

Aurepalle Village at a Glance

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I. INTRODUCTION

In 1975, the Socioeconomics Program of the International Crops Research Institute for the Semi-Arid Tropics (ICRISAT) initiated Village-Level Studies (VLS) at six locations in India. Aurepalle, in Mahbubnagar District of Andhra Pradesh, is one of the villages selected under the project for conducting multidisciplinary research by agrobiological and social scientists in a real farm situation. The information gathered from these studies has helped generate and transfer appropriate technologies that are feasible and acceptable to the farmers.

Aurepalle (16° 51' N 78° 37' E) is situated in Madgul mandal in Mahbubnagar District (16° 73' N and 77° 98' E) in the Telangana Region of Andhra Pradesh.

Mahbubnagar is named in honor of Mir Mahbub Ali Khan Asaf Jah VI, the Nizam of Hyderabad (1869-1911 AD). Mahbubnagar district became independent and joined the democratic state of India on 18 September 1948. To reach Aurepalle, one needs to travel to Amangal town, which is about 60 km from Hyderabad on the Hyderabad-Kalvakurthi State Highway and then travel a further distance of 10 km East on a tar road. Autorickshaws and Road Transport Corporation buses are the main means of transportation between Aurepalle and Amangal. Aurepalle represents a region with medium to shallow alfisols and an annual rainfall of about 700 mm, distributed erratically. Soil depth ranges from 15 to 45 cm. Cotton, paddy, sorghum, pearl millet, castor and pigeonpea are the major crops cultivated in the village.



II. HISTORICAL BACKGROUND / DEVELOPMENT OF THE VILLAGE

During the last three decades, Aurepalle village has progressed to varying degrees in terms of social, political, economic, technological, institutional and infrastructural, educational, and religious advancement.

Social: Households in the village belong to five different caste groups based on the social progression, namely, forward caste (FC), backward caste (BC), scheduled caste (SC), scheduled tribe (ST) and minorities. Each of these groups has many castes. As many as 23 castes exist in the village, among which Brahmin, Reddy, Vysya and Velama belong to FC and are generally richer and more influential. People whose caste/traditional occupations are carpentry (*Wadla*), weaving (*Padmasali*), gold and silver work (*Amsali*), hair cutting (*Mangali*), washing clothes (*Chakali*), sheep rearing (*Kurma*), toddy tapping (*Gowda*), butcher (*Katika*) and pottery (*Kummari*), belong to BC. Households belonging to *Mala* and *Madiga* (SC or *harijans*) are ranked lowest in the social hierarchy and most of the labor force (70 percent) working in the fields belong to these two castes. Some of the caste occupations, such as *bogama* (dancers), weaver, cobbler, pot maker, *telaga* (fishmonger) and goldsmith, have lost their standing over time due to low demand for their services/products.

Political: The village has a Gram Panchayat established in 1966 and composed of eleven members including the President. The President and members of the Gram Panchayat are directly elected by the villagers every five years. Reservations in the local body elections started 25 years ago to uplift the vulnerable groups (SC/ST, BC, and women) by giving them an opportunity to actively participate in the village administration. All the panchayat members, including the President, belong to or are strong supporters of political parties



even though they are not elected on a party symbol. The panchayat is responsible for village development by collecting taxes from the villagers and getting funds from the government. The funds are spent mainly for development of education, sanitation, drinking water, roads and street lights.

In the last local body elections, which were conducted in August 2006, five wards were reserved for SC (2 male and 3 female), three for BC (male) and the remaining two for the general category (male). Of the 10 wards, three were reserved for women. The position of village panchayat President was open for the general category. Of the 10 ward members who were elected in 2006, five supported the Telugu Desam Party (TDP) and the rest supported the Congress (I) Party. The present village president belongs to FC (Reddy) and is a strong supporter of the Congress (I) Party. The present elected body took charge on 23 August 2006.

Economic: Agriculture is the main occupation of more than 50% of the households, followed by caste occupation, non-agricultural labor, agricultural labor, and other occupations. Village development took



place through diversification in both farm and non-farm sectors, generally supported by government development programs. Presently, each household has two or more sources of income from crop, farm and non-farm labor, business, migration, caste occupation, monthly salary, and livestock rearing. Household incomes were enhanced by diversification to high-value crops, investment in livestock (especially sheep, goat and milch animals), and shift from non-profitable caste occupations to non-farm activities and emigration.

The households' income and welfare improved due to adoption of new crop production technologies, cultivation of commercial crops, drilling of successful borewells, emigration for non-farm activities, caste occupations (toddy sale, sheep rearing), milk sale, hard work and discipline. Education levels improved, enabling the households to obtain and understand information about new technologies as well as to get salaried jobs. The village harnessed improved access to roads, markets and communication media. Most significantly, the establishment of the international airport at Shamshabad and other industries within a distance of 40-50 km from the village has driven socioeconomic change. Due to this industrialization, the land values in Aurepalle have shot up almost ten times. Health conditions have also improved due to better availability of medical facilities within the village and the nearby town, improvement in sanitation, and supply of protected drinking water.

Technological: Adoption of hybrid and improved seed technologies, use of chemical fertilizers and plant protection measures, mechanization (use of tractors, threshers, drip/sprinkler irrigation and power sprayers) and soil and water conservation measures have contributed significantly to increased farm productivity. More than 98% of the cropped area is covered with improved and hybrid cultivars. Bt cotton was introduced in the village in 2005-06 and is presently adopted by all cotton growers in the village. Paddy, groundnut,



sunflower, maize and vegetables are cultivated to some extent under irrigation in the post-rainy season. Almost all farmers are using chemical fertilizers and pesticides, while only 50 percent of the cultivators are using weedicides and micronutrients. Land preparation is done mainly by using tractors.

The productivity of pearl millet+pigeonpea intercrop was 854 kg ha⁻¹ (656+198) followed by sorghum+pigeonpea (523+139 kg ha⁻¹) during the 2007-08 cropping year. The productivities of castor and castor+pigeonpea intercrop were also increased (556 kg ha⁻¹ and 430+182 kg ha⁻¹, respectively). The yields of pigeonpea are low in all intercropping systems because of poor crop stand, drought at flowering and pod formation stage, and pod-borer (*Heliothis armigera*) damage. The average yield of Bt cotton is more than 2000 kg ha⁻¹. Some important constraints to productivity enhancement are: non-adoption of crop rotation in rainfed and irrigated lands; labor scarcity and high wage rates; late monsoons, drought and uneven distribution of rainfall at critical stages of crop growth; and wild boar, pests and diseases.

Institutional: The village Gram Panchayat office was established in 1966. The hereditary system of governance implemented by the posts of *Malipatel*, *Policepatel* and *Parwari* was abolished in 1983, and in its place a Village Assistant was appointed to look after their responsibilities.

In 1965, a primary agricultural credit co-operative society (PACS) was established in this village. Households who owned land became members of the society by paying a membership fee. The society provided loans in cash and kind on a short-term basis to its members. In 2005, this branch of PACS was merged with the Madgul branch and since then it has been functioning at the Mandal headquarters (Madgul). At present, nineteen village moneylenders are providing loans to the villagers. Fifty-one self-help groups (SHGs), two microfinance



institutions, and two commercial banks (State Bank of India and Grameena Bank) form the major sources of credit for the villagers.

An integrated co-operative milk society, established in the 1970s, has been encouraging dairy farming in the village. Four private milk collection centers are also functioning in the village, which collect 1200-1500 liters of milk every day from the villagers.

Infrastructural: The village was electrified in 1962, and all households have access to electricity. It is mainly used for street lights and domestic use. Almost all households (980 households) have access to electricity including 8 commercial and 215 agricultural connections. A tar road was constructed in 2003 from Madgul to Amangal, passing through Aurepalle village. Marketing infrastructure, namely, roads, communication, and transport, has improved significantly over time. More than 700 cell phones and 8 public telephone booths operate in the village.

Between 1998 and 2002, three overhead tanks were constructed by the Gram Panchayat with government funding. These tanks supply purified drinking water through a pipeline to households and schools. About 576 households access drinking water through tap connections, while the remainder obtains it from 12 public hand pumps installed by the Gram Panchayat. During 2009, the village gained access to drinking water from the Krishna River, as an additional source. Presently, this is the main source of drinking water for the villagers, being supplied through nine water storage tanks. There are three overhead tanks that provide water for other purposes.

Construction of a veterinary hospital and village Gram Panchayat offices is currently in progress with financial assistance from the government. The village panchayat has taken up construction of earthen bunds on farmers' fields irrespective of their caste. Under the Mahatma Gandhi National Rural Employment Guarantee Scheme (MGNREGS), the panchayat employed villagers had arranged for cutting of bushes (referred to as field cleaning or jungle clearance). The Gram Panchayat constructed two check dams and five water percolation tanks under the watershed program. One Auxiliary Nurse and Midwife (ANM) and two Registered Medical Practitioners (RMP) provide health services to the villagers.

Educational: An elementary school established in 1945 with a single teacher, was upgraded to Standard 4 with three teachers in 1951, and further upgraded to Standard 5 in 1991, Standard 6 in 1992, and so on until



the first batch of Standard 10 in 1996. Presently, there are three primary schools with an enrolment of 214 children (104 male and 110 female), two secondary schools with a strength of 100 children (52 male and 48 female) and one high school with an enrolment of 192 children (98 male and 94 female) in the village run by the government and private managements. Three Anganwadi centers are providing nutritive food, education and medical services to 43 male and 31 female children and 20 pregnant/lactating women. An Adult Education Program for people in the age group of 18-35 years is also functioning, but partially. Education levels and literacy rates of both male and female children have improved. The literacy rates have significantly increased to 90 percent in males and 70 percent in females, in the age group of 5-30 years.

Religious: Hindus form the largest religious group (968 households) in the village, followed by Muslims (15 households) and one Christian household. Religion plays an important role in the daily life of the villagers. Hindus mainly worship at the temple and their homes, while the Muslims go to Amangal every Friday to worship at the mosque. Hindu religious groups meet in the house of one of the farmers where they sing *bhajans* and listen to *slokas* under the guidance of a priest who performs *pooja*. There are four temples, of which one was constructed a long time ago in the center of the village—the Hindus perform *pooja* and *bhajans* here on Saturday nights and festivals.

Vinayaka Chaturthi, Dussera, Diwali, Sankranthi and Ugadi (Telugu new year) are important festivals for the Hindus. During certain festivals, especially Dussera, villagers participate in folk dances. A temple dedicated to goddess Pochamma, the protector from diseases, is situated two km east of Aurepalle. Every year in March, all villagers gather at this temple and perform *pooja*.

III. BASIC STATISTICS OF THE VILLAGE

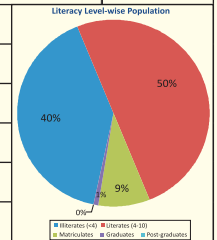
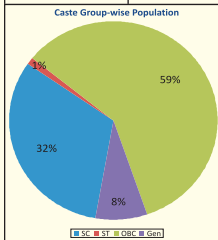
A) LOCATION / ACCESSIBILITY

- Village: **Aurepalle**
- Mandal: **Madgul**
- District: **Mahbubnagar**
- State: **Andhra Pradesh**
- PIN: **509 321**
- GPS values: (a) Latitude: **16° 51' N** (b) Longitude: **78° 37' E** (c) Altitude (m): **456**
- Nearest town: (a) Name: **Amangal** (b) Distance from village (km): **10**
- Nearest State Highway: (a) Number: **SH36** (b) Distance from village (km): **10**
- Nearest National Highway: (a) **NH7** (b) Distance from village (km): **50**
- Name of the Village Panchayat in which the village falls: **Aurepalle**
- Details of the Sarpanch/Village Panchayat President: (a) Name: **E Lakshma Reddy** (b) Cell No.: **09441427513**
- Details of the Gram Sevak: (a) Name: **K Jagmohan** (b) Tel (Res): **08543-277614**
- Details of the Village Revenue Officer (VRO): (a) Name: **L Yadgiri Rao** (b) Tel (Res): **09441285158**

B) DEMOGRAPHY (as on 31 December 2010)

- Population (No): **4764**
- Households (No): **984**
- Voters (No): **2964**
- Farmer accounts/Khatas (No): **1273**
- Classification of population:

Category	No.	Farm Size*	No.	Religion	No.	Caste	No.	Literacy	No.	Gender	No.
SC	1528	Landless	2153	Hindu	4693	Gowda	1057	Illiterate (<4)	1926	Male	2013
ST	47	Marginal	1464	Muslim	67	Madiga	1028	Literate (4-10)	2383	Female	1949
OBC	2801	Small	817	Christian	4	Kurma	644	Matriculate	420	Children	802
Gen(FC)	388	Medium	238			Mala	495	Graduate	32		
		Large	92			Reddy	308	Postgraduate	3		
						Vaddera	297				
						Wadla	159				
						Chakali	124				
						Kummari	106				
						Others#	546				
Total	4764		4764		4764		4764		4764		4764



* <0.1ha=Landless; 0.1-<1.0ha=Marginal; 1.0ha-<2ha=Small; 2-4ha=Medium; >4ha=Large.

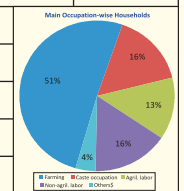
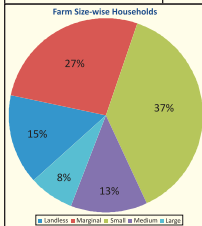
includes 14 castes, namely, Brahmin, Vaisya, Velama, Boya, Gold Smith, Barber, Bogama, Padmasali, Mangali, Katika, Cobbler, etc.

- Classification of households:

Male headed (No): **844**

Female headed (No): **140**

Category	No.	Farm Size*	No.	Religion	No.	Caste	No.	Main occupation	No.
SC	292	Landless	147	Hindu	968	Gowda	238	Farming	500
ST	11	Marginal	265	Muslim	15	Madiga	195	Caste occupation	157
OBC	569	Small	372	Christian	1	Kurma	126	Non-agril. labor	155
Gen (FC)	112	Medium	126			Mala	96	Agril. labor	130
		Large	74			Reddy	71	Others\$	42
						Vaddera	61		
						Wadla	33		
						Chakali	27		
						Kummari	19		
						Others#	118		
Total	984		984		984		984		984



* and # As given under B(5).

\$ includes salaried, money lenders, middlemen, service sector, etc.

C) LAND USE PATTERN (2009-10)

1. Distribution of Geographical Area:

Particulars	Ha
Agricultural land	1265
Waste lands	32
Land used for roads, buildings & non-agril. purposes	96
Land occupied by water resources (tank, river)	8
Land occupied by hills, rocks, etc.	227
Total Geographical Area	1628

2. Cropped Area

Season	Ha
Kharif	1186.2
Rabi	247.5
Annual/Perennial crops	49.0
Gross Cropped Area	1482.7

3. Irrigated Area

Season	Ha
Kharif	220.7
Rabi	239.8
Annual/Perennial crops	49.0
Gross Irrigated Area	509.5

D) LAND RESOURCES

1. Soil distribution

Soil type	% Area
Red Soil	23
Sandy Soil	28
Shallow Black	15
Gravelly Soil	19
Alkaline Soils	15

2. Irrigation sources (As on 31 December 2010)

Source	Total No.	Working No.	Approx. depth (m) of working wells	Irrigated Area (Ha yr ⁻¹)
Borewells	250	232	60.1	486.0
Open wells	123	9	16.5	23.5
			Approx. land area covered (Ha)	
Tanks	2	0	6.5	0

3. Rainfall (Jun'09-May'10): (a) Quantity (mm/year): Normal: **972** Actual: **1546**
 (b) No. of rainy days: Normal: **45** Actual: **48**

E) CROP PRODUCTION (2009-10)

Kharif		Rabi		Summer		Annual/Perennial Crops	
Crops	Area (Ha)	Crops	Area (Ha)	Crops	Area (Ha)	Crops	Area (Ha)
Cotton	861.4	Paddy	126.4			Napier grass	27.9
Paddy	171.3	Groundnut	56.7			Mango	11.3
Castor+Pigeonpea	74.5	Sunflower	31.2			Citrus	9.8
Sorghum+Pigeonpea	31.2	Maize	14.2				
Pigeonpea	15.4	Vegetables	11.3				
Pearl millet+Pigeonpea	13.0	Horsegram	6.1				
Maize	10.5	Safflower	1.6				
Vegetables	8.9						
Total	1186.2		247.5		0		49.0

F) ASSETS (as on 31 December 2010)

1. Productive Assets			
Livestock		Heavy Machinery	
Type	No.	Type	No.
Cow(indigenous)	68	Tractor	19
Cow(exotic)	420	Cart	17
Buffalo	872	Auto	13
Bullock	334	Jeep	2
Sheep	7780	Floor mill	2
Goat	1230	Rice mill	2
Poultry	2820	Oil engines	4
Pigs	127	Sprayer (power)	60
Milk sale (lt/day)	1920	Pump sets (electric)	220

2. Consumer Assets	
Type	No.
Television	412
Refrigerator	46
Air Conditioner	7
LPG connection	375
Dish antenna	387
Motorbike/Scooter	57
Car/Jeep	1
Computer	2

3. Buildings	
Type	No.
Houses-Pucca	820
Houses-Kuchcha	156
Houses-Thatched	8
Cattle sheds	90

G) BASIC NEEDS (as on 31 December 2010)

- Type of food (No. of households): (a) Pure vegetarian: **13** (b) Non-vegetarian: **971**
- Type of clothes: (a) Men: **Dhothi and Shirt (Shirt & Trousers for youth)**
(b) Women: **Saree and Blouse (Chudidar-Kurta for youth)**
- Type of houses (Number): (a) Pucca: **820** (b) Kuchcha: **156** (c) Thatched: **8**

H) INFRASTRUCTURE (as on 31 December 2010)

- Village electrification: **Yes** No. of houses having access to electricity: **980**
- Tar/metal/cement road to village: **Yes**
- Is there a tar/metal/cement road inside the village? **Yes** Length of the road (km): **5.8**
- Public transport facility:
Public bus facility to village: **Yes** No. of trips/day from town to village: **4**
Other modes of travel available? **Yes** Available modes: **Autorickshaws / Motorcycles**
- Drinking water facility: **Yes** Sources: **Krishna river water, Borewell**
Tap connections available? **Yes** Number of connections: **576**
- Public toilet/urinal facility: **No** Private toilets: **427**
- Public health facility: **Yes** Private: **1 (ANM) + 2 (RMP)**
Distance to nearest PHC (km): **10 (Amangal)**
Distance to nearest facility (km): **3 (Akuthotapalle)**
- Veterinary health facility: **No**
- Banking facility: **No**
Distance to nearest facility (km): **3 (APGVB at Akuthotapalle)**
10 (PACS and SBI at Madgul)
10 (SBI and Microfinance Institutions at Amangal)
- Educational facilities:

Level	No. of Institutions	Enrolment (No.)	
		Male	Female
Pre-primary (Anganwadi)	3	43	31
Primary (Standard 1-5)	3	104	110
Secondary (Standard 6-7)	2	52	48
Higher Secondary (Standard 8-10)	1	98	94

11. Agricultural input shops:

Input	Available in village?	If no, nearest available place	Distance from village (km)
Seed	No	Amangal	10
Fertilizer	No	Amangal	10
Pesticide	No	Amangal	10
Machinery – Purchase	No	Hyderabad	70
Machinery – Custom hiring	Yes		

12. Agricultural output market:

Weekly shandy in the village? **No** Place and day where available? **Amangal, Friday**

No. of wholesale traders/commission agents in/visiting the village: **14**

13. Storage godowns/warehouses: **No**

14. Other business units (number):

Grocery shop: 19	PDS Shop: 2	Hotel/Canteen: 2
Flour Mill: 2	Chilli/spices grinding shop: 3	Meat shop: 6
Liquor shop: 21	Carpenter-cum-blacksmith: 16	Goldsmith: 1
Cobbler: 1	Cycle & motor cycle repair shop: 2	Mason: 7
Money lenders: 19	Timber and wood cutting: 1	Cloth shop: 2

15. Other institutions (number):

SHG/Sakhi Mandal: 51	NGO: 1	Milk Dairies: 6 (Coop-2, Pvt-4)
Post Office: 1	Youth Club: 2	Bhajan Mandal: 2
Chit Fund: 12	Toddy Tappers' Association: 1 (110 members)	

16. Place of worship (No):

Temple: **6**

I) GOVERNMENT WELFARE PROGRAMS / POLICIES (As on 31 December 2010)

Government Program	Beneficiaries (No. of households)
Mahatma Gandhi National Rural Employment Guarantee Scheme (MGNREGS)	830
Drought relief package for farmers	602
Indiramma Gruha Nirmana Yojana	440
Mid-day meal scheme for school going children	407
Pension scheme (Old age, Widow and Handicapped)	439
Public Distribution System (PDS)	998
Anganwadi	94
Free electric power for agriculture	500

About ICRISAT



The International Crops Research Institute for the Semi-Arid Tropics (ICRISAT) is a non-profit, non-political organization that conducts agricultural research for development in Asia and sub-Saharan Africa with a wide array of partners throughout the world. Covering 6.5 million square kilometers of land in 55 countries, the semi-arid tropics have over 2 billion people, and 644 million of these are the poorest of the poor. ICRISAT and its partners help empower these poor people to overcome poverty, hunger, malnutrition and a degraded environment through better and more resilient agriculture.

ICRISAT is headquartered in Hyderabad, Andhra Pradesh, India, with two regional hubs and four country offices in sub-Saharan Africa. It belongs to the Consortium of Centers supported by the Consultative Group on International Agricultural Research (CGIAR).

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