

INDUSTRIAL PROFILE

KRISHNA DISTRICT

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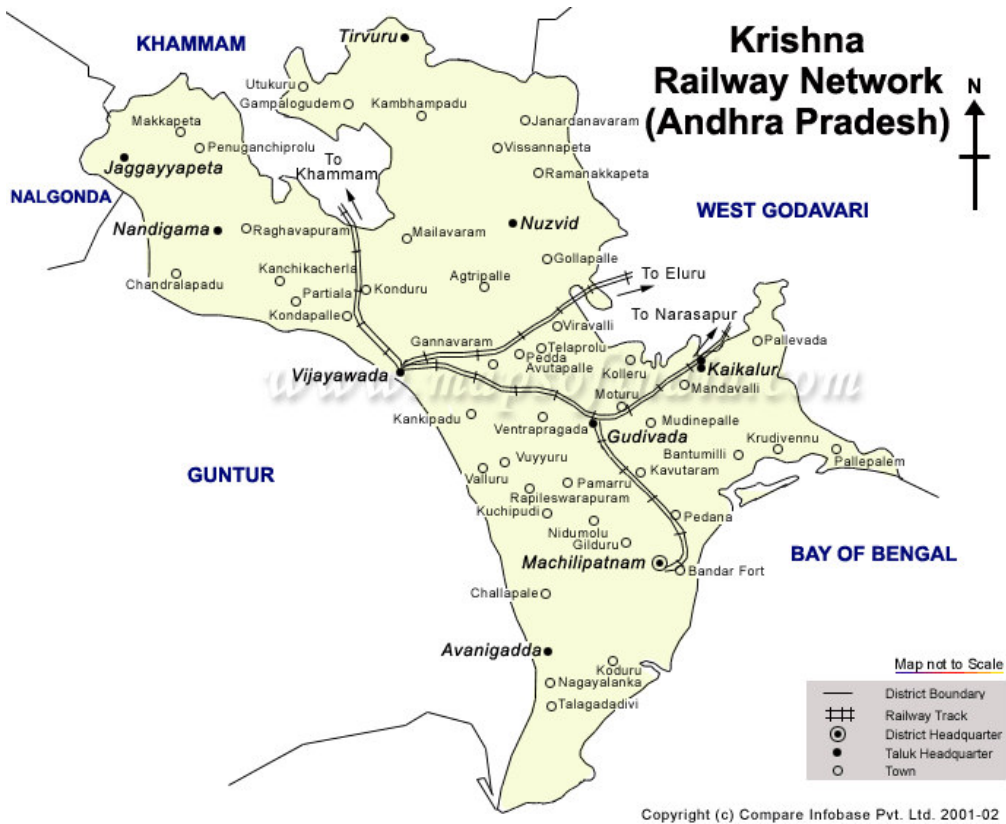
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Background:

Krishna district is one of the developed districts in the coastal Region of A.P. The district is named after the Krishna, which flows through the District making it prosperous. The District is endowed with fertile soil, rich agriculture, marine resources and mineral wealth. The District Head quarter is Machilipatnam, a port town famous for Artificial Jewellery and Kalamkari fabrics. Vijayawada is an important railway junction and the commercial capital of District and has good concentration of Automobile parts manufacturing units. Krishna district is the rice bowl of South India.

Geography:

Boundaries	: East - West godavari Dist. West - Nalganda and Guntur Dist. North - Khammam Dist. South - Bay of Bengal.
Area	: 8727 Sq.km
Rivers	: Krishna, Munneru, Paleru, Tammileru and Kateleru.
Soils	: Black cotton, sandy clay, red loamy soil
Coast line	: 107 km

Administrative setup:

Revenue Divisions	: 4 Nos, Vijayawada, Gudivada, Machilipatnam and Nuzivid.
Mandals	: 50 Nos.
Revenue Villages	: 1005
No. of Villages electrified:	967
No. of Villages connected by all weather rods –	947

Population : 41.87 lakh

Male population	: 21.17 lakhs
Female population	: 20.70 lakhs
Density of population	: 479 persons / Sq.km
Literacy rate:	61.27 %

Land utilization:

Geographical area (in ha)	:872700
Gross cropped area (in ha)	:696000
Net swon area (in ha)	:449000

Forest (in ha)	:	73944
Fallow land (in ha.)	:	70617
Land not available for cultivation (in ha.)	:	198170
Cropping Intensity	:	155
Area under high yielding variety seeds (in ha.)	:	366536

Irrigation (in ha.):

Gross irrigated area	:	546000
Net irrigated area	:	344000
By channels	:	223000
By wells	:	17977
By other Sources (Specify)		
Tanks	:	21365
Lift irrigation schemes	:	29192
Tube wells	:	35000
Others	:	17466

Animal Husbandry:

Plough animals	:	190000
Dairy animals		
i. Cows	:	102302
ii. Buffaloes	:	849263
iii. Sheep / Goat / pig	:	421370, 131763, 16189
iv. Poultry	:	3718360

Resources:

Agriculture Resources:

Major food crops	:	Paddy, Jowar, Ragi, Bajra, Maize, Greengram Redgram, Blackgram
Major Commercial crops	:	Sugar cane, Jute, Chillies, Cotton, and Turmeric
Major Oilseeds	:	Groundnut, Sunflower, oil palm
Horticulture resources	:	Mango, guava, sapota, Papaya, Banana, Coconut, citrus and vegetables.

Sl.No.	Fruitcrop	Area (ha.)	Production (lakhs MT)	Productivity(Mt/ha)
1.	Mango	62227	4.98	8.0
2.	Citrus	1028	0.08	8.0
3.	Banana	1549	0.96	62.0
4.	Sapota	235	0.02	8.0
5.	Guava	1549	0.39	25.0
6.	Cashew	930	0.005	0.54
7.	Oilpalm	3700	0.29	7.8

And vegetables, flowers, plantation crops, spices and medicinal and aromatic crops occupy 6517, 177, 4440, 14315, and 369 hactaros respectively. Krishna has been identified as AEZ for Mangoes. A total financial outlay of Rs. 1789.00 lakh with private participation of Rs. 989.00 lakh and anticipated export of Rs. 4559.00 lakhs have been envisaged. 342 Mt of Mango has since been exported to Europe, Honkong, Singapore, Malagsia, Dubai, Brunai etc. In the Krishna District about 369 ac is under cultivation of medicinal and aromatic crops - amla (195). vasa (37) nela vemu (16), amla + coleus (7), lemongrass (33) palmrosa (35), Satavari (12), safed Musli (30) etc.,

Sericulture resources:

Silk production (Mulberry variety), sericulture is existing in Nuzivid, Nandigam, Gampalagudem, Bapulapadu, Challpalli, Avanigadda, Gantasala Mandals. Mulbeery is cultivated in about 86 ha.

The following instructure is available in district for promoting sericulture.

Sl.No.	Name of the unit	Place	Activity
1.	Local race seed farm	Pottipadu	For supplying seed cocoons
2.	Govt. Grainage	Gannavaram	To supply silkworm eggs.
3.	Technical service centre	Nuzivid Nandigama, VJA.	For tech. Assitance to Farmers.
4.	Govt. cocoon market	Hanuman Junction	Marketing facility to farmers
5.	Govt. silk reeling unit	Telaprolu	Market support to farmers.
6.	Demonstration cum seed supply station	Gollapudi	Mulberry variety bank for supply of cutting to farmers.

The district is having the advantage of processing reeling and Twisting units and playing a key role in coastal belt by providing marketing facilities to the sericulturists.

Forest based resources:

Tullapuniki wood (Kondapalli Toys), Planatation of Eucalyptus trees, casuarina, subabul, Jatropa, Pongamia. NABARD has sanctioned an RIDF loan for raising Bio- Diesel plantation (Pongamia) in Krishna Dist. for 965 ha in Waste lands of forest and Non forest areas. In Gannavaram area, a private company Viz. sagar Jatropa was setup and is reportedly supplying the plants to various places. Company has nursery in Vissannapet and Nuzvid areas. Biofuel production in the District has a bright future provided the oil extraction units start functioning.

Marine Based Resources:

Fish and prawn (all coastal mandals).

The pisciculture activity in this District can be broadly classified into 3, (i) Marine fishing (ii) Brackish water fishing (iii) Inland fishing Krishna Dist. has 107 kms coastline length of Machilipatnam, Kruthivenu and Nagalanka Mandals.

Existing infrastructure in district are

- i) Fishing Harbour at Machilipatnam
- ii) Shore communication wireless system was established at Gilakaladindi in collabaration with department of Ocean Development, New Delhi.
- iii) Three Govt. fish seed production farms at Penamaluru, Poranki, and Moturu. 32 private fish seed farms in the Dsitrict, hatcheies in and around Kaikaluru.

A Shrimp Hatcery (Kruthivenu mandal), 4 Scampi Hatcheries and 14 feed manufacturing units. There is a marine fisheries Training centre at Machilipatnam to impart marine training which includes Marine fishing, Mechanization and Navigation. There is a fish and prawn disease diagnostic laboratory at Kaikaluru with an objective of analysis of physio-chemical parameters of water and soil and diagnosis of fish and prawn diseases. The MPEDA has established adiagnostic laboratory at Vijayawada to prevent spread of white spot disease vertically.

Live stock based resources:

Poultry and dairy

Mineral resources :

Lime stone, Lime concur, quartz	:	Agraharam, Budavala, Jayanthipuram, Vedadri of Jaggaiah peta Mandal,
Iron ore	:	Jaggaiahpet, Vatsavai, Konduru, Gandrai, Tiruvuru Villages.
Granites	:	Kondapalli, Ibrahimipatnam, Jupudi, Paritala and Kanchikacharla
Fine quality of clay for Mfg. of Mangalore tiles	:	Nuzvid, Vissannapeta, Tiruvuru
Fly ash	:	Waste material produced from VTPS ash pond, for manufacture of flash Bricks.
For salt production land	:	Coastal line.
Oil and natural gas	:	Krishna Godavari Basine, M/s ONGC is operating the areas of Mudinapalli, Kaikaluru, Bantumill, Gudivada, Avanigadda for exploration of natural gas on land and offshore.
Educational sources	:	Good no. of schols, colleges MBA colleges, MCA colleges, Polytechnic, Engineering colleges, Medical Colleges, Veterinary Colleges are existing. Hence there is abundantly human resources are available in District.

Infrastructure:**Road Transport:**

Krishna dist has got very good road network NH5 and NH9 crossing / passing through districts from Vijayawada APSRTC is playing a vital role in transportation of men and material.

Rail Transport:

Krishna dist is strategically located on the railway map of country All most all trains coming from north and proceeding towards south are passing through VJA junction. The main Agri-Produces like mangoes and oranges from Nuzvid and Vijayawada are being transported to other places of country by wagon loads. Further railways are playing vital role in transportation of Raw materials finished goods of Indl purposes.

Air Transport: There is an air port at Gannavaram on the outskirts of Vijayawada.

Communications and IT Infrastructure:

District is equipped with good communication systems like postoffices, Telgraphs, Internet and Fax centers, Mobile phone networks etc., At Vijayawada TV Relay station and Air station are functioning.

Financial Infrastructure:

Indian bank is lead bank of the District.

- i) Nationlised Banks Branches - 295
- ii) Private Bank Branches - 32
- iii) Cooperative Bank Branches - 49
- iv) RRBS - 29
- v) APSFC - 1
- vi) NABARD - 1
- vii) IDBI - 1

Power Infrastructure:

Industrial feeders:

- 11 KVA feeders - 23 Nos.
- 33 KVA feeders - 2 Nos.
- 132 KNA feeders - 1 No.
- Total 26 Nos.

Industrial Express feeders are existing in District, and also vast potential for installation of feeders if any industries will come up and infrastructure also available.

Industrial infrastructure:

- i) Industrial estates developed by APIIC - 10 Nos.
- ii) Private estates - 2 Nos.

S.No.	Name of the IDA/IE	Extent of Land in acres	Plots Developed	Plots Allotted	Sheds Developed	Sheds Allotted
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A.P.I.I.C. INDL.ESTATES/IDAs

1.	Industrial Estate Vijayawada.	53.93	57	57	34	34
2.	Jawahar Autonagar Vijayawada.	275.68	1174	1174	78	78

3. Industrial Estate Gudivada.	37.07	105	105	--	--
4. Industrial Estate, Machilipatnam.	20.00	47	47	--	--
5. Industrial Estate, Gannavaram.	10.40	06	04	--	--
6. Indl.Development Area Kondapalli.	438.19	664	596	14	11
7. Autonagar, Nuzvid	36.82	277	43	--	--
8. Indl.Development Area Jaggaiahpet.	145.17	280	08	--	--
9. Autonagar(Proposed) Challapalli.	25.00	235	--	--	--
<u>PRIVATE INDL.ESTATES</u>					
1. J.R.D.Tata Indl.Estate, Kanuru,	50.00	150	150	--	--
2. Industrial Estate for Women Surampalli.	28.86	120	70	--	--

INTEGRATED INFRASTRUCTURAL DEVELOPMENT CENTRE (FOR WOMEN AT SURAMPALLI)

- a) Total area acquired : 28.86 acres
b) Plots developed : 120
c) Plots allotted : 50(Under consideration)

Industrial estate exclusively for Women Entrepreneurs has been proposed at Surampalli, Gannavaram Mandal on Vijayawada-Nuzvid Road. An extent of 28.5 acs was purchased and another 10 Acres of Poramboke land has to be allotted by the Government. 123 plots are proposed measuring 640 Sq.Yds and 70 plots have been allotted to the women entrepreneurs for their proposed activities like Hosiery, Food Processing, Ayurvedic Medicines, Mushrooms, Plastic articles etc.

The project was taken up under Integrated Infrastructure Development Scheme and an amount of Rs.3.00 crores was sanctioned by SIDBI and Rs.2.00 crores will be provided by Government as grant for taking up the common infrastructure facilities. Civil works were taken-up by Rangayya Company with an estimated cost of 2.5 crores for laying of roads, drainage facilities. 200 Sft.building for common facilities, internal pipeline for water supply and under-ground power lines.Sub-Station established by APTRANSCO nearby this Estate.

AUTONAGAR, CHALLAPALLI (PROPOSED)

- a) Total area acquired : 25 acres
b) Plots developed (to be developed) : 235

AUTONAGAR: KANURU (JAWAHAR AUTONAGAR, VIJAYAWADA EXPANSION)

M/s. The Automobile Technicians Association, Jawahar Autonagar, Vijayawada have requested APIIC for acquisition of 150 acres of land at Kanuru village for expansion of existing Jawahar Autonagar, Vijayawada. Accordingly Corporation has filed requisition for acquisition of Acs 152.34 cents of land with the Revenue Authorities on 26-04-94. The Revenue Authorities have handed over an extent of 115.94 acres to APIIC on 14-08-1996. The award was passed for Rs.3,47,82,000/- and APIIC has also paid full amount to Sub-Collector. Layout has been approved by V.G.T.U.D.A. in 4/99. Formation of W.B.M. internal roads and construction of cross drainage works have been completed. For providing of street lights in Autonagar, Kanuru necessary estimates have been prepared by APTRANSCO and sanction is awaited. Provisional allotment orders will be release to 814 applicants on fixation of land cost.

Out of the total area of 115.94 acres, the plotted area comes to 70.98 acres. 751 Nos. of plots have been demarcated as follows:

S.No.	Size of Plot	No.of plots.
1.	210 sq.mts	352
2.	420 sq.mts	300
3.	627 sq.mts	2
4.	840 sq.mts	88
5.	1260 sq.mts	1
6.	1680 sq.mts	7
7.	3336 sq.mts	1

Total:		751

Industrial Scenario:

Existing industries:

S.No.	Type	No. of Industries	Investment (in Crores)	Employment
1.	L & M Industries	80	4000	16800
2.	Tiny/ SSI industries	6900	3400	56950

Large & Medium Industries

Name of the unit	Locational address with telephone & fax	Line of activity	Investment (Rs.crores)
K.C.P. LTD.,	Lakshmipuram, Challapalli Mandal,	Sugar	33.91
A.P.Heavy Machinery Engg. Ltd.,	Kondapalli, Ibrahimpattanam Mandal,	Machinery & Equipment	15
Railway Wagon Workshop,	Guntupalli, Ibrahimpattanam Mandal,	Wagons repairing	26.68
Eastern Granite Ltd.,	Kethanakonda, Ibrahimpattanam Mandal	Granite tiles	5.06
Godrej Agrovet Ltd.,	IDA, Kondapalli, Ibrahimpattanam Mandal,	Cattle&Aqua Feed	4.94
Hyderabad Inds.Ltd.	Kondapalli, Ibrahimpattanam Mandal,	Cement sheets	3.2
SDV Steels(P)Ltd.,	Kondapalli, Ibrahimpattanam Mandal,	Steel structures	5
SHV Energy Southeast Ltd.,	Kondapalli, Ibrahimpattanam Mandal,	Bottling of LPG	1.2
Lanco Power Ltd.,	Kondapalli, Ibrahimpattanam Mandal,	Generation of Power	1000
Hindustan Petroleum Cor.Ltd.,	IDA,Kondapalli, Ibrahimpattanam Mandal,	Bottling of LPC	30
Bharat Petroleum Corporation Ltd.,	Kondapalli, Ibrahimpattanam Mandal,	Bottling of LPG	50

Indian Oil Corporation Ltd.,	Kondapalli, Ibrahimpatnam Mandal,	Bottling of LPC	60
Vijayawada Thermal Power Station	Ibrahimpatnam	Power Generation	2000
Active Power Ltd.,	Ibrahimpatnam,	Hydel Power	6
Madras Cement Ltd.,	Jayanthipuram, Jaggaiahpet Mandal,	Cement	184.76
Hemadri Cements Ltd.,	Vedadri, Jaggaiahpet Mandal	Cement	12.31
H.C.L.Agro Ltd.,	Vedadri, Jaggaiahpet Mandal,	Power generation	36
Raghu Fabrics(P)Ltd.,	Bhimavaram, Vatsavai Mandal	Terry fabrics	1.31
East Indian Granites	Bhimavaram, Vatsavai Mandal	Granite tiles	7.02
Akkineni Textiles Ltd.,	Bhimavaram, Vatsavai Mandal,	Terry luxury towels	2
Inventa Chemicals Ltd.,	Kanchikacherla,	Pharmaceuticals	1.11
National Litho Printers	Gandhinagar, Vijayawada,	Printing of posters, photo offset process	1.6
Kowth Steel Products,	Ramavarappadu, Vijayawada Rural (M)	Steel castings	1.8
Incap Capacitors Ltd.,	Nidamanuru, Vijayawada Rural Mandal,	Aluminium Electrolytic capacitors	11.5
Gold Meher Food&Feeds(P)Ltd.	Enikepadu, Vijayawada Rural Mandal	Cattle & poultry feed	1.15
Prakash Spectra Castings Pvt.Ltd,	Enikepadu, Vijayawada Rural Mandal,	C.I.Castings	1.36
G.S.Alloy Cast Ltd.,	Payakapuram, Vijayawada,	C.I.Castings	2
Lokesh Foundries(P)Ltd.,	Nidamanuru, Vijayawada Rural Mandal,	C.I.Castings	2

Vijaya agro Oils Ltd.,	Enikepadu, Vijayawada Rural Mandal,	Solvent extracted oil	2.76
Kusalava International Ltd.,	Industrial Estate, Vijayawada,	Cylinder Liners (I.C.Engines)	2.3
Sai Annapurna Packaings,	Enikepadu, Vijayawada Rural Mandal,	Packing materials	2
Harichandana Agro Ltd.,	Kesarapalli, Gannavaram Mandal,	Rice Bran Oil	2
Delta Sugars Pvt.Ltd.,	Serinarasannapalem, Bapulapadu Mnadal,	Sugar	9.6
Sri Hanumathakalivara Prasad Chemicals Ltd.,	Kodurupadu, Bapulapadu Mandal,	Kodurupadu, Bapulapadu Mandal,	1.08
Sri Rajarajeswari Paper Mills	Opp:Nuz Rly. Station, Hanuman Junction,	Writing, Printing paper	1.47
Krishna Agrifural Chemicals (P) Ltd.,	Serinarasannapalem, Bapulapadu Mandal,	Furfural	1.4
Circar Jute Mills Ltd.,	Kodurupadu, BapulapaduMandal,	Jute Twine	9.81
A.P.Paper Mills Ltd.,	Serinarasannapalem, Bapulapadu Mandal	Paper	6
Sical Oil Palm	Kodurupadu, Bapulapadu Mandal,	Crude Palm oil	4
Mehar Tannaries(P) Ltd.,	Surampalli, Gannavaram Mandal	Finished Leather	1.11
Hi-Tech Print Systems Ltd.,	Plot No.7, Indl.Estate, Pedaoutapalli, Unguturu Mandal	MICR cheques, warrants & computer stationery	2.7
S.R.P.L.,	Pedaoutapalli, Unguturu Mandal	PVC Rigid Pipes	1.86
Spectra Agrochem(P)Ltd.,	Uppuluru, Kankipadu Mandal,	Acetic acid, Ethyl alcohol	15
Balaji Agro Oils Ltd.,	Davuluru, Kankipadu Mandal,	Solvent extracted oil	2.57

Srihitha Refineries Ltd.,	Davuluru, Kankipadu Mandal,	Refined Oils	2
Vijaya Spinning Mills Ltd.	Ganguru, Penamaluru Mandal,	Cotton Yarn & Blended yarn	1.06
Satyakala Agro Oils Products (P) Ltd.,	Ganguru, Penamaluru Mandal,	Refined Oils	6
Venkatadri Oils (P)Ltd.,	Ganguru, Penamaluru Mandal,	Solvent Extracted oil	1.21
Kanakadurga Oil Products Ltd.,	Ganguru, Penamaluru Mandal,	Solvent extracted oil	2.37
Madhava Hi-Tech Cold Storage (P) Ltd.,	Kanuru, Penamaluru Mandal,	Cold Storage	2
Ravindra Solvent Oils Ltd.,	Kanuru, Penamaluru Mandal,	Solvent Extracted oil	2.36
Liners India Ltd.,	Kanuru, Penamaluru Mandal,	Cylinder Liners (I.C. Engines)	2
Bharat Electronics,	Edepalli, Machilipatnam	Optics & Opto elec. instruments for defence & Non-defence	7.8
R.V.K.Energy Pvt.Ltd.,	Konkepudi, Pedana Mandal,	Power generation	10.26
Nagaratnamma Textiles Ltd.,	Valivarthipadu, Gudivada Mandal,	Cotton yarn/polyester yarn	2.57
Innovative Marine FoodsLtd. (Hindustan Lever Ltd.)	Kurumaddalli, Pamarru Mandal,	Frozen Prawns	5
Siri Agro Ltd.(M/s. Ananda Bhargavathi (P) Ltd.)	Alapadu, Kaikaluru Mandal	Solvent Extraction	2
K.C.P.Sugars&Inds.Ltd.,	Vuyyuru,	Sugar, Spirit	17.57
Krishna Industrial Corporation	Vuyyuru,	Carbon dioxide	1
K.C.P.Sugars&Inds.Ltd.,	Vuyyuru,	Acetic acid	12

Kusulava International	Adavinekkalam, Agiripalli Mandal	Cylinder Liners	3.2
Krishna Fruit Processing (Margadarsi Chitfunds- Foods Division)	Tukkuluru, Musunuru Mandal,	Fruit & vegetable processings	1.01
Krishna District Milk Producers Coop.Union,	Lambadipet,Vijayawada	Milk Products	3.75
Markfed Solvent Extraction Plant	Autonagar, Vijayawada	Solvent extraction	1.21
Veeraiaha Non- Conventional Energy Power Project	Kurumaddalli	Power	24
Roshni Power Tech Ltd.,	Ayyanki, Movva Mandal	Power	12
Balaji Agro Oils Ltd.,	Davuluru, Kankipadu Mandal,	Power	18
Satyakala Power Project	Ganguru,	Power	16
Laila Impex	Autonagar, Vijayawada,	Herbal Extracts	3.2
Durga Liquors(P)Ltd.,	Davuluru, Kankipadu Mandal,	Liquors	1.4
Sriram Energy Systems,	Ajitsingh nagar, Vijayawada	Power Generation from Municipal Waste	30
Sentini Ceramics,	Mudinepalli Mandal	Ceramic tiles	54
Biomatrix Power Plant	Ajitsingh nagar, Vijayawada	Power Generation from vegetables & Kabela waste	6
Delta Agro Chemicals Ltd.,	Hanuman junction, Bapulapadu Mandal	Power	10
Ramco Industries	Jaggaiahpet	Asbestos	10
Amoda Iron & Steel (P) Ltd.,	Jaggaiahpet	Sponge Iron	7.5
Veeraiah Solvents		Solvent Extraction	3

POWER GENERATION PROJECTS – CONVENTIONAL.

S.No.	Name of the project and address	Name of the promoter	Capacity in M.W.	Capital outlay.	Stage of implementation
1.	Vennar Ceramics Ltd. Perikigudem, Mandavalli Mandal	M/s.Vennar Ceramics	3 MW	--	Commenced production
2.	Lanco Kondapalli	Lanco Groups	368.144	1200 Crores	-do-
3.	R.V.K.Energy Systems (P) Ltd., (Gas based) Konkepudi, Pedana Mandal		20.00	70 Crores	-do-
4.	Vijayawada Thermal Power Corporation Ltd., Ibrahimpatnam Krishna District.		1280 MW	1250 Crores	-do-

Bio-mass based power projects:

Bagasse Based cogeneration power projects:

Bagasse generated in sugar mills is used for generation of power. In district there are 3 sugar factories, about 50 Agro Industries engaged in extraction of oils, about 6 fruit processing Industries, Milk processing units etc,. and more than 10 ricemills, producing agrowaste. There are about 10 renewable energy power units working in district, and also there is immense potential available for production of Biomass power which can be tapped gradually.

Municipal solid waste power projects:

The waste generated in municipalities can be effectively utilised to generation of power which not only solves the problem of disposal of garbage but also improves the health conditions. In the district apart from Vijayawada Municipal Corporation, there are 5 municipalities VIZ Jaggaiahpet, Nuzivid, Gudiwada, Machilipatnam, Pedana. The waste generated in each municipality amounts to around 50-60 MTS/day, out of which about 50% is reusable (recycle), present in an around Vijayawada 2 power project and one Bio-fertiliser units are running. Hence there is an immense potential to establish such type of plants in district.

Thrust Sectors in Krishna:

1. Mango pulp units
2. Fruit processing
3. Rice mill
4. Mini dairy form
5. Hawai Chappals
6. Bolts and nuts
7. Wire nails
8. Tractor trailer and Agricultural implementats
9. Automobile components
10. Handicrafts
 - a) Gold covering jewellery
 - b) Kondapalli Toys
 - c) Kalamkari Printing
 - d) Musical Instruments

Tractor - Trailer and Agricultural implements:

Krishna dist. is rich is Agricultural and horticultural products. The agrobased industries need a constant support from mechanical and engineering industry and there is scope for manufacture of agricultural implementation such as tractors, trailers, spares for tractors etc., Gudivada has concentration of units manufacturing of Tractor - Trailors and Agrl. Implentats. There are 45 units in and around this town the tractor trailers manufactured by these units are in demand in Telangana, North coastal A.P. part of Karnataka state. Hence there is immense potential to establish such type of units in district.

Automobile components:

The Auto Nagar at Vijayawada is a citadel for manufacture of Automobile spare parts. There are no. of units engaged in manufacture of items such as cylinder liners, leaf springs, wheel bolts, U clamps, oil filters, Brake drums, gaskets, Body building, and automobile workshops. Govt. sanctioned "Auto cluster" for development of Infrastructure such as roads, lighting drainage, effluent treatment plants etc. is and around Auto Nagar. There is an immense potential to establish manufacture of automobile components in the District.

Handicrafts:

Krishna District is very famous for the distinctive handicrafts like Kondapalli, toys, Kalamkari printing and Veena making as those activities are very famous and widely being pursued by the local artisans.

Kondapalli Toys: These Toys got its name from the village Kondapalli where this art has originated. This village is located on the VJA - Hyderabad highway. These toys are made out of Tullapuniki wood which is available in the neighbouring forest. M/s Kondapalli Toys manufacturing cooperative purchase and sale society Ltd., Started in 1936. The society takes care of the need of its artisans like purchase of toys from the artisans and sells them through Lepakshi emporium and APSTC. As these toys have its distinctive artistic value has very good market all over country and abroad.

Kalamkari: Kalamkari Cloth printing is concentrated in Machilipatnam, Pedana and Polavaram areas. These handicrafts are among the most ancient craft in India and this art is highly appreciated. The name Kalamkari is derived from the main ingredient of this art i.e. Kalam which means pen and kari means workers. The significance of this industry is uses only the natural vegetable fast colours. The grey cloth is purchased from Erode and Coimbatore. First cloth is washed with cow dung and dried with green grass. The cloth is washed with the extracts of Mirabalam. Afterwards using design blocks made of wood the cloth is printed with natural colours prepared from the vegetables.

Musical instruments: Nuzivid mandal of Krishna is famous for manufacturing of Veenas and Tamburas which are exquisitely carved of a single piece of wood.

Promotional activities to be taken-up for certain Industrial Clusters/Parks**SAW MILLS AND WOOD RELATED CLUSTER:**

Cluster approach is the recent policy of the government for rapid industrialization by providing assistance to create infrastructural facilities to various sectors. Wood cluster is one of the cluster identified and to be promoted in Krishna. There are 120 entrepreneurs identified including existing industrialists who are showing interest to establish the new units in the place where all infrastructural facilities like water, roads, power, transportation etc are available in Vijayawada there is one saw mill association situated at Eluru road comprising of 100 members

and out of them 55 saw mills are working and scattered in various places of the Vijayawada city.

It is proposed that all members wants to be located in a place like an industrial estate / cluster group with all infrastructural facilities. The saw mills association already acquired 12 acres land in Gudavalli which is 12 k.m distance from Vijayawada and nearer to national highway NH 5, further the saw mills association has requested 150 acres of land adjacent to the above acquired site. It is submitted that 30 to 40 acres of land adjoining the above 12 acres land already acquired by Saw Mill Association.

It is assessed that one saw mill industry requires a minimum of 2000 sq yards. At present 50 members showing interest to start their industry in proposed location, another 70 units may be expected in near future as the construction activity and wooden furniture requirements are on the rise day by day. It is emphasized that association requires land and infrastructural facilities in one place, then traffic problems in the city and skilled labour problem will be solved

The total members of the association are 100. scope for new industries are 120, by providing the above infrastructural facilities not only existing industries sustainable but also to attract the new entrepreneurs from different parts of the district

Total plots to be developed are : 100

Land required to each industry is : 2000 sq yards

Total land required is : 2,00,000 Sq. Yards Say 40 acres.

National highway NH 5 is passing nearby the land acquired by the association. Skilled labour available in and around Vijayawada. Separate industrial feeder passing through kesarapalli which is nearer to the site. Ground water sufficiently available for drinking needs. Promotion work could be taken up for this Cluster by developing infrastructure.

PRINTING&STATIONERY INDUSTRY:

Printing industry in Vijayawada is becoming traditional one and is popularized all over the Country. There are about 50 Printing Presses, 200 Note Book Manufacturing units and about 100 book binding units in Vijayawada City. Most of these units i.e. approximately 80% of them are located in leased buildings which are

congested. Out of these are 35 Web Offset Printing presses with multi colour offset printing. Besides these there are three Litho printing presses which are used for printing of Cinema Posters and big size advertisement wall posters. There is a Hi-tech print system located at Pedaoutapalli village with latest technology to print MICR cheques, Dividend warrants and share certificates.

The raw materials required for the above industries are transported by means of heavy vehicles which are not allowed during the day time into the city by the authorities concerned. This is a major problem for them as they require workforce during odd hours which is causing lot of hardship to the unit-holders.

Total No. of Web Offset units proposed	50 Nos.
Note book manufacturing units proposed	50 Nos.
Approximate power required for each Web offset unit:	30 HP
Approximate power required for each Note Book Mfg. unit:	10 HP
Approximately land area required for each web unit:	1500 Sq.Yards
Approximate land required for each Note Book Mfg. unit:	500 Sq.Yards
Approximately total land area required (Considering for future expansion)	30 Acres

Further they have requested to start distribution point for Govt. text books in Vijayawada for easy transportation of books to coastal area districts and to transport raw material(paper)to the units as now these operations are being done from Hyderabad stock point. Nearly 30 acres of land is requires to accommodate 100 units and provision for text book stock point. They requested that suburb like Ambapuram, Nunna village areas is suitable to their activity.

PHARMA INDUSTRY:

There are near about 50 Pharmaceutical formulation units and 8 Bulk drug units in the surrounding of Vijayawada. Most of the units are willing to come to one place and start their units. Pharmaceutical formulation units require 2000 sq.mts of site and Bulk drug units require 5000sq.mts to 10000 sq.mts of site. Beside common ETP may be establish to facilitate the units having individual ETP plant about 5 Acres of land is required with infrastructural facilities to accommodate the units and for future expansion.

Approximate Land requirement:

I) Pharmaceutical Formulations	25 Nos.	50000 Sq.Mts.
ETP(Common) Provison		5000 Sq.Mts.
Common Facilities		10000 Sq.Mts.
II) Bulk Durg Units	5 Nos.	30000 Sq.Mts.
Common ETP		10000 Sq.Mts.
Common facilities		10000 sq.Mts.
III) Future expansion		35000 Sq.Mts.

CERAMIC INDUSTRY:

All steel plants basically required refractory material as consumables and considering the Visakha Steel Plant and its requirement, there is huge demand for the refractory bricks. According to Sri S.R.Kamat, Executive Director of Visakha Steel Plant, it is learnt that steel plant requires 3 million tons of refractory bricks for operation every year. At present about 90% of the Visakha Steel Plant requirement is met through the industries located outside State. The Clay mineral deposits occur in both East and West Godavari Districts divided into 3 categories Ball clay, fire clay, china clay basing on its chemical composition. Bheemadolu, I.S.Raghavapuram, Dwaraka Tirumala are the raw material available sources near by Krishna.

Ceramic Industry has:

- Low investment requirement
- High employment generating sector.
- Continuous demand and marketability of products
- Easy accessibility to the Know how and technology.

Krishna is well connected with the roads for transportation of raw material and finished goods. The production cost of the ceramics depends on fuels i.e. Coal/Gas. In Krishna, the ceramic industries are proposed at Ibrahimpatnam & G.Konduru Highway road. Natural gas allotment of on priority basis may be discussed with GAIL Authorities wherever the accessibility of pipeline exists. In terms of cost and quality aspects gas firing is cheaper than coal firing of ceramic bricks. We may pursue the GAIL to

supply gas from the connecting pipeline and to develop an Industrial Estate for the refractory units to meet the demand.

At present there are six units manufacturing Ceramic Products in Krishna District.

1. Centini Ceramics, Chigurukota, Mudinepalli .. Tiles
(Gas based – Lingala Gas Well)
2. Sri Rama Ceramics, Sriharimpuram, Mudinepalli .. Crockery.
(Gas based – Lingala Gas Well)
3. Shine Ceramics, Kuntamukkala, G.Konduru Mandal .. Decorative tiles
4. High-tech Ceramics, Gopavaram, Musunuru Mandal .. Fire bricks.
(Coal Based)
5. Murari Refractories, Pedoutapalli, Unguturu Mandal .. Fire bricks.
(Coal based)
6. Rautech Ceramics Pvt.Ltd, Pedoutapalli .. Sanitary ware.
(Diesel Firing)
7. Durga Refractories, Gannavaram .. Refractory Bricks
(Coal Based)

Proposed Units

1. Sri Krishnasai Maruthi Ceramics, Kuntumukkala .. Flour tiles
G.Konduru Mandal.
2. VICS Ceramics, Perikegudem, Mudinepalli Mandal .. Refractory.
(Gas based)

Under Process:

1. Sri Krishnasai Maruthi Ceramics, Kuntumukkala .. Tiles.
2. VICS Ceramics, Perikegudem.

In the Rajahmundry Ceramic Seminar Steel Plant representative informed that there is a demand of refractories worth of 100 crores per annum where as A.P. Industrialists are supplying only below 5% worth out of total demand. Only three units manufacturing the refractories and they are also not able to meet demand of supply to the Steel Plant at present.

FOOD PARKS:

Krishna District falls under Krishna-Godavari Zone. Krishna District endowed with natural resources and entrepreneurial abilities to harness the

vast potential available in the district. The Development of Food Processing Industries is contingent on the availability of strong agricultural base. Paddy occupies major chunk of cultivated area. The other crops grown are sugar cane, red grams, green grams, black grams and chills.

Horticultural cultivated crops in the district occupy nearly 1.0 lakh hectares. The major horticultural crops grown in the district are Mango, Banana and Guava. The A.P. Agro Food Estates(Food Parks)Association, Hyderabad requested the Commissioner of Industries, Hyderabad for acquisition of land of 100 to 200 acres in the region of Vijayawada to establish the Food Park. APIIC, Vijayawada acquired land with an area of 150 acres in the Tiruvuru and also there is a prepared NH through Tiruvuru. Lot of scope to develop food processing industries in the proposed estate to be developed which is nearby Khammam District also.

There is another proposal of land acquisition in Kanchikacherla area on NH-9. The same was informed to the President, A.P. Agro Food Estates (Food Parks) Association, Hyderabad through E-Mail.

This may be forwarded with the Food Park Association as well as Commissioner of Industries, Hyderabad.

LEATHER INDUSTRY:

In India livestock population holds 1st rank in cattle, buffaloes and goat population and 6th rank in sheep population where compared to world animal population. In Andhra Pradesh there are only few units to process the raw hides and skins into finished leather and most of the raw materials are being sent to other states like Tamilnadu, Uttarpradesh. The processed/ finished leather is again coming to our state for use in Leather products manufacturing units in spite of having better resources than Tamilnadu with strong raw material base and less expenses labour force. Krishna district is having good scope for processing the raw hides into finish leather under Modern technologies to top potential.

As the tanning process is very expensive to encourage Small scale Industries to process the locally available raw materials, a Common Facility Centre to process the semi finished leather into finished leather would be very benefit.

Common Facility Centres are very essential in every cluster of leather Tanning Industries for economic viability of tiny and SSI units and to tap the local resources. Generally 97% of leather goods are manufacturing only in Tiny and SSI sector and whereas a Small Scale Industry cannot afford to suitable equipment for processing the semi finished leather to finished quality leather. Therefore all the Tiny and SSI units will absolutely depends upon Common Facility Centre.

Due to lack of this item of facilities, the raw hides and semi finished leather are being carried away to other states for further processing. To bridge the gap it is proposed to establish one Common Facility Centre for semi finish to finished leather at Machilipatnam in Krishna District for the rapid growth of leather industries in Andhra Pradesh.

There Common Facility Centres are technically and economically viable only when Government/NGOs can establish.

Leather is a major export oriented industry and still the potential is untapped in Andhra Pradesh with strong raw material base and less expensive labour force. In India, Tamilnadu is playing a major role with 48.7% share and A.P. is lagging below with 3.9% share only through over around population is better than Tamilnadu. As there is lot of demand for leather goods and garments, the requirement of leather is very high and there is wide scope for leather tanning industry. Krishna District is best suitable place for establishing leather tanning industries because of the rich animal population.

Govt. of Andhra Pradesh has established one Mini Leather Park at Nuzvid through Leather Industries Development Corporation of Andhra Pradesh (LIDCAP) to provide employment to 20 members.

Govt. of Andhra Pradesh has proposed to start another 3 mini Leather Parks at G.Konduru, Pamidimukkala, Penuganchiprolu and one Medium Park in Krishna District during the year 2005-06. These leather parks are established by LIDCAP to meet the upcoming leather industries.

Tourism:

Vijayawada is situated on the banks of the river Krishna surrounded by hills. The 4014 feet prakasam barrage across the river has created a lake and its three irrigation canals flowing through city add beauty to it. The city welcomes the Tourists

with several star and budget hotels besides punnami park of A.P. tourism with boating and cruise facilities an Krishna river.

Tourism projects to be taken up under public private partnership made:

- a. Tourist information and View tower
- b. Commercial Zone
- c. Children park
- d. Cultural zone
- e. Butterfly park
- f. Bird sanctuary
- g. Horticultural zone
- h. Sconic zone
- i. Therme park
- j. Aquarium

Investment Opportunities:

Agro Based Industries:

Modern Rice mills, Rice Bran oil, Vegetable Oil Refinery, Energy Foods, Mini Dhal mills, Oil mills, Spice powders, Turmeric Oil etc

Textile Based:

Ready made garments, Cloth weaving, Hosiery etc.

Mineral based industries:

There is a large scope for industries based on Minerals such as Lime Stone and Granite.

List f Viable Projects In Large Scale Sector:

1. Rice Bran Oil
2. Integrated Cold Storage
3. Tyre manufacturing
4. Cement Manufacturing

List f Viable Projects In Small Scale Sector:

1. Agarbathi sticks Mfg.
2. Mango Jally

3. Fly ash bricks
4. Cement pre-cast works.
5. Rice Mill.
6. Spices grinding.

Special Parks - STPI, Leather, Women Entrepreneurs, Leather Parks:

It was decided by the LIDCAP to establish Leather Industrial Parks and the APIIC has been identified as Nodal Agency to acquire land and to take up the construction works. In Krishna District, One Medium Park at Machilipatnam and Four Mini parks in Jaggaiahpet, Tiruvuru, Nuzvid and Pamidimukkala Mandals were proposed to set up during this year. The land identification is in various stages as follows:

Machilipatnam:

Around 100 acres of wasteland near Seacoast at Manginapudi village of Machilipatnam Mandal has been identified. The sketch and Survey No. wise extents are to be obtained from MRO Machilipatnam.

Nuzvid:

21.00 acres of Government land in Sy.No.1054 and 1056 near Nuzvid town was identified and necessary Alienation proposals were submitted to Collector and District Magistrate

Pamidmukkala:

20.00 Acres of Govt. land in Sy.No.377 of Meduru village Pamidimukkala Mandal was identified and necessary Alienation proposals were submitted to Collector and District Magistrate, Krishna

Jaggaiahpet and Tiruvuru:

The availability of Govt. land in the above Mandals has to be identified and the MROs are being contacted in this regard.

New Projects Coming-up:

S.No.	Name & address of Promoter / Company.	Line Activities of	Investment (Rs.in Lakhs)
1	M/s.Lanco Kondapalli Power Pvt. Ltd. (Expansion), IDA,, Kondapalli, Ibrahimpatnam (M), Krishna District.	Power Generation	250000
2	M/s. Reliance Industries Ltd, K.G.III 5, of the Coast Krishna, Krishna Dist.	Exploratory Drilling of wells in offshore	36600
3	M/s.Sentini Ceramica Ltd., Chigurukota (V), Mudinepalle (M), Krishna District.	Ceramic Tiles	6200
4	M/s.G.V.K.Novopan Industries Ltd., Kondapally (V), Krishna District	Prelaminated Particle Boards, Plain Particle Boards.	3265
5	M/s.Shriram Energy Systems Ltd., Near DisneylaND, Pipula Road, Ajitsingh Nagar, Vijayawada.	Power Generation	2805
6	M/s.GAIL (India) Ltd., Konduru (V), G.Konduru (M), Krishna District	Transportation of LPG	2524

For further details please contact;

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