

# CITY RÉSUMÉ VIJAYAWADA

Ramesh Srikonda, Abdul Razak, Nagaraju Kaja,  
Srinivas Daketi, Ayon Tarafdar – 2016



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The case study final report based on the secondary data and the base line survey conducted in the Old Rajarajeshwaripeta slum in Vijayawada) submitted (on 10-2-2018) by Dr. Abdul Razak Mohamed, Principle Researcher as well as a member of the BINUCOM project team belong to the Indian partner institute SPAV to the Coordinating Institute University of Danube Krems, Austria.



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## ABSTRACT

Vijayawada is the second largest city in the newly formed state of Andhra Pradesh and it is also known as the political capital of the state. Statistically, Vijayawada is the 159th fastest growing city in the world. The Vijayawada Bus Terminal is the second largest in Asia and the Vijayawada Railway Junction is the third most busy railway junction in the world. The wholesale textile and garment markets in Vijayawada are the biggest in South Asia. Vijayawada also serves as a business hub in terms of wholesale agricultural products, particularly specializing in vegetables, fruits and spices. Vijayawada has a large number of engineering colleges and the first medical college in the region and is often seen as an educational hub in Southern India. The first institute of national importance in the field of Architecture and Planning in the erstwhile as well as newly formed state of Andhra Pradesh, the School of Planning and Architecture Vijayawada (SPAV) has been seated in Vijayawada since 2008.

The second largest book festival of India is held in the city. Vijayawada is also wellknown for its rich cultural roots through local forms of dance, music, crafts, sculpture, architecture and fine arts. The origin of the city can be traced along the banks of the river Krishna, along the scattered Eastern Ghats and surrounded by rich environmental natural resources.

The large forms of wetlands, lakes and forests form a rich biodiversity reserve around the city. The city has an intricate mesh of canals giving a special morphological character. These canals emanate from a heritage barrage on the Krishna River which serves as a major landmark. The people of Vijayawada are multicultural and from different regions. However, a considerable share of the population resides in slum areas, bringing challenges to urban development. While Andhra Pradesh has the third highest proportion of slum dwellers amongst the states in India, about 30 percent of Vijayawada's population lives in slums.

The new proposed capital of Andhra Pradesh will be located across the river and is named Amravati. It is about 25 km from Vijayawada and it is a greenfield capital development project. Due to the development of Amravati, Vijayawada is undergoing transformation in real estate, land use, circulation pattern and demographic profile. This report briefly summarizes the city in six major sections covering the History, Economy, Demography, Policies related to Housing, Slums Profile and Future Development. ♦

“While Andhra Pradesh has the third highest proportion of slum dwellers amongst the states in India, about 30 percent of Vijayawada's population lives in slums.”

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## PART 1

# HISTORY: SHORT OVERVIEW OF VIJAYAWADA CITY REGION AND KRISHNA DISTRICT

### 1.1 Introduction

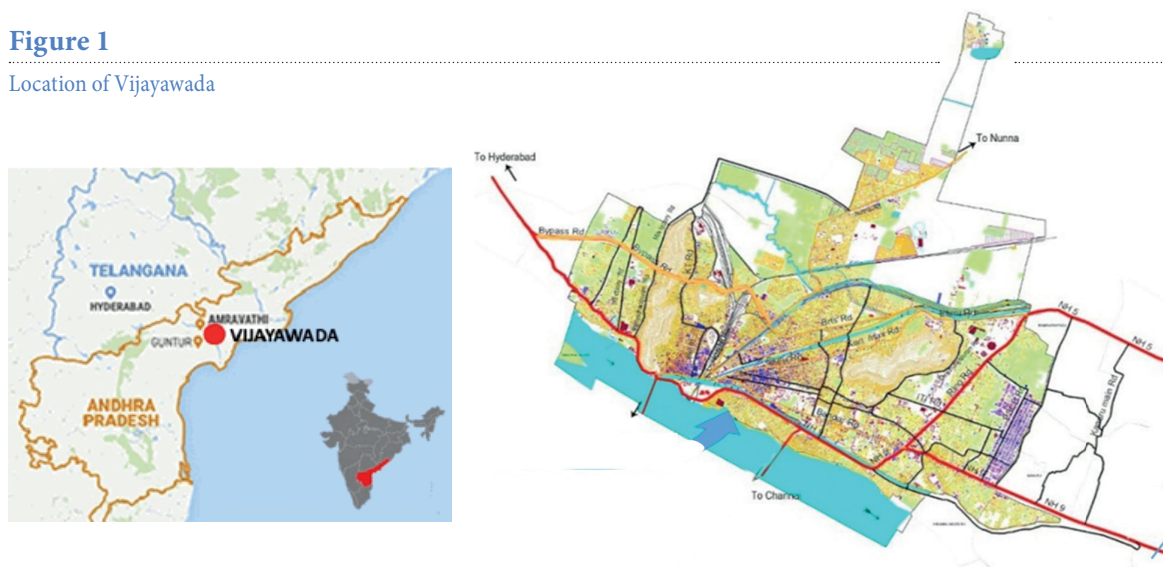
Vijayawada city is presently functioning as the capital of Andhra Pradesh even though as per Andhra Pradesh Reorganization Act, 2014, Hyderabad will remain the de jure capital of both Andhra Pradesh and Telangana states for a period of 10 years. Vijayawada is a city with people living close to water, hills, rivers and lots of open spaces (Mohamed AR 2014). The city is located along the eastern banks of the river Krishna and is predominantly linear in its evolution and pattern (Figure 1). Vijayawada is bordered by the Krishna River on the south-west, and the Budameru River on the north. The northern, north western, central and southwestern parts of the city are covered by a low range of hills, while the southern and northeastern parts are covered by rich and fertile agriculture lands with three major irrigation canals. The topography of Vijayawada is flat, with a few small to medium-sized hills. These hills are part of the Eastern Ghats with the Krishna River flowing through them. They have very low

elevation compared to the average elevation of the Ghats. Three canals originating from the north side of the Prakasam barrage reservoir, namely, Eluru, Bandar and Ryves, pass through the city.

There are places in Vijayawada with distinct urban character and landmarks, but the city is known to retain traditional values, practices and rural living patterns and styles within the urban fabric. The people of the Vijayawada urban areas and the nearby rural areas of the Krishna district closely interact in terms of trade and commerce, making the city a vibrant social, economic, and politic environment. However, the people of Vijayawada are slowly entering into a newer version of the city which is busy, crowded, unhealthy and vulnerable in many aspects. This is evident from the growth of human and vehicle population, as well as the increasingly busy traditional business streets in the One Town area (core city hub) and modern malls and super markets in the MG Road (Mohamed, AR 2014).

**Figure 1**

Location of Vijayawada



The formation of the capital city of Amravati across the river is having huge impact on immigration, real estate management and services. The transformation in social and trade life is causing the formal, informal, residential, and commercial sectors to grow.

The historic area of Auto Nagar in Vijayawada attracted the automobile industry to its vicinity, causing a tremendous pollution problem and explosion of informal residential neighbourhoods. Nevertheless, it is one of the large areas in the city which generated employment and housed urban poor. The establishment of (a) automobile show rooms and other service centers all along the Ring Road, (b) multi-specialty hospitals, hotels and restaurants, shopping malls and recreation centers (c) high, middle and low income housing apartments in the interior spaces of both sides of the Ring Road makes urbanization in Vijayawada visible (Mohamed AR 2014). The Victoria-Jubilee-Museum, now called Gandhi Museum, (Figure 2), Bhavani Island and the Undavalli Caves in the city stand as a mark of respect towards the Vijayawada's great natural and heritage resources.

**Figure 2**

Victoria-Jubilee-Museum



Vijayawada, the city on the banks of River Krishna in the state of Andhra Pradesh, is a municipal corporation & the headquarters of Vijayawada (urban) Mandal in the Krishna district of the state. The city adjoins the state capital of Amaravati and comes under the Andhra Pradesh Capital Region Development Authority (APCRDA) region. As one of the major trading and business centers of the state, it is also known as **“The Business Capital of Andhra Pradesh”**. The city is one of the two metropolis in the state, with the other being Visakhapatnam. According to the 2011 census, the city had a population of 10,480,240 (10.5 million) making it the second largest city in the state in terms of population and it had an urban agglomeration population of 14,910,202 (14.9 million). The city has been recognised as a “Global City of the Future” by McKinsey Quarterly. It is one of the commercial hubs of Andhra Pradesh with a GDP of \$3 billion in 2010, which is expected to increase to \$17 billion by 2025 (McKinsey, 2014).

Andhra Pradesh is one of the 29 states of India, situated on the country's south-eastern coast. The state is the eighth largest state in India covering, an area of 160,205 km<sup>2</sup> (61,855 sq. mi). According to the 2011 census, the state is the tenth largest by population, with 49,386,799 inhabitants. The state has the second longest coastline, 972 km (604 mi), among all the states of India, second only to Gujarat. It shares its borders with Telangana in the northwest, Chhattisgarh in the North, Odisha in the northeast, Karnataka in the west, Tamil Nadu in the south and the water body of Bay of Bengal in the east. A small enclave of 30 km<sup>2</sup> (12 sq mi) of Yanam, a district of Pondicherry, lies in the Godavari delta to the northeast of the state. The location of the state of Andhra Pradesh and its 13 districts is shown in the Figure 3.

**Figure 3**

The location of Andhra Pradesh in India and its districts



The state of new Andhra Pradesh housed people who are more rural than urban. After the division, the state got a share of the population of approximately 49,386,799 within an area of 160,200 km<sup>2</sup>. The population distribution among the districts is shown in Table 1. Spatially, the state has 7 districts in linear form located along the coast, and has 6 other inner districts.

**Table 1**

Population of Andhra Pradesh according to district (2011)

DISTRICT	POPULATION
Anantapur	4,081,148
Chittoor	4,174,064
East Godavari	5,154,296
Guntur	4,887,813
Krishna	4,517,398
Kurnool	4,053,463
Prakasam	3,397,448
Srikakulam	2,703,114
Nellore	2,963,557
Visakhapatnam	4,290,589
Vizianagaram	2,344,474
West Godavari	3,936,966
Y.S.R. (Cuddapah)	2,882,469
<b>Andhra Pradesh (State)</b>	<b>49,386,799 (49.3 million)</b>

The population density in the state of AP is on average 344 people per km<sup>2</sup>. The coastal linear districts of Krishna, West Godavari, East Godavari, Srikakulam have over 400 per/km<sup>2</sup> whereas Guntur and Vizianagaram have a density below 400 per/km<sup>2</sup>. The Krishna district has the highest population density of 518 per/km<sup>2</sup>. The cluster of districts in the southern part of the state (Chittoor, Kurnool, Nellore, Anantapur, Prakasam and YSR districts) have a population density below the state average, varying between 188 to 275 per/km<sup>2</sup>. Among this cluster of districts, Chittoor has a population density of 275 per/km<sup>2</sup> (Mohamed AR 2014).

The population distribution by district in the state reveals that East Godavari has highest population followed by Guntur, Krishna, and Visakhapatnam. Spatial proximity is observed in terms of two clusters (a) the district East Godavari, which along with Visakhapatnam, amounts to 19.11% of the state population and 12.54% of the land area in the state, and (b) the cluster of district Guntur along with Krishna amounts to 19.04% of the state population and 13.73% of the land area in the state. These districts have a high population concentration as per the density information; at the same time, compared with the land share, it is observed that the two clusters of 4 districts located in the coastal line housed about 38.16% of the population with 26.28% of the land area in the state (Mohamed, AR 2014a).

The other high population concentrations in the state are in 3 more districts located within the six clusters of districts situated in the southern part, such as the districts of Chittoor, Anantapur and Kurnool having 24.92% of the population and 32.46% of the land area in the state. These 3 districts geographically form a third cluster in the state, and are located close to each other bordering on other states. The three high population clusters located in the middle (two clusters) and south (one cluster) are not geographically close to each other. These three clusters account for about 70.62% of the population and 51.21% of the land area in the state.



The districts such as West Godavari, located next to the cluster of the Guntur and Krishna districts, and Srikakulam and Vizianagaram with the Vizaz and East Godavari districts, and the Prakasam, Nellore districts along with the YSR district have less than 4 million people. All these 6 districts are scattered around the state and house about 36.91% of the population on 40.89% of the land area in the state. From the geographical location, the district West Godavari with a population of 3.94 million (2011 Census) located between the Krishna and East Godavari districts are likely to attract more people in the future. Similarly, the same trend may happen in the Prakasam district in the south, located near the Guntur district (Mohamed AR 2014a).

With regard to the concentration of Villages and Towns in Andhra Pradesh, there were 27800 census villages and 353 census towns. After the division of new state, there are 17039 villages i.e. 61.29% and 195 towns i.e. 55.24% as rural and urban settlements. The population is spatially distributed over approximately 17234 human settlements in the AP state.

### 1.2 Evolution of Vijayawada

Vijayawada is a flourishing town of great historic importance. It was one of the most important cities during the early Christian era, and the religious centre for the Kingdom of Vengi. Quite a number of antiquities found in and around Vijayawada confirm the city's existence over the ages. The Epic of Mahabharata refers to the Indrakiladri hills as the place where Arjuna secured "Pasupathastra" from Lord Siva. This historical town originated on the northern bank of the river Krishna and by 1855 AD the town was in the form of small settlement on the eastern side of the Indrakiladri hills. The early growth of the city is shown in the Figure 4.

The growth of the town picked up momentum after the construction of a barrage and three irrigation canals namely Eluru, Ryves and Bandar canals in 1855 and the rail bridge over the river Krishna in

1892. The city experienced modest growth in the preindependence era. However, after independence, the construction of road bridges over the river Krishna, establishment of the South-Central Railway terminal, setting up of divisional headquarters, major government offices including district court, major institutions for higher education, major commercial and distributive trading activities, wholesale establishments, agricultural marketing centre and Jawahar Auto Nagar industrial Estate had ve a tremendous effect on the city's growth.

Vijayawada's history reveals that Bezawada (Vijayawada) was ruled by King Madhava Varma (Ancestor of Pusapatis of Vizianagaram). The remains of prehistoric man and society in the Stone Age is found all along the river Krishna, which dominates the landscape of Vijayawada (Table 2).

The history of Vijayawada is largely shaped by the changes that were brought about in the city under British rule (Table 2). The British period was marked by significant growth in the basic infrastructure and facilities in the city. A major project, the Prakasam Barrage, was completed and a railway bridge over the river Krishna that connected Guntur City and its district was also constructed. The famous Chinese Huin Tsang visited this place in 639 A.D. when Buddhism was at its zenith.

Figure 4: The growth of the city from 1855-1965

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**Table 2**

Events that influenced spatial development in Vijayawada, 1855 - 2014

YEAR	EVENT
1855	Construction of a barrage and three irrigation canals Eluru, Ryves and Bandar
1858	Municipal Association started in Bezawada (Vijayawada)
1866	Became Bezawada Municipality
1888	Constituted as municipality with an area of 30 km <sup>2</sup>
1892	Construction of rail bridge over the river Krishna
1904	Railway from Madras to Calcutta, passing through Vijayawada was opened
1933	Vijayawada port was established
1942	Japanese war planes attacked Vijayawada and Eastern Naval commands set up their base in Vijayawada
1953	Became part of the Andhra State, from Madras presidency
1956	Merged with the Telugu-speaking area of the former princely state of Hyderabad, became part of the Andhra Pradesh state.
1960	Upgraded to selection grade (municipality)
1969	First Master Plan was approved
1978	Vijayawada, Guntur Tenali Mangalagiri Urban Development Authority constituted under Andhra Pradesh Urban Areas (Development) Act, 1975
1981	Upgraded as a Municipal Corporation
2005	Selected as one of the mission cities under JNNURM
2006	Revised Master Plan was approved (after 35 years)
2008	BRTS launched in collaboration with VMC, APSRTC and VGTM-UDA under JNNURM
2009	Proposal to make Vijayawada as 'solar city' under MNRE Solar Cities program.
2012	Extended the jurisdiction of Vijayawada Guntur Tenali Mangalagiri Urban Development Authority
2014	Temporary Capital of newly created state – Andhra Pradesh

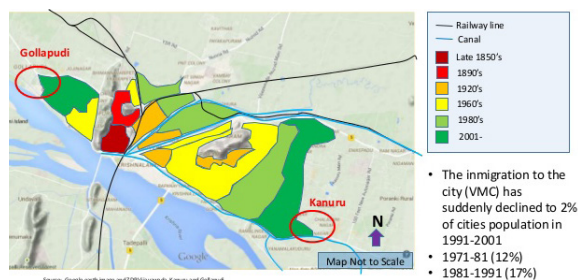
The growth of the town during 1855 AD was along the banks of the river Krishna abutting Indrakiladri hills around the temple of Lord Malleswara. During 1905 AD, growth started along the canals and areas abutting Indrakiladri and Gandhi hills. The city grew further along the three canals with more growth along the Bandar road. The city grew further along the Eluru road towards the Gunadala hills due to better infrastructure and transportation facilities. It also added many surrounding villages and the area of jurisdiction of the municipality increased from around 30 km<sup>2</sup> in 1888 to around 58 km<sup>2</sup> in 2004.

In the early 1950's, the city was mostly confined to the area between the Indrakiladri hills where Kanaka Durga temple is located on the east, the railway station on the west and Prakasam Barrage in the south. The city started to grow eastward along Bandar Road (former NH5) and Eluru road. The "One Town" market is located in the old city area and has a thriving economy with a huge garment market. Situated in the fertile Krishna delta, the city has historically been the agricultural market centre of the region. The city growth along its periphery is shown in the Figure 5.

In the 1960's the Auto Nagar Industrial estate was set up. Some residential development, like Vidyadharapuram and the Bhavanipuram and HB colony, took place towards the east of the Indrakiladri Hills in the 80's. LANCO set up a thermal power plant and a residential township on the west along the NH-9 going towards Hyderabad in 1999-2000.

**Figure 4**

Growth of city towards the periphery between 1850-2001



Residential areas like Ajith Singh Nagar, Payakapuram and Vambay have been developed by VMC in the past 2 decades to house the urban poor. The city has grown along the eastern and western corridor. Recent growth areas in the north include the large Vambay Colony, which is the site of the BSUP-supported, three storeyed flats projects for slum relocation.

River Krishna flows through the southern part of the city and has historically served as a barrier for the growth of the city towards the south. In the new Vijayawada Guntur Tenali, Urban Development Authority (VGTUDA) Master Plan, the outer ring roads and bypasses have been planned which can stimulate growth towards the north and south. With more connectivity across the River Krishna in the present situation, there is development in commercial, residential and recreational activities in the Mangalgiri area. Presently it is one of the fastest growing suburban areas in Vijayawada.

### 1.3 City and Its Regional Setting

#### Location

India's key economy-generating cities, namely Chennai, Bangalore, Hyderabad, Visakhapatnam and Jagdalpur are all located within a radius of 300-400 km. The proximity of, and new opportunities offered by Vijayawada city, has attracted skilled and talented human resources from these cities, but has also led to the growth of the unskilled labour force, resulting in the growth of informal settlements.

Andhra Pradesh has a long coastline with two of the country's biggest ports, Visakhapatnam and Chennai (Tamil Nadu) located at the northern end and southern end respectively. Vijayawada, with its new port at Machilipatnam, lies right in the centre of the state. Machilipatnam port has a great potential as an inland trade centre for hinterland cities, including Hyderabad. Not only is Vijayawada located in this region, it stretches centrally along the whole of the eastern coast, opening room to establish itself as the new "EASTERN GATEWAY OF PENINSULAR INDIA"

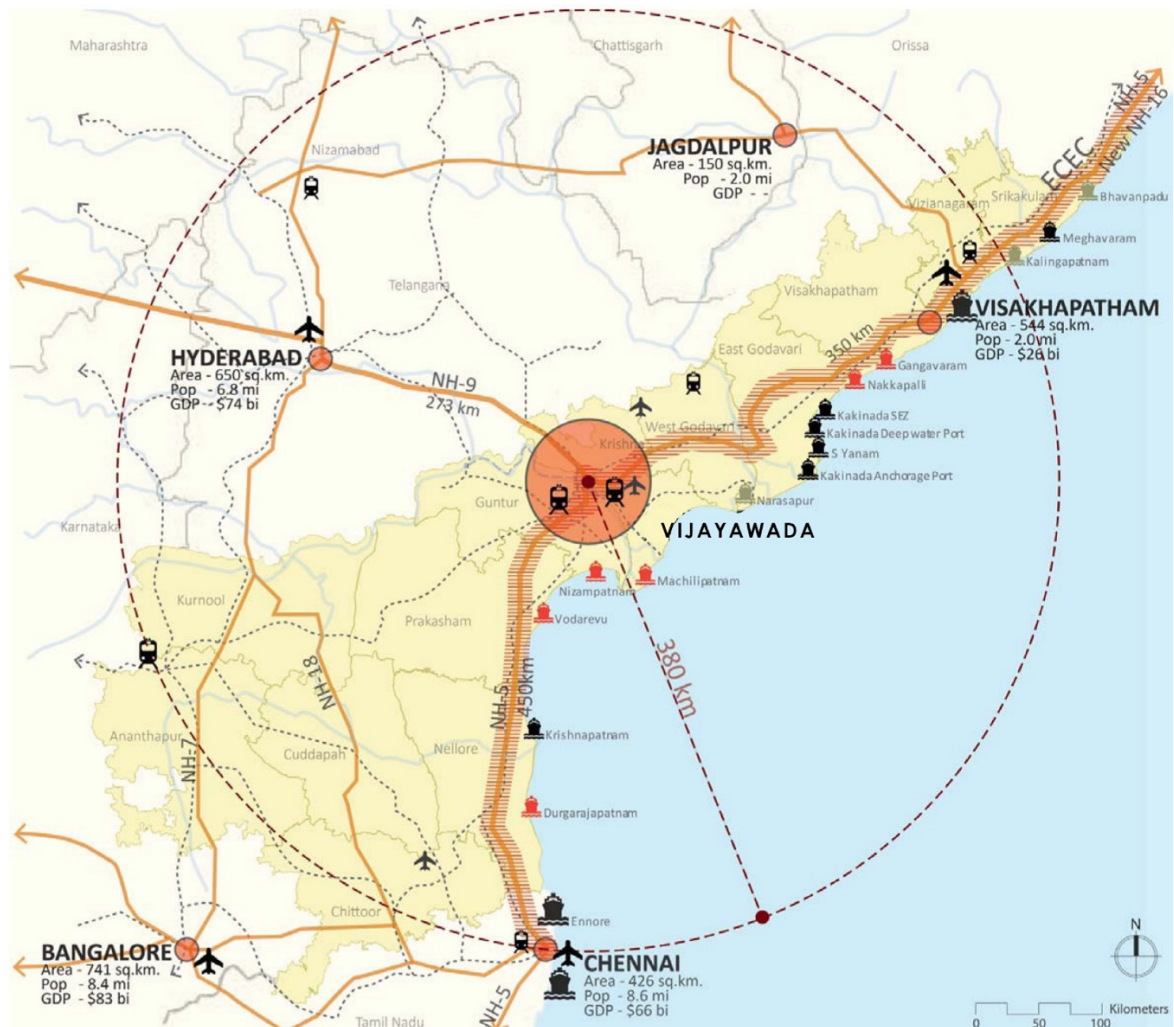
#### Connectivity

Vijayawada is very well connected through rail, road and air to key economic powerhouses in the region. The region is served by Gannavaram Domestic Airport. There are plans to upgrade Gannavaram to an international airport. There are three international airports nearby, the nearest being Hyderabad International Airport, followed by others in Chennai and Bengaluru (Figure 6). Andhra Pradesh currently has one major port at Visakhapatnam. Other than Visakhapatnam, the state has five more operational ports, seven ports are under development and three are proposed to be developed. With three ports under development near Capital region, many jobs open up in the region. National Highways 5, 7, 9 and 18 run across the state and connect it to other key cities in the country. A direct connection with Bangalore city could however boost the region's trade further.



**Figure 5**

Vijayawada key connectivity



Over the years, the city has grown as a major economic, cultural and administrative hub in coastal Andhra due to its central location as an important railway junction and also because of national highways traversing the city. The city also has a few places of historic importance. The city is situated at the foot of a low range hills on the northern bank of the river Krishna with its cardinal points as 16° 31' North latitude and 80° 37' East longitude, around 70 km away from the coast.

### Environment

Vijayawada has a length of about 24 km of hill range in the district known as Kondapalli. The Prakasam Barrage at Vijayawada across Krishna River is one of the landmarks that people visit, acting as an important tourist attraction in the city. The other smaller hill ranges are Jammalavoidurgam, Mogalrajapuram and Indrakiladri hills (Figure 7). The coastal belt consists of fertile plains in the Krishna delta region; this major perennial river, Krishna, flows through

the district south of Vijayawada. It flows southwards up to Avanigadda, where it bifurcates into two channels; the main channel continues to flow southwards up to its confluence with the sea near Nagayalanka and the branch at Avanigadda flows eastwards up to its confluence with the sea near Hamsaladeevi.

**Figure 6**

Prakasam Barrage at Vijayawada across river Krishna



Floods are caused by two rivers in the Vijayawada: One is Krishna River which is on the southern part of the city, and the other is Budameru River which is in the northwest. Both these rivers contribute to the canal network. The contribution of water from Budameru is mostly seasonal. The Krishna flood bank above Prakasam Barrage is about 13km and the lower flood bank is 6.40 km, which creates havoc during flooding season which starts in June and lasts until December every year.

#### **Land use and Topography**

Vijayawada city has four canals, four hills and the holy river Krishna. Vijayawada, when approached from Guntur, welcomes with historic gates across the holy river Krishna. The way to Machilipatnam runs parallel to Budameru canal and crosses two other canals. While all these canals through the city do cause some hindrance to growth and traffic, they definitely look picturesque from a bird's-eye perspective.

There are three major hills: Indrakiladri hill, Orr's hill, and Moghalrajapuram hill. The natural slope of the old town falls from north to south, whereas the new town slopes down from west to east. When compared to the old town, the new town is flat and hence drainage less effective. Though the city is protected by high flood banks on the southern side, the low-lying lands are not immune to floods, when the river Krishna is at its highest.

#### **Soil Condition and Ground Water**

Generally, black cotton soil - with exceptions in hilly areas - predominates the zone. The sub soil is moist clay which is good for agriculture. The urban area mainly constitutes three types of soils, namely alluvial, black and red ferruginous. Fertile alluvial soils are available in the Krishna delta area whereas red ferruginous soils are spread over the uplands. In the Giripuram area, metamorphic rocks are found in the subsoil strata.

Water can be tapped at varying depths from 3 to 5 meters below ground level. Nearly one-third of the entire city's water supply is from ground water sources. The alluvial spread along the Krishna River and the canals also contain aquifers close to the surface, which provide continuous support for cultivation activities in the entire region.

#### **Climate and Rainfall**

The climate of Vijayawada is tropical in nature with hot summers and moderate winters. The climate is hot and dry throughout the year. There is very minor difference between the maximum and minimum temperatures in summer. Vijayawada is located on the line which separates the delta-irrigated lands and the dry uplands of the district. The climatic cycle can thus be divided into four seasons as the cool months are January and February, the hot months are March to May, the Monsoon (S.W) during the months from June to September and the Monsoon (N.E) is October to December.

Vijayawada and the surrounding areas experience high temperatures. The mean daily maximum temperature is 47°C, while minimum is 27.7°C in this region. The temperature begins to rise in mid-February and May is the hottest month. December and January are usually the months with the lowest temperatures during the year. During these two months, the mean daily maximum temperature is about 29°C while minimum is about 19°C. The cold weather period in Vijayawada is normally during the rainy seasons. The city receives an average annual rainfall of 965 mm and the bulk of the precipitation is during the south-west monsoon period. The sky is generally overcast during the southwest monsoon season. North-west monsoon breaks the hot spell and makes the weather bearable. South-west monsoon follows thereafter and extends till the end of September. October and November constitute the post monsoon period. The period from December to mid-February is generally marked by fine weather. Rainfall in the region generally decreases from east to west. This region receives maximum rainfall both from the southwest and retreating monsoons. Two thirds of the annual rainfall are recorded during southwest monsoon. From February to June, the relative humidity in the afternoons ranges between 68-80%.

#### **Wind Direction**

The direction of the wind in the region around Vijayawada in the hottest months of April and May is from south to east in the morning hours and, in the evening, from southeast to northeast. In warm months from October to March, the wind blows in the morning from east and north and, in the evenings mostly from southeast and east.

#### **Vegetation and Landscape**

Vijayawada and its surrounding region are fairly rich in agricultural activity due to the Krishna River. Soil condition is also suitable for cultivation. Rice and sugarcane are the principal crops cultivated in the region. Coconuts, guava and mango are the major tree crops found all over the Vijayawada region.

#### **Administration Status**

Vijayawada Municipality was set up in the year 1888 with an administrative area of around 30 km<sup>2</sup>. The Municipality was upgraded to a selection grade in 1960s and further to Corporation status in the year 1981. The Vijayawada Municipal Corporation was spread out over an area of 29.4 km<sup>2</sup>. The area presently covers extended areas including Bhavanipuram, Patamata, Payakapuram, Gunadala, Kundavari and also Kandrika. As per the revenue records, the extent of the present municipal area is 61.88 km<sup>2</sup>. ♦



## PART 2

# ECONOMIC PROFILE OF VIJAYAWADA

### 2.1 Growth of Industries in Vijayawada

For a long time, the first and foremost function of Vijayawada was to serve as a marketing center for agricultural produce. The earliest industries that began in the city were the processing industries for agricultural products like rice, pulses and oil seeds. These industries began growing in Vijayawada because of its better connections with important marketing and consumption centers in the region. Till 1939, the agro- based industries were operated by Steam Power and Oil Engines and after 1939, the establishment of a thermal power station at Vijayawada with 3000 kWh capacity augmented the growth of industries. A further increase in capacity to 12000 kWh aided industrial development in the city. Vijayawada Thermal Power Station had impact on the industrial development of the region with diverse economic activities and has increased rapidly over the last few decades in various fields.

### 2.2 Types of Industries, Location and Distribution

The development of Jawahar Auto Nagar Industrial Estate, located in the eastern part of the city near Patamata and covering around 111 ha in 1966, led to the emergence of a number of ancillary industrial units. Metal, wood, food processing, paper, rubber, plastic, petroleum and coal factories are the major categories of the factories in the city.

Another industrial estate is located at a distance of 16km from the city, at Kondapalli, covering approximately 178 ha and comprising 620 plots. There are a few other industrial areas concentrated on the periphery of the city near Kanuru, where large units like solvent plants and agro-based industries have established a base. A few are also established

in Tadepalle, on the other side of Krishna River. Vijayawada occupies a unique place in the state as far as the printing industry is concerned. A large number of dailies and magazines are printed and published in the city. Besides these, there is a large concentration of manufacturing industries such as AP Heavy Machinery and Engineering Ltd. and AP Rubber Industries. Based on the general classification, the industries can be divided into three types: Large, Medium and Small scale. (Table 3)

**Table 3**

Industrial Statistics of Vijayawada

TYPE OF INDUSTRY	NUMBER
Small Scale Industries	2500
Large and Medium	9
Persons Employed	18000

### 2.3 Trade and Commerce

Vijayawada city has acted as a major trade and commerce centre in the region for ages. Vijayawada is a major market for mangoes in the state generating turnover worth millions of rupees. The city is a major agricultural market for products like paddy, pulses, black gram, garlic, sugarcane, edible oils and turmeric in the south-coastal region of the state. Equally, Vijayawada is a major commercial hub for products like automobile spare parts, textiles and furniture. ♦

## PART 3 DEMOGRAPHIC CHARACTERISTICS OF VIJAYAWADA

### Population Growth Trend

Vijayawada Municipal Corporation constitutes about 3.91 % of the total urban population of the state. Vijayawada is the third largest city in the state to which 3 town panchayats were added in 1981 and 2 village panchayats were added in the year 1985. The population of Vijayawada city is 1,048,240 as per census 2011. The population growth in the Vijayawada municipal area during the last five census decades is shown below (Table 4, Figure 8).

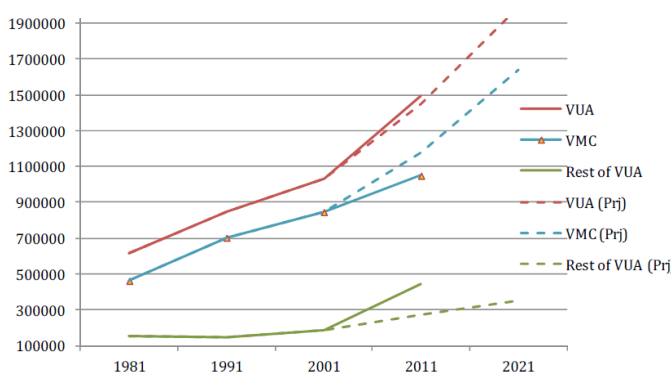
**Table 4**

Growth of population in VMC & VUA in the last 5 census decades

YEAR	VIJAYAWADA MUNICIPAL CORPORATION (VMC)		VIJAYAWADA URBAN AGGLOMERATION (VUA)	
	Population	Growth (%)	Population	Growth (%)
1961	230397	42.93	269536	44.61
1971	317258	37.70	395084	46.58
1981	461772	45.55	613756	55.35
1991	701827	51.99	845756	37.80
2001	845217	20.43	1033562	22.21
2011	1048240	24.02	1491202	44.28
As per CDP population projections (per decade):				
2011	1.17 million		1.45 million	40%
2021	1.64 million	39.3%	2 million	37.5%

**Figure 7**

Growth of population in Vijayawada



Source: Compiled from Census, Govt of India

## PART 4

# PLANNING REGULATIONS AND POLICIES RELATED TO HOUSING AND INFORMAL SECTOR.

There are several legislative provisions, policy documents, programs and schemes under the State and National government that defines, mandates, guides and finances the activities related to Housing for Urban Poor. These Acts and programs can be

categorized under the headings of Slums, Housing and Street Vendors. A summary of acts and policies at national and Andhra Pradesh State (provincial) level on Housing, Slums and Street Vendors is presented below. (Table 5, Figure 9)

**Table 5**

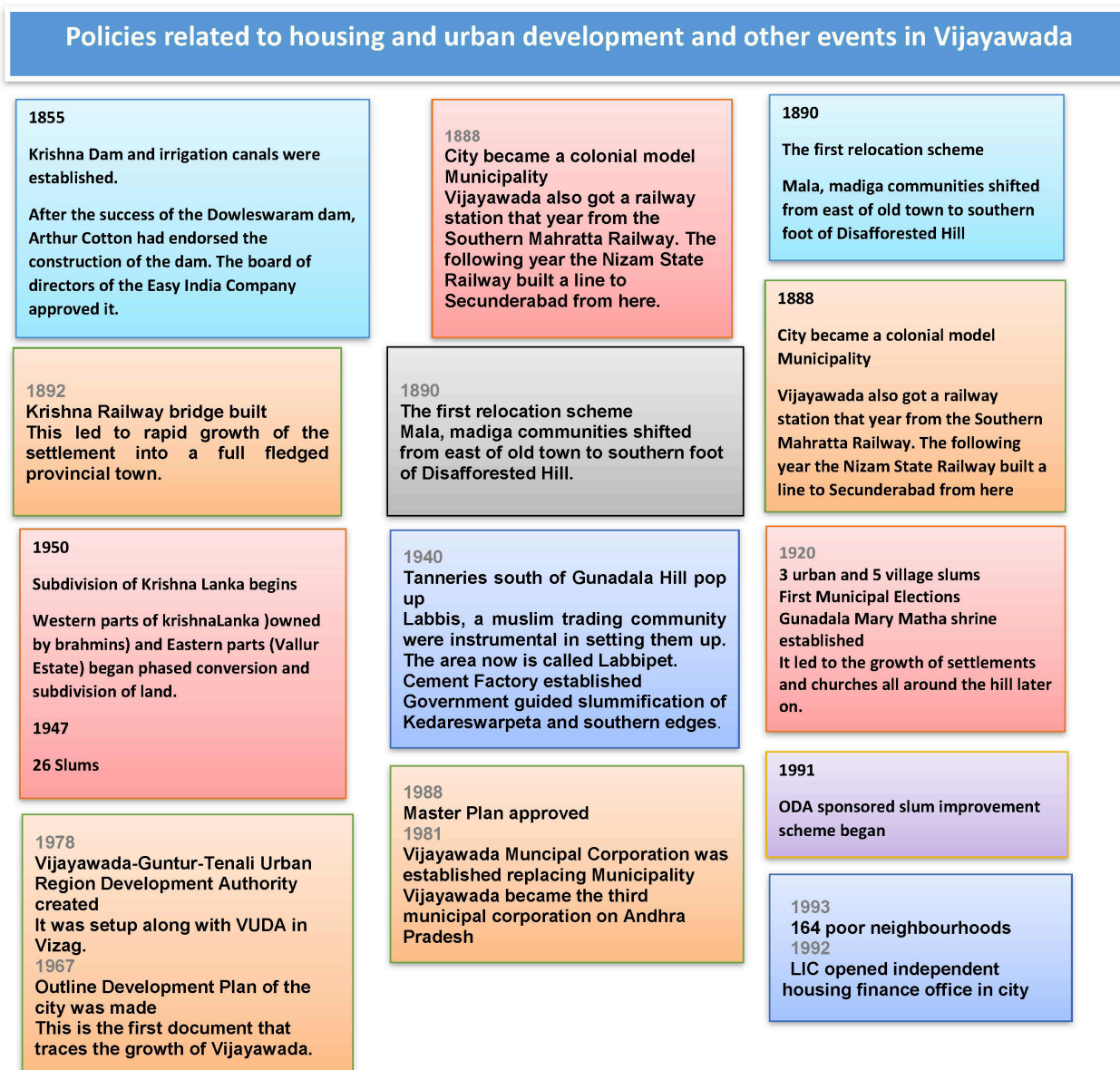
Summary of Acts and Policies on Housing, Slums and Street Vendors

	SLUMS	HOUSING	STREET VENDORS
NATIONAL	Slum Area Improvement & Clearance Act, 1956  Property Rights to Slum Dwellers Act, 2011 •	1972 – Urban Land Ceiling and Regulation Act (ULCRA) repealed	Street Vendor Act, 2014
		1994 - Urban Basic Services for Poor (UBSP)	
		2001 - Valmiki AmbedkarAwaasYojana (VAMBAY)	
		2005 - Jawaharlal Nehru National Urban Renewal Mission, (JNNURM)	
		2005 - Basic Services for Urban Poor (BSUP)	
		2007 - National Urban Housing & Habitat Policy (NUHHP)	
		2011 - Integrated Housing and Slum Development Project (IHSDP),	
		2011 - Rajiv AwaYojana (RAY)	
		2011 - Indira AwaYojana (IAY)	
		2013 - Atal Mission for Rejuvenation and Urban Transformation (AMRUT)	
		2015 - PradhanMantriAwaYojana (PMAY)	
ANDHRA PRADESH (A.P.)	A.P. Slum Improvement Act 2010  MEPMA (Mission for elimination of poverty in municipal areas) •	1960 - AP Housing Board established, 1960	AP Street Vendor Act, 2014
		1966 – Urban Community Development (UCD) Programme introduced	
		1972 - Andhra Pradesh Urban Planning and Development Authority Bill passed	
		1975 - AP Urban areas (development) act passed	
		1979 - Weaker Section Housing Program introduced	
		1985 - Land Brokers’ Strategy,	
		1992 - UBSP extended and linked to EIS and NRY	
		2007 – Rajiv Swagruha Scheme	
		2014 - Reorganization of Andhra Pradesh, 2014	
		2015 - AP Affordable housing policy	
		2015 NTR Housing programme for rural areas	



**Figure 8**

Chronology of Policies and Acts – Andhra Pradesh



## PART 5

# URBAN POOR, INFORMAL SECTOR AND SLUMS IN VIJAYAWADA

### 5.1 Understanding a Slum

As per UN-HABITAT, a United Nations agency, a slum is defined as an area that combines to various extents the following characteristics: inadequate access to safe water; inadequate access to sanitation and other infrastructure; poor structural quality of housing; overcrowding; and insecure residential status. Slums are usually characterized by urban decay, high rates of poverty, illiteracy, and unemployment. As per Government of India, a slum is identified as “a compact settlement of at least 20 households with a collection of poorly built tenements, mostly of temporary nature, crowded together, usually with inadequate sanitary and drinking water facilities in unhygienic conditions”.

The identification of an area as a slum is based solely on socioeconomic and physical criteria, not on racial, ethnic, or religious criteria. In general, an urban area is declared as a slum when the Government or the Urban Local Body is satisfied that the area is or is likely to become a source of danger to the health, safety or convenience of people in that area or in its vicinity, by reason of the area being lowlying, unsanitary, squalid, overcrowded or otherwise (Rao & Rao, 1984).

### 5.2 Urban Poor in Andhra Pradesh and Vijayawada

The share of slum households in the Vijayawada Municipal Corporation (VMC) area, which adjoins the newly declared capital city Amravati greenfield project, is a large urban agglomeration growing at a fast pace. The VMC population as per 2001 census was 8,45,217 and as per 2011 census was 10,48,000. Its urban / metropolitan population is 14,91,202. The contributors to population growth are mainly the natural increase and immigration from the surrounding villages.

Slums have multiplied over the years in absolute terms in Vijayawada. Slums are found to be distributed all over the city in different wards on private and government lands without access to basic services. The slums in Vijayawada are spread in small groups on the hillocks, riverbeds, canal fronts, along drainage trunk lines, fringe areas, lowlying areas, near waste dumping sites, etc. all of which are deprived of basic services. Such locations make them more vulnerable (Rao & Rao, 1984).

**Table 5**

Slum Conditions in Andhra Pradesh

<b>TOTAL NO OF URBAN LOCAL BODIES IN ANDHRA PRADESH</b>	124(16+108)
<b>CORPORATIONS</b>	16 (Incl. Mission cities GHMC, GVMC, VMC & TMC)
<b>MUNICIPALITIES</b>	108
<b>SELECTION GRADE ULBS*(&gt;RS 8CR)</b>	05
<b>SPECIAL GRADE ULBS (6-8 CR)</b>	10
<b>GRADE I ULBS (4-6 CR)</b>	22
<b>GRADE II ULBS (2-4 CR)</b>	40
<b>GRADE III ULBS (1-2 CR)</b>	26
<b>NAGARAPANCAYATHS (25000-40000 POPULATION)</b>	5
<b>NO. OF SLUMS</b>	7447
<b>NOTIFIED SLUMS</b>	5,367
<b>NON-NOTIFIED SLUMS</b>	2,012
<b>SLUM POCKETS</b>	68
<b>SLUM POPULATION</b>	0.87 Crores
<b>BPL POPULATION</b>	58.33 Lakhs

The Vijayawada urban agglomeration consists of contiguous growths, which are presently not part of the corporation area but inextricably linked with the city both spatially and economically.

Source: Govt of Andhra Pradesh (2013)

In all these areas, the poor population is very large and all these areas can be considered to be slums without basic infrastructure – physical and social. The percentage of slum households in terms of the total number of urban households is 40.6%, which is higher than the share of slum population at the State of Andhra Pradesh level (which is 35.7%). Vijayawada is known to have a noteworthy presence of urban poor. The growing poverty profile is a concern as expressed in many reports. The number of slums and the slum population in Vijayawada Municipal Corporation have been increasing at an ever faster pace over the decades. (Table 6) The slum population as per 2001 census was 1,69,043 and by 2011 had grown substantially to 2,87,983. Table 7 highlights the basic demographics of Vijayawada ijayawada as per 2011 Census.

Table 6 : Slum conditions in Vijayawada municipal Corporation area

Source: Govt of Andhra Pradesh (2013) as per Census 2011.

The 111 slums in Vijayawada can be categorized into different types as per physical conditions and locations. (Table 8):

Table 7: Legal Status of Slums and their physical location in VMC area

Source: Govt of Andhra Pradesh (2013) as per Census 2011.

Some of the very hazardous slums in the VMC area have been recently relocated and the communities rehabilitated in social housing projects on the outskirts of VMC. But the population living in many other slums in hazardous areas is still large. It is estimated that about 30% households in the VMC area live in unauthorized structures.

The slums can also be categorized as per tenability (Table 9), as below:

Table 8: Tenability of Slums in VMC area

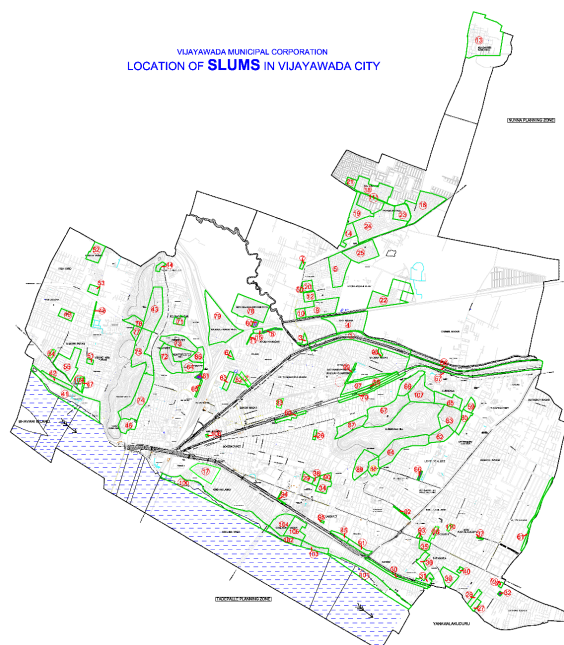
Source: Govt of Andhra Pradesh (2013) as per Census 2011.

The slum population in the Vijayawada Urban Agglomeration is heterogeneous in character - with Hindus, Muslims and Christians having migrated from different villages and districts in search of better employment opportunities in business, industry and other informal sector activities.

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**Figure 9**

Location of 111 Slums in Vijayawada



The infrastructure in the slums is very poor and most slums lack basic civic amenities like proper roads, drainage, protected water supply, streetlights and toilet facilities. To overcome health problems like gastroenteritis, malaria, diarrhea, malnutrition, ringworm etc., the VMC runs five maternity hospitals and 17 urban health centers. These strive to provide better health services to the women and children, particularly in slums.

### 5.3 Institutional Approach towards Urban Poor in VMC

The Urban Community Development (UCD) Department and Urban Poverty Alleviation (UPA) Cell are the umbrella organizations for the implementation of programmes and schemes for the poor in VMC. The UCD and UPA departments of the Vijayawada Municipal Corporation are the lead agencies for the implementation of urban poverty alleviation and slum improvement projects and are responsible for the coordination of different inputs. However, overlapping jurisdiction and absence

of coordination is a problem in urban poverty alleviation (Barettand Beard-more, 2000). Rajiv AwasYojana (RAY) is a scheme under the Central Govt of India for the slum dwellers and the urban poor that envisages a 'Slum-free India' by encouraging States/Union Territories to tackle the problem of slums in a definitive manner. Its aim is a multi-pronged approach, focusing on

- Incorporating existing slums into the formal system and enabling them access to the same level of basic amenities as the rest of the town
- Redressing the failures of the formal system that lie behind the creation of slums
- Tackling the shortage of urban land and housing that keeps shelter out of reach of the urban poor, forcing them to resort to illegal solutions in a bid to retain their sources of livelihood and employment

Accordingly, the Slum Free City Plan of Action for Vijayawada Municipal Corporation was prepared by following the guidelines issued by the Ministry of Housing and Urban Poverty Alleviation in 2011. The various Committees viz RAY Technical Committee headed by the Chief Engineer, VMC at ULB level, and the Slum Free City Committee for implementation of Slum Free City Development Plan under the chairmanship of Mayor/Special Officer at ULB level, and the District Slum Redevelopment Authority (DSRA) under the chairmanship of the District Collector at the district level are in place as per the RAY guidelines to monitor the RAY project. (Figure 12)

Figure 9: Concept for Slum Free City – Rajiv AwasYojana (Govt of India)

However, the city still continues to have a growing slum population living in severe stressful and unhygienic conditions. ♦

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## PART 6

# FUTURE DEVELOPMENT ACTIVITIES - LOCAL GOVERNMENT, STATE AND CENTRAL

### 6.1 Future Plans for Vijayawada

The diagnosis on the investment pattern has thrown up, the status, potential gaps and issues and action plan in the form of proposals. Some of the proposals, relating mainly to essential services and obligatory facilities, are minor in nature and could be taken care of routinely, largely with mostly with the Corporation's revenue funds. Some of the work requiring priority attention, includes water supply, roads, sanitation, solid waste management, health and recreation facilities, is listed in this section.

As for the projected population of the city by 2021, nearly all of the 76 km<sup>2</sup> outside the city limits would need to be addressed (Mohamed AR 2105a). At this stage of the plan, over a period of 20 years – a long period for the purpose of implementation - the acquisition and development cost for the additional areas is not attempted. In fact, the model to be adopted for implementation, especially in areas outside the city limits, has to be decided by the Development authority. It could be that the Authority itself will undertake to provide off-side infrastructure facilities, and collect the development charges from the developers as is done in big cities like Nagpur; or it could be that the Authority acquires all the land for development, adopting various methods of land assembly, as is practiced in various states. Alternatively, the Authority could force the concerned line agencies, in collaboration with the developers, to implement the plan over a timeframe, after bringing the entire area of development under regulation through a Government Order (GO) or ordinance or other legal tools as of 2021.

The Zonal Plan for the Vijayawada urban area has resulted in a detailed examination of the various elements involved in the plan, and highlighted the options for implementing the programmes in various plan periods. Therefore, to work out a viable Capital Improvement Programme, the proposal is to select the shortterm programme for development works identified as essential and obligatory, especially by means of a consultative process. The implementation of a shortterm, i.e. 5-year Capital Investment Programme, will deliver immediate benefits regarding the improvement of all essential services, which is considered the highest priority by the various sections of the city populace. The projects identified as part of the programme have been discussed with the stakeholders during the consultation meetings and subsequent discussions held with them. In addition, the highlighted issues relating to each service were discussed with the elected representatives, Corporation Officials and other stakeholders in detail.



**Table 9**Capital Improvement Programme for identified projects  
2011 and 2021

S. NO	SECTOR	TOTAL INVESTMENT REQUIRED (RS. IN LAKHS)	INVESTMENT (RS. IN 100,000'S)	
			2006 – 11	2011 – 21
1	Water Supply	11750.13	8443.59	3306.54
2	Sanitation	32106.06	24075.58	8030.48
3	Solid Waste Management	361.50	235.00	126.50
4	Street lights	1220.50	1125.10	95.40
5	Roads			
	a) Arterials & Sub-Arterials	437.20	437.20	...
	b) Existing road widening	1788.00	1788.00	...
	c) New roads	4535.20	...	4535.20
6	Traffic and Transportation			
	a) Improvement of Junction	220.00	220.00	...
	b) Ring Roads	1231.62	1231.62	...
	c) Fly overs	26888.4	21428.4	5460
	d) Bridges	3705.35	3705.35	...
7	Educational Institutions	12900.00	740.00	12160.00
8	Health Care Facilities	5050.00	2100.00	2950.00
9	Recreational Facilities	8810.00	4025.00	4785.00
<b>Total</b>		<b>111003.96</b>	<b>69554.84</b>	<b>41449.12</b>

## 6.2 Vijayawada City in relation to Amaravati Capital City

The capital city of Andhra Pradesh state is located in the space between Vijayawada and Guntur. These two cities are situated in districts which are very important and dynamic in terms of their social, economic, environment aspects (Mohamed AR 2015). The Krishna and Guntur districts are the largest districts in the state in terms of urban population, population density, sex ratio, literacy level, household size, Schedule Caste (SC) & Schedule Tribes (ST) population, slum population, homeless population, vehicle population and infrastructure like education, health and information and communication facilities.

The Census 2011 showed Vijayawada city with 10.5 lakhs and Guntur city with 0.75 million people. . It is assumed that the 2021 census will show 15 lakhs in Vijayawada city, 0.10 million people in Guntur city, and the new capital city with a population of 0.4 to 0.5 million. These two districts in the state will house three major cities with a population of about 0.3 million (Mohamed AR, 2014a). The state capital city will rise on the banks of the river Krishna, and not only demand seeking to understand a planned development of KRISHNA RIVER FRONT DEVELOPMENT for the area covered in the jurisdiction of VGTM Urban Development Area. The new Jurisdiction of this area will have three cities, with a strong river front development (Mohamed AR, 2015).

Figure 10: The Capital region of Amaravati

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No doubt it is the landmark effort of the AP state to set up the Capital Regional Development Agency and entrust the challenging task of envisaging planned development of AMARAVATHI to it. The outcome after one year of work and effort was the THREE TIER PLANS which constitute master plans for CAPITAL COMPLEX, CAPITAL CITY AND CAPITAL REGION to guide and build Amaravathi (Mohamed AR, 2015a). The effort towards a planned development of Amaravathi become a unique opportunity for the AP State to develop (a) the capital complex as well as the capital city, a huge task involving making land available for the new capital city with social, political and environment strength and resistance, and (b) develop a link in terms of infrastructure, economic and sociocultural development in the capital region (Figure no. 12) by creating economic spaces, living spaces and mobility spaces. ♦

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