

SJ



In 2013, the Indian Government announced that Andhra Pradesh will be split into two states.

The bifurcation of states left Andhra Pradesh without a capital. The old capital, Hyderabad, is now located in the new state of Telangana.

Andhra Pradesh and Telangana will share Hyderabad as a capital for ten years, after which Andhra Pradesh will have to move to a new administrative centre



On India Independence Day in 2014. it was announced that the new capital will be located at Amaravati near Gunter and Vijayawada, two of the largest cities in Andhra Pradesh

Amaravati will be India's fifth planned city, but the first planned capital city to come up from scratch in decades.

Land for the capital will be acquired through a Land Pooling process and supplemented by land acquisition.

On 08 December 2014, the governments of Singapore and Andhra Pradesh signed a Memorandum of Understanding to collaborate on the master planning and development of the new Andhra Pradesh Capital City.

Surbana Jurong Consultants Pte Ltd was appointed by the Singapore Government to undertake the master planning for the Andhra Pradesh Capital City Project.

In Andhra Pradesh, a new agency APCRDA - Andhra Pradesh Capital Region Development Authority, was established to take charge of the Project

The development of the New Capital City will be on a green field site of approximately 217 sq km located centrally within the Capital Region. The Capital Region comprises of 7,420 sq.km straddling on both sides of the Krishna River in both Krishna and Guntur Districts. The Capital Region is well connected to the surrounding economic hubs by air, rail, road, and ports.

MASTER PLANNING PROJECT – SCOPE OF WORKS

1. CAPITAL REGION PLAN

- To set the planning direction and strategies for the Capital Region of Andhra Pradesh.

2. CAPITAL CITY MASTER PLAN

- To prepare a detailed Master plan for the new Capital City of Andhra Pradesh.

SEED DEVELOPMENT MASTER PLAN

 To prepare Urban Design and development control guidelines for the first section of the Capital City



Google view of the designated site

CAPITAL REGION PLAN WAS CONSTRUCTED BASED ON MAPS DERIVED SATELLITE IMAGERY

THE DETAILED CAPITAL CITY MASTER PLAN WAS DESIGNED BASED ON TOPOGRAPHICAL SURVEY CONDUCTED FOR THE 217 SQ KM SITE. UAV TECHNOLOGY WAS USED FOR THE TOPOGRAPHICAL SURVEY



DRONE SURVEY - PROJECT OVERVIEW

- 1. Coverage area of Drone Survey is about 350 sq.km.
- 2. Survey area will be subdivided into 110 Blocks (Flight Strip)
- 3. Each block will cover an area of 3 to 5 sq.km
- 4. Flying height is at 383 m above ground level
- 5. Images are captured at 10 cm GSD (Ground Sampling Distance)
- 6. Flying is estimated to complete in 2 weeks time (depending on weather condition)
- 7. Data Processing is estimated to complete in 2 weeks time.

DRONE SURVEY – KEY MILESTONES

- 1. Reconnaissance Survey of the Site for flight planning
- 2. Identification/Establishment of Ground Control Points in the Survey Area
- 3. Flying Aerial Survey
- 4. Post Processing Downloading data and processing
- 5. Data submission

DRONE SURVEY – DELIVERABLES

- 1. Aerial photo blocks of the 350 sq km site
- 2. 10 GSD resolution orthomosaic the Capital Area
- 3. High resolution raster digital elevation model and contours
- 4. Point cloud data





Mission Area Boundaries and GCP's



16.57608° N, 80.58981° E

Flight Blocks with GCPs



16.55597° N, 80.61661° E

Flight Blocks overlay on Satellite Map



16.51428° N, 80.51725° E

Flight Blocks Details with Flight Lines

SJ

DRONE SURVEY - GROUND CONTROL POINT MARKERS (GCP)

GCP target marker has to be put on with the size of 2 x 2 M





CENTRAL REGION PLAN





CENTRAL REGION PLAN



SJ





SJ

The Capital Region Plan was completed on 30 March 2015.

The Capital City Master Plan and Seed Development Master Plan were handed over to APCRDA on 20 July 2015







FOUNDATION STONE FOR THE NEW CAPITAL









Along the bank of Krishnan River



Landmark for the new capital - AMARAVATHI









SJ


























FUTURE CITY OF AMARAVATI





FUTURE CITY OF AMARAVATI



The new city will be built at an expected cost of 1 trillion rupees (£10.7bn) and is expected to generate jobs to sustain a population of 9-12 million people in the surrounding capital region.

Upon Completion of the Master Planning Project, Surbana Jurong also secured the 'Consulting Services for Preparation of Land Pooling schemes for Amaravati (Capital City) Area of APCRDA' through a competitive tender.



Terms of Reference for the 'Consulting Services for Preparation of Land Pooling schemes for Amaravati (Capital City) Area of APCRDA' are:

1.Demarcate the entire road network for the Capital City area.

2.Demarcate all the new land parcels created for the entire Capital City.

3.Implement the land lot numbering system

4. Create Cadastre GIS

- To facilitate easy urban planning, development control, land use and land management

'Land Pooling Scheme' -

assembly of small land parcels under different ownerships voluntarily into a large land parcel;

provide the enlarged land parcel with infrastructure in a planned manner and return the reconstituted land to the owners, after deducting the land required for public open spaces such as parks and play grounds, social housing for economically weaker sections, social amenities such as school, dispensary and other civic amenities, road

network, and other infrastructure as specified under the Act as well as such extent of land in lieu of the cost of development towards the provision of infrastructure and amenities and other costs and expenses to be incurred for the scheme and external trunk infrastructure;

'Land Pooling Scheme' -

Land Pooling process is not new to India. It had been implemented in other Indian state, like Gujarat. However, the land pooling exercise in Amaravati is the largest such exercise India has seen. against angry farmers, disappearing land records and ancient architectural beliefs. Despite these hurdles, is Amaravati still on track?

BUILDING NEW CAPITAL CITY OF ANDHRA PRADESH, INDIA - AMARAVATI

PROBLEMS ENCOUNTERED BY PLANNERS & SURVEYORS

- **1. ANCIENT ARCHITECTURAL BELIEFS**
- 2. DISAPPEARING LAND RECORDS
- **3. ANGRY FARMERS**

ANCIENT ARCHITECTURAL BELIEFS

The traditional Hindu system of *Vaasthu Shastra*, dating back from the 6th century belief the alignment of buildings can bring about bad or good luck

The people of Andhra Pradesh have a deep-rooted belief and will not buy any property that is not northor east-facing.

The draft plan had to be send back to the master planners for amendment taking these principles into account. The whole capital city project would have had no buyers if the initial draft had been implemented

DISAPPEARING LAND RECORDS

The Capital City covers an area of 35,000 acres. Land records of the affected land parcels have to be verified for the purpose of acquisition and compensation.

More than 100 government surveyors were dispatched to physically verify and record land ownership details. They were stumped by the humongous task.



DISAPPEARING LAND RECORDS

In many cases, land records had not been updated for 90 years. There were survey records dating back to the British era, but none of the new survey numbers were recorded. For instance, in 1908, there was a record of 9.5 acres of land belonging to one person. When physically verified the same plot of land, is now owned by 12 people – and there is no records of them at all.

Thus began a Herculean task of updating land records over 35,000 acres of land. Until and unless these details were finalised, land pooling and actual building of the new capital could not begin.

ANGRY FARMERS DISPUTES OVER LAND BOUNDARIES

Updating of land records also created a large number of settlement disputes, From the old land records, land boundaries were identified using vague markers such as 'a tamarind tree in the south-west corner of the plot'. Once the tamarind tree is cut down, you have no idea where the land boundary is.

FARMERS DISPUTES OVER COMPENSATIONS

To date, the state government has successfully managed to pool together 33,000 of the required 35,000 acres of land for the new capital. Difficulties remain, with farmers in more urban and fertile areas refusing to pool their land as the compensation offered by government is regarded as much less than the prevailing land value.

Many affected owners have petitioned the High Court in Hyderabad for more equitable compensation.



the design competition, the state government spent about ₹3.85 crore. Ch Venkaiah Naidu said as it is going to be Telugu people's capital, the Iconic towers should reflect the power/pride of Telugu

blue and easy to execute. Naveen Reddy said Maki design is easy to execute cost effective.

Joseph Reddy said Vastu shilpa is better than Maki. Sandeep Raju asked for a but the design of the Assembly and Legislative Council buildings look like thermal power plant chimneys, so please consider and change the design.

FROM COURT Won't enfore earlier order: AAG Will re-classify lands: AP

DC CORRESPONDENT HYDERABAD, APRIL 12

m

atst-

to s, i le le le le se

e

of

S

The AP government on Tuesday informed the Hyderabad High Court that it has decided to reclassify the lands in the state's capital region to pay compensation to the farmers under the Land Pooling Scheme and also under the Land Acquisition Act.

A division bench comprising Acting Chief Justice Dilip B. Bhosale and Justice P. Naveen Rao was hearing two petitions moved separately by K. Anil Kumar, a farmer of Krishnavapalem of Mangalagiri mandal who has lands under the Lift Krishnavapalem Irrigation Scheme, and 55 the farmers under

Rayapudi Lift Irrigation Scheme in Tulluru mandal of Guntur district, seeking to direct the authorities to include all the lands drawing water from both lift irrigation schemes as Jareebu.

Mr Dammalapati Srinivas, additional advocate-general, submitted that the government was intended to re-classify the lands and the earlier orders which are issued classifying the lands as Jareebu and dry lands of the region would not be enforced.

He urged the court to dispose off the petitions by recording his statement.

Mr E. Manohar, senior counsel appearing for the petitioners, told the court that the government had

earlier assured the court that it would withdraw the earlier order but till date those orders were not withdrawn and urged the court not to dispose off the petition till issuance of fresh orders by re-classifying the lands.

At this juncture, the AAG said the earlier orders will not be enforced and no plots will be allotted to the petitioners as per the earlier orders and urged the court to observe that the interim orders granted in these petitions earlier will not be precluded the governments to allot plots and pay compensations to the farmers as per the new classification.

While considering the request of the AAG, the bench adjourned the hearing to June 14.

Land owners bring AP government to Court over classification of lands and compensations



అందోళన చేస్తున్న ఉండవల్లి, పెనుమాక రైతులు

^{సీఆర్జీప కార్యాలయం ఎదుట} రైతుల ఆంద్రోళన

ఉండవల్లి(తాడేపల్లి), మాచవరం(విజయవాడ), న్యూస్ట్రీటుడే: భూసేకర ఇలో లేని తమ గ్రామాల్లో ఆంధ్రప్రదేశ్ రాజధాని ప్రాంత అభివృద్ధి ప్రాథ కార సంస్థ(ఎపీసీఆర్జీఎ) అధికారులు పెనుమాక, ఉండవల్లి గ్రామాల మీదుగా నిర్మించనున్న ప్రధాన రహదారి నిర్మాణానికి సంబందించి తమ భూముల్లో గుర్తులు పెట్టడాన్ని నిరసిస్తు ఇరు గ్రామాల రైతులు, భూయజ మానులు సోమవారం విజయవాడ సీఆర్డీఏ కార్యాలయం ఎదుట థర్నా చేప ట్లారు. రాజదాని ప్రాంతంలోని సారవంతమైన భూముల్లో పండే పంటల ఛాయాచిత్రాలతోపాటు తమ భూముల్లో సీఆర్డీఏ సర్వే చేసి ఏర్పాటు చేసిన కౌయ్య చెక్కలను అందోళనలో ప్రదర్శించారు. ప్రధాన ద్వారం వద్ద రైతులు బైరాయించి సీఆర్డీఏకి వ్యతిరేకంగా రైతులు నినాదాలు చేశారు. రాజధాని రెండో బృహత్తర ప్రణాళికలో ఉండవల్లి, పెనుమాక గామాల్లో భూసమీకరణకు ఇవ్వని భూముల్లో రోడ్లు, జోనింగ్ కోసం రిజర్వు చేస్తు వ్యాట్లు చూపించడం. నీటి నిల్వ కోసం రిజర్వాయర్ నిర్మాణానికి భూమి కేటాయించినట్లగా చూపడం పట్ల వైతులు అభ్యంతరం వ్యక్తం చేశారు. తమ అనుమతి లేకుండా భూముల్లో సర్వే చేసి కొయ్య చెళ్ళలు ఏర్పాటు చేసి మార్కింగ్ ఇవ్వడం సట్ల వారు అభ్యంతరం వ్యక్తం చేశారు. ఇప్పటికే 8.2 ద్వారా తమ అభ్యంతరాలను సీఆర్డ్ ఏకి తెలియజేశామని తెలిపారు. అయినా కూడా అధికారులు తమ భూముల్లో చొచ్చుకువస్తూ ప్లాట్లు జోనింగ్, రోడ్డు, వాటర్ స్టోరేజీ చేస్తున్నట్లు బృహత్తర ప్రణాళికలు చూపడం పట్ల ప్రభుత్వం తమను టార్టెట్ చేస్తోందని వాపోయారు. రైతులిచ్చిన భూముల్లోనే రాజధాని నిర్మాణం జరుపుకోవాలని సూచించారు. శాసనసభలో ప్రభుత్వం చేసిన వాగ్దానం పై నిలబడి భూములివ్వని రైతులకు మినహా యించాలని కోరారు. రైతులు గుంటక నరేషొరెడ్డి తదితరులు పాల్గొన్నారు.

డీఈఈ సెట్ ఆన్లై న్లో దరఖాస్తు

గుంటూరు విద్య స్యూప్టీటుదే: డిష్లమో ఇన్ ఎలిమెంటరీ ఎద్యుకేషన్ కోర్ను (డీఈఈ సెటిలో ప్రదేశానికి ప్రుతున కారీ అయిందని సెట్ కన్స్ నర్ ఆర్టేడీ పార్వతి సోమవారం తెలిపారు. అభ్యర్థులు ఈ నెల 20వ తేడీ లోగా www.deecetap.ogg.gov.in విదోపైట్ ద్వారా అన్లైనలో దర కాస్తు చేసుకోవచ్చన్నారు. కోర్ను వివరాలు, ఇతర సమాచారం వెట్టెట్టిలో ఉందని, ఉబితంగా డౌన్లోడ్ చేసుకోవచ్చని పెర్కొన్నారు.



ఈనాడు-అమరాపతి

టూరు, కృష్ణా జిల్లాలు కృష్ణానది జలాలపై ఆధారపడి ఉన్నాయి గత ఏడాది వరాభావ పరిస్తి తులు కొనసాగడంతో కృష్ణానది పరివాహక 28E 19 ప్రాంతంలో జలాశయాలు వట్టిపోయాయి. కాలువలకు నీరు విడుదల చేయకపోవడంతో කුත් చెరువులకు నీరు చేరక మంచినీటి చేపల పెంపకం తగ్గిపోయింది. దీంతో లక్ష్యం మేరకు మంచినీటి చేపలు ఉత్పత్తి చేయలేకపోయారు. అయితే 154 కిలోమీటర్ల సుదీర్ఘమైన తీర ప్రాంతం ఉండటంతో సముద్ర మత్యాసంపదలో గణనీయమైన ప్రగతి సాధించారు. వైపుణ్యం కలి గిన మానవ వనరులు, మత్యఉత్పత్తుల ప్రా సెసింగ్ సౌకర్యాలు పెరగడంతో గుంటూరు. కృష్ణా జిల్లాలో ప్రాంతంలో మళ్ళు పరిశ్రమ అభివృద్ధి చెందుతోంది. తీరంలో వేట నిషేధకాలాన్ని పొడగింపు కూడా కొం

తాలను ఇచ్చింది. తీరణ్రాం తాల్లో చేపలచేటకు అత్యా దునిక సామగ్రి అందుజా టులోకి తీసుకువచ్చారు. దీనికితోడు రౌయ్యల పిల్లల లక్షుతను పెంచడానికి చర్యలు చేపట్టడంతోకూడా సత్పలితాలు పచ్చాయ. రాష్ట్రవిళి ఉత్పత్తంను ఐదే క్షలో పందశాతం పెందా



Farmers protesting outside APCRDA Office in Vijayawada





THE NEW CAPITAL CITY OF ANDHRA PRADESH | CAPITAL CITY MASTERPLAN REPORT - PART 2

FOR EFFICIENT MANAGEMENT **OF SURVEY WORKS THE CAPITAL CITY IS SUBDIVIDED INTO 29 DISTRICTS, EACH NAMED BY THE** VILLAGE IT **ENCOMPASSED**





BOUNDARY OF THE 29 VILLAGES

SJ

ROW (RIGHT OF WAY SURVEY – DEMARCATION OF ROAD NETWORKS



DATUM FOR SURVEY IS FROM HORIZONTAL **SURVEY** CONTROL **MARKERS ESTABLISHED BY SURVEY OF INDIA (SOI)**

SJ



ADDITIONAL HORIZONTAL SURVEY CONTROL MARKERS ESTABLISHED TO FACILITATE RTK SURVEY



SOI Control Station at GANNAVARAM





SOI Control Station at DUGGIRALA





PROJECT Control Station at KRISHNAYAPALEM



PROJECT Control Station at KURRAGALU





PROJECT Control Station at MANDADAM

PROJECT Control Station at TULLUR



PROJECT Control Station at MANDADAM ROOM





PROJECT Control Station at KRISHNAYAPALEM



PROJECT Control Station at KURRAGALU



ON SITE CASTING OF CONCRETE MARKERS





CONCRETE MARKERS FOR ROW

CONCRETE MARKERS FOR LAND PARCELS





5 Survey Teams were deployed for the ROW Survey



MEETING SURVEY TEAM ON SITE



INSPECTING SURVEY BASE STATION





PROJECT PROGRESS MEETING CONDUCTED AT SITE OFFICE



MEETING WITH SRIKANT NAGULAPALLI IAS, COMMISSIONER, APCRDA



DEMARCATED ROW AT KRISHNAVAPALEM VILLAGE

SJ



DEMARCATED ROW AT TULLURU VILLAGE

SJ



JUNE 2016 – ADDITIONAL CONTROL POINTS PROVIDED BY SOI





JULY 2016 – FINAL DEMARCATION OF ROWS AND LAND PLOTS





JULY 2016 – FINAL DEMARCATION OF ROWS AND LAND PLOTS





SEPTEMBER 2016 – QC CHECK ON PLANTED BDY MARKS





JULY 2017 – MEETING APCRDA SURVEYORS IN SITE OFFICE



JULY 2017 – SITE INSPECTION





JULY 2017 – PLANTING CONCRETE MARK





SEE SENG GUAN SENIOR CONSULTANT, LAND SURVEY SURBANA JURONG CONSULANTS PTE. LTD