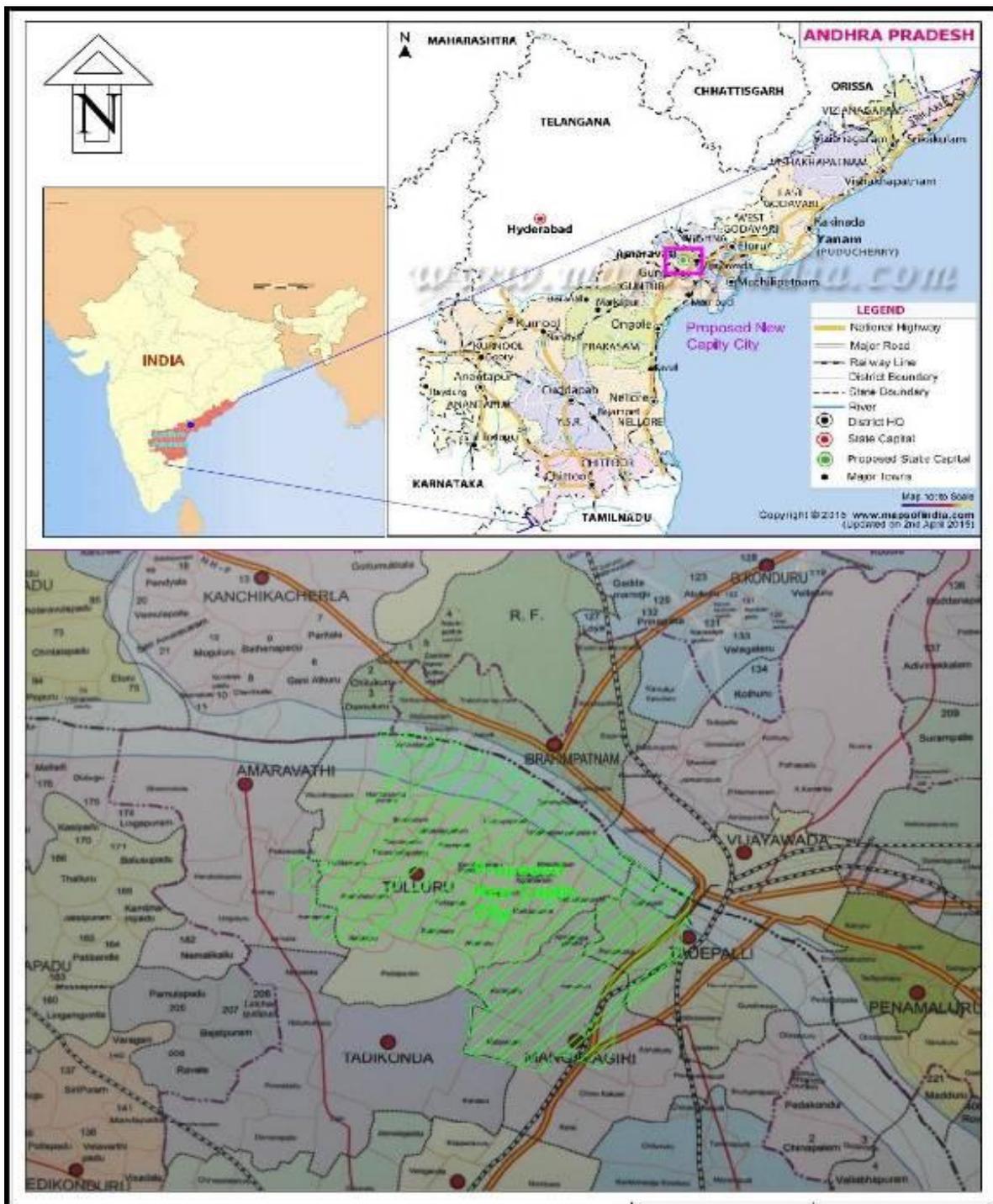
The Government of Andhra Pradesh has decided to establish a green field capital city as a liveable, environmentally sustainable and people's capital. For this purpose, the location of the capital was identified between Vijayawada and Guntur cities on the upstream of Prakasam Barrage on the river Krishna, with an area of 217.23 Sq. Km, which is covering a current population of 102401 in 24 revenue villages and part of Tadepalli Municipality which are covered under 26 LPS Units. The proposed Amaravathi capital city is being planned to accommodate a population of 3.55 million by 2050.

The proposed capital city is being developed with 'state-of-the-art' infrastructure including world class roads, water supply facilities, administrative and institutional complexes, drainage, sanitation, Solid Waste Management (SWM) facilities, river front development etc, among others.

**Vision:** The New Capital of Andhra Pradesh is envisioned to be the pioneer Smart City of India. It aims to be World Class and at par with the standards set forth by countries such as Singapore. The new capital will be an economic powerhouse that will create a range of earning opportunities for existing resident villagers by upgrading their skills, as well as provide high-tech and knowledge based opportunities under industrial sector to be globally competitive and attempts to make them qualified for self-employment by providing interest free loans up to 25 lakhs. Housing will be at the core of its planning and will aim to provide affordable and quality homes to all its residents. It will demonstrate global quality of life standards to offer high levels of convenience to people of all ages.

**Purpose:** The acquirement of lands required for the project is primarily under land pooling scheme as declared under A.P. Capital City LPS (F&I) Rules, 2015 and Land Pooling Development Scheme includes lands acquired for the project under LA, R&R Act, 2013. The Land Pooling Scheme is declared as per public purpose under AP-CRDA Act, 2014. Amaravathi Capital City Development Project is an infrastructure project which includes sub-sectors like transport, energy, water and sanitation, communication and social infrastructure. Hence the project is for public purpose within the meaning of section 2(1) of the LA, R&R Act, 2013.

**1.1. Location**



**Figure 1 Key Plan Depicting the Geographic Location of the Project**

**1.2. Size attributes of Land Acquisition**

The geographical extent of Pitchukulapalem village is **Ac. 847.3100 cents**. An extent of **Ac. 822.5000 cents** is the target under Land Pooling Scheme / Land Acquisition. An extent of **Ac. 785.6385 cents** has been acquired under the land pooling scheme and now an extent of **Ac. 36.8615 cents** are to be acquired under RFCT LA R&R Act, 2013. Details of the land to be acquired along with the extent and Survey no’s have been presented in the Table E1.

**Table E1: Land to be acquired in Pitchukulapalem Village**

SL No	Survey No.	Sub Division No.	Total Extent as per RSR Ac. Cts.	Classification Dry / Jareeb / Semi Urban	Extent covered by LA Ac. Cts.	Remarks
1	10	2	1.82	Dry	0.3800	
2	19	2	1.46	Dry	0.1100	
3	39	E	1.95	Dry	0.0050	
4	49	B2	9.04	Dry	0.0100	
5	53	A	7.24	Dry	0.0100	
6	75		4.5	Dry	0.0200	
7	82	A	0.85	Dry	0.0100	
8	84		2.34	Dry	0.0150	
9	93	1	3.01	Dry	0.0100	
10	93	2B	3.03	Dry	0.0100	
11	110	A2	2.85	Dry	0.0250	
12	44	1A1	3.97	Dry	1.9700	
13	43		6.18	Dry	3.0900	
14	93	2A	8.33	Dry	1.5000	
15	40	B2	0.82	Dry	0.8200	
16	41	1	5.64	Dry	2.8200	
17	7	B	8.11	Dry	2.8300	
18	76	B	3.44	Dry	2.8400	
19	90		14.76	Dry	2.8300	
20	92		15.4	Dry	3.7500	
21	93	2A	8.33	Dry	2.6800	
22	19	1	10.16	Dry	0.0300	
23	18	1	9.6	Dry	0.1700	
24	18	2	0.76	Dry	0.0900	
25	10	2	1.82	Dry	0.6200	
26	5	2C	1	Dry	1.0000	
27	112	1	3.05	Dry	0.0744	
28	112	1	3.05	Dry	0.0496	
29	112	1	3.05	Dry	0.0915	
30	112	1	3.05	Dry	0.0915	
31	112	1	3.05	Dry	0.1285	
32	112	1	3.05	Dry	0.1570	
33	112	1	3.05	Dry	0.1340	
34	69		4.65	Dry	1.2100	
35	94	1	8.33	Dry	1.3300	
36	94	1	8.33	Dry	1.0000	
37	91		6.22	Dry	0.3800	
38	22	A	4.6	Dry	0.3000	
39	22	A	4.6	Dry	0.3000	
40	82	C	0.06	Dry	0.0400	
41	63	A	3.02	Dry	0.5000	
42	114		4.16	Dry	2.1600	
43	17		13.57	Dry	0.6400	
44	17		13.57	Dry	0.6300	
<b>Total</b>					<b>36.8615</b>	

Source: APCRDA, LPS Unit-12, Pitchukulapalem (V)

*Out of the total extent Ac. 36.8615 cents notified under section 4(1) of the LA R&R Act, 2013, the Land Acquisition Officer has reported that Ac. 2.1000 cents have been acquired under Land Pooling Scheme and now the target under LA is Ac. 34.7615 cents.*

### **1.3. Social Impacts**

The objective of Social Impact Assessment (SIA) is to prepare a complete inventory of structures, affected families and persons, to identify social impacts, and provide mitigation measures with compensatory mechanisms. In order to capture data for the present exercise, a questionnaire exercise was carried out. As a part of SIA, socio-economic survey has been conducted with the experts of the survey team to identify the affected structures, families/persons and list out the adverse impacts of the project.

The social impacts of the AP Capital City Development Project have been classified as

- i. Impact during beginning of the construction stage
- ii. Impact during Construction stage
- iii. Impact during Operation stage or post construction stage

The main aim of the Social Impact Management Plan is to ensure that the various adverse impacts are mitigated and the positive impacts are enhanced. The social impact management measures shall be implemented during the various stages of the project viz. Pre-construction Stage, Construction Stage and Operational Stage. A description of the various impacts identified during different stages of construction is presented in Table E2.

**Table E2: Identification of Social Impacts at Various Projects**

<b>Beginning</b>	<b>Construction</b>	<b>Post Construction</b>
Acquisition of agricultural land Acquisition of trees Loss of livelihood	Dust pollution Noise pollution labour employment & small & medium scale markets with livelihood opportunities during construction	Social, Economic and Infrastructural Development which will improve the quality of life

### **1.4. Mitigation Measures**

Potential impacts due to land related impacts are attributed to loss of land, change in land use and loss of access to present livelihood. The impacts of the project due to change in land-use are significant and irreversible; however the Concept Plan has addressed the issues and all necessary mitigating measures. The village site / habitation is excluded from the Capital City Development Project and included in the village development plan with least displacement of families. However, land will be acquired for construction of Roads / Railways as per requirements of master plan in the village site / habitation zone. The plan can be summarized into the following planning strategies and typologies:

#### **1.4.1. Green & Blue lattice:**

- ✓ Green grid – The green and blue network primary follows the road network creating passive recreational fingers across the city. These fingers are anchored with large parks and open spaces close to the 2 reservoirs. Each finger terminates at the scenic river Krishna waterfront.
- ✓ Active, beautiful and clean waterways weave through the Amaravathi Capital city. These waterways follow the existing irrigation canals and reservoirs to form an interwoven water network.
- ✓ The plan creates a variety of interfaces between the green and blue creating different water themed public spaces such as lake parks, waterfront corridor, linear parks, etc.

#### **1.4.2. Primary green spaces:**

- ✓ Primary green spaces including large city parks, lakes, town parks, neighbourhood parks, water bodies and public plazas form the foundation of the city scale recreational network that provides recreation opportunities and improves a sense of community. These parks help in creating large public open spaces which can double up as event spaces for the larger community within the Capital city.
- ✓ Primary greens are planned along the existing canals and water bodies to serve as city's main ecological corridors. They play a dual role in flood management, and environmental conservation of the native species.

#### **1.4.3. Secondary Green Links**

- ✓ Secondary greens weave through the townships connecting the various town and neighbourhood parks. Planned as the secondary green fingers of the city, these greens act as passive recreational spaces, interactive jogging trails and non-motorized transports corridors across the city.

#### **1.4.4. Recreational Landscapes**

- ✓ Recreational landscapes include theme parks, golf courses, sports and recreational spaces.
- ✓ In line with the township model several sports and recreation parcels have been allocated in the town Centre, and in proximity to the neighbourhood Centre.
- ✓ Large city level sports facilities such as cricket stadium, golf courses and theme parks have been strategically distributed across the city.

#### **1.4.5. Water Bodies**

- ✓ Water bodies including rivers, canals, irrigation channels and reservoirs have been carefully protected and integrated with the green spaces as discussed in the previous section.

#### **1.4.6. Benefits for the Project Affected Persons**

The impacts due to acquirement of land are expected to be minor with the implementation of the land pooling scheme for majority extent of lands covered by the project.

- ✓ Providing land pooling benefits to the landowners who entered into Development

Agreement with CRDA.

- ✓ Demarcation of village site / Habitation and not including the area in capital city development except for the requirements of roads / railways or for village development,
- ✓ Payment of annuity prior to taking possession of land or any physical displacement for the damages sustained in terms of loss of net agricultural income.
- ✓ Payment of pension of Rs. 2,500/- per month to all landless families for 10 years towards transitional assistance to support economic loss;
- ✓ Dissemination of information about the acquisition and compensation calculation process and benefits under LPS
- ✓ Establishing a grievance redressed mechanism;
- ✓ Option for work during project construction period;
- ✓ Continuation of community engagement process;
- ✓ Provision of access to local villagers to continue with their pre project movement pattern.
- ✓ Agriculture loan waiver up to Rs. 1,50,000/- NREGA up to 365 days / Skill development training with stipend/free education/free medical facilities as prescribed by Govt. towards other benefits.
- ✓ Interest free loan up to 25 lakhs to all the poor families for self-employment.

### **1.5. Impact on Livelihoods**

Long term livelihoods have been, or will be, impacted for those families who have surrendered their lands for the project. Most of the people (landowner as well as landless) of the area are dependent on agriculture for their livelihood, and there is permanent loss of current livelihood for almost the entire population.

#### **1.5.1. Mitigation Measures**

Since major land requirements have been acquired under Land Pooling Scheme and after taking the following mitigation measures, the impact could be reduced considerably.

- ✓ Payment of compensation and R&R benefits as per LA R&R Act, 2013;
- ✓ Preference to the land losers as per eligibility to work during project construction period.
- ✓ Provide necessary skill improvement training to affected people to have more livelihood opportunities in project operation phase.

### **1.6. Impact on Utilities**

All the village site / extended habitations are excluded from displacement without any disturbance to power lines, telephone lines, and water supply etc., Care shall be taken to construct the project without disturbing general utilities. Provision of infrastructure facilities in the proposed plan will improve livelihood conditions.

### **1.6.1. Mitigation Measures**

This impact is expected to be minor and with the implementation of the following mitigation measures the potential disruption to existing utilities will be further minimized.

- ✓ Coordination with respective concerned department for utility relocation;
- ✓ If any displacement is required and discontinuation of utilities if any arises necessary temporary arrangement shall have to be taken;
- ✓ Providing intimation to the people in advance about any disruption to services.

### **1.7. Impact during Construction Phase**

The construction phase of the Project involves a number of sequential activities, collectively named as “spread”. The area affected by the construction, laying of road, clearing of site, construction of residential, commercial and industrial units, construction of social infrastructure, construction of treatment plant, laying of sewer line, and labour camps areas etc. Based on the assessment of above activities and in consultation with the different stakeholders, the following impacts are being envisaged for the construction phase of the project.

#### **1.7.1. Mitigation Measures**

Potential impacts during construction period include impact due to the influx of migrants and associated health related risk to the community. These impacts are expected to be moderate and with the implementation of the following mitigation measures the potential impact of loss of livelihood will be further minimized.

- ✓ Engage as many locally available unskilled, semiskilled and skilled human resource as practically possible to avoid large scale in migration of labour force; Rural agriculture labour to adopt urban agriculture / non-agricultural skills.
- ✓ Provision of infrastructure and amenities for migrant labour in construction camp to avoid dependence on limited local resources;
- ✓ Barriers will be provided to prevent ingress of persons into the construction site and also to protect public exposure to hazards associated with construction activities;
- ✓ Additional safety precaution while working in market and settlement areas and especially around the trenches;
- ✓ Screening, surveillance and treatment of workers, through the provision of medical facilities and, where required, immunization programs;
- ✓ Undertaking health awareness and education initiatives among workers, especially about sexually transmitted disease ;
- ✓ Prevention of larval and adult propagation through sanitary improvements and elimination of breeding habitats close to human settlements in the close vicinity of construction site;
- ✓ Implementation of a vector control program;
- ✓ Avoiding collection of stagnant water;

- ✓ Educating project personnel and area residents on risks, prevention, and available treatment for vector-borne diseases;
- ✓ Promoting use of repellents, clothing, netting, and other barriers to prevent insect bites;
- ✓ Following safety guidelines for the storage, transport, and distribution of pesticides to minimize the potential for misuse, spills, and accidental human exposure; and Road safety measures.

### 1.8. Assessment of Social Cost & Benefits

This section provides social costs by comparing project benefits (positive impacts) and negative impact (social cost), from construction of Amaravathi–AP Capital City Development Project. The cost of Land Acquisition for **Ac. 34.7615 cent** of Pitchukulapalem village is estimated at **Rs. 2.35 Crores**. Positive and negative impacts have been discussed in following Table E3.

**Table E3: Positive and Negative aspects of the project**

Sl. No	Positive Impact	Negative Impact	Remarks
1	Enhanced cost of land per acre	Loss of Agriculture Land	After careful examination of various parameters of cost and benefit (positive and negative impacts), it is found that the proposed construction would benefit local Community at large. The loss of livelihood in terms of agriculture to be mitigated by preparedness to undertake urban agricultural practices and non- agriculture based livelihood opportunities through skill development and self-employment.
2	Social Development	Loss of livelihood in terms of agriculture	
3	Infrastructure development	Not satisfied with compensation provided by the authority.	
4	Economic development	Providing commercial infrastructure on lottery base in the project area. The PAFs are not satisfied with this scheme.	
5	Improvement of quality of life		
6	Increase in livelihood opportunities and self employment		

The project involves predominantly acquisition of agricultural land. The land is made available through land pooling scheme. This project will help the local people through infrastructure development, social development and will increase livelihood opportunities and self-employment sources.

## **2. DETAILED PROJECT DESCRIPTION**

### **2.0. Background**

The Andhra Pradesh Reorganization Act 2014 came into existence after the 2<sup>nd</sup> June, 2014, provided for the reorganization of the existing state of Andhra Pradesh. The formation of a new capital city - critical for its administration, economic development, and cultural integration – is an immediate priority for the Successor State of Andhra Pradesh.

In accordance with Section 6 of the Act, on 28.03.2014, the Government of India constituted “an expert committee to study various alternatives regarding location of the new capital for the successor State of Andhra Pradesh and make appropriate recommendations”. The five member expert committee, headed by Shri KC Sivaramakrishnan submitted their final report to the GoI on 27.08.2014. The Committee studied multiple options, and also highlighted the need to ensure balanced regional development. The Committee has not made specific recommendation selecting an area and the same report was forwarded to State Government by GoI.

In this context, the Cabinet of the Government of Andhra Pradesh met on 01.09.2014, and resolved, “To locate the Capital City in a central place of the state, around Vijayawada, and to go for decentralized development of the State with 3 Mega Cities and 14 Smart Cities. It is proposed to go for Land Pooling System to be worked out by a Cabinet Sub Committee”.

As regards the new Capital, the Government is deeply committed to ensuring that the process of building the new capital involves the participation of people. It is in this context that the Cabinet has suggested the use of Land Pooling scheme to consolidate the land required for the capital. This will enable the local landholders to proactively participate and benefit from the development of the capital city, and will create a win-win situation for the landholders, citizens and the Government. **As a result, the new capital city of the State of Andhra Pradesh can proudly call itself a “people’s capital”.**

The creation of a world-class capital city at a central location is essential to create a level-playing field for the new State. As experience from across the world demonstrates, a vibrant capital city can act as a catalyst for economic development for the entire state and become an iconic city that is a source of pride for all its citizens.

The Government of AP has decided to establish the new capital city as a liveable, environmentally sustainable and people’s capital. For this purpose, the location of the capital was identified between Vijayawada and Guntur cities upstream of Prakasam Barrage and on the right bank side of river Krishna.

The proposed development will be based on the GO-254, MA and UD (M2) Department dated 30th December 2014, read with GO MS No-141- MA & UD (M2) Department dated 9th June through which Capital City area has been declared under AP CRDA, Act, 2014.

The list of villages with the acquirement of land area through LPS / LA (Source: APCRDA) is given in **Table 2.1** below.

**Table 2.1: Village wise Extent of Area to be acquired through LPS /LA**

Sl. No	Name of the Mandal	Name of the Village	Extent of Area (acre)
1	Mangalagiri	Krishnayapalem	1425.065
2	“	Nowlur-1	1439.7987
3	“	Nowlur-2	1751.78
4	“	Kuragallu-1	1618.08
5	“	Kuragallu-2 (Nerukonda)	1476.46
6	“	Nidamarru-1	1259.49
7	“	Nidamarru-2	1246.42
8	“	Undavalli	1262.23
9	Tadepalli	Penumaka	1646.52
10	“	Tadepalli	58.62
11	Thulluru	Borupalem	384.13
12	“	Abbarajupalem	731.7
13	“	Dondapadu	271.6968
14	“	Pitchukulapalem	822.5
15	“	Inavolu	1057.515
16	“	Rayapudi-1	1662.63
17	“	Rayapudi-2	638.73
18	“	Kondamarajupalem	824.08
19	“	Lingayapalem	992.68
20	“	Uddandarayunipalem	612.72
21	“	Malkapuram	471.75
22	“	Nekkallu	1258.585
23	“	Nelapadu	1326.65
24	“	Sakhamuru	1526.07
25	“	Thulluru-1	1457.138
26	“	Thulluru-2	1786.41
27	“	Velagapudi	1867.04
28	“	Venkatapalem	1463.95
29	“	Mandadam-1	1676.92
30	“	Mandadam-2	1983.31
31	“	Ananthavaram	2048.81
		<b>TOTAL</b>	<b>38049.4785</b>

### 2.1. Nature, Size and Location of the Project

The proposed Amaravathi City of Andhra Pradesh falls in Guntur district of Andhra Pradesh and at a distance of approximately 30 km from the Vijayawada town. The proposed development site is predominantly of rural character with area of **217.23 sq.km** and the land to be acquired with an area of **38049.48 acres**; this is covered in 24 revenue villages and part of Tadepalli municipality falling in three mandals namely Thullur, Tadepalli and Mangalagiri. The site is abutting the River Krishna on the west of Old National Highway from Prakasam Barrage to Y-junction at Mangalagiri. The nearest railway station is K C Canal Station near Tadepalli and the nearest airport is at Gannavaram.

The existing land use of the site is consisting of - agriculture, land for grazing, fruit and flower plantations, village settlements and village ponds etc.

### 2.1.1. Geographic Positioning of Amaravathi

The proposed site is towards the west of Vijayawada at about 3 km. The exact coordinates of the site are shown in Figure 2 below. While attempt has been made to accurately depict the boundary, in view of the technical limitations minor variations in the boundary may be observed in representation. Official boundary is available with APCRDA and in public domain.

### 2.2. Transport Connectivity

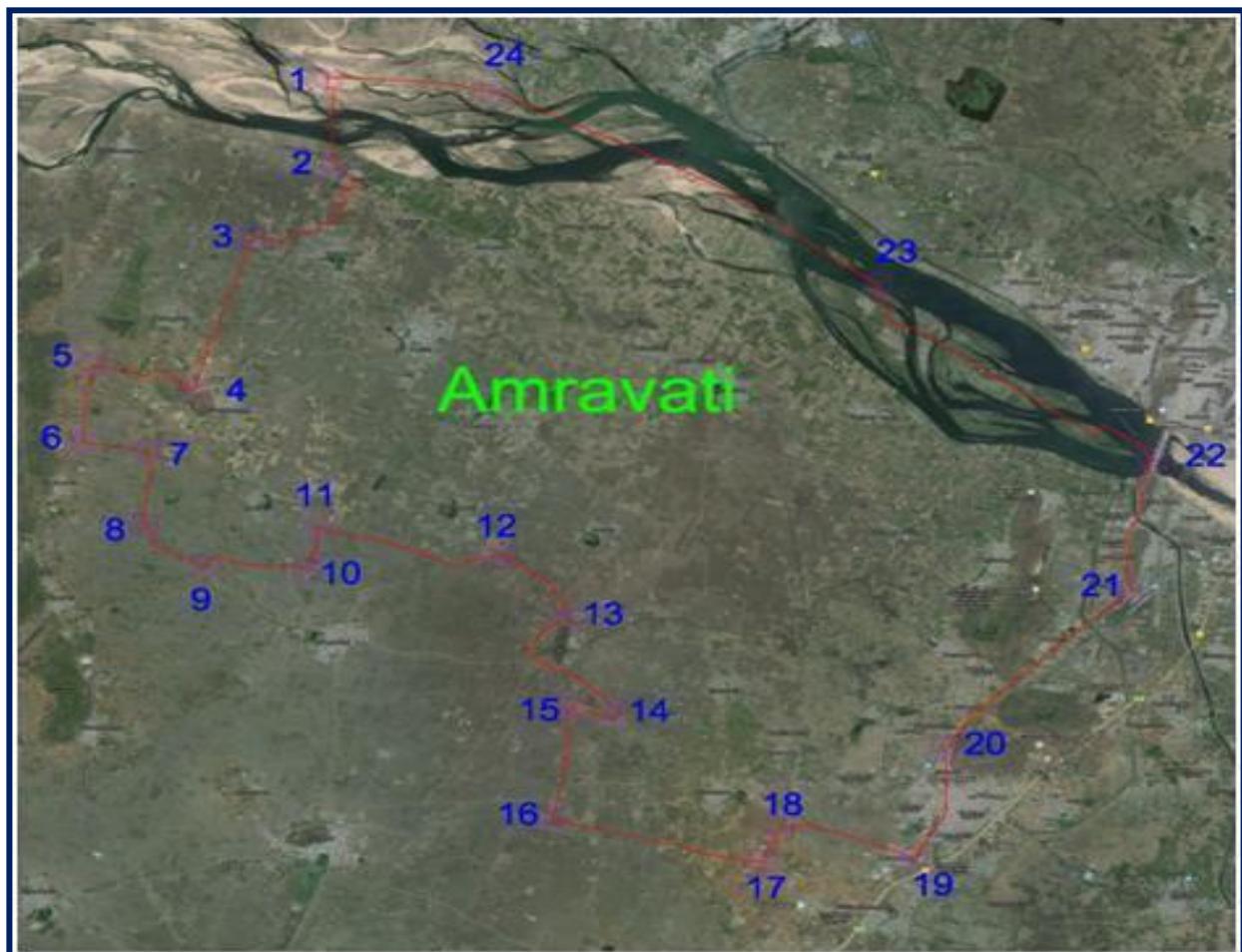
#### Air connectivity

- ✓ Existing Gannavaram airport is at 30 minutes' drive from the city centre
- ✓ Expansion of this airport is planned in near future and it will be upgraded to an international airport.

#### Road connectivity

- ✓ The existing national highway (NH16) will connect the Amaravathi city to Vijayawada and Guntur, and further connect to Vishakhapatnam and Chennai.

**Figure: 2. Amaravathi Capital City Site**



**Site Coordinates**

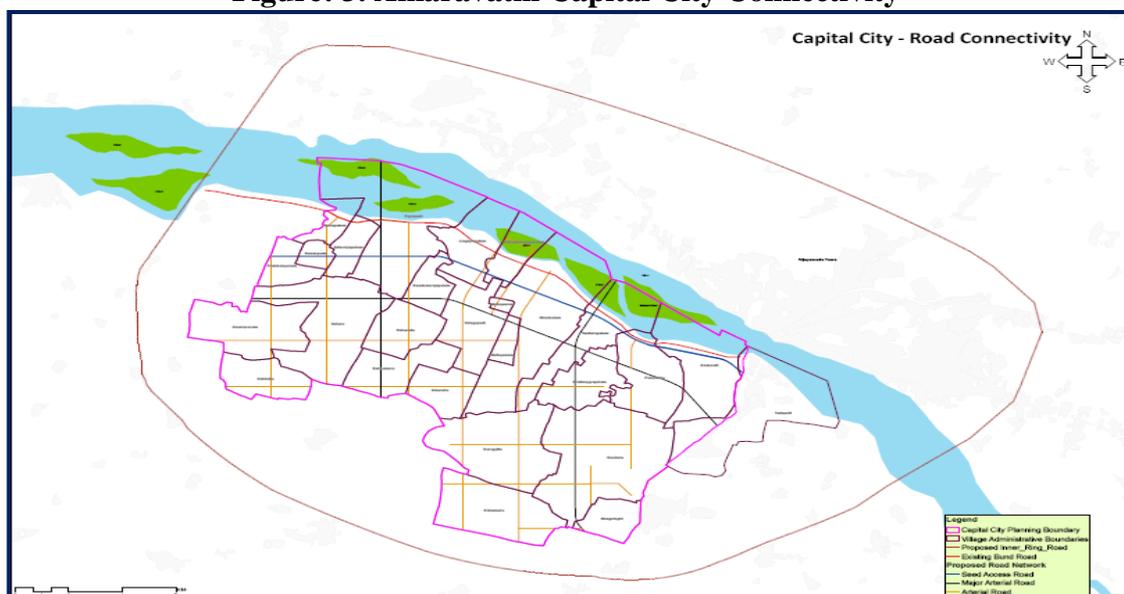
Sl. No	Longitude	Latitude	Sl. No	Longitude	Latitude
1	80.4525	16.5896	13	80.4967	16.4682
2	80.4540	16.5703	14	80.5061	16.4480
3	80.4390	16.5541	15	80.4973	16.4489
4	80.4281	16.5196	16	80.4937	16.4238
5	80.4097	16.5252	17	80.5324	16.4139
6	80.4073	16.5080	18	80.5361	16.4219
7	80.4199	16.5058	19	80.5604	16.4151
8	80.4190	16.4893	20	80.5661	16.4392
9	80.4300	16.4801	21	80.6000	16.4744
10	80.4489	16.4797	22	80.6040	16.5042
11	80.4509	16.4889	23	80.5537	16.5432
12	80.4840	16.4828	24	80.4832	16.5863

- ✓ A new national highway alignment has been approved in order to increase the Amaravathi Capital city’s connectivity to the neighbouring Vijayawada city.
- ✓ The NH65 will connect the Amaravathi Capital city to Hyderabad and Machilipatnam port.

**Rail Connectivity**

- ✓ The Amaravathi Capital city has good connectivity to the Vijayawada rail station via NH16. The Vijayawada rail station is one of the busiest rail stations in the country.
- ✓ There is also an existing rail station in the Mangalagiri town.
- ✓ A new High Speed Rail alignment has also been proposed for connecting the Amaravathi Capital city. As illustrated in **Figure 3**, this alignment runs along the approved national highway.
- ✓ There is a planned MRT network within Vijayawada. There is potential to tap on this public transportation network and extend it into the Amaravathi Capital city.

**Figure: 3. Amaravathi Capital City Connectivity**





## **2.3. Goals and Strategies**

### **(I) World Class Infrastructure**

**Goal:** 135 Km of Public Transport corridors by 2050 > 600 km of Road Network by 2050

#### **Strategies:**

- ✓ Build state-of- art public transport both for Capital Region and Amaravathi Capital city
- ✓ Develop a highly efficient road network at par with international standards
- ✓ Encourage high percentage of modal share using public transport
- ✓ Plan for a long term 2050 horizon and reserve transit corridors where necessary
- ✓ High speed Railway to have a station in the Amaravathi Capital city
- ✓ Develop a world class International Airport to serve the Capital Region
- ✓ Capitalize on the opportunity to use National Waterway for trade
- ✓ Plan strategically to allow easy transfer between different modes of transport

### **(II) Jobs and Homes for all**

**Goal:** 3.55 million Resident populations by 2050 and 1.5 Million Jobs by 2050

#### **Strategies:**

- ✓ Promote high-value added agriculture and agro-based industries
- ✓ Create opportunities for existing dwellers to upgrade skills
- ✓ Introduce a mix of knowledge based high-tech industries to attract investments
- ✓ Encourage home ownership to create a sense of identity for citizens
- ✓ Provide sufficient affordable housing to cater to the needful
- ✓ Strategize a slum free city through careful planning
- ✓ Phase out industries strategically for long term sustained growth
- ✓ Create a favourable policy framework to implement and support the Amaravathi Capital city development

### **(III) Green and Clean**

**Goal:** >20% area reserved for green and Blue and 25+ km Public River waterfront

#### **Strategies:**

- ✓ Create a network of parks and greens by integrating the village ponds
- ✓ Ensure access to park for every citizen within easy walking distance
- ✓ Make productive use of natural features on the site without damaging them
- ✓ Reserve most of the waterfront along Krishna River for public use
- ✓ Mandate retaining the green network reserved in the Amaravathi Capital city Plan

- ✓ Reserve high value agriculture land as no development zone wherever possible
- ✓ Utilize the natural features such as forest and hills to create a regional green network.
- ✓ Create an image of city sitting within the water and greens

#### **(IV) Quality of living**

**Goal:** Parks and Public Facilities within 5-10 minute walking distance

##### **Strategies:**

- ✓ Ensure public transit is within easy walking distance for all
- ✓ Convenience of neighbourhood centre amenities within walking distance
- ✓ Safe environment with universal access for all ages
- ✓ Provide opportunities for learning and enhancing careers within the Amaravathi Capital city and Region
- ✓ Provide excellent health care facilities at affordable costs within easy reach
- ✓ Ensure ample opportunities to live, work, learn and play
- ✓ Ensure ease of commute within 30 minutes from origin to destination with Amaravathi Capital city

#### **(V) Efficient Resource Management**

**Goal:** Flood resistant City towards Net Zero Discharge

##### **Strategies:**

- ✓ Adopt efficient flood control techniques and protect most waterways in the city
- ✓ Promote “Reduce, Recycle and Reuse”
- ✓ Establish state of art waste management and disposal systems across the city
- ✓ Develop a smart grid in the city for efficient management of power and energy
- ✓ Encourage use of renewable energy to maximum extent possible
- ✓ Integrate the storm water drainage system with the existing canal and village tank network and utilize for flood management and recreation
- ✓ Encourage certification of projects using global standards such as IGBC and LEED

#### **(VI) Identity and Heritage**

**Goal:** > 220 km of Heritage and Tourism Network using Roads, Metro and waterways

##### **Strategies**

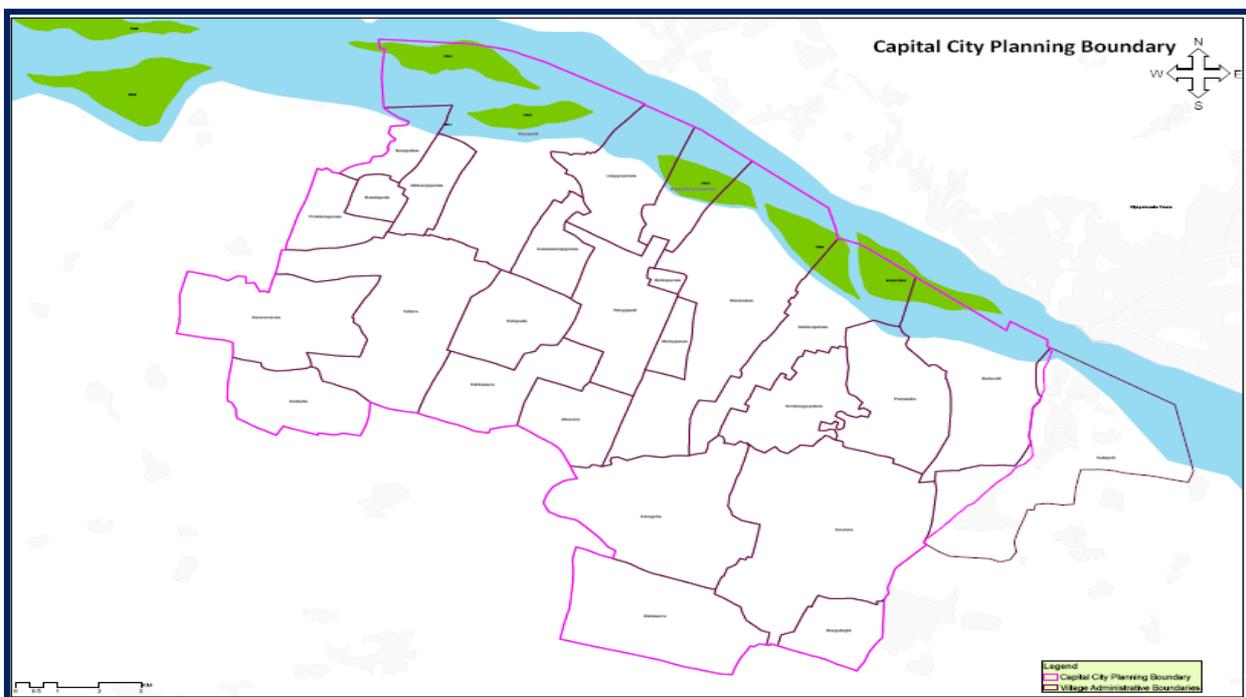
- ✓ Preserve all historic and culturally important sites
- ✓ Promote culture and heritage attractions for locals and tourists alike
- ✓ Compliment adjacent cities, at the same time establish a unique identity
- ✓ Integrate the existing villages as a vital component of city development

- ✓ Development nodes within the city that reflect the culture of the State and region.
- ✓ Dedicate strategic locations that will allow people to come together and organize cultural activities
- ✓ Create a tourism circuit that links all the existing heritage features and new nodes created in the city.

## 2.4. Developmental Phasing

The concept plan for Amaravathi city is prepared in three phases and up to 2050. The phased development takes into account the growth potential, vision of the government and aspirational needs of the people. The phases are categorized as Catalyzing; Momentizing and sustaining the details of each phase are furnished below:

**Figure 5: Capital City Boundary.**



### Phase 1-Catalyze

This phase will span for the first 10 years for catalyzing urban developments within the Amaravathi Capital city. It will include a large number of infrastructure projects in order to create the critical base for development. This phase will catalyze developments within the capital by tapping on the existing and upcoming infrastructure, including the Vijayawada MRT and the new national highway.

The first phase will provide a variety of housing options for 850,000 population comprising about 39% of the total Amaravathi Capital city Area, this phase will create 350,000 jobs in the civic, commercial and industrial sectors.

### Key Projects

- ✓ Development of the government administrative core along the north-south axis housing the

secretariat, high-court, legislative assembly, Chief Minister’s Office and other government offices.

- ✓ Development of the proposed Business Park within the SEED Development Area.
- ✓ Development of the north-eastern Regional Centre housing a transportation hub.
- ✓ Development of the light Industrial cluster proposed in proximity to the SEED Development Area (towards west). This cluster will primarily house high-tech light industries.

### **Phase 2-Momentize**

This phase will focus on the medium term development (2025-2035) in order to momentize urban development within the Amaravathi city. Building on the infrastructure developed in the previous phase, Phase 2 will momentize development by creating new employment centres and expanding residential areas.

This phase will span over 10 years (2025 - 2035). Phase 2 will accommodate over 900,000 more people and create 380,000 more jobs for its residents.

### **Key Projects**

- ✓ Development of the proposed residential developments in proximity to the western edge of the north-south ceremonial axis aka administrative core.
- ✓ Development of the southern industrial cluster along the national highway.
- ✓ Development of the Amaravathi Capital city central park and water reservoir.
- ✓ Development of the proposed MRT network within the city.
- ✓ Development of the gateway commercial node on the northern bank of river in close proximity to the existing Vijayawada city

### **Phase 3- Sustain**

This phase will focus on the long term development (2035-2050) of the city in order to achieve successful implementation of the overall Concept Plan. This phase will sustain growth and capitalize on the infrastructure developed in the previous phases.

Spanning over 15 years (2035 - 2050), this phase will largely support medium and high density population accommodating 2.4 million people within the Amaravathi Capital city.

As the employment centres within the Amaravathi Capital city will now be reasonably established, this phase will create over 1 million more jobs for its residents. The land area distribution plan for the Phase 3 of Amaravathi capital City development is shown in.

### **Key Projects**

- ✓ Development of eco-resorts on the clusters of islands in river Krishna.
- ✓ Development of the Sports City
- ✓ Proposed within the north-eastern recreation node.
- ✓ Development of the national high speed rail link.

- ✓ Development of numerous high density residential clusters in the western and southern parts of the city.
- ✓ Development of the downtown (SEED capital) water front cluster.

## 2.5. Applicable Legislation and Policies

Table 2.2 presents various regulations and legislations relevant to Amaravathi – AP Capital City Development Project.

**Table 2.2 Applicable Legislation and policies**

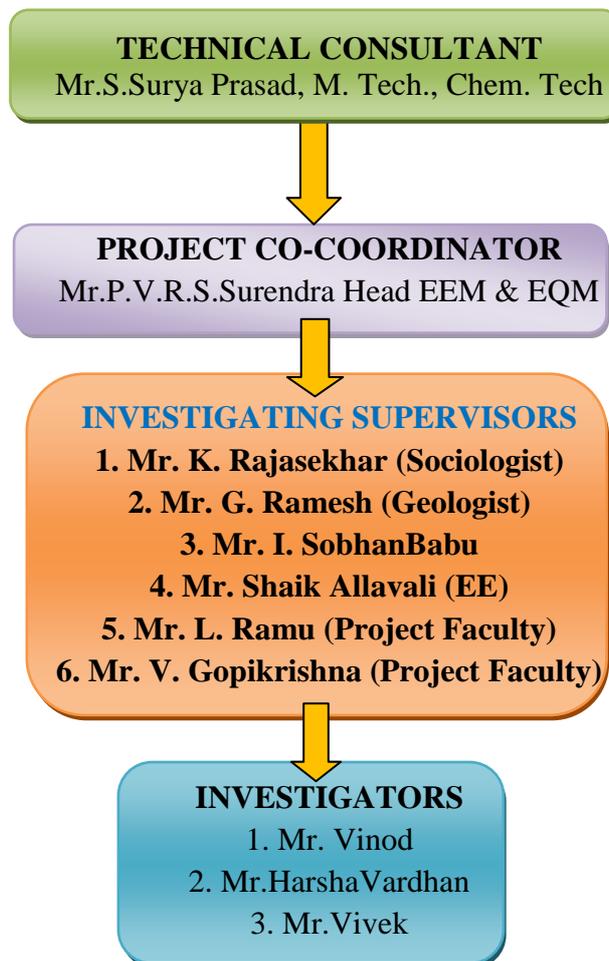
SL. No	Act/Rules	Purpose	Applicable Yes/No	Reasons for applicability	Authority
1	AP CRDA Act, 2014 and AP Capital City LPS (F&I) Rules, 2015	Set out rules for acquirement of lands by Authority	Yes	This Act and Rules are applicable for acquirement of lands and implement development plans with the voluntary participation of landowners.	MA & UD Dept., / Commissioner , CRDA / District Collector, Guntur / Addl. Commissioner 's / Competent Authorities
2	The Right to Fair compensation and Transparency in Land Acquisition and Rehabilitation And Resettlement, 2013	Set out rule for acquisition of land by government	Yes	This act will be applicable to as there will be acquisition of land for Amaravathi – AP Capital City project.	Revenue Department & Land acquisition, Collector & Commissioner R & R
3	Environment Protection Act- 1986	To protect and improve overall environment	Yes	As all environmental notifications, rules and schedules are issued under this act.	MoEF. Gol; State Gov. CPCB; SPCB
4	The forest (conservation) Act 1980	To check deforestation by restricting conversion of forested areas into non – forested areas	No	This act is not applicable to as there are no forest areas	Forest Department GoAP
5	National	Address	No	Grievances if any	NEAA

	Environment Appellate Authority Act (NEAA) 1997	Grievances regarding the process of environmental clearance.		will be dealt with, within this act.	
6	Air (Prevention and Control of Pollution) Act, 1981	To control air pollution by & Transport controlling emission of air Department. Pollutants as per the prescribed standards.	Yes	This act will be applicable during construction; for obtaining NOC for establishment of hot mix plant, workers camp, construction camp, etc.	SPCB
7	Water Prevention and Control of Pollution) Act 1974	To control water pollution by controlling discharge of pollutants as per the prescribed standards	Yes	This act will be applicable during construction for (establishments of construction camp, workers camp, etc.	SPCB

### **3. TEAM AND COMPOSITION, APPROACH AND SCHEDULE FOR SIA**

#### **3.0. Team Composition**

Commissioner, R&R, (FAC) & secretary to Government, (Irrigation) water resources Department, Government of Andhra Pradesh vide Notification No. Proc.Rc.No.53/CRR/A/2016 dated 25.02.2016 has notified Environment Protection Training and Research Institute (EPTRI) as State Social Impact Assessment Unit. The Collector, Land Acquisition, has applied and provided details of land to be acquired to SIA unit. The SIA notification for AP Capital City project was published on 25<sup>th</sup> February, 2016. In response to the SIA request and details provided by the Commissioner, R&R, and District Collector, Guntur a team to carry out SIA has been constituted.



#### **3.1. Objectives and Scope of the study**

The main objective of the study is to ensure that the project addresses the adverse impacts on the livelihood of the people and those affected have access to project benefits, both during project construction as well as operation.

Social Impact Assessment has been carried out in accordance with the provision of section 4 of the RFCT LA R&R Act, 2013, for economic and social considerations. The SIA has assessed

socio-economic impacts of the proposed acquisition based on information collected from secondary and primary sources. The SIA team has focused upon following aspects while conducting the study.

- ✓ Public and peoples development centric.
- ✓ Possibility of minimizing land acquisition and alternatives
- ✓ To carry out a socio-economic, cultural and political/institutional analysis to identify the project stakeholders and social issues associated with the project;
- ✓ To assess the extent of agriculture land loss and undertake the census of potential project affected people;
- ✓ To identify likely migration of agriculture labourers and others and to develop a strategy to reduce such incidence; and
- ✓ To develop a consultation framework for participatory planning and implementation of proposed mitigation plan
- ✓ To examine potential positive and negative impacts on the socio-economic condition of people in the project area,
- ✓ To develop appropriate measures to minimize the negative socio-economic impacts,
- ✓ Viability of the project in terms of potential benefits vis-a-vis social costs and adverse impacts.

The scope of socio-economic study is to include the impacts due to the proposed Amaravathi Capital City Development Project. Based on the site survey, socio-economic data about project affected families along with an inventory of property will be generated. Based on the data, the project proponent shall develop measures to safeguard the PAFs from the loss occurred due to the proposed project. The primary objective is to identify the impacts and to plan measures to mitigate losses of the project while the specific objectives are as follows:

- ✓ To prepare an action plan for the project affected people to improve or at least to retain their living standards in the post settlement period.
- ✓ To outline the entitlements for the affected persons for the payment of compensation and assistance for establishment of livelihoods.
- ✓ To develop communication mechanism to establish harmonious relationship between APCRDA and project Affected persons (PAP's)
- ✓ To ensure adequate mechanism expeditious implementation of R&R.

### **3.2. Approach and Methodology for Socio-Economic Studies**

Approach and methodology mainly consists of quantitative and qualitative tools and techniques. The study was conducted in two phases.

### **3.2.1. Phase – I: Pre Survey Activities**

#### **Collection and review of project literature**

This phase intends to familiarize with the concerned and important stakeholders to identify and collect the available literature and to scope the activities. This involved two pronged approach (a) discussions with Project Implementing authorities and other concerned. b) Collection of available relevant project literature. Consultations were held with concerned revenue officials to establish the ownership of land. Literature review and consultations formed the basis for identification of key stakeholders.

#### **Rapid reconnaissance survey to familiarize field activities**

Following to the review and consultations, rapid preliminary field visits were conducted as part of reconnaissance exercise. This provided the basis for field research preparation and helped in testing the questionnaires and checklists.

#### **Scoping and other Pre survey activities**

Both the review and rapid reconnaissance survey have helped in finalizing the study instruments and preparation of Questionnaires and work plan.

### **3.2.2. Phase II: Survey Activities**

#### **Census and socio-economic household survey for all affected persons**

The census survey of all the project-affected persons was conducted in the second phase. The survey, inter alia, has assessed the impacts of the project, the socio-economic conditions, and living standards of affected persons due to the project implementation. The following were collected during the survey:

- ✓ Socio economic conditions of the affected persons
- ✓ Family structure and number of family members
- ✓ Bringing high level of Literacy
- ✓ Occupation type and income levels
- ✓ Inventory of household assets
- ✓ Loss of immovable assets due to the project by type and degree of loss
- ✓ Accessibility to the community resources
- ✓ Perceptions on the resettlement and rehabilitation measures
- ✓ Perceived income restoration measures
- ✓ Grievances of affected persons and its re-addressed
- ✓ Willingness to participate in the project

#### **Qualitative survey**

Surveys were conducted for evaluation of both affected population and implementation capacities. The qualitative survey included focus group discussions and in depth interviews with

various sections of people such as women, knowledgeable persons and community leaders to elicit their expectations and suggestions, which will support and provide additional information collected through quantitative survey.

### **Assessment of livelihood losses**

The study focused on identifying people losing their livelihood directly or indirectly. Also through consultations the rehabilitation strategies for those losses by way of training for income generation and other remedial and restoration measures were identified. For this the consultations were conducted among:

- ✓ People losing properties/resources
- ✓ Knowledgeable persons
- ✓ Opinion leaders in the community

### **Review of legal policy provisions and implementation capacity of R&R services**

Relevant national and state legislations and regulations were reviewed. To study implementation arrangements and their capacity in delivering the R&R services, verification of these arrangements and in-depth interviews with authorities were conducted.

### **3.3. SIA Methodology**

The indicative methodology adapted to study above mentioned aspects of SIA is briefly presented in Table-3.1

**Table –3.1 Indicative methodology of Conducting SIA study**

<b>Sl. No</b>	<b>Aspects of SIA</b>	<b>Description Methodology</b>	<b>Source</b>
1	Assess whether the proposed acquisition serves public purpose	List has been presented section 2(I); a to f	Andhra Pradesh State RFCT LA R&R Act, 2013
2	Estimate number of affected families and number of families among them likely to be displaced	Census and baseline Survey of families Affected (Low Population size) Through questionnaire method	Field Study
3	Understand extent of acquired land- public and private, houses, settlement and other common properties likely to be affected by the proposed acquisition	<b>Transact Walk</b> ’ Through the project area based on ownership details of the land and type of land to be acquired, enumeration of affected properties, trees etc.	Field study
4	Understand extent of land acquired is bare minimum needed for the project	In-depth study of proposed utilization of land to be acquired including examining relevance of land	Desk study and Field verification

		acquisition	
5	Study of the Social impacts, nature and cost of addressing them and impact of these costs on the overall cost of the project via-à-vis the benefits of the project	Study on their impacts	Desk work and field study, consultation with stakeholders

The social assessment of the project has been carried out as per requirement of RFCTLAR&R Act, 2013. The details of methodologies include:

**Socio-Economic Survey:** The Survey was carried out for all the Project affected persons along with the court cases and demarcation of village site / habitation issues in the month of May 2015. The socio-economic survey has delineated impacts as minor impacts and major impacts.

**Stakeholder’s Consultation:** Consultations were carried out at individual and village level. Important issues were discussed at village level include (but not limited to) impact of land acquisition on the livelihood of the people, compensation as per LAR&R 2013, Findings, suggestions and opinion of people have been taken into account while preparing social impact management plan. (Details of the consultations have been presented in the following sections).

**Information Dissemination:** The dissemination process and the type of information shared with the stakeholders during consultation are described below:-

- ✓ While undertaking inventory of Amaravathi – AP Capital City Development Project, the procedure under Land Acquisition, court cases and demarcation of village site / habitation, sample survey of PAFs, information dissemination focused on the proposed project characteristics, acquired agriculture land area required for the construction of AP Capital City Development Project.
- ✓ PAFs were consulted to inform them about, resultant impacts and possible social-cultural conflict (if any) including loss of agriculture land during capital city construction.
- ✓ During these consultations, Google maps, maps given by Deputy Collector Guntur were used to explain about the location of proposed developments. This activity helped people to understand the impact on their assets and properties.
- ✓ A pamphlet on the project is prepared and shared with the Stakeholders and Villagers explaining proposed project and social impact assessment studies during public hearing.
- ✓ **Consultation during Sample Survey Stage:** SIA at this stage included consultations at individual PAP level, groups of local people and focused group discussions at strategic location at village Pitchukulapalem, Thullur mandal to understand acceptability of the project and issues related to land acquisition. The overall objective of these consultations was to ensure that the local people participate in the project specific studies and to express their concerns and opinions. Suggestions/preferences which were shared by the stakeholders, local people are considered in preparation of SIA report.



**Grama Sabha Conducted on 01.04.2016 at Pitchukulapalem**



**Figure–6: Photos of Grama Sabha Conducted with Project Affected Families**

### 3.4. Findings of Consultation

Consultations were carried out at individual as well as Village level. Village level consultations were held during sample socio-economic survey. Important issues were discussed during consultation with the stakeholders individually and also at village level. These issues were related to loss of livelihood, compensation for acquired land and properties, provision of livelihood opportunities. Issues raised during these consultations are presented below (Table 3.2).

**Table 3.2: Important Issues of Consultation**

Issues Identified	Solutions
Provision of Job in lieu of compensation and Loss of source of livelihood because of loss of agricultural land as per sl.no.4 of the Second Schedule of New LA R&R Act, 2013	Since it is an infrastructure project jobs as such cannot be created. For livelihood losers lump sum onetime payment / annuity at their choice could be provided as per LA R&R Act provisions.
Compensation for trees as per Section 29 of LA R&R Act, 2013.	Determination of value as per JD Agriculture / AD Horticulture / DFO
Demarcation of village sites / habitations.	Responsibility of the Government is to Demarcate village sites / habitations as per Rule 5(4) read with Schedule –III (1) (ii).
Free education and medical facilities	Govt. promises to provide free education and medical facilities to all those residing as on 08-12-2014.
Provision of infrastructural amenities	As per the provisions mentioned under the third Schedule of LA R&R Act, 2013.

### 3.4.1. Framework for continued consultation

As per provision of section 4(6) and section 7(6) of the LA R&R Act 2013, the SIA required to be disclosed to people at conspicuous locations, Deputy Collector, Village Panchayat, Tehsil, District offices. To fulfil the goal the SIA team ensures that

- ✓ Key stakeholders, Commissioner, CRDA (requiring body), Government of Andhra Pradesh, District Collector, Guntur (representing appropriate Government) and EPTRI, Hyderabad will be involved actively in approval of recommendations of social impact assessment studies by expert appraisal group as per provision of section 7 of LAR&R Act 2013 enabling the District Collector, Guntur to submit the report to Govt. for taking decision.
- ✓ Identified critical issues will be given due attention in developing good communication strategies with the land owners during acquisition process under LAR&R Act 2013.
- ✓ Key features of the compensations and R&R entitlements (as per provision of section 30 of the LAR&R Act 2013) have been displayed on billboards, in the village for understanding and acceptability.

### 3.4.2. Data Sources

The following section highlights data sources and activities being carried out for the preparation of SIA report.

### 3.4.3. Data from Secondary Sources

Following information is collected from the published documents to appreciate the project background, land ownership status, and statistical information required for baseline information.

- ✓ The Right to Fair Compensation and Transparency in Land Acquisition 2013,
- ✓ Primary Census Abstract, District Census Handbook 2011,

- ✓ District wise Socio-Economic Indicators (Directorate of Economics & Statistics, Government of Andhra Pradesh),
- ✓ Acts and Policies of Government of India and Government of Andhra Pradesh related to R&R and Land acquisition.

#### **3.4.4. Data and information from Primary Sources**

- ✓ Structured Survey - Baseline and Census survey in a prescribed format
- ✓ Public Consultation
- ✓ Focused Group Discussions
- ✓ Consultation with key informants
- ✓ Interviews with important secondary stakeholders

#### **3.4.5. Schedule of SIA**

Details showing the date wise work undertaken for Social Impact Assessment (SIA) of land acquisition for Amaravathi Capital City project in Pitchukulapalem, Thullur Mandal, Guntur District of Andhra Pradesh is presented below.

<b>Date</b>	<b>Particulars</b>
<b>20.01.2016</b>	Collectorate, Guntur district has approached EPTRI for carrying out the SIA study under section 4 of RFCT LAR&R Act, 2013.
<b>20.02.2016</b>	Constitution of SIA Team for carrying out a SIA study for Amaravathi capital city project.
<b>01.03.2016</b>	Received approval from APCRDA and sanctioned advance fees
<b>05.03.2016</b>	Notification for commencement of conduct of SIA
<b>01.04.2016</b>	Grama Sabha at 4.00 PM
<b>01.04.2016</b>	Training of SIA Team at CRDA Unit-12 office, Pitchukulapalem
<b>05.04.2016</b>	Field Survey in Village Pitchukulapalem, at Thullur Mandal, Guntur.
<b>02.09.2016</b>	Submission of Draft SIA/SIMP report for public hearing
<b>03.10.2016</b>	<b>Date of Public Hearing</b>
<b>04.10.2016</b>	<b>Date of Final Report</b>

**4. LAND ASSESSMENT OF PITCHUKULAPALEM VILLAGE****4.1. Proposed Land and Area**

Land acquisition of the proposed Amaravathi Capital city is being carried out as per provisions of the Right to Fair Compensation and Transparency in Land Acquisition and Rehabilitation and Resettlement 2013. The AP-CRDA has given requisition for acquisition of lands in the villages Lingayapalem, Uddandarayunipalem, Malkapuram, Velagapudi, Nelapadu, Shakamuru, Inavolu, Mandadam, Venkatapalem, Ananthavaram, Nekkallu, Thullur, Dondapadu, Pichukulapalem, Abbarajupalem, Borupalem, Rayapudi, Kondamarajupalem of Thullur Mandal, Undavalli, Penumaka, Part of Tadepalli municipality (Nulakapet, Dolas Nagar etc.,) of Tadepalli Mandal and Krishnayapalem, Nidamaruru, Kuragallu including Hamlet Villages of Nerukonda and Nowluru including Hamlet Villages of Yerrabalem & Bethapudi of Mangalagiri Mandal for purpose of Amaravathi Capital City Development Project.

**4.2. Total Land Requirement**

The Government of Andhra Pradesh has decided to establish a green field capital city as a liveable, environmentally sustainable and people’s capital. For this purpose, the location of the capital was identified between Vijayawada and Guntur cities on the upstream of Prakasam Barrage on the river Krishna. Total required land for this project in this village is **Ac. 822.5000** cents out of which **Ac. 787.7385** have been acquired under the land poling scheme and remaining **Ac. 34.7615** have to be acquired from the land owners of this village under LA R&R Act, 2013. Out of 41 respondents only 10 respondents are holding 2.86 and above acres and the rest have not given their details.

**4.3. Quantity of Land Proposed to be acquired**

Total **34.7615** acres of land is proposed to be acquired in Pitchukulapalem village of Thullur Mandal, Guntur District as mentioned below:

**Table 4.1 Land Requirement from Pitchukulapalem Village for Amaravathi - Capital City**

SL No	Survey No.	Sub Division No.	Total Extent as per RSR Ac. Cts.	Classification Dry / Jareeb / Semi Urban	Extent covered by LA Ac. Cts.	Remarks
1	10	2	1.82	Dry	0.3800	
2	39	E	1.95	Dry	0.0050	
3	49	B2	9.04	Dry	0.0100	
4	53	A	7.24	Dry	0.0100	
5	82	A	0.85	Dry	0.0100	
6	84		2.34	Dry	0.0150	
7	93	1	3.01	Dry	0.0100	
8	93	2B	3.03	Dry	0.0100	
9	110	A2	2.85	Dry	0.0250	
10	43		6.18	Dry	3.0900	
11	93	2A	8.33	Dry	1.5000	

12	40	B2	0.82	Dry	0.8200	
13	41	1	5.64	Dry	2.8200	
14	7	B	8.11	Dry	2.8300	
15	76	B	3.44	Dry	2.8400	
16	90		14.76	Dry	2.8300	
17	92		15.4	Dry	3.7500	
18	93	2A	8.33	Dry	2.6800	
19	19	1	10.16	Dry	0.0300	
20	18	1	9.6	Dry	0.1700	
21	18	2	0.76	Dry	0.0900	
22	10	2	1.82	Dry	0.6200	
23	5	2C	1	Dry	1.0000	
24	112	1	3.05	Dry	0.0744	
25	112	1	3.05	Dry	0.0496	
26	112	1	3.05	Dry	0.0915	
27	112	1	3.05	Dry	0.0915	
28	112	1	3.05	Dry	0.1285	
29	112	1	3.05	Dry	0.1570	
30	112	1	3.05	Dry	0.1340	
31	69		4.65	Dry	1.2100	
32	94	1	8.33	Dry	1.3300	
33	94	1	8.33	Dry	1.0000	
34	91		6.22	Dry	0.3800	
35	22	A	4.6	Dry	0.3000	
36	22	A	4.6	Dry	0.3000	
37	82	C	0.06	Dry	0.0400	
38	63	A	3.02	Dry	0.5000	
39	114		4.16	Dry	2.1600	
40	17		13.57	Dry	0.6400	
41	17		13.57	Dry	0.6300	
<b>Total</b>					<b>34.7615</b>	

Source: APCRDA, LPS Unit-12, Pitchukulapalem (V)

#### 4.4. Type of Land

Following section presents type of land required for proposed Amaravathi-AP Capital City project in Pitchukulapalem village of Thullur Mandal, Guntur District. The proposed project stretch will involve acquisition of about **34.7615 acres** of land in which majority of the land is being owned by private Owners (Table 4.2).

**Table 4.2 Project Area: Loss of Land**

Sl. No	Village	Mandal	Number of PAFS	Remarks
1	Pitchukulapalem	Thullur	41	Jareebu, Dry, and Agriculture Lands

## **5. SOCIO ECONOMIC AND CULTURAL PROFILE OF PITCHUKULAPALEM VILLAGE**

### **5.0. General**

This chapter describes about the socio-economic profile of the project area and the project affected persons. This chapter specifically analyzes the impacts on land and other immovable assets based on detailed Survey done. Based on the impact on land and structures, a sample Survey was carried out; and the results of the Survey established socio-economic status of PAFs. The survey has indicated the nature and characteristics of R&R interventions required to mitigate negative impacts of the proposed project.

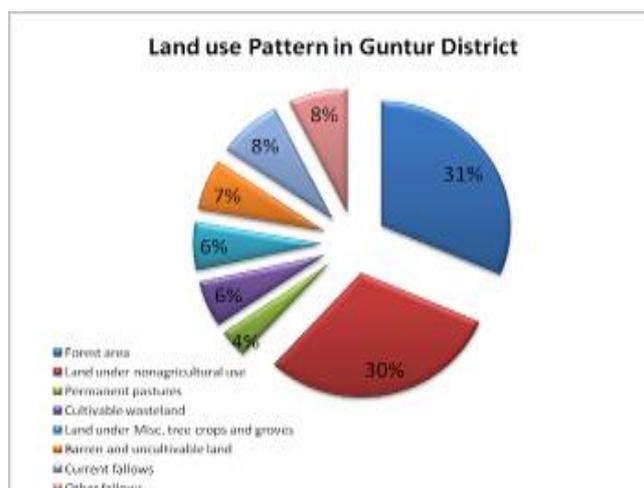
### **5.1. The Project area**

Guntur District is located in Andhra Pradesh along the east coast of Bay of Bengal. The district has a coastline of around 100 kilometres. Guntur City is the largest city in the district and administrative centre of Guntur District. The district is a major centre for learning. Telugu and Urdu are the main languages spoken in this district. The project area is lies between 15°18'0" - 16°50'0" of North Latitude and 15°18'0" -16°50'0" of East Longitudes.

#### **5.1.1. Land use Pattern:**

The existing land use of the site is consisting of - agriculture, land for grazing, fruit and flower plantations, village settlements and village ponds etc.

General Land Use Pattern of the State indicated that the project area has current fallows (8%) followed by land put to non-agricultural use (30%), forest (31%) and other fallow (8%). The principal crops of the district are paddy, cotton, Maize, black gram and red gram.



#### **Socio Economic Characteristics of Project Area:**

In 2011, Guntur had population of 48,87,813 of which male and female were 24,40,521 and 24,47,292 respectively. With regard to the sex ratio it is 1003 per 1000 males, literacy rate is 67.40. The table 5.1 shows the secondary data of the affected villages.

**Table 5.1 Demographic Condition of the Project Area**

	SOCIAL AND DEMOGRAPHICAL				
	Literacy (%)			No. of House Holds	SC (%)
	Total	Male	Female		
Andhra Pradesh State	73.0	80.9	64.6	-	17.1
Guntur district	67.40	74.79	60.09	1296609	19.6
Thullur	60.24	66.69	53.91	15505	36.55
Pitchukulapalem	62.96	71.43	53.85	14	100

Source: Census 2011

## 5.2. Project Impacts

Following sections illustrate analysis of the results of socio-economic and sample surveys. The analysis describes about the social, demographic and economic profile of PAPs to understand the type of R&R intervention measures required to enhance living condition of PAPs. The socio-economic study has been done based on education, occupation, demographic profile and other social characteristics of the PAPs.

**(i) Impact on Agriculture Land:** Table 5.2 presents impact on affected agriculture land. Out of **34.7615** acres of 41 peoples who holds agriculture land, only 10 are responded out of total. In which only 30 are having 0 to 1 acre, 4 people have 1.01 to 2.5 acres, and 7 people are having 2.51 to 5+ acres of agricultural land respectively.

**Table 5.2: Project area Agricultural Land acquired**

Village	Acres			Total
	0 to 1 Acre	1.01 to 2.5 acres	2.51 to 5+ acres	
<b>Pitchukulapalem</b>	<b>30</b> (7.7215 ac)	<b>4</b> (6.2000 ac)	<b>7</b> (20.84 ac)	<b>41</b> <b>(34.7615 ac)</b>

**(ii) Impact on People:** The estimated numbers of families being affected are about 23. The impact on livelihood could be mitigated with the intervention of Rehabilitation measures as per the LAR&R Act 2013. Further explorative technique has been used to assess social impacts on families, understand social and demographic profile of the project affected families. As it can be seen from Table 5.3 that there are 39 PAPs from 10 estimated PAFs who responded the survey with average family size of 4 respectively.

**Table 5.3: Project affected families (PAFs) and Project affected persons (PAPs)**

Village	Land (PAFs)	PAPs	Average family size
Pitchukulapalem	10	39	4

## 5.3. Social Profile of the PAPs

### 5.3.1. Age wise Distribution:

Age of stakeholders gives the SIA study good idea about area and its people because if the number of older people is high in specific area then there can be different problems and

attitudes of that respective area. If the number of younger people is high then social problems, attitudes can be different like unemployment. So the understanding of the age pattern is very important and age data of all the project affected persons (PAPs) is given below in table 5.4.

**Table 5.4 Age limit of PAPs**

Age	Male	%	Female	%	Grand Total	Total %
0-10	2	5.13	4	10.26	6	<b>15.38</b>
11-20	3	7.69	1	2.56	4	<b>10.26</b>
21-30	4	10.26	5	12.82	9	<b>23.08</b>
31-40	3	7.69	2	5.13	5	<b>12.82</b>
41-50	5	12.82	4	10.26	9	<b>23.08</b>
above 51	3	7.69	3	7.69	6	<b>15.38</b>
<b>Total</b>	<b>20</b>	<b>51.28</b>	<b>19</b>	<b>48.72</b>	<b>39</b>	<b>100.00</b>

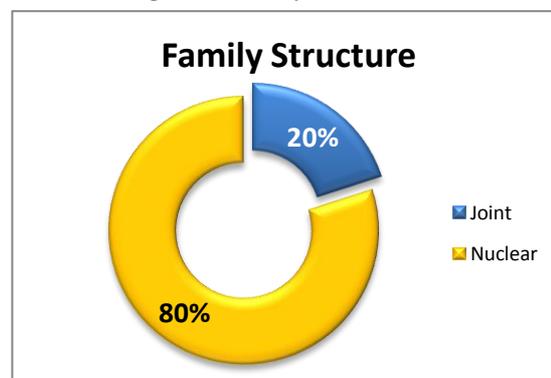
*Source: Household Survey*

Above mentioned table it is shown that majority of the stakeholders in this study is from the age limiting of 51 and above and they contribute 15.38% of the total. 15.38% stakeholders are from the age limit of 0-10 years, 10.26% are from the age of 11-20 years. 23.08% stakeholders are 21-30, 12.82% stakeholders are 31-40, and 23.08% stakeholders are 41-50 age limits respectively. This table represents that the stakeholders whose land is proposed to be acquired for the project are mature people and majorly is between 21-30 and 41-50 years.

**Figure 8 Family Structure**

**5.3.2. Family Structure**

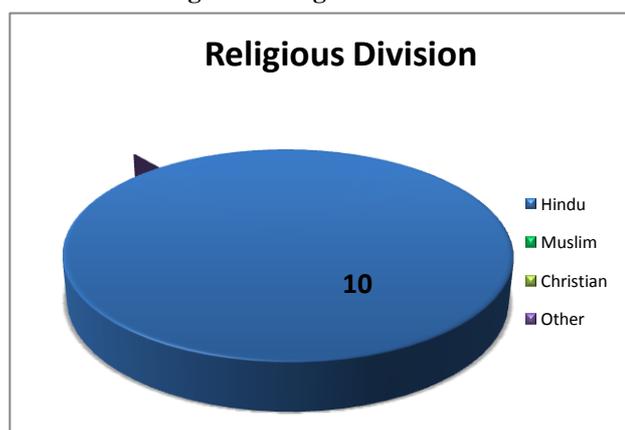
The adjacent **figure 8** shows that Nuclear families are dominating in the project area with an incidence of 80%, while the remaining 20% are observed to be living in joint families.



**5.3.3. Religious Category of the PAFs**

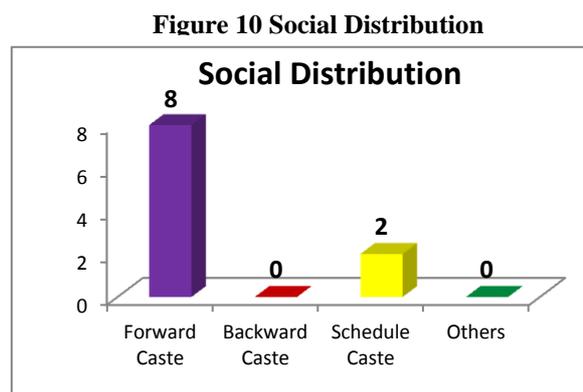
It was observed that the 10 PAFs are divided into three major religious communities, with a numerical predominance of the Hindu religion. Out of the total 10 PAFs, 100% are belonging to Hindu religion in Pitchukulapalem, as it is shown in **Figure 9**.

**Figure 9 Religious Division**



### 5.3.4. Social Category of Project Affected Families (PAF)

The social division of the households in the project, show that higher cast communities constitutes (8 PAFs out of 10) 80% per cent of the total households are forward caste and remaining 20% are schedule caste and there is no accounts of backward caste or schedule tribes in the project as per the survey in Pitchukulapalem village as it is shown in the figure 10.



### 5.3.5. Marital Status of PAPs

The analysis on marital status of the PAPs indicates that around 69.23% of people are married, while 30.77% per cent are unmarried. There are no divorced persons reported in the project area. The marital status of PAPs is depicted in the following Table 5.7.

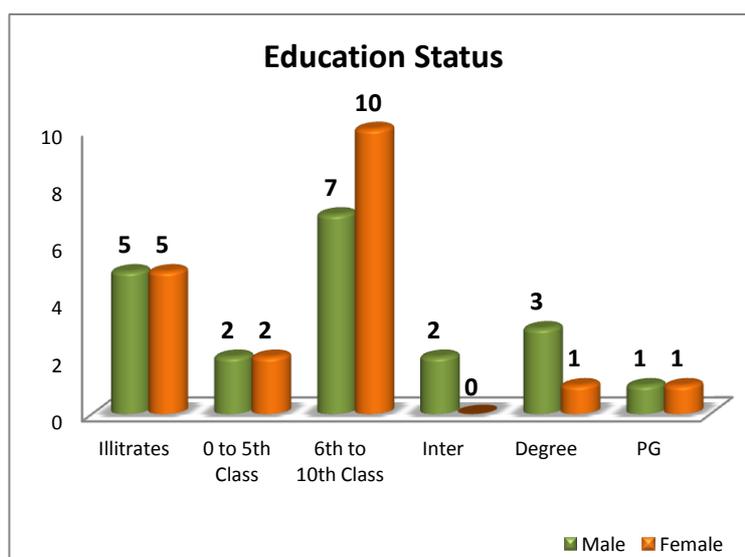
**Table – 5.7 Marital Statuses of PAPs**

Marital Status	Male	%	Female	%	Total %
Married	13	33.33	14	35.90	69.23
Unmarried	7	17.95	5	12.82	30.77
Divorced	0	-	0	-	-
<b>Total</b>	<b>20</b>	<b>51.28</b>	<b>19</b>	<b>48.72</b>	<b>100.00</b>

*Source: Primary Source*

### 5.3.6. Educational Status of PAPs

Among the PAPs, including the non-school going children below the age of 5 years, 20 per cent are illiterate and 80 per cent are literate of total persons. From among the total PAPs, 10.26 percent of the population had attained education up to 5<sup>th</sup> standard whereas 43.59 percent of the population claimed of having education up to high school level. Only 5.13 per cent had completed Intermediate level whereas 10.26 percent of the PAPs are graduates. When it comes to



higher educational degrees like Post Graduation or like professional courses have only 5.13 percent of educations. The educational status of the PAPs is enumerated in the following Table 5.8, and in figure 5.8.

**Table –5.8: Educational Status of the PAPs**

Education	Male	Female	Total	%
Illiterate	5	5	10	25.64
Up to 5 <sup>th</sup> Standard	2	2	4	10.26
Up to 10 <sup>th</sup> standard	7	10	17	43.59
Intermediate	2	0	2	5.13
Graduate	3	1	4	10.26
Post graduate	1	1	2	5.13
<b>Total</b>	<b>20</b>	<b>19</b>	<b>39</b>	<b>100</b>

*Source: Primary source*

### 5.3.7. Living Conditions and Infrastructure Facilities

#### *Housing Status*

- ✓ Residential dwellings in study area were generally classified into Katcha (Huts), Semi – Pucca and Pucca (Concrete house) house.
- ✓ Katcha (huts) – thatched structures, walls constructed from un-burnt bricks or mud, floor material is primarily mud and dung.
- ✓ Pucca house (Concrete house) – cemented walls built with cement bricks/ burnt bricks, with RCC roof, classified into two categories as independent house or apartment in the study area.

Independent house - a house registered in the name of the person who owns the house. The owner is the only one with the property rights unless it is assigned to another party in writing.

Apartment - means a part of any property, intended for residential use, including one or more rooms or enclosed spaces located on one or more floors or any part or parts thereof, in a multi-storied building registered in the name of individual flat owner.

- ✓ Semi Pucca house - cemented walls built with cement bricks/ burnt bricks, without RCC roof

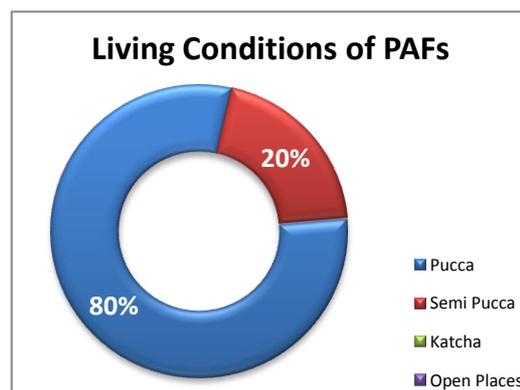
It is important for the policy makers, development practitioners, government, non-government as well as donor agencies to understand the living conditions of people, whose uplift men they work for through various programs and policies. In the present context of Amaravathi -AP Capital city project it is also apt to understand the living conditions of the PAFs. When inquired about the quality of the housing in the Project area, it was revealed that almost families out of 10 PAFs, 1.67% are lives in **Katcha** house, followed by 38.33% are in **Pucca** house, 60% are in **Semi-Pucca** houses and 0% is in **open places**. The quality of housing is shown in the table 5.9 & figure-11.

**Table – 5.9: Living Conditions of PAFs**

Living Condition	Frequency	Percentage
Pucca	8	80
Semi Pucca	2	20
Katcha	0	0
Open Place	0	0
<b>Total</b>	<b>10</b>	<b>100</b>

Source: Field Survey

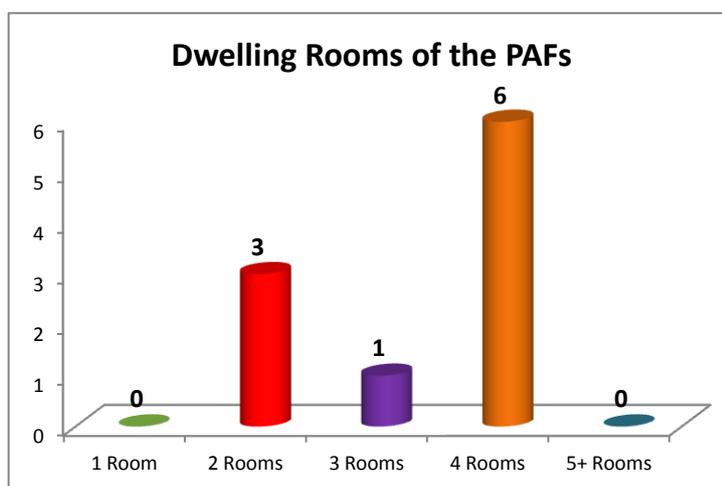
**Figure: 11 Living Condition**



**5.3.8. Number of Dwelling Rooms**

According to the survey findings most of the households have separate dwelling rooms. It was observed that no single room, 2 have two room houses, one of the households have three rooms, 6 of the households have four rooms, and zero of households are having above five rooms and zero of the families are having open place, it has shown in the study area in Figure-12.

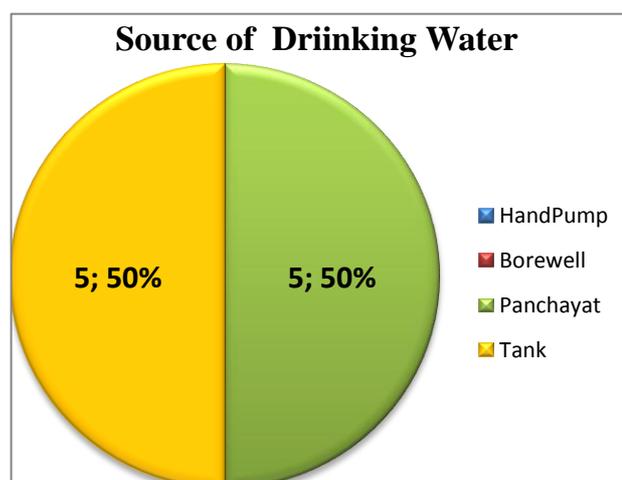
**Figure 12 Dwelling Rooms**



**5.3.9. Source of Water Facilities**

Besides understanding the living conditions of the respondents in terms of an investigation of their housing conditions, an attempt was also made to assess the civic amenities in their houses. The survey results on water sources used by communities in the study area are shown in the Table-5.11. 50% are using Panchayat tap and 50% of respondents attained tank water for drinking purposes as it is shown in the figure-13.

**Figure 13 Source of Water**



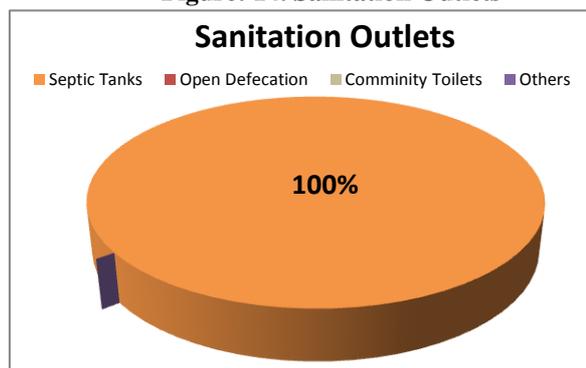
**Table-5.11 Source of water facilities**

Source of Drinking Water	Number	%
Hand Pump	0	0
Own well	0	0
Tap or Panchayat	5	50
Tank	5	50
<b>Total</b>	<b>10</b>	<b>100</b>

**5.3.10. Sanitation**

Sanitary conditions of the villages are relatively better. All of the respondents 100% are having toilets at their premises. It shows that the people of Pitchukulapalem are aware of the personal hygiene and disease prevents, as shown in Figure-14.

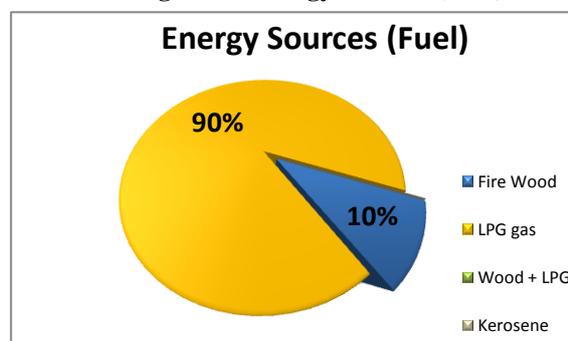
**Figure: 14. Sanitation Outlets**



**5.3.11. Household Energy Sources**

About 10% of people use Firewood, 90% of people use LPG gas for cooking. The graph shows that people are 90% are developed in infrastructure and household things, as shown in Figure-15.

**Figure 15 Energy Sources (Fuel)**



**5.4. Economic Activity and Livelihood Pattern**

The working population in the study area includes cultivators, agricultural labourers, and household industry workers, petty vendor, service sector and unorganized industrial sector. All workers i.e., those who have been engaged in some economic activity during the last year, who are not cultivators or agricultural labourers or in household industry are other workers. Other workers include factory workers, plantation workers, those in trade, commerce, business, transport, mining, construction, political or social works, all Government & private sector employs, priests, entertainment artists etc.

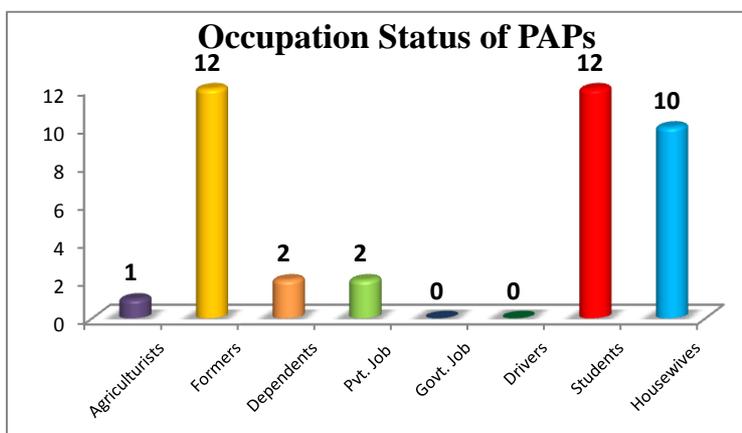
Subsistence agriculture is an important contributor to the livelihoods. Amongst the surveyed population, 2.56% are agriculturist, 30.77% are farmers, 5.13% are private service, 5.13% are

dependents, 25.64% are house wives and 30.77% are students are living in this project area respectively (table 5.14 & figure16).

**Table-5.14: Occupational Status**

Occupation	Frequency	Percentage
Agriculture	1	2.56
Formers	12	30.77
Pvt. Job	2	5.13
Dependents	2	5.13
Housewife	10	25.64
Drivers	0	0.00
Govt. Job	0	0.00
Student	12	30.77
<b>Total</b>	<b>39</b>	<b>100%</b>

**Figure 16 Occupational Status**



Source: Field Survey

#### 5.4.1. Agricultural Scenario

Almost all the PAFs in the affected village depend on agriculture for their livelihood. Most of the PAFs are having *rythwari patta* land. The average agricultural holding size of PAFs is about **2.78 acres**. A range of crops cultivated are banana, lemon, paddy and maize etc., Among the total land holders, 20% are marginal farmers and 10% small farmers (Table5.15).

**Table-5.15 Ownership of agricultural Fields**

Category of farmer	Farmers	Percentages	Land in Acres
0 to 1 acre	2	20	1.12
1.01 to 2.5 acres	1	10	1.66
2.51 to 5+ acres	0	0	0
Unknown	7	70	0
<b>Total</b>	<b>10</b>	<b>100</b>	<b>2.78</b>

Besides land, both in absolute acreage and quality, the possession of livestock and other items like plough, tractor, etc significantly affects the agricultural outcome. Only 60 % of them did possess costly agricultural related items like tractors, sprayers and plough etc. and remaining respondents are having accesses to these services through payment/rental basis.

#### 5.4.2. Livestock Farming

Livestock husbandry is an important component of economic activities in the study area, particularly in the rural settlements. Livestock owned by households includes cattle and goats are in less proportion. Still cattle are an integral part of cropping activities in the study area. Livestock provides meat, milk and as a cash income. But they did not provide any information regarding the livestock.

Even though animal husbandry is the major source of sustenance especially in rural villages a number of constraints reduce the dependency on the livestock husbandry in the study area in recent times. These include:

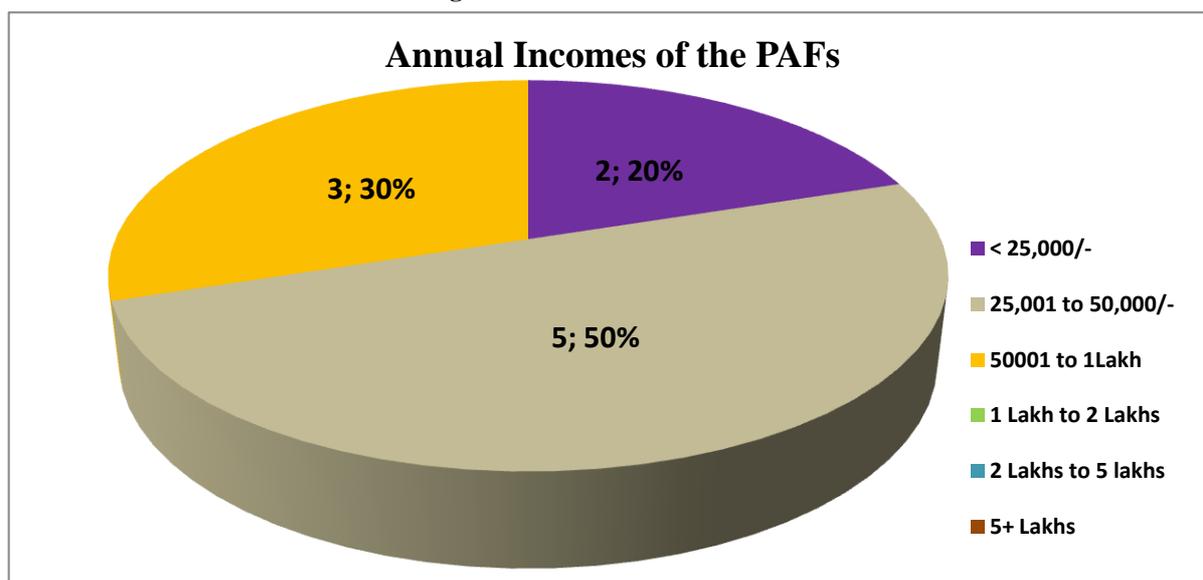
- Rapid urbanization and consequent engulfing of agricultural and grazing lands into urban sprawl
- Decreased dependency on agriculture and allied activities as primary livelihood
- Animal husbandry is derelict due to the ageing of the population caused by the drift of young people and those in their prime of life to the cities.

Livestock ownership details obtained in the study area during the socio economic survey for 10 households reveals 30% of the PAFs depends on livestock.

### 5.4.3. Income and Expenditure

An assessment was made to understand the economic status of the respondents by understanding their income and expenditure pattern for the past one year. The assessment of income and expenditure of the respondents in the study area have been categorized into seven groups taking into account 2013-2014 as the base year. The income groups are (i) less than Rs. <25,000, (ii) Rs. 25,001-50,000, (iii) Rs. 50,001-75,000, (iv) Rs 75,001-1 lakh (v) 1 lakh - 2 lakhs (vi) 2 lakhs - 5 lakhs (vii) Above 5 lakhs. Respondents were asked to indicate their households' income sources. Sources of income and amounts show huge disparity. They were also asked to give a broad indication of their household's average monthly income. The socio-economic condition of the respondents in the project area is in Figure-17.

Figure: 17 Annual Incomes



It was observed that out of the total 10 respondents, 20% of each are in the income group between <25000, and 50% of each family income between 25000-50000 per annum and 30% of each family income is between 50001-1 lakh, 0% of each family income between 1 lakh to 2 lakhs per annum, 0% of each family having income of 1-5 above lakhs respectively. It shows that people of Pitchukulapalem are still under poverty.

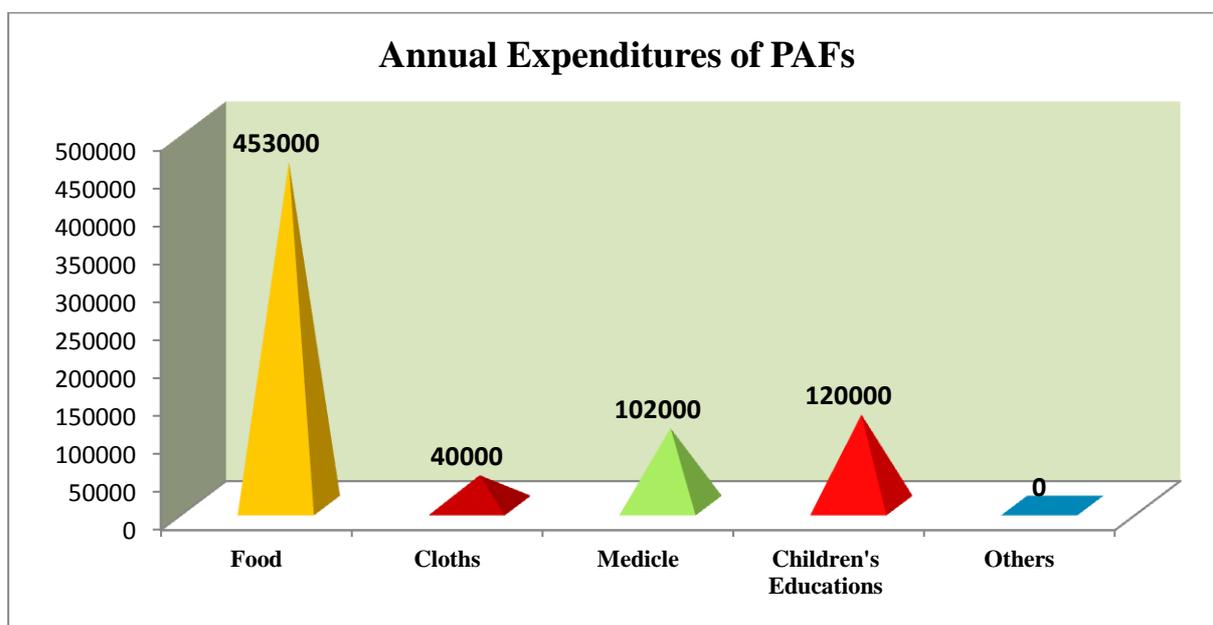
### 5.4.4. Expenditure

The data on annual income of rural households, whose primary occupation is mostly agriculture, labour work; self-employment (auto drivers, Tailoring, Mechanic etc.) in terms of a fixed figure

may not always reveal the actual situation. Since these households do not have a fixed source of income like salary every month, it often becomes difficult on the part of the respondents to exactly estimate their annual household income. In such a situation, the researcher has to depend upon the memory of the respondents. To overcome such shortcomings, an attempt to assess their pattern of spending on essential items like food, cloth, health and education was made.

It was observed (per year) that the average household records an early expenditure of approximately Rs. 1,78,750/- Food, Cloth, Medical and Education expenses are the most common, representing all of the most frequent expenditure (figure-18).

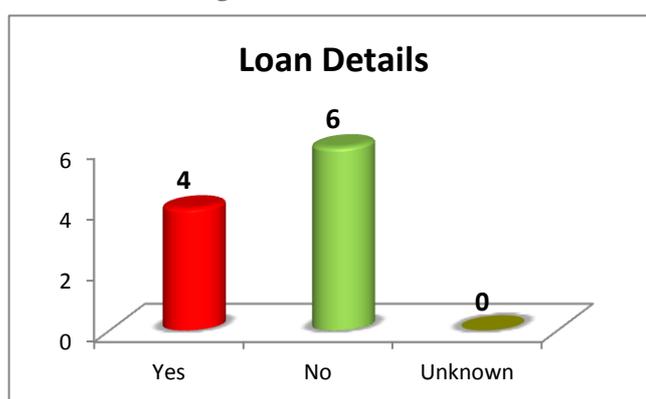
**Figure 18: Annual Expenditure of PAFs**



**Figure 19 Loan Details**

**5.4.5. Loan Sources**

From adjacent figure 19, about 4 (10) of the PAFs have loans, 6 (10) of the PAF's have no loans. The main reason behind taking loans is for investment in agriculture sector. All loans are taken keeping land or other assets as mortgage.



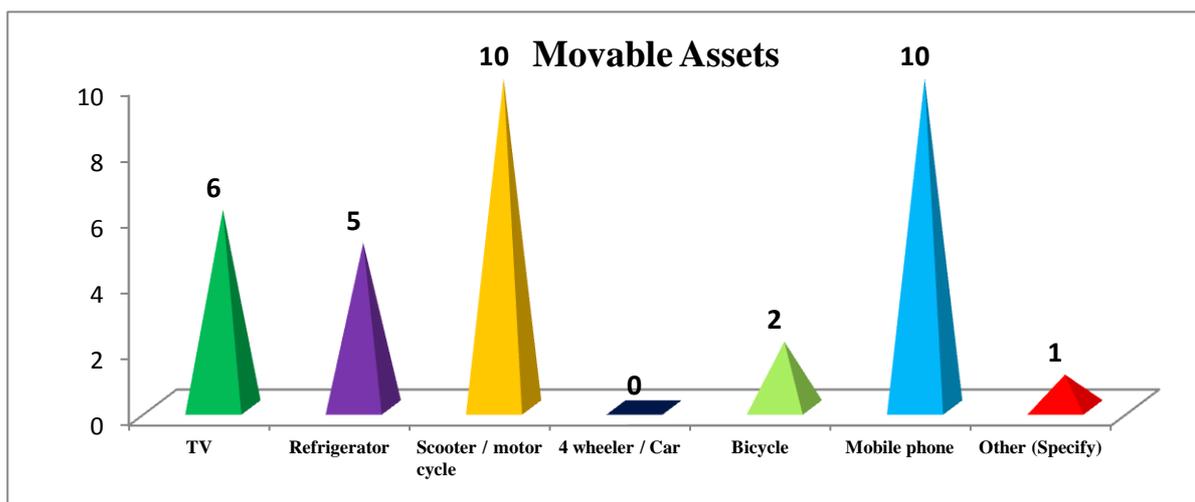
**5.4.6. Consumption Standard**

For inferring the consumption standard of the sample households, their possession of various consumer durables was recorded in the survey. Considering the movable assets, it was observed that 100% of the households possess that they have two wheelers and 20% are having bicycles and 0% of the households are having 4 wheelers vehicles as shown in Table-5.17.

**Table-5.17 Possession of Movable Assets**

Consumption standard		
Items	No's	%
Scooter / motor cycle	10	100
4 wheeler / Car	0	0
Bicycle	2	20
<b>Total</b>	<b>12</b>	<b>120</b>

**Figure 20 Movable Assets**

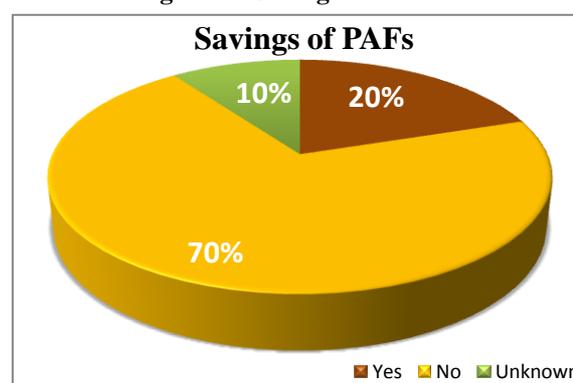


In the other group of consumer durables consisting of television, refrigerator, fan, mobile phone, it was observed that almost all the household possess fan, television and mobiles as their minimum requirement, 60% of sample households having Television's (Figure-20). This indicates chances of having access to information and connectivity with the outside village for all of the respondents. It was observed that some of respondents having tractors for self-employment purposes.

**5.4.7. Savings**

As shown in Figure-21 the sample households enumerated in the present socio economic survey, only 20% of households are possess savings, 70% are not having any savings by their own work as maximum are agriculturists and 10% respondents shows unknown.

**Figure 21 Savings of PAFs**



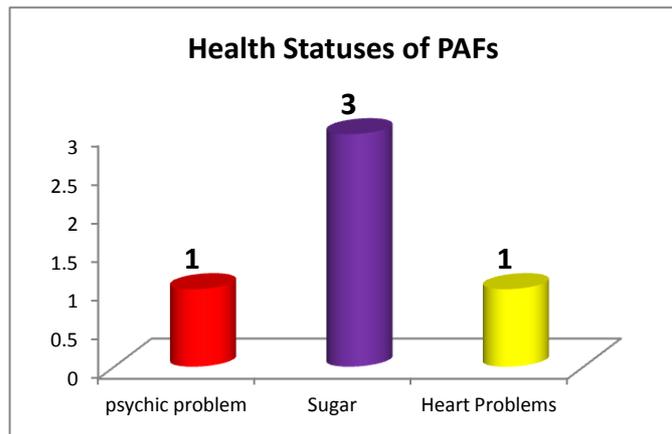
**5.4.8. Transport Facilities**

Transport system comprises several modes including Road, Rail, and Waterways etc. When it was enquired about the transport facilities in the villages it was observed that all the surveyed villages have roads along with the RTC bus facilities and the villagers are also using autos and other sources for their conveyance purpose.

**5.4.9. Health Status**

Health status of the respondents are studied in the project area, it was revealed that large numbers of respondents are affected by seasonal diseases like cold, cough, fever, weakness, joint pains etc. The people are suffering from major health problems like heart problem, Diabetic, Thyroid, Blood Pressure and asthma as shown in Figure–22.

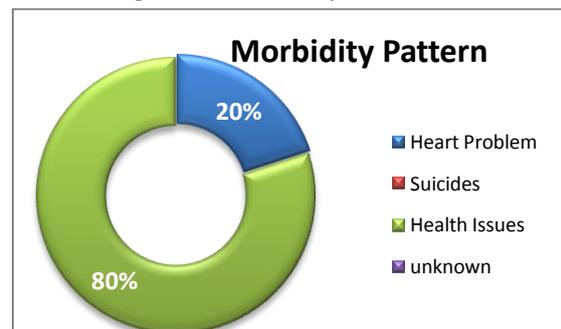
**Figure 22 Health Statuses of PAFs**



**5.4.10. Morbidity Pattern**

Morbidity pattern mainly focuses on the nature of death and has been classified into two different categories i.e., natural and unnatural death. The Morbidity pattern was presented in the figure-23.

**Figure 23 Morbidity Pattern**



**5.5. Project Awareness:**

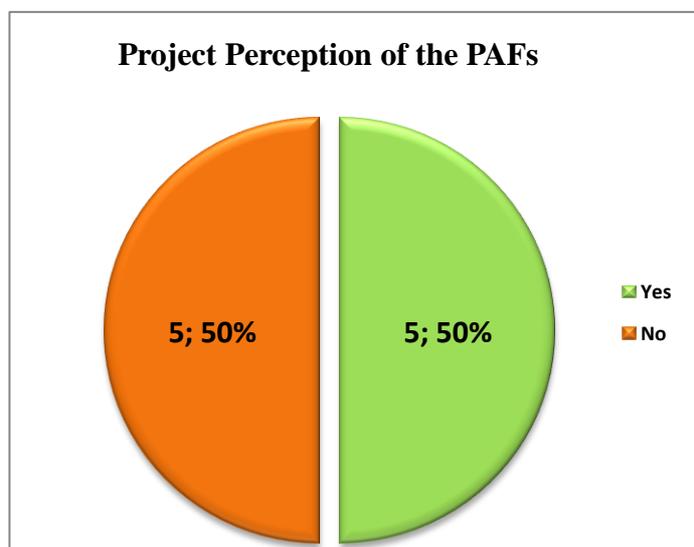
The main aim of this study is to find out the level of awareness among the respondents about the proposed Amaravathi–AP Capital City project in the study area.

It was observed that all of the respondents were aware of the project in 2014 and all of the respondents known the project through media, project authorities and meetings etc.

**5.6. Project Perception of the PAFs:**

The project perception embraces opinions of the respondents about the proposed project. This comprised the perceived advantages & disadvantages and views of the respondents in the project area. 50% (5 out of 10) of the respondents who disapproved the Project, most were concerned about its impact on livelihoods and environment. Indirect negative impacts of the project on health were also identified in the affected village. These impacts will ultimately disrupt

**Figure 24 Project Perception**



sustainable livelihoods of the local people. 50% (5 out of 10) of the respondents in favour of the project opined that more job opportunities will be created for the local population which would result in sustainable livelihoods and also helps in improving economic condition during construction and operation period which would ultimately result in skill up gradation, ancillary and auxiliary business opportunities, better infrastructure and transportation facilities and overall wellbeing of the area (figure-24).

However, PAPs had other concerns also in the project area which relate to increase in prices, noise and dust, individual and family safety and disruption in village harmony.

## **6. LEGAL POLICIES AND FRAME WORK**

### **6.0. Regulatory Framework**

The Article 48-A of the Constitution of India states that the State shall endeavour to protect and improve the environment to safeguard the forest and wildlife of the country. At the same time, it shall be the fundamental duty of every citizen of India under Article 51-A (g) of the Constitution of India, to protect and improve the natural environment including forests, lakes, rivers and wild life.

Over the years, the Government of India has framed several policies and promulgated number of Acts, Rules and Notifications aimed at management and protection of the environment. As a result, our country now has a fairly complex body of environmental legislation aimed at ensuring that the development process meets the overall objective of promoting sustainability in the long run.

The present chapter focuses on the rules and regulations pertaining to and applicable for the proposed project. The regulatory framework has been studied covering the applicability and where possible, the project specific implications of relevant legislation.

### **6.1. Environmental policies**

Several environmental policy statements have been formulated in the last few decades as a part of the Government's approach to integrate environmental and developmental aspects of planning. The policies reflect a gradual shift in emphasis from pollution abatement and control to proactive and voluntary approaches for pollution prevention in keeping with global paradigm shifts and trends in environment management.

Following are some of the key policies that have been laid down by the Central Government:

- National Forest Policy, 1988;
- National Conservation Strategy and Policy Statement on Environment and Development, 1992;
- Policy Statement on Abatement of Pollution, 1992.

Despite these policy documents a need for a comprehensive policy statement it had been evident for some time in order to infuse a common approach to the various sector and cross-sectoral approaches to environmental management. As a result, a National Environment Policy (NEP, 2006) has been drawn up as a response to our national commitment to a clean environment, mandated in the Constitution in Articles 48 A and 51 A (g), strengthened by judicial interpretation of Article 21. The National Environment Policy is intended to be a guide to action: in regulatory reform, programs and projects for environmental conservation; and review and enactment of legislation, by agencies of the Central, State, and Local Governments.

## **6.2. Legal Provisions for Environment for Proposed Development**

The proposed project would be governed by various Acts, Rules and regulations enforced by Ministry of Environment and Forests and Climate Change (MoEF&CC) at the Central level and other regulatory agencies at the State and local levels. Various environmental standards, specifications and guidelines of Central Pollution Control Board (CPCB) and state level agencies will also be applicable.

The various environmental regulations as applicable to the project are briefly described in the following sections below:

### **Clearance Required**

#### Environmental Impact Assessment Notification, 2006

Projects or activities listed in the Schedule to this notification shall require prior environmental clearance from the Expert Appraisal Committee (EAC) of Ministry of Environment and Forests & Climate Change for developmental activities falling under Category 'A' of the Schedule and from the State Environmental Impact assessment Authority (SEIAA) at the State level for development activities falling under Category 'B' of the said schedule, before any construction work, or preparation of land by the project proponent (PP).

**Implication:** The Amaravathi City development project requires Environmental Clearance from the State Expert Appraisal Committee (SEAC) and State Environmental Impact Assessment Authority (SEIAA) of the state of Andhra Pradesh under the Category 8(b) Township and Area Development Projects as per the EIA Notification 2006. The General Condition (GC) clause as per the EIA Notification is not applicable for this project vides Amendment 22<sup>nd</sup> December (SO No-3252E) of EIA Notification 2006.

#### Forest (Conservation) Rules, 2003

Every user agency, that wants to use any forest land for non-forest purposes, shall make its proposal in the appropriate form to the concerned nodal officer authorized on this behalf by the State Government, along with requisite information and documents complete in all respects, well in advance of taking up any non-forest activity on the forest land.

### **Environmental Acts**

#### **The Environment (Protection) Act, 1986**

The Government of India (GOI) has framed an 'Umbrella Act' called the Environment (Protection) Act, 1986 which is designed to provide a framework for the coordination of central and state authorities established under Water and Air Act. The Environment (Protection) Act, 1986 is established by the GOI to fulfil its commitment to protect and improve the human environment. It is applicable to the entire country. From time to time the central government has issued notifications under the EPA, Act 1986 for the protection of ecologically-sensitive areas or issues guidelines for matters under the EPA.

It empowers the Central Government to take necessary measures for the purpose of protecting and improving environmental quality and preventing, controlling and abating environmental pollution. Important powers of the Central Government include laying down standards for

environmental quality and emission/ discharge of environmental pollution from various sources. These powers define procedures and establish safeguards for handling of hazardous substances, and establish rules to regulate environmental pollution.

Separate Noise regulations for DG sets of various capacities were introduced in 2002 vide notification of MoEF&CC of 17th May 2002 under the Environmental (Protection) Second Amendment Rules 2002. This requires that all DG sets should be provided with exhaust muffler with insertion loss of minimum 25 dB (A). All DG sets manufactured on or after 1 July 2003 shall comply with these regulations.

**Implication:** All the applicable rules and regulations shall be followed by AP-CRDA&CA provided in the Act towards planning of activities in the project area. For all the activities to be undertaken in Amaravathi City development project; the maximum allowable limits of concentration of various environmental pollutants will be followed as per the standards of quality of air, water, or soil for various areas and purposes.

#### **The Water (Prevention & Control of Pollution) Act, 1974 (Water Act)**

The purpose of this act is to prevent and control water pollution and to maintain or restore the quality of water. In order to achieve its goals this act empowers the CPCB and SPCB and defines their functions.

This Act requires any new development, industries, local bodies and agencies engaged in any trade to obtain consent from the SPCB for discharge of effluent into water bodies. The SPCBs have the authority to enforce this Act, if any projects discharge effluent in water bodies, land or sea.

The Environment (Protection) Rules under the EPA also lay down specific standards for quality of water effluents to be discharged into different type of water bodies (sewers, surface water bodies like lakes and rivers, marine discharge).

**Implication:** For any activities falling in categories as per Andhra Pradesh Pollution Control Board (APPCB), Consent to Establish (CTE) will be obtained before starting the construction and Consent to Operate (CTO) before commissioning the activity.

#### **The Air (Prevention and Control of Pollution) Act, 1981**

The purpose of this act is to prevent, and control air pollution including noise pollution and preserve air quality. In order to achieve its goals, this act empowers the CPCB and SPCB and defines their functions. An important function of the CPCB is to establish Environmental standards.

This Act requires industries, local bodies and agencies engaged in any trade to obtain consent from the SPCB prior to releasing emissions into air. The SPCBs have the authority to enforce this Act.

**Implication:** For any activities falling under categories as per Andhra Pradesh Pollution Control Board (APPCB), Consent to Establish (CTE) will be obtained before starting the construction and Consent to Operate (CTO) before commissioning the activity.

### **The Municipal Solid Wastes (Management and Handling) Rules, 2000 and Draft Rules 2015**

As per this rule, every municipal authority shall, within the limits of the municipality, be responsible for the implementation of the provisions of these rules, and for any infrastructure development for collection, storage, segregation, transportation, processing and disposal of municipal solid wastes.

The Solid waste management for the proposed project will be as per the; Municipal Solid Wastes (Management and Handling) Rules, 2000 and draft Rules 2015, Ministry of Environment and Forests, The Hazardous Wastes (Management, Handling and Trans-boundary Movement) Rules, 2008, E waste (Management and Handling) Rule, 2011, Bio-Medical Waste (Management and Handling) Rules, 1998 and its amendments thereof and Andhra Pradesh Pollution Control Board (APPCB), Andhra Pradesh Guidelines. Recent technologies for Waste to Energy (WtE) conversion will also be used in the proposed development.

### **The Hazardous Wastes (Handling and Management) Rules, 1989 and subsequent amendments**

These rules were notified on 28<sup>th</sup> July 1989, under the Environment Protection Act, 1986. They aim at controlling the generation, collection, treatment, transportation, and disposal of hazardous wastes. These rules have been amended subsequently in, 2000, 2003 and 2009. Hazardous waste generated during construction & operation phase are covered under the ambit of this act. The industries are required to obtain prior authorization from the SPCB for handling, treatment, storage and disposal of Hazardous Wastes.

### **E-waste (Management and Handling) Rule, 2011**

This rule covers producer, consumer or bulk handling involved in the manufacture, sale purchase and processing of electrical and electronic equipment or components as specified in this rule. Environmentally sound management of e-waste means taking all steps required to ensure e-waste is managed in a manner which shall protect health and environment against any adverse effects, which may result from hazardous substance contained in such waste.

### **Bio-Medical Waste (Management and Handling) Rules, 1998, amendment 2003**

As per this rule it shall be the duty of every occupier of an institution generating bio-medical waste which includes a hospital, nursing home, clinic, dispensary, veterinary institution, animal house, pathological laboratory, blood bank by whatever name called to take all steps to ensure that such waste is handled without any adverse effect to human health and the environment. Every occupier, where required, shall set up in accordance with the time-schedule in Schedule VI, requisite bio-medical waste treatment facilities like incinerator, autoclave, microwave system for the treatment of waste or ensure requisite treatment of waste at a common waste treatment facility or any other waste treatment facility. This rule specifies guidelines for segregation, packaging, transportation, storage, treatment and disposal of biomedical waste.

**Implication:** Facilities for treatment and disposal of biomedical waste already exist at Guntur and Vijayawada. These facilities will be utilized for the proposed project. Augmentation of the facilities will be done as and when required with respect of the prevailing norms. These two

facilities or any new facility that is proposed shall have to comply with the provisions of these Rules.

#### **Fly Ash Notification, 1999, amendment 2009**

The MoEF&CC, GoI has issued a Notification regarding the utilization of fly ash/ bottom ash generated from coal/ lignite based thermal power plant, with an intention to protect the environment, conserve top soil and prevent the dumping and disposal of fly ash discharged from coal or lignite based thermal power plants. As per this notification, every construction agency engaged in the construction of buildings within a radius of hundred kilometres from a coal or lignite based thermal power plant shall use only fly ash based products for construction, such as: cement or concrete, fly ash bricks or blocks or tiles or clay fly ash bricks, blocks or tiles or cement fly ash bricks or bricks or blocks or similar products or a combination or aggregate of them, in every construction project.

**Implication:** In view of the existing thermal power plants in vicinity of the proposed development, Proponent and other stakeholders will follow this notification and will use fly ash based construction material as indicated in this notification.

#### **Ancient Monuments and Archaeological Sites and Remains Act 1958 and Ancient Monuments and Archaeological Sites and Remains Rules, 1959**

This Act provides for the preservation of ancient and historical monuments and archaeological sites and remains of national importance and for the regulation of archaeological excavations and for the protection of sculptures, carvings and other like objects. According to this Act, areas within the radii of 100m and 300m from the

“Protected property” are designated as “protected areas” and “controlled areas” respectively. No development activity (including building, mining, excavating, blasting) is permitted in the “protected areas”. Development activities likely to damage the protected property are not permitted in the “controlled areas” without prior permission from the Archaeological Survey of India (ASI) if the site/remains/ monuments are protected by ASI or the State Directorate of Archaeology.

**Implication:** Famous Undavalli caves an archeologically important site falls within the project boundary. The proponent will follow respective regulations in this regard.

#### **National and International Institutional Framework**

India’s environmental regulatory framework is based on a system of shared central government/ state pollution control administration. Since the passage of the Environment Act of 1986, the enforcement and oversight role of the central government, and particularly of Ministry of Environment & Forests & Climate Change, has been strengthened considerably. At the national level, the Central Pollution Control Board administers air and water regulatory efforts. This board is responsible for coordination of activities and guidance in formulation of standard for its state counterparts. The State Pollution Control Boards are responsible for enforcing the regulations. The states may adopt standards that are more restrictive than those of the CPCB, but they may not relax them.

### **Ministry of Environment & Forests and Climate Change**

Ministry of Environment and Forests and Climate Change (MoEF & CC) plays a pivotal role in environmental management for sustained development and for all environmental matters in the country. The major responsibilities of MoEF&CC include:

- Environmental resource conservation and protection, including environmental impact assessment of developmental projects.
- Co-ordination with the other ministries and agencies, voluntary organizations and professional bodies on environmental action plans.
- Policy-planning.
- Promotion of research and development, manpower planning and training and creation of environmental awareness.
- Liaison and coordination with international agencies involved in environmental matters.

Project proponents who are planning to undertake developmental activities have been mandated by MoEF&CC to submit Environmental Impact Statements to establish that they have planned to install adequate pollution monitoring equipment in order to comply with the relevant statutes and regulations as applicable to their scope of activities

### **Central & State Pollution Control Boards**

The Central Pollution Control Board is directly responsible for pollution control throughout the boundaries of the country. In addition to the control of air, noise and water pollution it is also responsible for ensuring effective control on disposal of hazardous wastes and storage and handling of hazardous chemicals and substances.

Additionally, with the enactment of air and water pollution laws, states have set-up their own Pollution Control Boards (SPCBs) to monitor industrial emissions and effluents and to approve the operation of new industries after careful scrutiny. The functions of the SPCBs include:

- The planning of comprehensive state programs for the prevention and control of air and water pollution and to ensure the implementation thereof;
- Inspection of control equipment, industrial plants, etc.;
- Establishing norms in consultation with the CPCB with respect to National Ambient Air Quality Standards, gaseous emission standards from industrial plants, automobiles, etc. Different emission standards may be laid down for different industrial plants, with respect to the quantity and composition of emissions into the atmosphere from such plants and the general pollution levels in the area;
- Advising the State Government on siting of new polluting industry.

### **Kyoto Protocol**

The emission of significant amounts of carbon dioxide and other greenhouse gases, primarily by industrialized and developed nations, has come into sharp focus in the last few decades as it may result in rising raise global temperatures and resultantly cause change in climatic patterns

across the globe. To address this issue, the Kyoto Protocol further supplements and strengthens the United Nations Framework Convention on Climate Change - an international treaty on climate change under which developed countries have committed to reduce their emissions of carbon dioxide and five other greenhouse gases. The treaty was negotiated in Kyoto, Japan in December 1997, opened for signature on March 16, 1998, and closed on March 15, 1999. As of September 2005, a total of 156 countries have ratified the agreement (representing over 61% of global emissions).

India has formally accepted the treaty by ratifying on the 26th of August, 2002 and thus, the aim of APCRDA & CA will be to abide by the objectives of the protocol. APCRDA & CA will focus on the minimum emission of green-house gases like CO<sub>2</sub> and the optimal use of fuel resources in Amaravathi and environs.

### **Montreal Protocol & the Vienna Convention**

Scientific concerns about damage to the ozone layer prompted governments to adopt the Vienna Convention on the Protection of the Ozone Layer in the year 1985. Then, two years later, in 1987, the Montreal Protocol was legally adopted and required industrialized countries to reduce their consumption of chemicals harming the ozone layer. As of September 2002, 183 countries have ratified the Montreal Protocol which sets out the time schedule to "freeze" and reduce consumption of ozone depleting substances (ODS). India acceded to the Montreal Protocol on 17<sup>th</sup> September 1992. India commonly produces and uses seven of the 20 substances controlled under the Montreal Protocol. These are CFC-11, CFC-12, CFC-113, Halon-1211, Halon-1301, Carbon tetrachloride and Methyl chloroform. India is presently considered to be the second largest CFC producer in the world, after China. The Government of India has entrusted the work relating to ozone layer protection and implementation of the Montreal Protocol to the Ministry of Environment and Forests (MoEF) and Climate Change which is the coordinating Ministry in India for all matters relating to the Montreal Protocol.

### **Stockholm Convention**

The Stockholm Convention is a global treaty in response to the urgent need to protect human health and the environment from persistent organic pollutants (POPs). The Convention was adopted with the formal voted approval of delegates from 127 countries on 22 May 2001, at Stockholm in Sweden. POPs are toxic, and have the potential to injure human and other organisms even at concentrations as low as parts per billion (ppb). The 12 initial POPs referred to as 'Dirty Dozen' are aldrin, chlordane, DDT, dieldrin, endrin, heptachlor, mirex, toxaphene, polychlorinated biphenols (PCBs), hexachlorobenzene, dioxins and furans.

The proponent will thrive to ensure that the usage of such chemicals falling under the POPs category is avoided to the extent possible in any of the planned developmental activities.

## **6.3. Social Impacts**

The social impact of the construction of proposed AP Capital City project has been classified

- i. Impact during Pre- construction stage.

ii. Impact during Construction Stage.

iii. Impact during Operation stage.

The main aim of the Social Impact Management Plan is to ensure that the various adverse impacts are mitigated and the positive impacts are enhanced. The social impact management measures shall be implemented during the various stages of the project viz. Pre-construction stage, Construction Stage and Operational Stage. A description of the various impacts is identified during different stages of construction which is presented in Table 6.1.

**Table 6.1: Identification of Social Impacts at different stages**

<b>Pre- Construction</b>	<b>Construction</b>	<b>Operation</b>
Acquisition of agricultural land	Dust pollution	Social Development
Acquisition of trees	Noise pollution	Economic Development,
Loss of livelihood	Livelihood opportunities during construction	Infrastructure development
		Improvement of quality of life
		Livelihood opportunities and Self-employment.

#### **6.4. Project Impacts**

The major findings and magnitude of impacts of the proposed Amaravathi - AP Capital City are discussed in the following sections. The project impacts have been classified into different categories such as impacts on land, impacts on the affected families and their livelihood resources.

The proposed Amaravathi–AP Capital City will have a number of positive and negative impacts. In general the proposed project shall bring following positive impacts:

- Social Development
- Economic Development,
- Infrastructure development
- Improvement of quality of life
- Livelihood opportunities and self-employment.

The anticipated negative impacts on PAFs include

- Loss of landholdings
- Loss of livelihood
- Loss of labour activity

#### **6.5. Land Requirement and Acquisition**

The New Capital of Andhra Pradesh is envisioned to be the pioneer Smart City of India. It aims

to be World Class and at par with the standards set forth by countries such as Singapore. The new capital will be an economic powerhouse that will create a range of jobs for existing resident villagers by upgrading their skills, as well as provide high-tech and knowledge based industry jobs to be globally competitive. Housing will be at the core of its planning and will aim to provide affordable and quality homes to all its residents. It will demonstrate global quality of life standards to offer high levels of convenience to people of all ages.

The concept will capitalize on the rich heritage possessed by the region and utilize it to create a unique identity for the new capital. Sustainability and efficient management of resources will form another important pillar of this new capital. It will be supported by maintaining the clean and green character that the site currently demonstrates by mimicking these ideas in to the new capital Concept Plan.

The project shall require the acquisition/ transfer of **34.7615 Acres** of land, details of land requirement are summarized below in Table 6.2.

**Table 6.2 Land Requirement for the Project in the village**

<b>Sl. No</b>	<b>LAND REQUIREMENT</b>	<b>PITCHUKULAPALEM</b>
<b>1</b>	<b>Acquisition of Land (in Acres)</b>	822.5000
1.1	Land acquired under LP (in Acres)	787.7385
1.2	Land to be acquired (in Acres)	34.7615
<b>2</b>	<b>Impact on PAFs/PAPs (No.)</b>	
2.1	Total PAFs	41
2.2	Total No. of PAFs responded during the survey	10
2.3	Total PAPs responded families	39

*Based on the socio- economic survey*

## **6.6. Impact on Families**

All the **41 PAFs** are landowners under the proposed acquisition under LA Act.

## **6.7. Loss of livelihood**

Total number of land owners in the project area referred to as Project Affected Families are **41**. Most of the people (landowner as well as landless) of the area are dependent on agriculture for their livelihood, and there is permanent loss of current livelihood for almost the entire population. However, due to the provision of giving land in the development to the people losing land- will act as source of livelihood to the landowners on long term basis. The impact on livelihood could be mitigated with the intervention of Rehabilitation measures as per the RFCT LAR&R Act, 2013. Further explorative technique has been used to assess social impacts on families, understand social and demographic profile the project affected families.

In view of social impacts, rehabilitation of the PAFs has been proposed. During site social survey, choice and desire of affected people have also been collected through survey questionnaires. Mitigation measure of the adverse impacts shall be following:

- Payment of compensation for lost asset at replacement cost;
- Preference to the land losers in work during project construction period.
- Provide necessary skill improvement training to affected people to make them employable in project operation phase.

## **7. COST AND BENEFIT ANALYSIS**

### **7.0. Introduction**

The Andhra Pradesh Reorganization Act 2014 (Central Act 6 of 2014), came into force on 2<sup>nd</sup> June, 2014, provided for the reorganization of the existing state of Andhra Pradesh. One of the most critical priorities for the new state is the formation of the New Capital city, which is very important from the perspective of economic development, cultural integrity and administrative functioning.

The Government of Andhra Pradesh has decided to establish a green field capital city as a liveable, environmentally sustainable and people's capital. For this purpose, the location of the capital was identified between Vijayawada and Guntur cities on the upstream of Prakasam Barrage on the river Krishna.

The land required for the new Amaravathi-AP Capital City Development Project with an area of 38049.48 acres, which is covering a current population of 102401 in 24 revenue villages and part of Tadepalli Municipality covered by 26 LPS Units (As per Primary Census Abstract Tables Census 2011).

The proposed capital city is being developed with 'state-of-the-art' infrastructure including world class roads, water supply facilities, administrative and institutional complexes, drainage, sanitation, Solid Waste Management (SWM) facilities, river front development etc, among others.

### **7.1. Assessment of Public Purpose**

One of the objectives of the Social Impact Assessment study is to examine whether the proposed project is a public purpose project? The proposed land acquisition for construction of Amaravathi-AP Capital City Development Project is required for the following reasons.

The New capital comes under the villages Ananthavaram, Nekkallu, Thullur, Pitchikalapalem, Dondapadu, Borupalem, Abbarajupalem, Rayapudi, Nelapadu, Sakhamur, Inavolu, Velagapudi, Lingayapalem, Uddandarayunipalem, Malkapuram, Mandadam, Venkatapalem, Penumaka, Kuragallu, Krishnayapalem, Nidamaru and Navuluru. It falls under the list of projects classified in section 2 (J). (a to f) i.e. government acquires land for its own use, hold and control, including for public sector undertakings and for public purpose according to the LAR&R Act 2013. It clearly shows that this project surely has a public purpose.

### **7.2. Benefits from the Project**

Though, it is very difficult to quantify actual cost of social impact based on severity of land acquisition. However efforts were made to minimize negative impacts through intervention of R&R measures. However, the project will entail a multitude of benefits to the entire area. The project will have following benefits for the people:

Social costs are calculated by comparing project benefits and negative impacts, from construction of Amaravathi-AP Capital City in Pitchukulapalem village. The cost for **Ac. 34.7615 cents** is **approx. Rs. 2.35 Crores** of agriculture land in Pitchukulapalem village.

Positive and negative aspects of the project have been discussed in detail in the following Table no: 7.1

**Table -7.1 Comparative Analysis of Positive and Negative Impacts**

<b>Sl. No</b>	<b>Positive Impact</b>	<b>Negative Impact</b>	<b>Remarks</b>
1	Enhanced cost of land per acre	Loss of Agriculture Land	After careful examination of various parameters of cost and benefit (positive and negative impacts), it is found that the proposed project would benefit local Community at large.
2	Social Development	Loss of livelihood	
3	Infrastructure development	Loss of employment	
4	Economic development	Loss of labour activity	
5	Improvement of quality of life		
6	Increase employment & self-employment		

This project will help the local people in infrastructure development, social development and will increase livelihood opportunities & self-employment sources.

### **7.3. Determination of Compensation**

As per section 26 and 27 of LAR&R 2013 the collector shall adopt following criteria to assess and determine the market value of land and amount of compensation

- Market value specified in the Indian Stamp Act, 1899, for the registration of sale deeds or agreement to sell where land is situated,
- The average sale price of similar type of land situated in the nearest village or nearest vicinity,
- Factoring with 1.25
- Estimated cost of trees and structures
- 100% solarium and 12% additional market value
- R& R package as per LAR&R Act, 2013

### **7.4. Land Acquisition Cost**

As mentioned in earlier section, about **34.7615 acres** of land is being acquired from the village Pitchukulapalem. The cost of acquisition of land is presented in Table 7.2.

**Table 7.2 Detailed Cost of Acquisition of Land**

Sl. No	Village Name	Description of Item	Land Acquired (Acres)	Amount in Rupees	
1.	Pitchukulapalem	1	Agriculture Land value @ Rs.3,00,000/- per acre as per SRO Tadikonda	34.7615	1,04,28,450
		2	Multiplication factor value as per rule 28 Chapter IV of Act 30/2013 is 1.25 time of the land value (rural area)		26,07,112.50
		3	Tree value + Structure value		
		4	100% Solatium (1+3)		1,04,28,450
		5	12% addl. market value on Col.1 from date of 11(1) to passing of award		
			<b>Total (1 to 5)</b>		<b>2,34,64,012.50</b>

**Table 7.3 Entitlement Matrix**

Prescribed Item/Issue	LAR&R Act 2013
P.A.Fs in lieu of loss of livelihood	a) Onetime payment of five lakhs rupees per affected family who lost livelihood or b) Annuity policy of not less than Rs 2000 * 240 months
cattle shed/petty Shops cost	Rs.25,000/-
One time grant to Artisan / Small traders and certain others (PAF )	Rs.25000/-
Losing of Houses	Making or building New houses for the PAF

## 8. SOCIAL IMPACT MANAGEMENT PLAN

### 8.1. Approach to Mitigation

This Social Impact Management Plan (SIMP) has been prepared to mitigate negative social impacts of Amaravathi – AP Capital city project according to LAR&R 2013. The social Impact Management Plan (SIMP) consists a set of mitigation, monitoring and institutional measures to be taken during the design, construction and operational phases of the project to eliminate adverse social impacts or to reduce them to acceptable levels. The main aim of the SIMP is to ensure that the various adverse impacts are mitigated and the positive impacts are enhanced. The SIMP shall be implemented during the various stages of the project viz. pre-construction stage, construction stage and operational stage. A description of the various management measures suggested during different stages of the project is provided in following section.

**Table 8.1 Classification of social impacts at different stages of project cycle**

<b>Pre- Construction</b>	<b>Construction</b>	<b>Operation</b>
Acquisition of agricultural land Acquisition of trees Loss of livelihood	Dust pollution Noise pollution Livelihood opportunities during construction	Social Development Economic Development, Infrastructure development Improvement of quality of life Livelihood opportunities & self-employment

### 8.2. Major Findings of SIA study

Survey has estimated about **10** project affected families and about **39** project affected persons. This Social Impact Management Plan (SIMP) of the proposed Amaravathi –AP Capital City is prepared to mitigate negative social impacts of the acquisition of **34.7615 acres** of land in Pitchukulapalem village. The SIMP has followed The Right to Fair Compensation and Transparency in Land Acquisition and Rehabilitation and Resettlement 2013 (RFCTLAR&R 2013). It appears from the analyses and overview of the act that provisions of compensation for LA under LAR&R 2013 will be sufficient to manage social issues. Moreover to provide clarity in the provisions of the act following broad principles will be adopted under the project:

- Continued consultations with representatives of Panchayat will be the main feature of the R&R planning and implementation of the project,
- Administrator and Commissioner for Resettlement and Rehabilitation will be appointed as per provisions of LAR&R 2013 by the appropriate Government,
- The Administrator of the project will ensure preparation of R&R plan and disclosure as per provision of LAR&R 2013,
- The SIA report shall be disclosed as per Section 7 (5) of the LAR&R 2013,
- R&R benefits will be as per provisions of second schedule of LAR&R 2013

**Table 8.2 Analysis of Social Impact of Land Acquisition for Amaravathi-AP Capital City Project**

Sl. No	Type of Impact	Mitigation measures
1	Loss of fertile agricultural land	Compensation as per provision of LAR&R Act 2013
2	Loss of CPR	Compensation as per provision of LAR&R Act 2013
3	Acquisition of trees	Lump- Sum compensation

**Table 8.3 Analysis of Social Impact of Land Acquisition for Amaravathi – AP Capital city**

Sl. No	Type of Impact	Mitigation measures
1.	Loss of Agricultural land Loss of livelihood About <b>34.7615</b> acres of agricultural land is acquired About <b>34.7615</b> acres of <b>41</b> families will be losing their livelihood	Compensation as per the provision of LAR&R Act, 2013. Rehabilitation assistance as per schedule II The stamp duty and other fee payable for registration shall be borne by the authority.

### 8.3. Measures to avoid mitigate and compensate impact

#### 8.3.1. Mitigation Measures

Potential impacts due to land related impacts are attributed to loss of land, change in land use and loss of access. The impacts of the project in change in land-use are significant and irreversible; however the Master Plan has addressed the issues and all necessary mitigate measures are planned. The proposed Green and Blue plan in the Amaravathi City translates into an implementable land use plan. The plan can be summarized into the following planning strategies and typologies:

#### Green & Blue lattice:

- Green grid – The green and blue network primary follows the road network creating passive recreational fingers across the city. These fingers are anchored with large parks and open spaces close to the 2 reservoirs. Each finger terminates at the scenic river Krishna waterfront.
- Active, beautiful and clean waterways weave through the Amaravathi Capital city. These waterways follow the existing irrigation canals and reservoirs to form an interwoven water network.
- The plan creates a variety of interfaces between the green and blue creating different water themed public spaces such as lake parks, waterfront corridor, linear parks, etc.

### **Primary green spaces:**

- Primary green spaces including large city parks, lakes, town parks, neighbourhood parks, water bodies and public plazas form the foundation of the city scale recreational network that provides recreation opportunities and improves a sense of community. These parks help in creating large public open spaces which can double up as event spaces for the larger community within the Capital city.
- Primary greens are planned along the existing canals and water bodies to serve as city's main ecological corridors. They play a dual role in flood management, and environmental conservation of the native species.

### **Secondary green links**

- Secondary greens weave through the townships connecting the various town and neighbourhood parks. Planned as the secondary green fingers of the city, these greens act as passive recreational spaces, interactive jogging trails and non-motorized transports corridors across the city.

### **Recreational Landscapes**

- Recreational landscapes include theme parks, golf courses, sports and recreational spaces.
- In line with the township model several sports and recreation parcels have been allocated in the town centre, and in proximity to the neighbourhood centre.
- Large city level sports facilities such as cricket stadium, golf courses and theme parks have been strategically distributed across the city.

### **Water bodies**

- Water bodies including rivers, canals, irrigation channels and reservoirs have been carefully protected and integrated with the green spaces as discussed in the previous section

The impacts due to loss of land and loss of access are expected to be minor with the implementation of the land pooling scheme and taking the following mitigation measures.

- Providing land pooling benefits / LA benefits to the effected
- Payment of cost for lost asset and providing rehabilitation if any displaced;
- Payment of compensation prior to taking possession of land or any physical displacement;
- Payment of transitional assistance to support economic loss;
- Dissemination of information about the acquisition and compensation calculation process;
- Establishing a grievance radical mechanism;
- Option for work during project construction period;
- Prior information to harvest the crops or compensation for loss of crop;
- Continuation of community engagement process;
- Provision of access to local villagers to continue with their pre project movement pattern.

### **Impact on Livelihoods**

Long term livelihoods have been, or will be, impacted for those families who have surrendered their lands for the project. Most of the people (landowner as well as landless) of the area are dependent on agriculture for their livelihood, and there is permanent loss of current livelihood for almost the entire population. However, due to the provision of giving land in the development to the people losing land- will act as source of livelihood to the landowners on long term basis.

### **Mitigation Measures**

This impact is expected to be insignificant with the implementation of the following mitigation measures

- Payment of compensation for lost asset at replacement cost;
- Preference to the land losers in work during project construction period.
- Provide necessary skill improvement training to affected people to make them employable in project operation phase.

### **Impact on utilities**

Impacts have been assessed assuming general utilities such as power line, telephone line, water supply etc. may be affected during the construction. Therefore, the likelihood of significance of impact would be negligible.

### **Mitigation Measures**

This impact is expected to be minor and with the implementation of the following mitigation measures the potential disruption to existing utilities will be further minimized.

- Coordination with respective concerned department for utility relocation;
- Establishing replaced utilities prior to disconnecting or discontinuing the existing one;
- Providing intimation to the people in advance about any disruption to services.

### **Impact during Construction Phase**

The construction phase of the Project involves a number of sequential activities, collectively named as “spread”. The area affected by the construction, laying of road, clearing of site, construction of residential, commercial and industrial units, construction of social infrastructure, construction of treatment plant, laying of sewer line, and labour camps areas etc. Based on the assessment of above activities and in consultation with the different stakeholders, the following impacts are being envisaged for the construction phase of the project.

### **Mitigation Measures**

Potential impacts during construction period include impact due to the influx of migrants and associated health related risk to the community. These impacts are expected to be moderate and with the implementation of the following mitigation measures the potential impact of loss of livelihood will be further minimized.

- Engage as many locally available unskilled, semiskilled and skilled human resource as practically possible to avoid large scale in migration of labour force;
- Provision of infrastructure and amenities for migrant labour in construction camp to avoid dependence on limited local resources;
- Barriers will be provided to prevent ingress of persons into the construction site and also to protect public exposure to hazards associated with construction activities;
- Additional safety precaution while working in market and settlement areas and especially around the trenches;
- Screening, surveillance and treatment of workers, through the provision of medical facilities and, where required, immunization programs;
- Undertaking health awareness and education initiatives among workers, especially about sexually transmitted disease ;
- Prevention of larval and adult propagation through sanitary improvements and elimination of breeding habitats close to human settlements in the close vicinity of construction site;
- Implementation of a vector control program;
- Avoiding collection of stagnant water;
- Educating project personnel and area residents on risks, prevention, and available treatment for vector-borne diseases;
- Promoting use of repellents, clothing, netting, and other barriers to prevent insect bites;
- Following safety guidelines for the storage, transport, and distribution of pesticides to minimize the potential for misuse, spills, and accidental human exposure; and Road safety measures.

\*\*\*\*\*

**Special Note:** The Social Impact Assessment report and Social Impact Management Plan report for the Pitchukulapalem village was prepared by EPTRI by conducting Grama Sabha on 01.04.2016, field survey on 05.04.2016. And Public Hearing on 03.10.2016 in the Pitchukulapalem Village and the same was incorporated in the final report.

*P. R. S. S. S. S.*





# అమరావతి రాజధాని నగర అభివృద్ధి ప్రాజెక్ట్



తుది సామాజిక ప్రభావ అంచనా నివేదిక  
పిచ్చుకలపాలెం గ్రామం

అక్టోబర్ 2016



EPTRI

SUBMITTED BY:

ENVIRONMENT PROTECTION TRAINING & RESEARCH INSTITUTE  
SURVEY NO.91/4, GACHIBOWLI  
HYDERABAD – 500 032  
TELANGANA

విషయ సూచిక

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## 1. సంగ్రహ నివేదిక - పిచ్చుకలపాలెం గ్రామం

### 1.0. ప్రాజెక్ట్ మరియు ప్రజా వినియోగం

జూన్ 2, 2014 న అమలులోకి వచ్చిన ఆంధ్రప్రదేశ్ పునర్విభజన చట్టం 2014 (కేంద్ర చట్టం 6 ఆఫ్ 2014) ప్రకారం అంతకుముందు ఉన్న ఆంధ్రప్రదేశ్ రాష్ట్రం పునర్విభజనకు వీలు కల్పించింది. ఆర్థిక అభివృద్ధి, సాంస్కృతిక సమగ్రత మరియు పరిపాలనాపరమైన నిర్వహణ కోసం కొత్తగా ఏర్పడిన రాష్ట్రం యొక్క ప్రాధాన్యతలలో ముఖ్యమయినది ఒక కొత్త రాజధానిని ఏర్పాటు చేసుకోవడం.

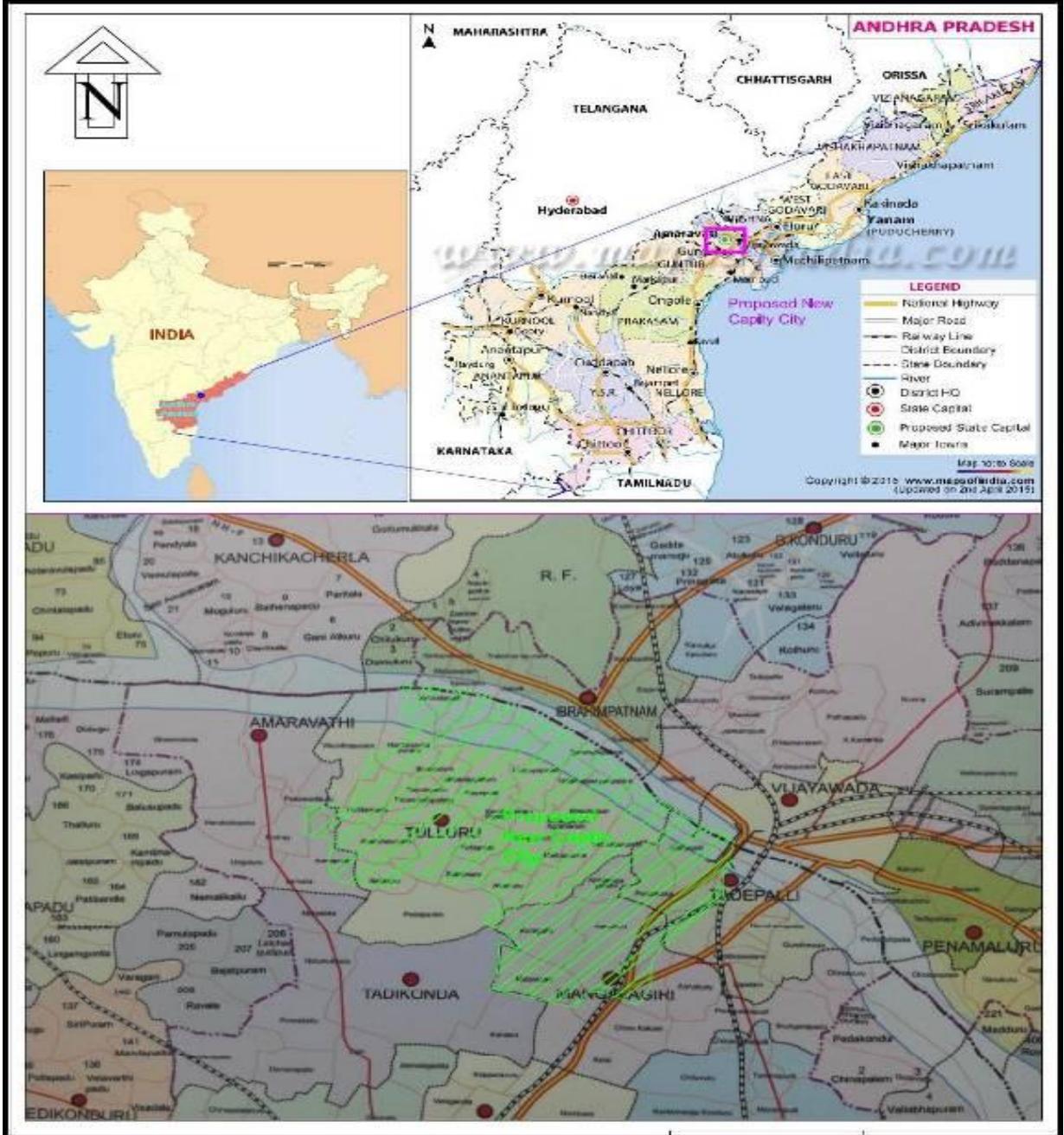
నూతన రాజధాని అందరూ నివసించే విధంగా పర్యావరణపరంగా, ఎంతో అనువుగా ఉండేలా గ్రీన్ ఫీల్డ్ ప్రజారాజధానిని నిర్మించాలని ఆంధ్రప్రదేశ్ ప్రభుత్వం నిర్ణయించింది. దీనికోసమై, కృష్ణానదిపై ప్రకాశం బారేజ్ కి ఎగువన విజయవాడ మరియు గుంటూరు నగరాల మధ్య, 217.23 చ.కి.మీ విస్తీర్ణంలో, ప్రస్తుతం 24 రెవెన్యూ గ్రామాలలో 1,02,401 మంది నివసించే ఆవాస ప్రాంతం మరియు 26 ఎల్ పి ఎస్ యూనిట్ల క్రింద ఉన్న తాడేపల్లి మునిసిపాలిటీ లోని భాగాలలోని ప్రాంతం రాజధానిగా గుర్తించబడింది. ఈ ప్రతిపాదిత అమరావతి రాజధాని నగరం 2050 నాటికి 3.55 మిలియన్ ప్రజలకు నివాససౌకర్యం కలిగించేలా తయారుచేయబడుతుంది.

ఈ ప్రతిపాదిత రాజధాని నగరంలో ప్రపంచస్థాయి రహదారులు, నీటి సరఫరా సౌకర్యాలు, పరిపాలనా మరియు సంస్థాగతమైన సముదాయాలు, మురుగునీటి వ్యవస్థ, పారిశుధ్యం, ఘనవ్యర్థాల యాజమాన్య సౌకర్యాలు, నదీ ముఖద్వార అభివృద్ధి, మొదలైన సౌకర్యాలు పూర్తిస్థాయి స్వదేశీ పరిష్కారంతో కల్పించబడతాయి.

**దృక్కోణం :** ఆంధ్రప్రదేశ్ నూతన రాజధాని నగరం ఆకర్షణీయ నగరాల ఆలోచనకు ప్రతిరూపం. ఇది ఒక ప్రపంచస్థాయిలో, సింగపూర్ వంటిదేశాల ప్రమాణాలతో నిర్మించబడుతోంది. ఈ నూతన రాజధానిలో ప్రస్తుతం ఈ గ్రామంలో నివసిస్తున్న వారి నైపుణ్యాలను, సంపాదించే సామర్థ్యాన్ని కూడా పెంపొందించడం, ప్రపంచ స్థాయికి పోటీగా వారికి హైటెక్ పరిష్కారం అందించడంతోపాటు పారిశ్రామిక విభాగం అవకాశాలు కల్పించడం మరియు అర్హులను చేయడం, తద్వారా వారి స్వయంఉపాధికై రూ. 25 లక్షల వరకు వడ్డీలేని ఋణాలందించడం ద్వారా ఆర్థిక పరంగా కూడా ఒక నూతన ఒరవడికి శ్రీకారం చుడుతుంది. రాజధానిలో గృహనిర్మాణానికి పెద్దపీట వేయడంతో పాటు నివాసముండే వారందరికీ నాణ్యమైన ఇళ్ళు అందించాలన్నది ప్రణాళికలోని ప్రథమ లక్ష్యం. అన్ని వయస్సులవారికి ప్రపంచ స్థాయిలోని నాణ్యమైన జీవనశైలి అందించడంతో పాటు వారి జీవనప్రమాణాలు పెంపొందించే విధంగా ఈ నగరం రూపు దిద్దుకొంటుంది.

**ప్రయోజనం:** ఈ ప్రాజెక్ట్ నిమిత్తం అవసరమైన స్థల సేకరణ ఆం.ప్ర. రాజధాని నగర ఎల్ పి ఎస్ (ఎఫ్ & ఐ) నియమాలు, 2015 మరియు ల్యాండ్ పూలింగ్ మరియు అభివృద్ధి పథకం ఎల్ ఎ, ఆర్ & ఆర్ చట్టం, 2013 క్రింద సేకరించడం జరిగింది. ల్యాండ్ పూలింగ్ పథకం, ఆం.ప్ర. సి ఆర్ డి ఏ చట్టం, 2014 క్రింద ప్రజా ప్రయోజనార్థమైనదని ప్రకటించబడింది. అమరావతి రాజధాని నగర నిర్మాణ అభివృద్ధి ప్రాజెక్ట్ అనేది రవాణా, ఇంధనం, నీరు మరియు పారిశుధ్యం, సమాచార మరియు ఇతర సామాజిక మౌలిక వసతులతో కూడినది. అందువల్ల ఈ ప్రాజెక్ట్ ఎల్ ఎ, ఆర్ & ఆర్ చట్టం, 2013 లోని సెక్షన్ 2(1) అర్థానికి ఖచ్చితంగా సరిపోతుంది.

1.1. స్థలము



పటం 1: ఈ ప్రాజెక్ట్ భౌగోళిక స్థలాన్ని సూచించే ముఖ్యమైన ప్రణాళిక చిత్ర పటం

1.2. భూసేకరణ కొలతల వివరములు

పిచ్చుకలపాలెం గ్రామం భౌగోళిక విస్తీర్ణం ఎ. 847.3100 సెం. దీనిలో ఎ. 822.5000 సెం. విస్తీర్ణం భూమిని ల్యాండ్ పూలింగ్ పథకం/భూసేకరణ కింద సేకరించడానికి నిర్ణయించడం జరిగింది. దీనిలో ఎ. 785.6385 సెం. భూమిని ల్యాండ్ పూలింగ్ పథకం/భూసేకరణ కింద సేకరించడం జరిగింది మరియు మిగిలిన ఎ. 36.8615 సెం. భూమిని ఆర్ ఎఫ్ సి టి ఎల్ ఎ ఆర్&ఆర్ 2013 చట్టం క్రింద సేకరించవలసి ఉంది. సేకరించవలసిన భూమి, దాని విస్తీర్ణం, సర్వే నెం. సహా వివరములు దిగువ ఇవ్వబడిన పట్టిక ఇ1 లో పొందుపరచబడినవి.

పట్టిక ఇ1: పిచ్చుకలపాలెం గ్రామంలో నోటిఫికేషన్ ద్వారా సేకరించవలసిన భూ వివరములు

వ సం.	సర్వేనెం.	ఉప విభజన	మొత్తం విస్తీర్ణము ఆర్ ఎస్ ఆర్ ఎ.గుం.	వర్గీకరణ జరిబు / మెట్ట	మొత్తం విస్తీర్ణం ఎల్ఎ ఆర్&ఆర్ ప్రకారము ఎ. గుం.	వ్యాఖ్యలు
1	10	2	1.82	మెట్ట	0.3800	
2	19	2	1.46	మెట్ట	0.1100	
3	39	E	1.95	మెట్ట	0.0050	
4	49	B2	9.04	మెట్ట	0.0100	
5	53	A	7.24	మెట్ట	0.0100	
6	75		4.5	మెట్ట	0.0200	
7	82	A	0.85	మెట్ట	0.0100	
8	84		2.34	మెట్ట	0.0150	
9	93	1	3.01	మెట్ట	0.0100	
10	93	2B	3.03	మెట్ట	0.0100	
11	110	A2	2.85	మెట్ట	0.0250	
12	44	1A1	3.97	మెట్ట	1.9700	
13	43		6.18	మెట్ట	3.0900	
14	93	2A	8.33	మెట్ట	1.5000	
15	40	B2	0.82	మెట్ట	0.8200	
16	41	1	5.64	మెట్ట	2.8200	
17	7	B	8.11	మెట్ట	2.8300	
18	76	B	3.44	మెట్ట	2.8400	
19	90		14.76	మెట్ట	2.8300	
20	92		15.4	మెట్ట	3.7500	
21	93	2A	8.33	మెట్ట	2.6800	
22	19	1	10.16	మెట్ట	0.0300	
23	18	1	9.6	మెట్ట	0.1700	
24	18	2	0.76	మెట్ట	0.0900	
25	10	2	1.82	మెట్ట	0.6200	
26	5	2C	1	మెట్ట	1.0000	
27	112	1	3.05	మెట్ట	0.0744	
28	112	1	3.05	మెట్ట	0.0496	
29	112	1	3.05	మెట్ట	0.0915	
30	112	1	3.05	మెట్ట	0.0915	
31	112	1	3.05	మెట్ట	0.1285	

**అమరావతి రాజధాని నగర అభివృద్ధి ప్రాజెక్ట్ పిచ్చుకలపాలెం గ్రామం తుది సామాజిక ప్రభావ అంచనా నివేదిక**

32	112	1	3.05	మెట్ట	0.1570	
33	112	1	3.05	మెట్ట	0.1340	
34	69		4.65	మెట్ట	1.2100	
35	94	1	8.33	మెట్ట	1.3300	
36	94	1	8.33	మెట్ట	1.0000	
37	91		6.22	మెట్ట	0.3800	
38	22	A	4.6	మెట్ట	0.3000	
39	22	A	4.6	మెట్ట	0.3000	
40	82	C	0.06	మెట్ట	0.0400	
41	63	A	3.02	మెట్ట	0.5000	
42	114		4.16	మెట్ట	2.1600	
43	17		13.57	మెట్ట	0.6400	
44	17		13.57	మెట్ట	0.6300	
మొత్తం విస్తీర్ణము					<b>36.8615</b>	

**సౌజన్యం: ఎపి సి ఆర్ డి ఎ, ఎల్ పి ఎస్ యూనిట్-12, పిచ్చుకలపాలెం (గ్రా)**

సెక్షన్ 4(1), ఎల్ ఎ ఆర్&ఆర్ 2013 చట్టం క్రింద నిర్ణయించిన మొత్తం ఎ. 36.8615 సెం. విస్తీర్ణములో, ఎ. 2.1000 సెం. భూమిని ల్యాండ్ పూలింగ్ పథకం/భూసేకరణ కింద సేకరించడం పూర్తి అయిన విషయము భూసేకరణ సేకరణ అధికారి తెలియజేయటం జరిగింది మరియు మిగిలిన ఎ. 34.7615 సెం. విస్తీర్ణంగల భూమిని ల్యాండ్ పూలింగ్ పథకం/భూసేకరణ కింద సేకరించడానికి నిర్ణయించడం జరిగింది.

**పట్టిక ఇ1a: పిచ్చుకలపాలెం గ్రామంలో LA క్రింద సేకరించవలసిన స్థలము**

వ సం.	సర్వే నెం.	ఉప విభజన నెం.	మొత్తం విస్తీర్ణము ఆర్ ఎస్ ఆర్ ఎ. గుం.	వర్గీకరణ జరీబు / మెట్ట	మొత్తం విస్తీర్ణం ఎల్ఎ ఆర్&ఆర్ ప్రకారము ఎ. గుం.	వ్యాఖ్యలు
1	10	2	1.82	మెట్ట	0.3800	
2	39	E	1.95	మెట్ట	0.0050	
3	49	B2	9.04	మెట్ట	0.0100	
4	53	A	7.24	మెట్ట	0.0100	
5	82	A	0.85	మెట్ట	0.0100	
6	84		2.34	మెట్ట	0.0150	
7	93	1	3.01	మెట్ట	0.0100	
8	93	2B	3.03	మెట్ట	0.0100	
9	110	A2	2.85	మెట్ట	0.0250	
10	43		6.18	మెట్ట	3.0900	
11	93	2A	8.33	మెట్ట	1.5000	

**అమరావతి రాజధాని నగర అభివృద్ధి ప్రాజెక్ట్ పిచ్చుకలపాలెం గ్రామం తుది సామాజిక ప్రభావ అంచనా నివేదిక**

12	40	B2	0.82	మెట్ట	0.8200	
13	41	1	5.64	మెట్ట	2.8200	
14	7	B	8.11	మెట్ట	2.8300	
15	76	B	3.44	మెట్ట	2.8400	
16	90		14.76	మెట్ట	2.8300	
17	92		15.4	మెట్ట	3.7500	
18	93	2A	8.33	మెట్ట	2.6800	
19	19	1	10.16	మెట్ట	0.0300	
20	18	1	9.6	మెట్ట	0.1700	
21	18	2	0.76	మెట్ట	0.0900	
22	10	2	1.82	మెట్ట	0.6200	
23	5	2C	1	మెట్ట	1.0000	
24	112	1	3.05	మెట్ట	0.0744	
25	112	1	3.05	మెట్ట	0.0496	
26	112	1	3.05	మెట్ట	0.0915	
27	112	1	3.05	మెట్ట	0.0915	
28	112	1	3.05	మెట్ట	0.1285	
29	112	1	3.05	మెట్ట	0.1570	
30	112	1	3.05	మెట్ట	0.1340	
31	69		4.65	మెట్ట	1.2100	
32	94	1	8.33	మెట్ట	1.3300	
33	94	1	8.33	మెట్ట	1.0000	
34	91		6.22	మెట్ట	0.3800	
35	22	A	4.6	మెట్ట	0.3000	
36	22	A	4.6	మెట్ట	0.3000	
37	82	C	0.06	మెట్ట	0.0400	
38	63	A	3.02	మెట్ట	0.5000	
39	114		4.16	మెట్ట	2.1600	
40	17		13.57	మెట్ట	0.6400	
41	17		13.57	మెట్ట	0.6300	
<b>మొత్తం విస్తీర్ణం</b>					<b>34.7615</b>	

**సౌజన్యం: ఎపి సి ఆర్ డి ఎ, ఎల్ పి ఎస్ యూనిట్-12, పిచ్చుకలపాలెం (గ్రా)**

**1.3. సామాజిక ప్రభావాలు:**

ప్రతిపాదిత ఆంధ్రప్రదేశ్ రాజధాని నగర అభివృద్ధి ప్రాజెక్ట్ యొక్క సామాజిక పరమైన ప్రభావాలు దిగువ తెలిపిన విధంగా వర్గీకరించబడినాయి:

- a. నిర్మాణానికి ముందరి దశలోని ప్రభావం
- b. నిర్మాణం జరుగుతున్న దశలోని ప్రభావం
- c. నిర్వహణ దశలోని ప్రభావం

సామాజిక ప్రభావ యాజమాన్య ప్రణాళిక యొక్క ముఖ్య ఉద్దేశ్యం ప్రతికూల ప్రభావాలను ఉపశమింపజేయడంతో పాటు, సకారాత్మక ప్రభావాలను పెంపొందించడం. సామాజిక ప్రభావ యాజమాన్య చర్యలు ప్రాజెక్ట్ అమలు జరుగుతున్న వివిధ దశలలో అంటే, నిర్మాణానికి ముందు, నిర్మాణ దశ, మరియు నిర్వహణ దశలలో అమలు చేయబడతాయి. నిర్మాణంలోని వివిధదశలలో గుర్తించబడిన ప్రభావాలు పట్టిక ఇ2 లో ఇవ్వబడినాయి.

**పట్టిక ఇ 2 : వివిధ ప్రాజెక్టుల సామాజిక ప్రభావాల గుర్తింపు**

నిర్మాణం ముందు	నిర్మాణం	నిర్వహణ
వ్యవసాయ భూముల సేకరణ చెట్ల సేకరణ జీవనోపాధి కోల్పోవడం	దుమ్ము వల్ల కాలుష్యం ధ్వని కాలుష్యం నిర్మాణ సమయంలో ఆదాయ అవకాశాలు	సామాజిక అభివృద్ధి ఆర్థిక అభివృద్ధి మౌలిక వసతుల అభివృద్ధి జీవన నాణ్యతలో అభివృద్ధి స్వయంఉపాధి

**1.4. ఉపశమన చర్యలు**

స్థలపరమైన ప్రభావాలనేవి ప్రధానంగా స్థలం కోల్పోవడం, స్థలం యొక్క వినియోగంలో మార్పు, మరియు ప్రస్తుత జీవనోపాధి కోల్పోవడం. స్థల-వినియోగంలో వచ్చే మార్పుల ప్రభావాలు చాలా తీవ్రమైనవి మరియు తిరిగి మార్చలేనివి; అయితే, కాన్సెప్ట్ ప్రణాళికలో ఈ సమస్యలు మరియు వాటికి అవసరమైన ఉపశమన చర్యలు కూడా సూచించబడినాయి. రాజధాని నగర అభివృద్ధి ప్రాజెక్ట్ నుండి గ్రామస్థలం/నివాసప్రాంతాలు మినహాయించబడినాయి మరియు కుటుంబాలను అతి తక్కువ సంఖ్యలో తొలగించడం ద్వారా గ్రామ అభివృద్ధి ప్రణాళికలో చేర్చబడినాయి. అయితే, మాస్టర్ ప్రణాళికలో తెలిపిన గ్రామ స్థలం/నివాసస్థలంలోని అవసరాల ప్రకారం రహదారులు/ రైల్వే మార్గాల నిర్మాణానికి స్థలం సేకరించబడుతుంది. ఈ ప్రణాళికను దిగువ తెలిపిన ప్రణాళికా విధానాలు మరియు వర్గీకరణల ద్వారా వివరించవచ్చు.

**1.4.1. హరిత మరియు నీలి హారాలు:**

- హరిత గ్రీడ్ - ఆహ్లాదకరంగా ఉండేలా నగరంలో అక్కడక్కడా హరిత మరియు నీలి హారాలు రహదారుల వెంట ఏర్పాటు చేయబడతాయి. ఈ హరిత హారాలకు చివర రెండు రిజర్వాయర్లకు దగ్గరలో పెద్ద ఉద్యానవనాలు మరియు ఖాళీ స్థలాలు ఉంటాయి. ప్రతి హరితహారం చూపరులను కట్టిపడేసే కృష్ణానది ప్రవాహానికి కలుపబడుతుంది.

- అమరావతి రాజధాని నగరమంతా ఎల్లప్పుడూ ప్రవహిస్తుండే, అందమైన నీటిపాయలు పారుతూ ఉంటాయి. ఈ జలమార్గాలు ఇంతకుముందే ఉన్న నీటి పారుదల కాలువలు మరియు జలాశయాల్లో భాగంగా ఉండి, అంతర్గత జలవిధానాన్ని ఏర్పరుస్తాయి.
- ఈ ప్రణాళిక వివిధ హరిత మరియు నీలి మార్గాలను అనుసంధానిస్తూ, విభిన్నమైన లేక్ పార్కులు, వాటర్ ఫ్రంట్ కారిడార్, పొడవుగా ఉండే పార్కులువంటి జల ఆధారిత ప్రజాకర్షక ప్రదేశాలను ఏర్పరచేందుకు వీలు కల్పిస్తుంది.

#### 1.4.2. ప్రాథమిక శ్రేణి హరిత ప్రదేశాలు:

- ప్రాథమిక హరిత ప్రదేశాలలో పెద్దవైన నగర ఉద్యానవనాలు, సరస్సులు, పట్టణ ఉద్యానవనాలు, పక్కపక్కన ఉండే ఉద్యానవనాలు, జలాశయాలు వంటివి నగర ప్రారంభదశనుండే ఉండటం వల్ల ఆహ్లాదకరమైన వాతావరాణాన్ని ఏర్పడేందుకు అవకాశాలు కల్పించడమే కాకుండా, ఒకరకమైన వర్గం అనేభావన పెంపొందించేందుకు వీలు కలుగుతుంది. ఈ ఉద్యానవనాలు పెద్దవైన ప్రజోపయోగ బహిరంగ స్థలాలు ఏర్పడేందుకు దోహదపడటమే కాక, రాజధాని నగరంలో అతిపెద్దదైన వర్గాలకు వేడుకలు జరుపుకునేందుకు అనువైన స్థలాలుగా కూడా రెట్టింపు అవకాశం కల్పిస్తాయి.
- ప్రాథమిక హరిత హోరాలు ప్రస్తుతమున్న కాలువలు మరియు జలాశయాల వెంబడి ఏర్పాటు చేయడం వల్ల నగరంలో పర్యావరణ సమతుల్యత ఏర్పడేందుకు దోహదంచేస్తాయి.

#### 1.4.3. ద్వితీయ శ్రేణి హరితహోరాలు

➤ ద్వితీయ శ్రేణి హరితహోరాలు టౌన్ షిప్ ల ద్వారా పట్టణాలను, ఇతర ఉద్యానవనాలను కలుపుతూ వెళ్తాయి. నగరంలోని ద్వితీయ శ్రేణి హరితమార్గాలుగా నిర్ధారించబడిన ఈ హరితహోరాలు, స్ట్రట్టుగా ఉండి ఆహ్లాదకరమైన ప్రదేశాలుగా, జాగింగ్ మార్గాలతో, యాంత్రికవాహనాలు లేని రవాణా సౌకర్యాలతో నగరం మొత్తం ఉంటాయి.

#### 1.4.4. ఆహ్లాదం కలిగించే పచ్చికబయళ్ళు

- ఆహ్లాదం కలిగించే పచ్చికబయళ్ళలో థీమ్ పార్కులు, గోల్ఫ్ కోర్సులు, క్రీడామైదానాలు మరియు ఇతర ప్రదేశాలు ఉంటాయి.
- టౌన్ షిప్ మోడల్లో క్రీడ మరియు వినోదం అందించేందుకై, పట్టణ కేంద్రంలో తగిన స్థలం కేటాయించబడింది. ఇది అన్నివిధాలైన అవసరాలకు దగ్గరగా ఉంటుంది.
- క్రీకెట్ స్టేడియం, గోల్ఫ్ కోర్స్ మరియు థీమ్ పార్కులు వంటి పెద్దవైన నగరస్థాయి క్రీడాసౌకర్యాలు నగరం మొత్తంలో ఒక ప్రణాళిక ప్రకారం ఏర్పాటు చేయబడినాయి.

#### 1.4.5. నీటి వనరులు

- నదులు, కాలువలు, పంటకాలువలు మరియు జలాశయాలువంటి నీటి వనరులను రక్షించడంతోపాటు, వాటిని ఇంతకుముందు వివరించినట్లు హరిత ప్రాంతాలకు అనుసంధానించబడతాయి.

#### 1.4.6. ప్రభావిత ప్రాంత ప్రజల కొరకు ఉపశమన అంశాలు:

ల్యాండ్ పూలింగ్ పథకం క్రింద అమలు పరచే విధానాలలో అధికభాగం కేవలం స్థల సేకరణకు సంబంధించినదై ఉన్నందున దీనికి సంబంధించిన ప్రభావాలు చాలా తక్కువగా ఉంటాయని అంచనా వేయబడింది.

- సి ఆర్ డి ఏ తో అభివృద్ధి ఒప్పందం కుదుర్చుకొన్న భూయజమానులకు ల్యాండ్ పూలింగ్ యొక్క లాభాలు అందించడం.
- గ్రామస్థలం/నివాస స్థలానికి హద్దులు నిర్ధారించడం మరియు రహదారులు/ రైల్వేలు లేదా గ్రామ అభివృద్ధి అవసరాలు మినహాయించి ఆ ప్రాంతాన్ని రాజధాని నగర అభివృద్ధి ప్రాజెక్ట్ లో కలుపక పోవడం.
- స్థల సేకరణ మరియు ఏదేని స్థల మార్పిడి వల్ల నికర వ్యవసాయ ఆదాయంలో వచ్చిన నష్టానికి గాను దాన్ని స్వాధీనపరచుకొనడానికి ముందుగానే నష్టపరిహారం చెల్లించడం.
- భూమిలేని కుటుంబాలకు, వారికి జరిగిన ఆర్థికపరమైన నష్టానికి గాను 10 సంవత్సరాలపాటు పింఛను రూపంలో నెలకు రూ.2,500 చొప్పున ఆర్థిక సహాయం అందించడం.
- సేకరణ మరియు నష్టపరిహార గణనకు సంబంధించిన సమాచారాన్ని మరియు ఎల్ పి ఎస్ క్రింద వచ్చేలాభాలను అందరికీ వెల్లడించడం.
- ఫిర్యాదుల పరిష్కారానికి ఒక యంత్రాంగాన్ని ఏర్పాటు చేయడం.
- ప్రాజెక్ట్ నిర్మాణ సమయంలో పనికి సంబంధించి ఐచ్ఛికాలు కల్పించడం.
- కమ్యూనిటీ ఎంగేజ్ మెంట్ విధానాన్ని కొనసాగించడం.
- ప్రాజెక్ట్ ప్రారంభించడానికి ముందు అవసరమైన స్థానిక గ్రామీణప్రజలు తమ పనులు చేసుకోవడానికి వీలు కల్పించడం.
- రూ.1,50,000 వరకు వ్యవసాయ ఋణ మాఫీ / ఎస్ ఆర్ ఇ జి ఎ పథకం క్రింద 365 రోజులు పని కల్పించడం/ భృతితో వృత్తిశిక్షణ/ఉచిత విద్య/ప్రభుత్వం నిర్ధారించిన ఇతర సౌకర్యాల క్రింద ఉచిత వైద్య సౌకర్యాలు కల్పించడం.
- పేదకుటుంబాలకు స్వయంఉపాధికై రూ.25 లక్షల వరకు వడ్డీలేని ఋణ సదుపాయం.

### 1.5. జీవనోపాధిపై ప్రభావం

- ఈ ప్రాజెక్ట్ నిమిత్తం తమ భూమిని ధారాదత్తం చేసిన కుటుంబాల జీవితాలపై దీని ప్రభావం వెంటనే లేదా దీర్ఘకాలంలో పడే అవకాశం ఉంది. ఈ ప్రాంతంలోని ప్రజలలో అధికభాగం (భూయజమాని మరియు భూమిలేని వారిపై) తమ జీవనోపాధికై వ్యవసాయంపై ఆధారపడి ఉన్నారు. దీనివల్ల ఇక్కడి ప్రజలు శాశ్వతంగా ప్రస్తుత జీవనోపాధి కోల్పోయే అవకాశం ఉంది.

#### 1.5.1. ఉపశమన చర్యలు

ల్యాండ్ పూలింగ్ పథకం క్రింద అధిక స్థాయిలో భూమి సేకరించడం వల్ల, జరిగిన నష్టానికి ప్రభావితమైన వారికి ఉపశమనంగా తీసుకొన్న క్రింది చర్యలు కొంతవరకు ఆ నష్టాన్ని తగ్గించగలుగుతాయి.

- నష్టపరిహార చెల్లింపు మరియు ఎల్ ఏ ఆర్ & ఆర్ చట్టం, 2013 ప్రకారం ఆర్ & ఆర్ లాభాలు.
- భూమికోల్పోయిన వారికి ప్రాజెక్ట్ నిర్మాణ సమయంలో అర్హతను బట్టి ఉపాధి కల్పనలో ప్రాధాన్యత.
- ప్రభావితమైన ప్రజలకు ప్రాజెక్ట్ నిర్వహణ సమయంలో జీవనోపాధి అవకాశాలు మెరుగు పరచుకోసేందుకు అవసరమైన వృత్తినైపుణ్యంలో శిక్షణ కల్పించడం.

## 1.6. సౌకర్యాలపై ప్రభావం

గ్రామీణస్థలం మొత్తం/ ఇతర ఆవాస ప్రాంతాలలో ఇప్పటికే ఉన్న విద్యుత్ లైన్లు, టెలిఫోన్ లైన్లు, నీటిసరఫరా, మొదలైనవి తొలగించడం నుండి మినహాయించబడినాయి. నిర్మాణ సమయంలో సాధారణ సౌకర్యాలకు ఏవిధమైన ఇబ్బంది కలుగకుండా పూర్తి జాగ్రత్తలు తీసుకోబడతాయి. ప్రతిపాదిత ప్రణాళికలో మౌలిక సౌకర్యాల ఏర్పాటులో తీసుకొన్న చర్యల వల్ల జీవనస్థితి గతులలో మార్పు వస్తుంది.

### 1.6.1. ఉపశమన చర్యలు

ప్రభావమనేది చాలా తక్కువగా ఉంటుందని అంచనా వేయబడింది. దిగువ తెలిపిన ఉపశమన చర్యలవల్ల సౌకర్యాలలో కలిగేందుకు అవకాశమున్న ఇబ్బందులు కూడా వీలయినంతగా తగ్గించబడతాయి.

- ఆ సౌకర్యాన్ని సంబంధిత విభాగ సమన్వయంతో స్థలం మార్చడం;
- ఏదేని సౌకర్యాన్ని స్థలమార్పిడి చేయవలసి వస్తే, దానివల్ల సౌకర్యంలో ఏదేని అంతరాయం ఏర్పడినట్లయితే, తాత్కాలిక ఏర్పాటు చేయడం;
- సౌకర్యంలో ఏదేని అంతరాయం ఏర్పడినట్లయితే, ప్రజలకు దానిగురించి ముందుగానే తెలియపరచడం.

## 1.7. నిర్మాణ దశలోని ప్రభావాలు

ప్రాజెక్ట్ లోని నిర్మాణదశలో పరంపరగా ఏకమొత్తంగా "స్పెడ్" అని పిలువబడే కొన్ని కార్యకలాపాలు జరుగుతాయి. ఈ ప్రాంతం నిర్మాణం, రోడ్లు వేయడం, స్థలాన్ని శుభ్రంచేయడం, గృహ, వాణిజ్య, మరియు పారిశ్రామిక యూనిట్ల నిర్మాణం, సామాజిక మౌలిక వసతుల నిర్మాణం, ట్రీట్ మెంట్ ప్లాంట్ నిర్మాణం, పారిశుధ్య పైప్ లైన్లు వేయడం, మరియు కార్మికుల వసతుల నిర్మాణం, మొదలైన వాటి వల్ల ప్రభావితమవుతుంది. పైన తెలిపిన కార్యకలాపాలపై వేసిన అంచనా మరియు వివిధ వాటాదారులతో చర్చించిన తరువాత నిర్మాణసమయంలో తలెత్తే దిగువ తెలిపిన ఇబ్బందులను తగ్గించవచ్చని అంచనావేయబడింది.

### 1.7.1. ఉపశమన చర్యలు

నిర్మాణ సమయంలో కొత్తవారు రావడం వల్ల మరియు వారికి సంబంధించిన ఏదేని ఆరోగ్యసమస్యలు ఇక్కడున్న సమాజంపై ప్రభావం చూపేందుకు అవకాశం ఉంది. ఈ ప్రభావాలు మధ్యస్థ స్థాయిలో ఉంటాయని మరియు దిగువ తెలిపిన చర్యలు అమలు చేయడం వల్ల ఇక్కడున్న వారి ఆరోగ్యంపై చూపే ప్రభావాన్ని కొంతమేరకు తగ్గించవచ్చని అంచనావేయబడింది.

- వీలయినంతవరకు స్థానికంగా లభ్యమయ్యే నైపుణ్యంలేని, తక్కువ నైపుణ్యం కలిగి ఉన్న, పూర్తిస్థాయి నైపుణ్యం కలిగి ఉన్నవారిని పనిలోకి తీసుకోవడం వల్ల వలసవచ్చే పనివారిని గణనీయంగా నివారించవచ్చు; గ్రామీణ వ్యవసాయ కూలీలను పట్టణ వ్యవసాయ/ వ్యవసాయేతర నైపుణ్యాలను పెంచుకోవచ్చు;
- పరిమితంగా లభించే స్థానిక వనరులపై ఆధారపడటాన్ని నివారించేందుకు నిర్మాణ క్యాంపులోని వలసకూలీలకు మౌలిక మరియు ఇతర ప్రాథమిక సౌకర్యాలు కల్పించవచ్చు;
- నిర్మాణ ప్రాంతంలోకి ఇతరులు రాకుండా నిరోధించేందుకు మరియు నిర్మాణసంబంధిత కార్యకలాపాల కలిగే దుష్ప్రభావాల నుండి ప్రజలను రక్షించవచ్చు;

- మార్కెట్ మరియు ఆవాసప్రాంతాలలో పనిజరుగుతున్నప్పుడు మరియు ప్రత్యేకించి గోతులు తవ్వకుతున్నప్పుడు అదనపు భద్రతా చర్యలు చేపట్టడం;
- వైద్యసౌకర్యాలు కల్పించడం ద్వారా పనివారికి పరీక్షలు, పర్యవేక్షణ, చికిత్స చేయించడం మరియు అవసరమయినప్పుడు రోగనిరోధక కార్యక్రమాలు చేపట్టడం;
- పనివారిలో ఆరోగ్యం పట్ల అప్రమత్తత కలిగించే, ప్రత్యేకించి సుఖవ్యాధులకు సంబంధించి వారిని జాగరూకులను చేసే విద్యాసంబంధమైన కార్యక్రమాలు చేపట్టడం;
- నిర్మాణం జరిగే స్థలం చుట్టుపక్కల ప్రాంతాలలోని ఆవాస ప్రాంతాలలో వ్యాధులు కలిగించే సూక్ష్మక్రిములు ప్రబలకుండా, లార్వా వ్యాప్తి చెందకుండా పారిశుధ్య చర్యలు చేపట్టడం;
- వెక్టర్ నియంత్రణ కార్యక్రమం అమలు చేయడం;
- నీరు నిలిచి ఉండకుండా చూడటం;
- వివిధ ఆరోగ్య సమస్యలు, నివారణ, వెక్టర్-ఆధారిత వ్యాధులు ప్రబలకుండా తీసుకోవలసిన జాగ్రత్తల గురించి ప్రాజెక్ట్ సిబ్బంది, మరియు నివాసముండే వారికి తెలియజెప్పడం;
- క్రిమికీటకాల బారినండి రక్షణ పొందేందుకై రెపెల్లెంట్లు, బట్టలు, వలలు మరియు ఇతర నిరోధాలను వాడటాన్ని ప్రోత్సహించడం;
- పురుగు మందులు దుర్వినియోగం కాకుండా, చిందకుండా, మనుష్యులు ప్రమాదవశాత్తు వీటిబారిన పడకుండా వాటిని భద్రపరచడం, రవాణా మరియు పంపిణీలలో భద్రతాచర్యలు చేపట్టడం; మరియు రహదారి భద్రతా చర్యలు చేపట్టడం.

### 1.8. సామాజికపరమైన వ్యయం & లాభాలు

- ఈ విభాగం అమరావతి ఆం.ప్ర. రాజధాని నగర నిర్మాణ అభివృద్ధి ప్రాజెక్ట్ లోని లాభాలు (సకారాత్మక ప్రభావాలు) మరియు నకారాత్మక ప్రభావం (సామాజికపరమైన వ్యయం) గురించి తెలుపుతుంది. పిచ్చుకలపాలెం గ్రామంలోని ఎ. 34.7615 సెం. భూసేకరణకు అయ్యే ఖర్చు రూ. 2.35 కోట్లుగా అంచనా వేయబడింది. సకారాత్మక మరియు నకారాత్మక ప్రభావాలు దిగువ ఇచ్చిన పట్టిక ఇ 3 లో చర్చించబడినాయి.

పట్టిక ఇ3: ప్రాజెక్ట్ యొక్క సకారాత్మక మరియు నకారాత్మక అంచనాలు

క్రమ. సం.	సకారాత్మక ప్రభావం	నకారాత్మక ప్రభావం	రిమార్కులు
1.	ఎకరానికి పెరిగిన ధర	వ్యవసాయ భూమి నష్టం	వ్యయం మరియు లాభాలకు (నకారాత్మక మరియు సకారాత్మక ప్రభావాలు) సంబంధించిన వివిధ అంశాలను జాగ్రత్తగా అధ్యయనం చేసిన తరువాత, ఈ ప్రాజెక్ట్ సమాజానికి ఎంతో మేలుచేసేదిగా గుర్తించబడింది. వ్యవసాయపరంగా జీవనోపాధి కోల్పోయేవారికి పట్టణ ప్రాంతంలో
2.	సామాజిక అభివృద్ధి	వ్యవసాయపరంగా కోల్పోయిన జీవనోపాధి	
3.	మౌలిక వసతుల అభివృద్ధి		
4.	ఆర్థిక అభివృద్ధి		
5.	జీవనప్రమాణాలలో ఎదుగుదల		

క్రమ. సం.	సకారాత్మక ప్రభావం	నకారాత్మక ప్రభావం	రిమార్కులు
6.	మెరుగైన జీవనోపాధి మరియు స్వయంఉపాధి అవకాశాలు		వ్యవసాయాన్ని చేపట్టడం వంటి ఉపశమన చర్యలద్వారా మరియు వ్యవసాయేతర జీవనోపాధి అవకాశాలను వృత్తి వైపుణ్యాన్ని పెంపొందించుకోవడం, మరియు స్వయంఉపాధి పెంచుకోవచ్చు.

ఈ ప్రాజెక్ట్ లో ప్రధానంగా వ్యవసాయ భూమి ఉంది. ఈ స్థలం ల్యాండ్ పూలింగ్ పథకం ద్వారా లభ్యమవుతుంది. ఈ ప్రాజెక్ట్ స్థానిక ప్రజలకు మౌలిక వసతుల అభివృద్ధి, సామాజిక అభివృద్ధికి తోడ్పడటమేగాక, జీవనోపాధి అవకాశాలు మరియు స్వయంఉపాధి వనరులు పెంపొందించుకోవడానికి దోహదం చేస్తుంది.

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ముఖ్య గమనిక: పిచ్చుకలపాలెం గ్రామము నందు, 01.04.2016 న గ్రామ సభ మరియు 05.04.2016 న ఫీల్డ్ సర్వే జరిపి మరియు 03.10.2016 న ప్రజా వేదిక సభ ను పర్యావరణ పరిరక్షణ శిక్షణ మరియు పరిశోధన సంస్థ (ఈ.పీ.టి.ఆర్.ఐ.) వారు నిర్వహించి సామాజిక ప్రభావ అంచనా నివేదిక మరియు సామాజిక ప్రభావ యాజమాన్య ప్రణాళిక నివేదికను తయారుచేయటం జరిగింది. ఈ విషయములును తుది సామాజిక ప్రభావ అంచనా నివేదిక లో పొందుపరచబడింది.

*P. Pragasam*



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ప్రజా ప్రాతినిధ్య సేవ - గతం సభ 3-10-2016  
 ఉచ్చితలపాలెం గ్రామం.

జనం ప్రాతినిధ్య సంఘాలకు EPRR, SIA మరియు భూసేవలకు  
 చట్టం కింద తుది మూల్యాంకన పాపాల్ కి ప్రభావ అంచనా  
 ప్రచురణ చేయడం ప్రసాది. అందుకు 3-10-2016 న ప్రజా ప్రాతినిధ్య  
 ప్రాతినిధ్య సేవలకు జరుపుకునే జనం ప్రాతినిధ్య గ్రామం ప్రాతినిధ్య  
 వద్ద గతం సభ జరిగినది. భూ సేవల విలువ 35.49 సంఖ్య  
 నిర్ణయించడం ప్రసాది. ప్రాతినిధ్య SIA మూల్యాంకన నివేదిక  
 ముఖ్య విషయముల వివరించడం ప్రసాది.

అభిప్రాయములు

- 1) గతం సభలకు అందుకు ఉచ్చితలపాలెం. అపమానము  
 తయారైనట్లు.
- 2) వీటి విక్రయ రాష్ట్ర భూములకు పాతా ప్రాతినిధ్య అంచనా (R.)
- 3) భూసేవలకు తగిన భూములు అందుకు తగినది, కార్డు  
 తగినది, పట్టి తగినది లేనిది మా గ్రామం ప్రాతినిధ్య  
 అవసరం లేదు. వివరముల పాతా గ్రామం అంచనా
- 4) 63, 64, 94, 91, 93, సర్కే సంఖ్యలకు సర్కే సంఖ్యలు భూ సేవలకు 35.49  
 సంఖ్యలు :-

SIA Team Representatives

CRDA Representatives

OSD Thulluv.

Div. EPR  
3-10-16

3/10/16

3/10/2016

CA / ఉచ్చితలపాలెం