

# Biophysical and Socio-Cultural Profile of Padmapuram Village in Visakhapatnam District: An Assessment of Tribal Needs

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## ABSTRACT

*This study is almost solely collected from the several times of field visits at Padmapuram village of Araku valley mandal in Visakhapatnam district, Andhra Pradesh state which is basically known for the tribal agglomeration. The local inhabitants are tribals mainly they dependent upon podu, coffee, mining, tourism and agriculture. The present study especially emphasized upon the different characteristics related to bio-physical, socio-cultural, demography, health, education, economy, household condition etc. which are at least to some extent distinct compare to the state and national figures. The Padmapuram village reflects a low satisfactory condition in terms of the aforesaid parameters, but, there are obvious serious lacking regarding health, water, electricity and education particularly in female population. Tourism industry may be enhancing the economic condition in the near future.*

**Keyword:** - Village Study, Padmapuram, Tribal, Araku Valley, Paderu ITDA

## 1. INTRODUCTION

Apart from popularizing the method of qualitative fieldwork in modern Social Anthropology, the village study gives the status of geographic, demographic and socio-economic details at present. It is a tool to understand the available resources, infrastructure, health and education facilities of the specific area or village. Hence, the importance of village study is heightened by the community's needs assessment. To make positive and sustainable changes in their communities, a community needs assessment should focus on a particular geographic area, sectors within that area such as healthcare and work sites, and community components to assess within each sector such as nutrition, chronic disease management, and tobacco use. With this data, communities can map out a course for health improvement by creating strategies.

### 1.1 Village Studies in India

Prof. Ramakrishna Mukherjee<sup>[1]</sup> analysis makes it clear that the village studies are important for social reformation. Thus, there is the need for the study of village communities. Village in India is not merely a spatial unit, but is Indian society in miniature. Under the impact of both planned and non-directed changes, villages are undergoing transformation. After independence, planners in India realized that unless Indian villages properly studied, no real progress could be made. Village studies are not often representative in nature. The significance of the village studies is such that sometimes their value may extend beyond national boundaries. But it is true that an understanding about different aspects of social reality is highly influenced by the indo-logical literature. During the 1950s and 1960s, there are many Sociologists and Social Anthropologists carried out that the village studies such as Alan Beals<sup>[2]</sup>, Ishwaran<sup>[3]</sup> and Epstein et al<sup>[4]</sup> carried out in Karnataka. Beteille, Andre<sup>[5]</sup> studied in Tamilnadu and Lewis, Oscar<sup>[6]</sup> studied a village in Uttar Pradesh, Dube S.C<sup>[7]</sup> studied a village in Telangana. On regional basis, Marriott, McKim<sup>[8]</sup> explained two complimentary concepts of universalization and parochialization in Kishangarhi village, Uttar Pradesh. Majumdar, D.N<sup>[9]</sup> opined that a typical anthropologist lived with the local people he established rapport with them, participated and he studied in their daily life. Replication in village-level studies conducted by Hockings, Paul<sup>[10]</sup>. Social change of Indian Tribes studied by Khare, P. K<sup>[11]</sup>. It is observed impact of planning and economic development.

From the various projects conducted by Indian, British and US Sociologists and Anthropologists for development agencies, many of the village monographs emerged. These reports included that Slater, Gilbert<sup>[12]</sup>, Srinivas M.N.<sup>[13]</sup>, Mayer<sup>[14]</sup>, Bailey F.G.<sup>[15]</sup>, Mandelbaum David<sup>[16]</sup> and others have tried to study village community in a biotic frame of reference. They practically ignore a basic reality that Indian village is synthesized community. It was convenient for Social Anthropologists to shift from tribal studies to village studies. They had employed the fieldwork method in the study of tribal communities. This method was also suitable for the study of village communities. The concept of ideal folk society, developed by Redfield<sup>[17]</sup>, was tried out in analyzing the cultures, but there it was found almost non-operative. While re-examining it Redfield thought that there was nothing wrong in the concept itself.

There are some social scientists, differentiate between Sociology and Anthropology. For both these Social Sciences, the field is common but the methods and techniques are different. Keeping this difference in view it could be said that sociology makes a generalized analysis on national level while anthropology makes intensive study of particular village communities. In India, however, such a kind of difference is not necessary. Here, they are jointly exploring the village community with a largely common methodology. As per Yogesh Atal<sup>[18]</sup>, Rural India provides a good meeting ground for the two disciplines. This effective communication is indeed a healthy trend and one should welcome this happy 'merging'.

In the 1980s, village studies have acquired new meaning. For a development and change, the village has become a major part of overall strategy. During the 1990s, a few monographic studies or restudy of the villages are published by Breman, Jan<sup>[19]</sup> and Singh, K.P.<sup>[20]</sup>. The studies discussed that the importance of the village studies as continuing source for the wider understanding of society, economy and polity in contemporary India. Chaudhuri, S and Gupta N<sup>[21]</sup> studied a district-wise analysis of the levels of living and poverty patterns. Major problems and prospects of tribal economy studied by Ramamani<sup>[22]</sup>.

## 1.2 Village Studies in Andhra Pradesh

The first monographic study in the Telangana region of unified Andhra Pradesh is an 'Indian Village' carried out by Dube S.C.<sup>[23]</sup>, it is described institutional aspects, social structure, economic and religious aspects and changes in the Shamirpet village. In his book, Hiebert P.G.<sup>[24]</sup> delineated anthropological description of life in Konduru, a village in the Telangana region of unified Andhra Pradesh. He also discussed the changes which are social structure, status and power, networks of interpersonal relationship, panchayats and rituals. In 2012, the professional anthropologists of Southern Regional Centre, Anthropological Survey of India, Kolkata<sup>[25]</sup> carried out a re-study of Byrlutygudem at located in Kurnool district of Andhra Pradesh was initially studied in 1961 by the Census of India. Kamal Manohar Rao. P<sup>[26]</sup> studied that a study of Madagada, a tribal village in Araku valley. In these studies detailed information regarding various aspects of rural life, either the holistic nature of the village communities is discussed or certain specific aspects of rural life are focused.

A few studies in particular the tribal development aspects conducted by eminent action oriented anthropologists and other social scientists such as Grameena Samudayalu conducted by Prasad Rao, D.L.<sup>[27]</sup>, Gopinath Reddy M. and Anil Kumar. K<sup>[28]</sup> studied that a case study on political economy of tribal development of Khammam district in Andhra Pradesh, another study conducted by Raja, Ratnam<sup>[29]</sup>, it is observed that an impact of institutional credit on socioeconomic development of tribal, Satya Pal, P.D.<sup>[30]</sup> awarded thesis which is focused on the Tribal development in Visakhapatnam Agency. It is found that the dynamics of inequality among Tribes of Araku Valley. Appala Naidu Pappala<sup>[31]</sup> has studied on the productivity of horticulture in remote Tribal areas of Andhra Pradesh. However, Sarkar, P. and Nandy, S<sup>[32]</sup> studied that a comparative analysis of primary education in Araku Valley. Occupational Structure of workers in Rural Andhra Pradesh carried out by Reddy A.A and Kumar P<sup>[33]</sup>, as a result, a study of Jatapu Tribe in Seethammapeta Mandal in Srikakulam District studied by Pulla Rao<sup>[34]</sup>. It is focused mainly demographic and economic status of Scheduled Tribes in Andhra Pradesh. Most of these studies are of mechanical nature. These do not add much to the existing knowledge about villages. Hence, the present study makes an effort to detect the problems and to assess the needs of Padmapuram village in Visakhapatnam district of Andhra Pradesh.

## 2. MATERIALS AND METHODS

The study village is a part of Eastern Ghats, Andhra Pradesh state. According to Geologists or Geo-Morphologists, area of the study can be considered gently steep as some of the parts have a slope of more than 6° respectively. Used for needs assessment at village level, the method to data collection is simple a village-based approach; it implies the way of data analysis. Hence, the present study opted for participatory rural appraisal (PRA) for better understanding. It is, therefore, nature of the study is holistic with both qualitative and quantitative approaches which are needed for providing solution of complex problems such as health, education and agriculture etc. The research tools mostly fall in category of semi-structured interview schedules. Interview guide also used for assembled focus group discussions

(FGDs) and sketched village resource mapping (VRM). It is important to understand the different unit of application among these instruments from the respondents of village level.

Source of the data, this work is based on primary data through fieldwork obtained from semi-structured interviews. Apart from secondary data is obtained from Government and Non-Government offices, various maps and diagrams collected in order to fulfill the objective of the research. According to different categories, the collected data helps to describe the Biophysical and Socio-Cultural Profile of the study village.

### 3. COMPONENTS FOR ASSESSMENT OF BIOPHYSICAL AND SOCIO-CULTURE

According to Thin, Neil<sup>[35]</sup>, Anthropology demands a high-quality understanding among human beings not only of biophysical resources, needs and uses of the resources, but also of the tenorial and spatial arrangements by which those resources are appropriated, managed and used. When required components, a biophysical assessment, should be prepared that is Topography, Geology, Hydrology, Soils, Vegetation and Wildlife etc. Across the village, the district and the regional levels, a social assessment has revealed extensive diversity in communities. This is reflected amply in terms of aspects such as categories of respondents, occupations, housing status and assets, landholdings, land use pattern, agriculture production and productivity levels, livestock ownership, fisheries activity, household income and expenditure, sources of agricultural information and adoption of agricultural practices. The objective of cultural assessment is to determine how embedded the community or individual, is in his or her traditional culture. Every community, whether urban or rural particularly tribal, has inhabitants or dwellers who are cultural backbone of their communities. In rural communities where geographical isolation occurs, cultural leaders are probably more apparent, but there is a common agreement in all communities about who "sets the tone" of their social environment.

### 4. PADMAPURAM VILLAGE: GENERAL DETAILS

In a specific village study, the concept of accessibility is a central aspect and which is a part of many areas such as the transport and spatial planning or the assessment of locations and infrastructure.

#### 4.1 Accessibility and Location

Araku Valley mandal is the North-eastern part of Visakhapatnam district, Andhra Pradesh. The valley consists of the hilly it fully covered by the Eastern Ghats. Araku Valley falls under the division with an altitude of about 900 meters dotted with several peaks exceeding 1200 meters above the sea level which reported by Syam Kumar, Bariki<sup>[36]</sup>. The geographical area of the Araku valley spread across 223 Sq. Km. is surrounded by the 14 Gram Panchayats and the 163 inhabited villages. Significantly, the total 5.66 lakh population are compacted in 12 thousand households. Of which 91.69 per cent of population dwell in the interior areas.

The present study focuses on Padmapuram village, at a distance of 1.7kms of Araku valley in Visakhapatnam district. As per Panchayat Extension to Scheduled Areas (PESA) Act and Constitution of India, Padmapuram village grown up as a gram panchayat from 2009 onwards and administrated by the village leader (*sarpanch*) who elected representative of village. Figure-1 highlighted the study village Padmapuram is surrounded by Dumbriguda Mandal towards west, Ananthagiri Mandal towards East, Hukumpeta Mandal towards South, Pottangi Mandal towards North. Salur, Sunabeda, Koraput, Bobbili are the nearby cities. Visakhapatnam is the nearest town to Padmapuram which is approximately 115kms away. Official language of this place is Telugu.

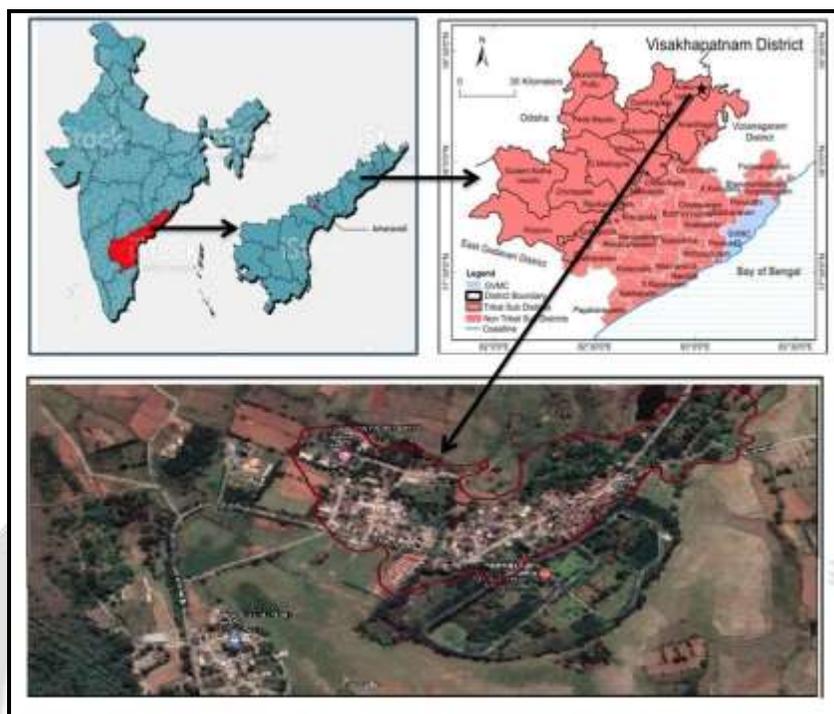
#### 4.2 Topography

As part of the topography, it is usually recorded in reference to sea level (surface of the ocean), the Padmapuram village is characterized by an undulating topography. The total geographical area of Padmapuram village is 748 hectares. The village is highly elevated about 925 meters above sea level. The geo-coordinates are taken as per Dual frequency Global Positioning System (DGPS) surveyed sketch into Google earth. The accuracy of geo-coordinates depends upon the signal strength of the satellites and it varies from place to place and range between  $\pm 1$  to  $\pm 3$  cms. The village is extended by an undulating topography from 18°20'11" North latitude to 82°52'47" East longitude.

#### 4.3 Geology and Exploration

Regionally, the Eastern Ghats Mobile Belt (EGMB) is occupied more than 600kms in length from Srikakulam in the Northern to Prakasam in the South. This belt is more than 100kms width in Northern part and appears down to less than 20kms in the South, it has broad actuated trend with West ward convexity. As per records of Department of Mines & Geology<sup>[37]</sup>, the EGMB in Visakhapatnam district is represented by wide ranges of Litho Units viz.

Charnockite, Khondalites, two Pyroxene Granulites. Padmapuram village and its surrounding area expose a variety of Rock forming a part of Migmatite zone of the EGMB. Prominent among them are a massive Charnockites (Acidic, Basic & Intermediate varieties), Leptynites, Granitoid Gnesis etc.



**Fig -1:** The Researcher Highlighted the Study Village

#### 4.4 Vegetation

The village area is bestowed with lush green vegetation. The hillock covered with modest vegetation, while the village is covered with thorny bushes and shrubs. Ground nut, paddy, cashew and mangoes are the commercial crops that are cultivated in the nearby agricultural fields.

#### 4.5 Livestock

Nearly 99% of households have at least one animal in their possession, rearing is a significant activity in the village. Milk is the most popular animal product followed by butter and egg. Nearest cattle market of the village is Araku. Fodder seeds are provided from the agricultural office. Green grass and dry grass are important among the fodder.

#### 4.6 Temperature and Rainfall

The range of average rainfall in and surrounding the village is 1000-2130mm per year. As per a monsoon climate with its characteristic rhythms, the village receives an average rainfall is 1781mm on every year. On the basis of the local rainfall conditions, the four seasons including two monsoon seasons recognized-South-West Monsoon (June to September), North-East Monsoon (October to December), Winter (January to February) and Summer (March to May). The temperature gets down on the onset of the South West Monsoons and its tumbles to a mean minimum of 4°C by January of every year, after which there is a reversal trend till the temperature reaches to mean maximum of 34°C by the end of May, that is April to June are the warmest months.

#### 4.7 Soil Type

The soils are red loamy and coastal alluvial which were medium to heavy textured, fertility status stands in poor to medium and prone to moderate to heavy erosion. At the higher range of the hill tops, the soils are moderately deep

to shallow and at some locations gravelly, intermixed with pebbles. They retain moisture but due to excess rainfall have been subjected to higher leaching and runoff losses of both nutrients and topsoil.

#### 4.8 Land Use

Figure-2 depicts that an outline structure of the land use pattern in the study village. Under different types of land use pattern, largely (67% of the total land) comes under agricultural sector by paddy in addition groundnut, maize, sunflower, oil palm, green gram, coconut, black gram, mango, vegetables; other cash crops are also grown in small areas in tank command areas in the village while 10% land is under fallow and grazing land. However, lands occupy both commercial and residential almost equal percentage (8% and 7%) respectively. Besides, park and playground also occupied almost 4% of total land. Percentage of water bodies is quite negligible (<1%).

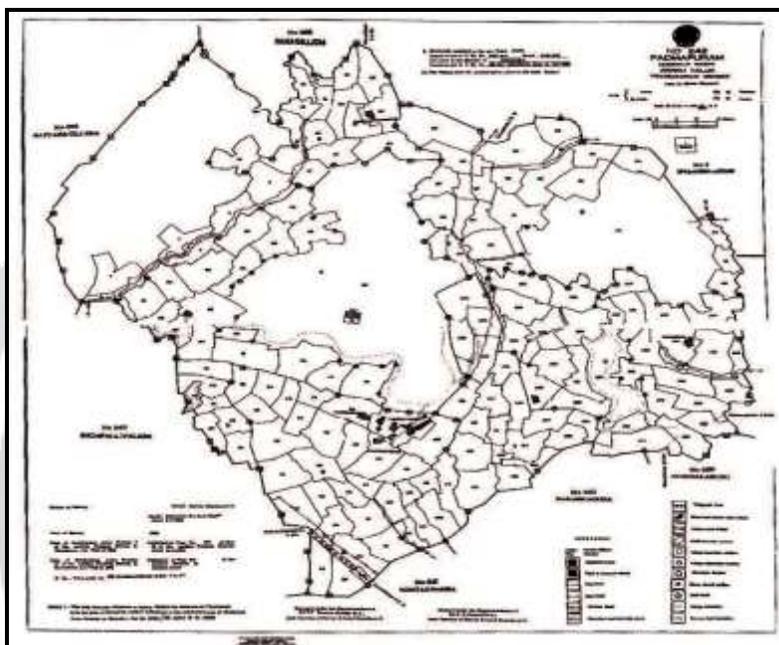


Fig -2: Outline Structure of the Land Use Pattern in the Study Village

#### 4.9 Agricultural Set-Up of the Village

Out of the total agriculture area is 1848.79 acres, only 600.05 acres (32.46%) are now cultivated. Main crop is the paddy. The total area is 309 acres under paddy cultivation while the alternate crops occupy 291.05 acres. Moreover, the seeds for alternate crop are supplied in the village and 50% subsidy is given. They borrow nearly 20% of the agricultural loans from the Nationalized Banks and the Private Money Lenders. Main market of the village primarily depends upon cultivation. There is only one fair price shop functioned in the village.

#### 4.10 Communication and Infrastructure

The nature of communication networks involve both physical-cyber infrastructure such as buildings, switches, towers, antennas, routing and switching software, operational support systems, user apps etc., as well as representing a holistic challenge to address the entire transport infrastructure including the local roads, train, bus and airline services etc.

##### 4.10.1 Tele Communication Facility

The people of Padmapuram village enjoy a number of specified assets. Television, computer, mobile and two-wheeler and auto-rickshaws (3-wheeler) vehicles are most significant among the assets. The tele communication facility is available at the village level. Apart from that, network connection of mobile phone is literally poor in the village. It shows a deprivation of access to the facilities. In the Padmapuram village, news paper, television, radio,

telephone, mobile is main source of information and communication. They mostly watch movies, serials sports, entertainment, and health programmes in the T.V. Internet facility is also available. Nearly 50% people are using cell phones in the village. Monthly expenditure for mobile usage is Rs. 400/- only. Authorities of the Government had given information to the villagers. They also get some information from the educate person.

#### **4.10.2 Road Connectivity**

The Bus Services available which is managed by the State Transport (APSRTC) from Padmapuram village to Araku Valley and also to Visakhapatnam district headquarters. The private transport services are also available on this road network. However, the village is undergoing a metamorphosis, with the roads being repaired and hotels being set up with the influx of tourists. As the percentage of unmetalled road is much greater the road condition is very much affected by waterlogged or muddy condition in rainy season. 22% of roads come under water logged condition, 37% is muddy and remaining 41% is others. Besides, 48% of the roads are cleaned daily while 52% are occasionally cleaned.

#### **4.10.3 Railway Station**

Calculated by Google maps, driving distance from Padmapuram village to Araku railway station and Visakhapatnam railway junction is about 1.88km and 115kms. The four hours need to be reaching from the Araku to Visakhapatnam facilitated.

#### **4.10.4 Port Facility**

At distance is about 111 kms from the village, Visakhapatnam Port is available. It is a natural port endowed with deep water basins formed by a high promontory into the sea, known as Dolphin's Nose Hill to the south and Ross Hill to the North of the entrance channel.

#### **4.10.5 Airport Facility**

From the village, the nearest Visakhapatnam Airport is available at distance 80kms. This airport is the second busiest in Andhra Pradesh and runs domestic services through the airlines of Air India, Air Asia, Spice Jet and Indigo etc to the major Indian cities such as Delhi, Chennai, Hyderabad, Kolkata, Mumbai, Bangalore and Pune.

#### **4.10.6 School Facility**

The quality of education is available in the village at primary level for the 3<sup>rd</sup> class to 5<sup>th</sup> class students. Padmapuram village has only one elementary school functioned by a single teacher. All school aged children are going to the schools. Educational facilities in the school like furniture and infrastructure, teaching learning material, audio-video devices etc are very poor only one radio available. Through Mid-day Meal (MDM) programme, the most important food items like rice, red gram and egg are given for their daily menu. The school building is avail, the text books for all subjects are given and, there are the toilets for the students available, scholarships are also given. Village people interested to higher education for their children. There is no educational institution for higher studies nearby the village. The students those who are eligible have been going to Paderu, Munchingput, Araku and Visakhapatnam for higher, professional and technical education.

#### **4.10.7 Health and Medical Facility**

The good equipped health and medical facility is the Areal Hospital, Araku Valley, is 24/7 hours available to serve their health problems, it is an average of two kilometres at distance and reached by auto for 15 minutes from the this village. Some health beneficiary scheme for the poor local inhabitants provided the Government and some Non Government Organizations. About 58.9% of the households have directly benefitted. Among the local people, the mode of treatment is very common at home remedy. Later on, they prefer traditional (*ethno*) medicine because of their strong willpower; finally, they go forwards to modern medicine at nearest Areal Hospital, Araku Valley. In case of any severe problem (ill-health), the patient will referral to plain area hospital both private (Seven Hills, Care, Medicover etc) and Government (King George Hospital, Visakhapatnam, VIMS etc). Almost half of the population believes in allopathic treatment. As parallel treatment of disease or illness, both homeopathic (19%) and ayurvedic (21%) medicines also preferred.

Although the health situation of village is worse, many ageing people suffering from body pains (knee pains), paralysis whereas fever, cold-cough, malaria, anthrox, waterborne diseases like diarrhoea, jaundice, typhoid more

prevalent. In this village, a number of disabilities were identified such as unable to speak (dumb), hearing impaired (deaf), locomotion (loss of limb), sight (blind) and mental retardation etc. The significant reasons will be caused for low average or poor health status such as poor food quality, low economy, less hygiene, poor sanitation and quantity and quality of medicine supply etc.

There is no one patient can fail at recent. Tribal people have low health expenditure per household range between the maximum 30,000/- rupees and the minimum 2000/- rupees, it is observed from FGD, the average cost of medicine or expenditure is Rs. 450/- per monthly of each tribal household. About 20% of the population expenses more than Rs. 2000/- per month for medical treatment.

## 5. SOCIO-ECONOMIC AND DEMOGRAPHIC PICTURE OF THE VILLAGE

Padmapuram is a road-side village habituated by multi-ethnic communities' particularly tribal groups. This village is also a very exposed by eco-tourism. It is situated 1.7km away from mandal headquarter and 115km away from district headquarter. The total geographical area of village is 7.48 Square Kilometers (km<sup>2</sup>). It is one among the 169 villages of Araku Valley. Table-1 depicts that gender-wise distribution of total population in Padmapuram village, Andhra Pradesh. The total population is 2,022 of 472 households. It is observed from the Table-2, Tribals are the major group in the village who consist 94.51 per cent of total population. However, the caste population consists of 5.49 per cent.

**Table-1:** Distribution of Total Population in Padmapuram Village, Andhra Pradesh

S.No	Gender	Frequency	% of Total Population
1	Male	1034	51.14
2	Female	988	48.86
	Total	2022	100

### 5.1 Social Status

The family is an intimate domestic group in any society made up of people related to one another by bonds of blood, sexual mating or legal ties. It is the smallest and which also the most basic social unit. As per the field data, the category of the nuclear family dominates the village (82.72%) followed by the joint family (12.42%), the extended family (3.81%) and family with a single member (1.05%). The village distinguishes the social strata into Scheduled Tribes (ST), Scheduled Caste (SC) and Other Backward Classes (OBC). Table-2 shows that distribution of social strata among the Padmapuram village. Out of the total population, STs constitute 94.51%, SCs are 4.15% and OBCs only 1.34% respectively.

**Table-2:** Distribution of Total Population by Social Strata in Padmapuram Village, Andhra Pradesh

S.No	Social Category	Frequency			% of Total Population
		Total	Male	Female	
1	Scheduled Tribe	1911	903	1008	94.51
2	Scheduled Caste	84	38	46	4.15
3	Other Backward Class	27	14	13	1.34

**Table-3:** Distribution of Total Population by Sex Ratio in Padmapuram Village, Andhra Pradesh

S.No	Population	Sex Ratio (F/M*1000)
1	Total Population	956
2	0-6 aged Children	1239
3	Scheduled Tribe	1116
4	Scheduled Caste	1211
5	Other Backward Class	929

As the sex wise division of different communities is analyzed and presented in Table-3, it shows that in sex ratio category of the village males were lesser in number. It is observed from the findings, the total village sex ratio is 956 females per 1000 males followed by Scheduled Tribe (1116 females per 1000 males) and Scheduled Caste (1211 females per 1000 males) respectively. The gap of male and female is much wider for scheduled tribe category than other backward classes. In scheduled caste category, females are more than males.

## 5.2 Educational Status

Chandna and Sidhu<sup>[38]</sup> characterized that literacy is an essential mean for eradicating poverty and mental isolation, for cultivating peaceful and friendly international relations and for permitting the free play of demographic process. Table-4 depicts that distribution of total population by literacy in Padmapuram village. It reveals the overall literacy rate of this village is not very impressive, here 1056 (52% of total 2022 population) are literates including 702 of total 1034 males as male literacy rate (67.89%) while 354 out of total 988 females as female literacy rate (35.83%) respectively. It reflects that a huge gender inequality of literacy among the villagers where male population enjoys a much higher status in terms of literacy. To obtain the educational status, number of persons divided into several groups of educational level like primary, secondary, higher secondary, junior or pre-university, graduate, post graduate with both professional and technical. Besides, 34 children going to Anganwadi centre. The nearest hostels found in Yandapallivalasa and Padmapuram. 65% of the village students are studying in hostel.

**Table-4:** Distribution of Population by Literacy Rate in Padmapuram Village, Andhra Pradesh

S.No	Literacy Rate	Total		Male		Female	
		No	%	No	%	No	%
1	Literates	1056	52.23	702	67.89	354	35.83
2	Non-Literates	966	47.77	332	32.11	634	64.17

## 5.3 Economic Status

As per the Department of Tribal Welfare<sup>[39]</sup>, an engagement in the primary sector is a dominant economic activity, indicates the general characteristic of a tribal village. Agriculture is the main occupation of the local inhabitants. But, the Padmapuram village has a tremendous scope to emerge as a leading tourist destination of Andhra Pradesh like a place of botanical garden because of its excellent natural beauty. It is observed from Table-5, about 40.5% of the households depend on daily wage labour by agriculture for livelihood each candidate earns Rs. 100/- per female; Rs. 200/- per male, and 23.1 percent of the households engaged daily wage labour by MGNREGP (*upadi hamy padakam*) which community based earning programme each candidate earns Rs. 100/- to 200/- per a day, about 77.1% of the households they earn less than Rs.9000/- per month and 22.9% have a monthly income of more than Rs. 15000/-. Besides, as manual labour in coffee industry (5.72% of households) is also one of the economic activities. Few households (4.24%) are engaged in mining activities observed. The recent trend shows that tertiary sector is growing in an increasing rate. It is found that regarding social welfare pensions, i.e. social security, old aged, widow, weavers, disabled etc.

Average income of the household is Rs. 4179/- per month. As a result, the financial condition of the village is below average compare to the state of Andhra Pradesh (Rs. 6491/-) figure. Among the 472 households, Majority of them (94%) come under below poverty line (BPL). Hence, most of the key informants can opine that the overall economic status of the village is in improving stage.

**Table-5:** Distribution of Households by Income Source in Padmapuram Village, Andhra Pradesh

S.No	Source of Income	Frequency	% of Total Households
1	Daily wage Labour by Agriculture	191	40.47
2	Coffee Industry	27	5.72
3	Mining Industry	20	4.24
4	Daily wage Labour by MGNREGP	109	23.09
5	Business	55	11.65
6	NTFP Collection	36	7.63
7	Employment (Public + Private)	33	6.99
	Total	472	100

#### 5.4 Housing Pattern

The semi-permanent type of houses are more common (>55%) in the village, one or two stair houses are more common than multi-stair building. It is symbolic feature of rural area. About 59% of the land property is authorized and rest of the houses is unauthorized. There are mainly three types of houses, i.e., (1) permanent which refers to those houses whose walls and roofs are made of pucca materials, i.e., where burnt bricks, G.I. sheets or other metal sheets, stone, cement, concrete is used for wall and tiles, slate, shingle, corrugated iron, zinc or other metal sheets, asbestos sheets, bricks, lime and stone and RCC concrete are used for roof, (2) semi-permanent it refers to those houses made of other types of materials and (3) temporary is referred to those houses having wall and roofs made of Kutcha materials, i.e., where, grass, leaves, reeds, bamboo, mud and unburnt bricks are used for the construction of walls and grass, leaves, reeds, bamboo thatch, mud, unburnt bricks and wood etc. used for roofs.

#### 5.5 Electricity Supply

There are two major sources of lighting in the village, the electricity and kerosene. Electricity is available and also using electricity for agricultural lands also. Approximately 70% houses used authorized electricity and remaining houses used the electricity from the land owners. Poor quality of electricity supply is common problem like frequent outages and voltage fluctuations can damage appliances or reduce their life.

#### 5.6 Kitchen Facility

It is shown which reveal the fact that more than 70% houses have kitchen facility whether it is available inside (42%) or outside (28%) the houses. 90% households used firewood is the most common type of fuel for cooking.

#### 5.7 Water Facility

The sources of drinking water in Araku valley region are open wells and spring water storages (*kundis*). The natural springs (*Oota*) which are only source for drinking water as well as utility purpose available in the interior villages. According to official records of Ministry of Health and Family Welfare, Government of Andhra Pradesh in 12<sup>th</sup> five year plan<sup>[40]</sup>, the tribal population mostly drinks water without treatment under unhygienic conditions, the impact of the developmental activities on drinking water sources has not been explored, and hence there is a need to chlorinate the degree of microbial contamination in the water. Excluding drinking water, about 65% of water supply through Tap pipeline is one source which is really a good sign. It is found that in the village, the most common sources of water for drinking such as wells (34%) and springs (25%). Agricultural lands are irrigated by the ground water by using bore wells. As per the District Census Handbook<sup>[41]</sup>, the ground water level is 85m BGL (below ground level).

#### 5.8 Latrine Facility

There is a serious problem in the village to lacking of latrine facility. Most of the households (89%) depend on open defecation which is human practice of defecating outside rather than into a toilet. These people may choose fields, bushes, forests, ditches, road sides, etc which must be decreased through the scheme of open defecation free (ODF).

#### 5.9 Drainage Facility

Notable water bodies are not presenting either seasonal or perennial. This is the serious drawback of the village. It indicates the drainage facility as most of households (63%) have no such type of drainage connectivity for waste water outlet. Moreover, about 37% of households cleaned that a regular garbage clearance also observed.

#### 5.10 Land Holding Capacity

According to the National Bank for Agriculture and Rural Development (NABARD) All India Rural Financial Inclusion Survey in 2015-16<sup>[42]</sup>, average landholding size of a household in India has shrunk marginally to 1.1 hectare. The present study specified this village level of the land ownership, majority of the households adopt subsistence agriculture. Thus nearly half of the owning less than 1 hectare of land having the Tank (*ayacutdars*) are marginal farmers. Small farmers owning of 1-2 hectares constitute 29%. The remaining 21% are medium and large farmers. It is important to note that while 50% of the farmers are marginal they own only 18% of the land in the ayacut.

### 5.11 Public Distribution System

As a system of management of scarcity through distribution of food grains at affordable open market prices, the public distribution system (PDS) evolved. Under the PDS, presently the essential commodities namely wheat, red gram, rice, sugar and kerosene being allocated for distribution to the BPL families. Among the tribals, about 94% households in the village have the BPL cards; remaining households are newly separated by marriage they applied. Among all the BPL cards, White card, Antyodaya Anna Yojana (AAY) card and Annapurna card are reported.

### 5.12 Religious Status

Religious separation is an area of diversity. Here people of many religions live peacefully together. In Padmapuram village also more than one religion were found to coexist peacefully. Table-6 depicts that distribution of the households in the village by various religions, there are two religions recognized such as Hinduism and Christianity. About 80.91% of the households of the village belong to Hindus and only 19.09% are Christians.

**Table-6:** Distribution of Households by Religion in Padmapuram Village, Andhra Pradesh

S.No	Religion	Frequency	% of Total households
1	Hinduism	382	80.91
2	Christianity	90	19.09
	Total	472	100

### 5.13 Identification of Dependent Age Groups

To understand the development of a village, demographic aspects are very important. Population of Padmapuram village divided into different age groups. Among the population, further, generalization was made by identification of dependent age groups. Table-7 shows that a distribution of 0-6 aged children in the village. It is found from readings that the child sex ratio of 0-6 years is 1239 girls per 1000 boys.

**Table-7:** Distribution of 0-6 aged children in Padmapuram Village, Andhra Pradesh

S.No	Gender	Frequency	% of Total Population
1	Male	113	5.59
2	Female	140	6.92
	Total	253	12.51

The inhabitants of Padmapuram village are belonging to multi-ethnic; they Bhagatha, Kondadora, Valmiki, Kotia, Kammara are the major tribal groups. Moreover, particularly vulnerable tribal group is Porja (PVTG) dwell in adjacently. It is clear that for this village males outnumber females by a little majority. This type of distribution is a reflectance of common trend of male dominated population pattern of non-tribal villages. Table-8 represents that different age groups in Padmapuram village, it is clear that is very young and active population (82.59%), it is covering the most of the demography. The aging people are very lesser in the total population composition. Most of them belongs to age group 15-29 (37.24%) followed by 30-44 (29.97%).

**Table-8:** Distribution of Population by Age Group in Padmapuram Village, Andhra Pradesh

S.No	Age Group (in years)	Total		Male		Female	
		No	%	No	%	No	%
1	0-14	311	15.38	139	6.87	172	8.51
2	15-29	753	37.24	384	18.99	349	17.26
3	30-44	606	29.97	295	14.59	311	15.38
4	45-59	311	15.38	199	9.84	132	6.53
5	>60	41	2.03	17	0.84	24	1.19
	Pooled	2022	100	1034	51.14	988	48.86

### 5.14 Workforce Participation

Workforce Participation Rate (WPR) is represented by the proportion of working population to total population. It depends upon various factors like age and sex composition, attitude and willingness to work, ability to work, job opportunities etc. The WPR is calculated by this formula:

$$\text{Workforce Participation Rate} = \frac{\text{Number of people actively participating in work force}}{\text{Total number of people eligible to participate in work force}}$$

The division of working and non-working population shows that with help of Table-9. This presentation depicts that the share of working population only marginal. Half of total population (49.9%) participated in economic activities. The workforce participation rate of the village is better than the value of National (39.79%) and the State of Andhra Pradesh (46.61%) respectively.

**Table-9:** Distribution of Population by Workforce Participation in Padmapuram Village, Andhra Pradesh

S.No	Workforce Participation	Total		Male		Female	
		No	%	No	%	No	%
1	Workers	1009	49.90	474	45.84	535	54.15
2	Non-Workers	1013	50.10	560	54.16	453	45.85
	Total	2022	100	1034	100	988	100

### 5.15 Female Workforce Participation

Enhancing female's workforce participation rate (FWPR) is very critical not only for achieving reduction of poverty and economic development but it is also crucial for the full social development. The female workforce participation and its contribution to economic development has been addressed in many studies such as Esteve-Volart<sup>[43]</sup> studied that the theory and evidence from India of gender discrimination and growth, Nomita<sup>[44]</sup> conducted a study on trends and determinants for female work participation in Uttar Pradesh, Appalanaidu Pappala<sup>[45]</sup> conducted that a comprehensive study of tribal women and economic significance in ITDA Paderu Agency, Visakhapatnam district recently. Thus, drawing women into the labour force can be an important source of future growth of the economy Klasen and Lamanna<sup>[46]</sup> updates and extensions with reference the impact of gender inequality in education and employment on economic growth. Mahapatra<sup>[47]</sup> highlighted that the women's economic productivity is a critical, as the dependence of the family on their contribution to household resources increases with the poverty status at household level. But, here, the scenario of this village is quite remarkable. Female literacy is an important indicator of determining the work participation. Thus, inverse relationship between literacy rate and workforce participation can be established for Padmapuram village. In fact it was found that for the female illiterates work participation rates are better than the female literates. Table-9 depicts that a distribution of working and non-working population; it is also mentioned that levels of occupation clearly. In Padmapuram village, the FWPR is a better (54.2%) than their male counterparts (45.8%) which is a matter of concern. From the comparative data, it is asserted that both working males and working females is a slightly high, but female workforce participation even marked a good significant than the state of Andhra Pradesh (36.16%) and India (25.51%). It is remained that fall down for a long time and Padmapuram village is double which is differing from the national value.

### 5.16 Dependency Ratio(s)

To better understand the age composition, dependency ratios of the area provide a quick and powerful measurement for identified workforce population. Using data, it helps communities to better plan, manage, and allocate resources effectively. These ratios indicate that a very potential effects of changes in population age structures for social and economic development, pointing out broad trends in social support needs. By describing the changes in the dependency ratio, the population is identified as a group must be financially dependent (consumers) and financially highly active (producers) group. This is observed from changes in population age structures; the results can also provide an indication of potential social support needs. In addition, the ratio highlights the potential dependency burden on workers and indicates the shifts in dependency from a situation in which children are dominant to one in which older persons outnumber children as the demographic transition advances that is, the transition from high mortality and fertility, to low mortality and fertility. Under medium fertility conditions taking data of the NSSO<sup>[48]</sup>, the dependency ratio at national level is expected to decline from 54.4% in 2010 to 49% by 2020 and further to be 46.9% by 2030. Rachel et al.<sup>[49]</sup> studied that the decline in dependent age group should beneficial for the society as there would be more economically and physically active population available for taking part in productive activities.

A low dependency ratio means that there are sufficient people working who can support the dependents. When using data, the ratios are considered “low” it means that not exceed the current India ratios of 48.7. A lower ratio could allow for the better pensions and quality healthcare for citizens. A higher dependency ratio is likely to reduce productivity growth. When the ratios are considered “high” it means the ratio that exceed the current India ratio of 48.7, it indicates the area is experiencing high financial stress and possible political instability due to large numbers of dependents that pay little or no taxes.

The dependent age group constitutes the population of the age group 0-14 and above 60 years. These persons are not able to participate in the economic processes. They are dependent for their livelihood on working population. The dependency ratio can be disaggregated into:

(1) The total dependency ratio refers to the number of children aged 0 to 14 years plus the number of persons aged 60 years or over per 100 persons aged 15 to 59 years. This ratio is calculated by formula which adopted from Census of India<sup>[50]</sup>:

$$\text{Total Dependency Ratio} = 100 \times \frac{(\text{Population (0-14)} + \text{Population (60+)})}{\text{Population (15-59)}}$$

$$= (311 + 41)/1670 \times 100 = 21.08\%$$

(2) The youth dependency ratio which is the number of children aged 0-14 per 100 persons aged 15-59 years,  
 $= (311 \div 1670) \times 100 = 18.63\%$  and

(3) The old-age dependency ratio which is the number of persons aged 60 or over per 100 persons aged 15-59 years.  
 $= (41 \div 1670) \times 100 = 2.45\%$

**Table-10:** Distribution of Population by Dependency Ratio(s) in Padmapuram Village, Andhra Pradesh

S.No	Indicator	% of Working-Age Population
1	Total Dependency Ratio	21.08
2	Youth Dependency Ratio	18.63
3	Old-Age Dependency Ratio	2.45

There is a good number children aged 0-14 years (311) found by age-sex composition; it is mentioned earlier that Padmapuram village is a tribe dominated village. The dominate tribes of this village are- Bagatha and Valmiki. Table-10 depicts that distribution of total population by dependency ratio(s) in Padmapuram village. It is observed from the readings, the numbers shown that the ‘dependency ratio’ which the ratio of the entire village (21.08%), the youth (18.63%) and the old-aged (2.45%) whereas remaining to those in the workforce participation. It means there are 22 persons for every 100 in dependent age group (0-14, the sixty and above 60 years); it is a better position with the low dependency ratio due to a young nature of population in the Padmapuram village than the Nation (48.7%) and the state of Andhra Pradesh (50.2%).

## 6. FESTIVALS AND RITUALS

The spirit of social communication, festivals and rituals are cultural performances which serve to keep alive. For public festivals in ancient times, specific days and seasons were marked. A large number of people participated in these events. Over a period of time, with the advent of new religious forms and practices these primitive celebrations underwent great change and transformation. Padmapuram village is a multi-ethnic community, there are so many socio-cultural festivals practiced; all the festivals based on their beliefs, culture and tradition those help to their status of health, economy and livestock wealth increased such as:

Sankranthi (*push porub*) which ancestral related festivals consider as *peddapanduga* performed in the month of January refers as *chaitramasa*. Ganga devatha festival (*bali porub*) comes in the second week of January month. They worship *gangammathalli* on this day make the festival for good rainfall. They celebrate the festival for three days. They offer goat or sheep to god. They also worship jakara devatha (*deyyam purab*).

Nandipanduga (*bod dentha purab*) celebrates in the month of February.

Itikulapanduga (*choith purab*) performed in the month of March. They worship own tribal gods are *nishani* and *peddadevudu (sakhu)*. They celebrate this festival for seven days. No one works in this festival. In this occasion, all men going to hunting whereas women protect their household assets and collection of money from outside people those who entered in the village.

*Laddukiya* is a very recent festival borrowed from Odisha migrants. This festival refers to their happiness in the month of May. The younger generation enjoyed in the whole night of festival day by dance (*Dimsa*), music and folk songs.

Ammathalli panduga, they celebrate this festival for not getting illness to all villagers. This festival is held in the month of June. In every house the collect all the used broom sticks, baskets etc., and taken to the outskirts of village. Bheemudu pandaga (*piru purab*) celebrate for rains in June month. They worship *vana devudu*. They celebrate it for one day. They bring a black cow is offered to god and they cook it. *Gotnakia*, a festival is celebrated beforetime they start of agriculture work. They go to hill and make some sweets there and also cook some curries. Women at home take this food to farms and offer them to cows that are used in ploughing. They believe that a cow will be health by eating this food.

*Aashada jaathara* is celebrated in the month of July. They draw some rangoli on road and decorate it with fruits and flowers and make some cage. They conduct this “*puja*” for about one hour. Later they sacrifice a goat and offer it to god. They use the broom sticks for cleaning.

Korrakottha (*kunda purab or bandha purab*) is a Pumpkin to eat the newly grown crop festival. This is celebrated in the month of August. They bring pumpkin leaves and cook them and offered to lord Rama and Sitha. The people of Padmapuram village celebrate very common Hindu festivals like *vinayakachavithi* in August, *Dussehra* in October, *Deepavali* in November, and Palika pandaga (*pali purab*) is eating legumes festival following their ancients. They celebrated in the month of December. They cook food in three major houses and make festival. They offer food for the entire villager. The people of Padmapuram also celebrate a very common Christianity festivals like the *Easter* festival in April and *Christmas* in December.

According to the younger respondents, they are not practicing any festival for local deity. In the festival days, all tribal people participated healthy, but very few Christian tribals were not attended and performed in the Hindu and tribal (traditional) festivals.

## 7. NEEDS AND PRIORITIES

Under the development approach, it is suggested for the development of eco-tourism; an ideal step to regenerate the economic condition and it may be the social change and change in social perception and thinking. It can be improve the socio economic status of the people of Padmapuram village through development of communication, health, education. It may mitigate the health related socio economic issues; establishment of a number of quality hospitals is required. Investment from Government and private sectors is required to mobilize the entire developmental process. Tribals in this village are vulnerable because threatened by the outside tourists whose people continuously damaging myth, culture and tradition, places etc.

When conducting FGD for needs and priorities data, PDF Scholar requests participants to raise their hands. The researcher will set the priority in accordance with the number of raised hands of participants of group discussion. The needs based on difficulties, challenges and villager’s opinion. It is the most significant fact that scheduled tribe population is almost 95% of the total population. General and scheduled caste categories have too negligible percentage (4% and 1%) respectively. For eligible farmers through Rythu Mitra Sangam, agricultural benefits are not satisfied. Organic and non-organic fertilizers and seeds should be provided to them free of cost or with subsidy for their cultivation and agricultural use. The few small scale farmers want subsidy to increase their crop pattern or economy by machines like tractor, power driller, sprayer, etc.

For health needs, health status of the village is poor. Majority of the respondents felt not fair towards healthcare services because lack of modern medical infra-structure and medical personnel’s attitude and also timings etc. At hospital level, technical support was satisfied by local people followed by clinical examination, diagnosis, sample collection, testing, insurance etc. With regards maternal health, the pregnant women were suffering from low level of haemoglobin (*anaemia*), less usage of ante-natal care (ANC), intake of low level nutrients etc. Regular visits of ANMs, ASHA worker and Medical Officer, a better hospital which skilled health personnel, infrastructure, medicine supply established at panchayat level by Government should be needed for enhance their health status. At last main priorities of villagers are water facility (100%), drainage system (85%), and super speciality hospital at panchayat level (75%).

## 8. CONCLUSIONS

The socio-economic situation is crucial not only for promoting economic growth but also the best reflection of the quality life among the area and its people. Padmapuram is a village in Araku valley of Visakhapatanam district, Andhra Pradesh. The present study identified that a number of tribal needs and priorities, there is a substantial gap between demand and supply of healthcare infrastructure, both physical and manpower. It is concluded that to clear that socially and economically this village is not developed. Being a tribal village, it demands special developmental proposals to be executed. The spheres where special attention is needed are higher education and self-employment.

Both these factors are interdependent and if uplifted jointly then it might upgrade the socio-economic condition of the village. This village also has potential for growth of tourism industry. Proper government planning and initiative is ideally the need of time. It is observed from the findings, different needs and priorities are stated that the local people of Padmapuram are suffering from scarcity of safe drinking water which causes different issues. Scarcity of irrigated water indicates low productivity and also poor economic condition of the local people. Due to outburst of different diseases, social hazard situation is very common. The Padmapuram village is a roadside or exposed where people have narrow and traditional thinking. Being a tribal locality is still suffering from a number of civic amenities like power, water, medical service, higher education and poor road condition. The unwillingness is that people have alternative economic opportunities only reason behind Tourism; it may change the socio economic condition. They also involve in agriculture, business and different private sectors. According to the key informants, there are a number of tourists come to visit places only for a month. It creates seasonal employment. Economic backwardness is one of the reasons for low female literacy rate.

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## 10. REFERENCES

- [1]. Ramakrishna, Mukherjee (1976). "The Value-Base of Social Anthropology: The Context of India in Particular," *Current Anthropology*, vol. 17, no. 1, pp. 71–95.
- [2]. Alan R. Beals (1962). *Gopalpur: A South Indian Village*. New York: Holt, Rinehart and Winston.
- [3]. Ishwaran, K. (1966). *Tradition and economy in village India*. International Library of Sociology and Social Reconstruction. London: Routledge and Kegan Paul; New York: Humanities Press. xiv, 169 pp. 25s.
- [4]. Epstein, T. Scarlett, Suryanarayana, A. P., and Thimmegowda, T (1998), *Village Voices: Forty Years of Rural Transformation in South India*, Sage Publications, New Delhi.
- [5]. Beteille, Andre (1965). *Caste, Class, and Power: Changing Patterns of Stratification in a Tanjore Village*, University of California Press, USA.
- [6]. Lewis, Oscar (1958). *Village Life in Northern India: Studies in a Delhi Village* University of Illinois Press.
- [7]. Dube, S.C (1955). *Indian Village*. Routledge and Kegan Paul, London.
- [8]. Marriott, McKim (1955). *Village India*, University of Chicago Press, Chicago.
- [9]. Majumdar, D.N. (1958). *Caste and Communication in an Indian village*. Asia Publishing House: Bombay.
- [10]. Hockings, Paul (1999). "Replication in Village-Level Studies". *Economic and Political Weekly*. Vol. 34, No.40, pp. 2867–74.
- [11]. Khare, P. K. (1991). *Social Change of Indian Tribes: Impact of planning and economic development*, *Deep and Deep Publications*, New Delhi, India.
- [12]. Slater, Gilbert (1918). *Economic Studies: Some South Indian Villages*. Vol., 1; Oxford University Press: Madras.
- [13]. Srinivas, M. N. (1957). "Caste in Modern India". *The Journal of Asian Studies*. Vol. 16; No. 4, pp. 529–48.
- [14]. Mayer, A. C. (1960). *Caste and Kinship in Central India: A Village and Its Region*, University of California Press: Berkeley.
- [15]. Bailey, F. G (1957). *Caste and the Economic Frontier: a village in highland Orissa*. Manchester: Manchester University Press.
- [16]. Mandelbaum, David G (1972). *Society in India Vol 1 Continuing and Change. Vol 2 Change and Consistency*; Popular Prakashan, Bombay.
- [17]. Redfield, Robert (1930). *Tepoztlán, a Mexican Village: A Study of Folk Life*. Univ. of Chicago Press.
- [18]. Yogesh, Atal (1959). *Rural studies: Indian village*. *The Eastern Anthropologist*. Vol.14.
- [19]. Breman, Jan (1997). 'The Village in Focus', in Jan Breman et al. (eds.). *The Village in Asia Revisited*. Delhi: Oxford University Press, pp. 15-75.

- [20]. Singh, K. P. (1988). *Tribal Development in India: Problems and Implications*, Uppal Publishing House, New Delhi, India.
- [21]. Chaudhuri S, Gupta N (2009). "Levels of Living and Poverty Patterns: A District-Wise Analysis for India", *Econ. Pol. Wkly XLIV*, (9): 94-110.
- [22]. Ramamani, V. S (1988). "Tribal Economy Problems and Prospects" – Chugh Publications, Allahabad.
- [23]. Dube, S.C (1974). *Contemporary India and Its Modernization*. Vikas Publishing House. New Delhi.
- [24]. Hiebert Paul G. (1971). *Konduru: Structure and Integration in a South Indian Village*. University Of Minnesota Press.
- [25]. SRC-AnSI (2012). *A Bio-Cultural Profile of Byrlutygudem Village in Kurnool district, Andhra Pradesh*.
- [26]. Kamal Manohar Rao. P (1988). "Madagada" A tribal village in Aruku Valley, Bahujana Printers, Hyderabad.
- [27]. Prasad Rao, D.L (1976). *Grameena Samudayalu*. Telugu Academy publications, Andhra Pradesh.
- [28]. Gopinath Reddy M. and Anil Kumar. K (2010). *Political Economy of Tribal Development: A Case Study of Andhra Pradesh*", Centre for Economic and Social Studies, Hyderabad.
- [29]. Raja, Ratnam, B. (2004): "Impact of institutional credit on socioeconomic development of tribal: A study of Khammam district in Andhra Pradesh", *Journal of Rural Development*, Vol. 23, No. 2.
- [30]. Satya Pal, P.D. (2016). *Dynamics of Inequality among Tribes: A Study of Araku Valley in Visakhapatnam Agency*. Awarded thesis from Andhra University, Visakhapatnam, Andhra Pradesh.
- [31]. Appala Naidu Pappala (2019). *Productivity of Horticulture in Remote Tribal areas of Andhra Pradesh*. *International Journal of Trends in Scientific Research and Development*. Volume-3, Issue-2, pp-13-16.
- [32]. Sarkar, P., Nandy, S. (2016). *A Comparative Analysis of Primary Education in Araku Valley*. *The Observer*, Vol. 53; pp. 40-44.
- [33]. Reddy A.A, Kumar P. (2006). *Occupational Structure of workers in Rural Andhra Pradesh*. *J. Indian School of Politic. Econ.*, Jan-June; pp. 77-91.
- [34]. Pulla Rao, D. (2013). *Demographic and Economic Status of Scheduled Tribes in Andhra Pradesh: A Study of Jatapu Tribe in Seethammapeta Mandal in Srikakulam District*, *Journal of Social Welfare and Management*, October-December.
- [35]. Thin, Neil (1996). *Environment In: A. Barnard & J. Spencer (eds.), Encyclopedia of Social and Cultural Anthropology*, 185-188. London [u.a.]: Routledge.
- [36]. Syam Kumar, Bariki (2016). *Assessment of physico-chemical quality of drinking water and water quality index in tribal area of Dumbriguda mandal, of Visakhapatnam District, Andhra Pradesh, India*. *International Journal of Development Research* Vol. 06, August Issue, 08, pp. 9017-9025.
- [37]. Department of Mines & Geology (2021). *Visakhapatnam District*, Government of Andhra Pradesh: Amaravati.
- [38]. Chandna, S. and Sidhu, P. (1980). *Social Geography*. Rawat Publications, Jaipur.
- [39]. Department of Tribal Welfare (2018). *Agricultural Department in Araku Valley, Andhra Pradesh*.
- [40]. Government of Andhra Pradesh (2014). *The Statistics*. Directorate of Economics and Statistics, Hyderabad.
- [41]. *District Census Handbook (2016)*. Visakhapatnam District, Andhra Pradesh. Directorate of Census Operations, Andhra Pradesh & Telangana 1st Floor, Kendriya Sadan, Sultan Bazar, Ministry of Home Affairs, Hyderabad.
- [42]. NAFIS (2016). *The NABARD All India Rural Financial Inclusion Survey- 2015-16*. Department of Economic Analysis & Research, Mumbai: National Bank for Agriculture and Rural Development.
- [43]. Esteve-Volart, B. (2004). "Gender Discrimination and Growth: Theory and Evidence from India," *STICERD - Development Economics Papers 42*, Suntory and Toyota International Centres for Economics and Related Disciplines, London School of Economics.
- [44]. Nomita, P.K. (2013): "Female work Participation in Uttar Pradesh: Trends and Determinants", *Socio-economic Voices*, January-February.
- [45]. Appala Naidu Pappala (2020). *Tribal women and economic significance: a comprehensive study*. *International Journal of Research and Review*. Volume 7; Issue 11; Page No. 68-81.
- [46]. Klasen, S. and Lamanna, F. (2008). "The Impact of Gender Inequality in Education and Employment on Economic Growth in Developing Countries: Updates and Extensions," *Ibero America Institute for Econ. Research (IAI) Discussion Papers 175*, Ibero-America Institute for Economic Research.
- [47]. Mahapatra, S. (2002): "Women Participation in Labour Force", New Delhi: Rajat Publications. pp. 46-54.
- [48]. NSSO (2017). *Key Indicators of Household Social Consumption on Education in India*. NSS 75th Round, Ministry of Statistics and Programme Implementation, Government of India: New Delhi
- [49]. Rachel H. Racelis and J.M. Ian S. Salas (2007). *A Note on Defining the Dependent Population Based on Age*. University of the Philippines November 6.
- [50]. *Census of India (2011)*. Office of the Registrar General and Census Commissioner, Ministry of Home Affairs, Government of India: New Delhi.

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