# NOTE ON SURVEY, SETTLEMENTS AND LAND RECORDS DEPARTMENT

GOVT. OF ANDHRA PRADESH, HYDERABAD

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#### BRIEF HISTORY AND ORIGIN OF THE DEPARTMENT

The Survey & Land Records Department was created in 1900 AD in the Coastal & Rayalaseema Regions to conduct initial survey/resurvey. This work was completed by about 1960-1970. The Survey and Land Records Department was reorganized in 1971, to create District Survey & Land Records Offices and supervisory posts of Regional Deputy Directors, for streamlining the maintenance of land records and giving better services to public. Settlement Department came into existence in 1949 as per the provisions of the A.P. Estates (Abolition & Conversion into Ryotwari) Act, 1948. The post of Commissioner Settlements, Survey and Land Records was abolished vide G.O.Ms.No. 59 Revenue (D) Dept., Dt. 21.1.1999 and his functions were allotted to Commissioner of Land Revenue after redesign ting the Commissioner of Land Revenue as Chief Commissioner of Land Administration. The Chief Commissioner of Land Administration is the controlling officer having over-all supervision of Survey, Settlements & Land Records Department. Commissioner & Director of Survey, Settlement & Land Records is the ex-officio Secretary to the Chief Commissioner of Land Administration and has statutory functions under following statutes

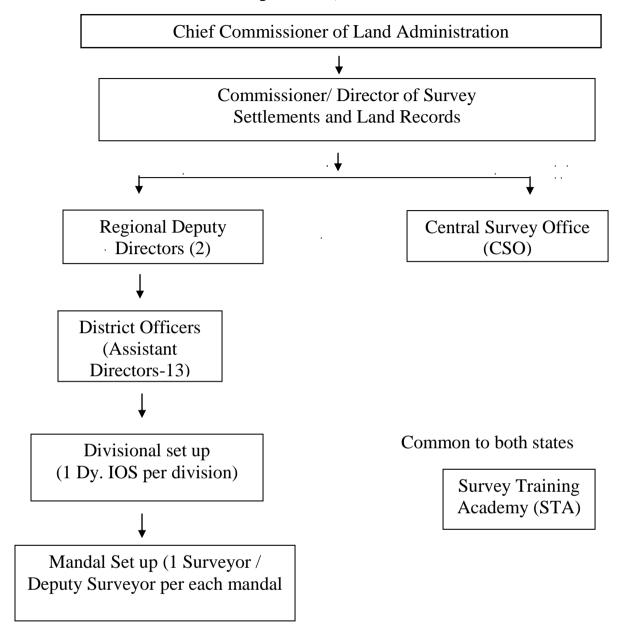
- A.P. Survey & Boundaries Act, 1923
- A.P. (Andhra Area) Estates (Abolition and Conversion into Ryotwari) Act, 1948
- A.P. Mahals (Abolition & Conversion into Ryotwari) Regulation 1969 (1/69).
- A.P. Scheduled Areas Ryotwari Settlement Regulation, 1970 (2/70) The dates of initial surveys and resurveys are furnished in Annexure-I

#### **STRUCTURE**

#### **DEPARTMENT STRUCTURE:**

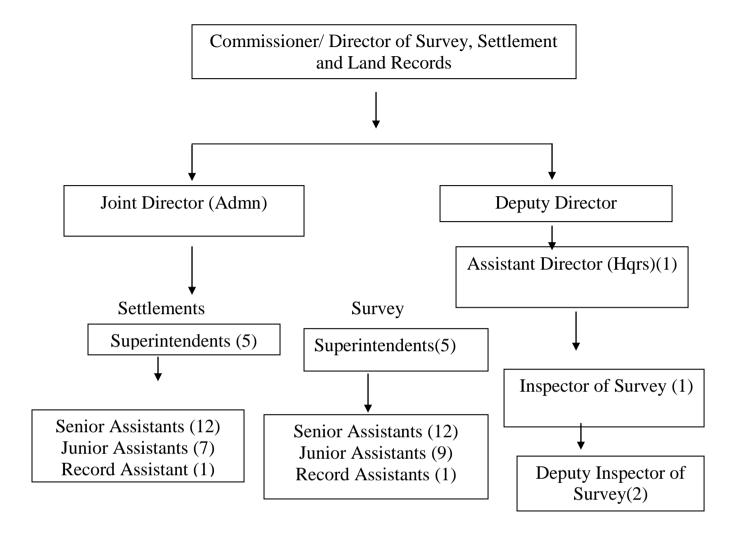
2.1 After abolition of the post of Commissioner SS&LR, the Chief Commissioner of Land Administration heads Survey, Settlements, and Land Records Department. Director, Survey Settlement and Land Records is the ex-officio Secretary to the CCLA, who also exercises certain powers of the constitute CSS&LR delegated by the CCLA. Under the DOS, there are two state level institutes viz., Survey Training Academy and Central Survey Office. There are three regional offices covering all the zones of the state. Every district is having a district office and at the divisional and mandal level, staff from the Survey and Land Records Department function from the RDOs and MROs offices respectively.

#### Organization chart of the Commissioner Survey, Settlements and Land Records Department, Andhra Pradesh State



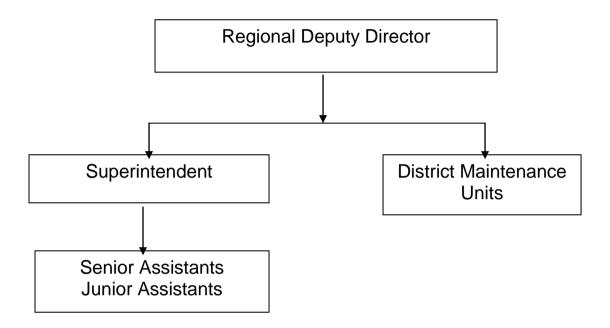
**Office:** There are two departments Survey & Land Records Department and Settlement Department. Joint Director in the cadre of Special Grade Deputy Collector from Revenue Department will be assisting in administration of Survey and Settlement sections. One Deputy Director, one Assistant Director one Inspector and two Deputy Inspectors of survey assist the Commissioner in supervising the survey aspects. There are 10 sections with one Superintendent and 2 or 3 Assistants.

## Organization chart of the Commissioner's Office of the State of AP



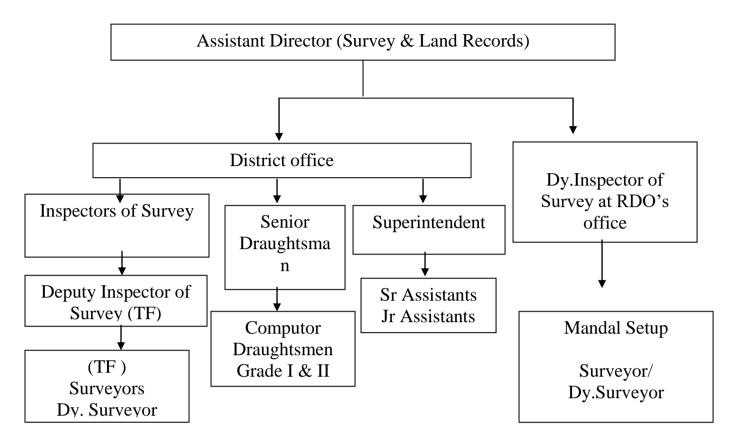
Regional Offices: There are two Regional Offices located at Kurnool and Kakinada headed by Deputy Directors

#### Organization chart of the Regional office



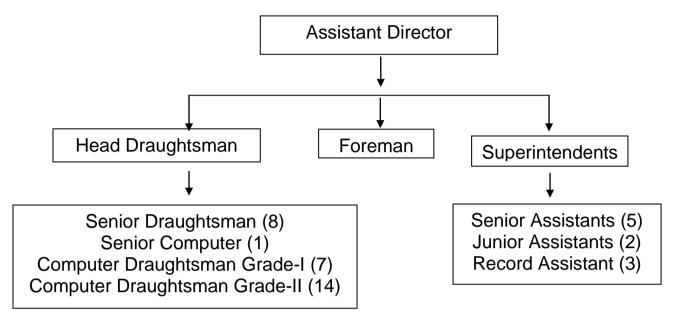
District Survey and Land Records Offices: All District Survey and Land Records Offices also called District Maintenance Units (DMU) are headed by officers in the cadre of Assistant Directors. The district officers function under the control of the Joint Collectors, i.e., Collector (Survey and Land Records) of the respective districts. There are three wings in DMUs, the Survey wing comprising of Inspectors of Survey, Dy. Inspectors of Survey and Surveyors/Dy.Surveyors, Technical wing comprising of Senior Draughtsman and Computer Draughtsmen Grade I & II and the Ministerial wing comprising of ministerial staff. Every DMU has a taskforce under a Dy. Inspector of Survey. At divisional level, one Dy. Inspector of Survey and at mandal level one Surveyor/Dy. Surveyor is posted in the Sub Collector's/RDO's office and MRO's office respectively to attend to the survey work.

#### Organizational chart of District set up



<u>Central Survey Office (CSO)</u> is headed by a Assistant Director. It supervises the technical scrutiny of all the records and maps prepared by the field staff of the districts, undertakes printing and publication of all types of cadastral maps such as Village maps, Mandal Maps, District Maps etc., and supplies them to the District Collectors, other departments and general public on payment basis as per G.O.Ms.No. 1876 Rev (R) Dept. dt. 18.12.1964.

#### Organization chart of the Central Survey Office of the State of A.P.



<u>Human Resources</u>: The Department is manned by Dy. Directors, and Assistant Directors in gazetted cadre and Inspectors of Survey, Dy.Inspectors of Survey, Surveyors and Dy. Surveyors in non-gazetted cadres on executive technical side. In addition there is a hierarchy of Head Draftsman, Sr Draftsmen, Computor Draftsmen Grade-I & II working on technical matters. They are supported by Ministerial staff.

The status of availability of surveyors and deputy surveyors is furnished in Annexure.I

#### SURVEY UNITS AND THEIR FUNCTIONS

Surveys were conducted in Government villages and also villages taken over under provisions AP S&B. Act, 1923 I.A. Act, Agency Settlement Regulations,. Presently, the Department takes care of the maintenance and updating of Land Records such as a) Village Maps, b) F.M.Bs, c) RSRs and Land Registers, etc.,

As per the A.P. Survey Manual, resurveys have to be conducted at a periodicity of every 40 years. However, as they are cost intensive, time consuming and due to various other reasons, resurvey are not conducted as specified in the Manual. The date of initial and revision/resurveys conducted district wise is at.

Since survey operations were conducted several decades ago, records in respect of many villages are not fully available. Much of record has been lost or exists in torn, brittle or crumbling condition. Most of the paper record is quite brittle. The availability of land record and status of digitization is given in Annexure III.

Survey Department attends to the following items of work:

- 1. Conducting of maintenance survey operations to keep the Land Records up-to-date involving measurement, mapping and incorporation of new subdivisions in permanent records.
- 2. Demarcation / survey of Government. Lands
- 3. Maintenance of Survey Records at Village, Mandal, District and State levels.
- 4. Demarcation of the boundaries of private lands on the request of the landholders on payment of the prescribed fee.
- 5. Sub-division of patta lands on the request of private parties on payment of the prescribed fee and of Government lands for assignment and Land Acquisition work etc.

6. Supply of certified copies of survey records, ie. FBMs, Re-Settlement Register (RSR) / Diglot Register on payment of prescribed fee.

Sale of Village Maps, Taluk /Mandal Maps, District Maps and State Maps from Central Survey Office on payment of prescribed fee.

#### **Central Survey Office**

Central Survey Office was formed the state in 1959 on the lines of Central Survey Office, Madras. It is the technical nerve center of the Survey and Land Records Department. The public and Government departments look to the Central Survey Office for their requirement of all kinds of cadastral maps. The traditional functions assigned to it are:

- 1. Finalization of the village maps, taluk / mandal maps, district and state maps, publishing them and distributing them among the Government departments;
- 2. Repository for basic land records of all the villages in the state;
- 3. Furnishing certified copies of records to private applicants and Government departments;
- 4. Procuring and supplying survey and drawing instruments to the unit officers of the Department is also repairing and maintaining them.
- 5. The following records are preserved in Central Survey Office.
  - a. Village Maps
  - b. Original FMBs(Preserved in State Archives)
  - c. Street Survey records of Panchayats of Andhra region
  - d. Taverse Survey records
  - e. District Maps
  - f. Taluk Maps
  - g. District Census Maps
  - h. Town Maps, A.P. State Map (Road, Administrative map)
  - i. Central Survey Office lays down technical specifications and standards for printing of cadastral maps in the state

Machinery *of the printing press* of Central Survey Office, which was more than a quarter century old has been disposed off and digital map printing facility has been created.

#### **A.P. Survey Training Academy:**

**3.3.1** Survey Training Academy was established at Hyderabad under the plan scheme on 28.02.1990. Staff sanction was accorded in G.O.Ms.No.949, Revenue dt.21.09.89.

A Joint Director, Survey and Land Records is designated as Vice Principal and looks after the day-to-day administration and organizes training programmes. The AP Survey Academy is included in the 10<sup>th</sup> schedule as common facility for both AP and Telangana States. MOU has to be entered between Commissioner of AP and Telangana State on the functioning of the Academy.

Now the training campus has been taken over by Telangana State unilaterally and hence the JD&Vice Principal is temporarily operating from the premises of CSS&LRs office.

#### Objectives of the Academy:

The Academy was established with the following objectives:

- 1. To constantly upgrade the skills of departmental functionaries
- 2. To study and recommend the introduction of modern methodologies/equipment for conducting cadastral surveys and maintaining land records
- 3. To provide comprehensive training inputs needed for modernization
- 4. To enhance the efficiency levels of the functionaries for better delivery of services to public

#### Training Programmes:

The Academy conducts a variety of induction / in-service training programmes for Officers/staff in different categories as below:

- Induction training for Probationary IAS officers, Deputy Collectors and Deputy Tahsildars
- 2. Induction training to Probationary Assistant Directors of Survey and Judicial Officers
- 3. Induction training to directly recruited Deputy Surveyors
- 4. Survey training for Revenue Subordinates
- 5. Refresher training courses to departmental staff/officers in cadastral surveys and maintenance of land records.

Under the licensed surveyor system, the Academy has been training technically qualified private candidates as licensed surveyors. Training was imparted to poor rural youth under the auspices of the Society for Elimination of Rural Poverty (SERP) to enable them to become Licensed Surveyors

#### 5. RECENT INITIATIVES IN THE DEPARTMENT

Preservation of records: Survey records such as FMBs, land registers and village maps are more than 75 years old. Due to continuous handling for day-to-day requirement and aging problems, majority records are in torn, brittle or crumbling condition. Some record is also lost due to improper handling of records. The old, brittle record is still being used because fresh sets of records have not been created through resurveys. Hence part of the record has already been lost and the situation is growing more serious day by day. In order to prevent further deterioration and preserve all available records, the following measures have been taken:

- i) Scanning and digitization
- ii) Improved storage facilities like compactors

#### Scanning:

- a) The following records are scanned:
  - 1. FMB's
  - 2. RSRs
  - 3. Village maps
- b) Advantages of scanning are:
  - a. Records are well preserved for future
  - b. Scanned records can easily be copied without damaging the original
  - c. Scanned records can easily be retrieved as and when required
  - d. Multiple copies of digital data can be kept at different levels to protect from misuse, tampering and destruction
  - e. Scanned data kept in Website is easily accessible to all, so that transparency of the records is maintained.

**Storage Systems:** Traditionally all the land records were preserved in open racks. Compactors have been purchased and installed in record rooms in Central Survey Office.

#### **Software for Digitization (Bhumiti):**

Department with an intention to generate accurate digitized village maps has jointly developed a software called Bhumiti, which is a customized digitization and GIS software. This is jointly developed by the Department and M/s Spatial Technologies India (P) Limited. The Department provided domain expertise and tested the software.

The features of Bhumiti 1.0 are as follows:

- 1. Digitization of FMBs by entering measurement data
- 2. Traverse computation and generation of traverse skeleton
- 3. Incorporation of new sub-divisions
- 4. Module for processing Total Station data
- 5. Vectorization of village maps
- 6. GIS

The additional features being incorporated in Bhumiti 2.0 are as follows:

- 1. Mosaicing of parcel maps to generate village maps
- 2. Generation of missing FMBs from collateral records
- 3. Indian language interface
- 4. Incorporation of fresh data collected through Total Station in the FMBs/Plotted digitized village maps
- 5. Import of data from photogrammetric softwares
- 6. Automated quality check for digitized by data entry
- 7. Searching and tracing of un-numbered survey numbers by comparing its area and shape in village map.

**Bhumiti 1.0** has already been installed in all the District offices and also in Central Survey Office and Survey Training Academy. It is being used for digitization of FMBs of agency villages with a view to generate village maps. The company has supplied Bhumiti 2.0

#### **Electronic Total Stations:**

The Electronic Total Stations are state of the art surveying equipment that remove drudgery from the field survey operations and speed up the output of the survey several fold. Measurement work done with this equipment is highly accurate. The equipment records measurement data in digital form, which can be downloaded on a computer for processing and creating accurate maps very speedily. Hon'ble Chief Minister sanctioned Rs.10 crores for procurement of 220 ETS machines in 1st phase, and the processes of procurement of 220 machines has already been completed. Further, during meeting with Revenue Department on 8-12-14, it was agreed to sanction Rs.20 crores for purchase of balance 450 ETS machines so as to utilize them in the field to complete subdivision work in the Mandals. 273 ETS machines have been procured in 1st Phase and the same allotted to the Districts concerned.

#### **Licensed Surveyor System:**

Government, in G.O.Ms.No.1308 Revenue (SS1) Department, dated 12-12-2003 issued notification introducing the system in the state and later issued rules to implement the system in G.O.Ms.No.800 Rev (SS1) Dept dt.12.10.2004. According to this system, private persons are trained and issued license to take up survey work by public, on payment of fee.

A candidate who passes NCVT certificate in Drafts man (Civil) trade and a pass in SSC examination **or** Diploma or Degree in Civil Engineer **or** a pass in Intermediate (Vocational course) for Surveyors **or** Technical personnel who worked in the category of Surveyor and Survey officers in A.P. S&LRs Department or Survey of India and shall have completed (18) years of age shall under go training of 6 weeks of duration as per prescribed syllabus. After passing the training test, the candidate shall under go apprenticeship of one year under Licensed Surveyor before they are granted license.

At present 472 Licensed Surveyor are there in the State of Andhra Pradesh. During review meeting on 08-12-14, it was decided that sufficient number (5000

candidates) of Licensed Surveyors and willing qualified VROs are proposed to be trained in time line basis by 31<sup>st</sup> March 2015.

<u>Procurement of Computers</u>: During review meeting, it was agreed to procure computers for providing one computer for each Mandal exclusively for survey work. Action is being taken for procuring 671 computers to supply to each Mandal.

#### **Modernization of Central Survey Office:**

The Central Survey Office (CSO) situated at Narayanaguda is the repository of survey records of the State such as FMBs, village / taluk / district / State maps, Settlement Registers etc. It also undertakes preparation; scrutiny and printing of various kinds of cadastral maps, besides supplying copies of these maps to Government departments and granting certified copies to public against payment of prescribed fee. Machinery of the printing press of Central Survey Office, which was more than a quarter century old and has been disposed off and action has to be taken to create a digital map printing facility in the Central Survey Office.

#### **Digitisation of Resurvey Settlement Register(RSR) by data entry:**

1.1 crs out of 1.41 crs RSR data entries i.e.96.36% has been completed and the remaining 5.14 lakhs entries will be completed by 30-05-2016.

#### **Digitisation of Village Maps by vectorisation:**

All the village maps were scanned and now vectorisation has been taken up by APSAC. About 15,382 village maps out of 17,137 village maps were vectorised sofar. The missing village maps will be rebuilt as part of digitisation of FMBs.

#### <u>Data Centres at Mandal/Division/District level under DILRMP:</u>

384 (50%) data centers out of 670 were selected in 1<sup>st</sup> phase. Installation of computers in 384 centers was completed. Establishment of 170 data centers have been selected in 2<sup>nd</sup> phase and will be completed by 30-05-2016.

#### **Procurement of Modern Survey Equipment:**

i) Electronic Total Station: As per the orders of the Hon'ble C.M. 623 ETS machines have been procured and to distributed to districts. Surveyed 4.51 lakh acres using ETS.

Large chunk of lands upto 100 to 150 acres can be surveyed, but for usual "F" line petitions and patta subdivisions upto 20 acres can be surveyed as it involves refixing of existing boundaries as per FM Sketch.

#### ii) Differential Global Positioning System(DGPS) machines :

13 DGPS machines of high precision will be procured within one month through APTS finalised the tenders.

<u>Supplementary survey</u>: without disturbing the existing survey frame work to update the survey records has been taken up as pilot project in selected (3) villages viz; Devamada village of Kurnool Mandal, Jambula dinne village of Garladinne Mandal of Anantapuramu district and Mamidipalem(V) of Anakapalli Mandal of Visakhapatnam district. This work was entrusted to private agencies and work is under progress.

<u>Private Surveying Agencies</u>: As on 2-06-2014 there were no private surveying agencies identified. Now 20 Private Surveying agencies have been identified to execute all need based survey. This list was communicated to District administration to utilise their services where ever necessary.

**Digitization of FMBs**: A.P.consisting of 13 districts having about 49 lakhs FMBs available scanned excluding missing FMBs. The Government have taken a decision during the meeting held on 08-12-2014 by the Hon'ble CM to digitize the available FMBs under NLRMP with an estimated cost of Rs. 16.17 crores @ Rs.33 per FMB as decided by DOLR, GoI. The proposals approved by DOLR in minutes of the meeting held on 05-01-2015 towards central share under NLRMP by the project sanctioning and monitoring committee.

A decision also has been taken to utilize "Collabland" software developed by NIC, New Delhi and successfully used by Tamilnadu, as enquired. This Collabland software is also used by the states of Karnataka, Kerala, Pondichery and Maharastra, apart from Tamilnadu.

The digitized FMBs will be uploaded to central server after completion of 100% Quality Check and with digital signature of the Tahsildar concerned. These records will be maintained by updation from time to time through online.

The work was entrusted to Andhra Pradesh Space Application Center (APSAC) as per the orders of the Govt. vide Memo.No.24795/ EA&AR/A2/2015Revenue(EA&AR) Dept. dated:18-02-2016. APSAC agreed and have taken up the work.

The following steps have been taken up by S&LR Dept. as preparatory work for FMB digitization.

- Permanent space for FMB digitization center was selected in all districts.
- Standards& Specifications were designed and communicated to all AD(S&LRs).
- Proformae were designed to monitor the progress and 2 times Quality Checks as these are statutory records of 70 to 100 years old permanent records.
- APSAC allotted in-charge officers for each district.
- Temporary Space with computers for training purpose was identified in all districts.

- Selection of hand holding persons in 1<sup>st</sup> phase completed in all districts.
- All Computer Draughtsmen(S&LR Technical staff:121) were trained as ToTs in 6 batches at NIC, Hyderabad by calling Collabland software expert from NIC, New Delhi.
- APSAC Scientists were trained in Collabland Software.
- Customization of Collabland Software was done by NIC, Delhi basing on the feed back given by the dept. ToTs.
- Training for hand hold persons/ data entry operators was commenced in (11) districts on 16-05-2016
- APSAC designed software to monitor the progress through online
- Procurement of Computers for digitization center was entrusted to APTS
   by APSAC and will be completed in 1<sup>st</sup> week of June as per procedure.
- Procurement of Computers for AD's office for quality check of FMBs was entrusted to APTS and established in Digitisation centers.
- Rs. 8 Crores was transferred to APSAC by the S&LR Dept.
- Notification for 2<sup>nd</sup> phase hand hold persons was issued and selection is under process.
- It was decided to establish 25 computers in each center with 3 shifts.
- The digitization work in districts will be started in 1<sup>st</sup> June, 2016
- Internal quality check will be done by APSAC and final Quality Check will be done by the Department staff.
- The digitization center is equipped with Biometric attendance, CC Cameras and maintained for data security.
- Action plan has been prepared by APSAC and S&LR Dept.

### DIGITAL INDIA LAND RECORDS MODERNIZATION PROGRAMME (DILRMP) IN ANDHRA PRADESH.

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Digital India Land Records Modernization Programme is a Centrally Sponsored Scheme by merging the earlier Computerization Land Records and Strengthening of Revenue Administration and Updating of Land Records in the Department of Land Resources, Ministry of Rural Development, Government of India.

#### **SCOPE OF THE PROGRAMME**

- 1. Computerization of land records 100% central share
  - a) Data entry/re-entry/data conversion of all textual records including mutation records and other land attributes data
  - b) Digitization of cadastral maps
  - c) Integration of textual and spatial data
  - d) Tehsil, sub-division/district Computer centers
  - e) State-level data centres
  - f) Inter-connectivity among revenue offices
- II. Survey/resurvey and updating of the survey & settlement records (including ground control network and ground truthing) using the following modern technology options: (50:50 center: state share)
  - a) Pure ground method using total station (TS) and differential global positioning system (DGPS)
  - b) Hybrid methodology using aerial photography and ground truthing by TS and DGPS
  - c) High Resolution Satellite Imagery (HRSI) and ground truthing by TS and DGPS.
- **III.** Computerization of Registration (25:75 center: state share)
  - a) Computerization of the sub-registrar's offices (SROs)
  - b) Data entry of valuation details
  - c) Data entry of legacy encumbrance data
  - d) Scanning & preservation of old documents
  - e) Connectivity of SROs with revenue offices

IV. Modern record rooms/land records management centres at tehsil/taluk/circle/block level (50:50 center: state share)

#### **Training & capacity building:**

- a) Training, workshops, etc.
- b) Strengthening of the Survey and Revenue training institutes

#### V. Core GIS

- a) Village index base maps by geo-referencing cadastral maps with satellite imagery, for creating the core GIS.
- b) Integration of three layers of data: (i) Spatial data from aerial photography or high- resolution satellite imagery; (ii) Survey of India and Forest Survey of India maps; and
- (i) GIS-ready digitized cadastral maps from revenue records. Once the basic plotwise data is created by the States/UTs, seamless integration would be possible for micro and macro-planning and other relevant applications.
- VII. Legal changes
  - a) Amendments to The Registration Act, 1908
  - b) Amendments to The Indian Stamp Act, 1899
  - c) Other legal changes
  - d) Model law for conclusive titling
- VIII. Programme management
  - a) Programme Sanctioning & Monitoring Committee in the DoLR
  - b) Core Technical Advisory Group in the DoLR and the States/UTs
  - c) Programme Management Unit (PMU) in the DoLR and the
  - d) Information, education and communication (IEC) activities
  - e) Evaluation

#### TEHSIL, SUB-DIVISION/DISTRICT COMPUTER CENTRES:

A computer centre at the tehsil/sub-division is necessary for maintaining the village-wise property records and for easier services to the citizens. District-level databases may be maintained for data analysis, planning, verification, etc. at the district level. The tehsil/taluka/sub-division Computer Centre will consist of computer systems comprising of appropriate level server and client computers with local area connectivity (LAN), switches, storage area network (SAN) where feasible and necessary, UPS, printer (including map printer), scanner, touch screen kiosk,

biometric/smartcard readers, and CD writers. The server room will be secured and separated from the public area. Proper arrangements shall be made for land records/data storage in compactors as well as computerized and indexed data retrieval system. There should be enough space for seating the public in a proper reception area. District Computer Centre will collate the land records data of all the sub-divisions and tehsils in the respective districts. These district data centres too will be equipped with appropriate level computer systems with sufficient storage provided with LAN connectivity and switches.

#### **STATE-LEVEL DATA CENTRES:**

In order to maintain data repository and backup, each State/UT may need to establish a dedicated data centre for the land records data (including maps and registration data) at the State/UT level. This data centre would have estimated storage capacity scalable from 2 to 20 terabytes, depending upon the volume of records, along with high speed processors, switches, fiber optic channels, software and security devices. Further, these would have appropriate backup media (like CDs and tape devices, etc.) for high volume storage. Storage area network (SAN) may also be set up where feasible and necessary. Action for setting up of the SLDCs may be taken up when sufficient data has been created in the districts for storage at the State/UT level.

#### MODERN RECORD ROOMS/LAND RECORDS MANAGEMENT CENTRES:

Support for upgrading modern record rooms/land records management centres with a storage area with compactors/storage devices for physical storage of records and maps, b) an operational area with computers/servers, storage area network (SAN), printers, etc., and c) a public services area for waiting/reception, etc. The land records details may be indexed and stored. A document management system,i.e., scanning of old records, digital storage and retrieval system should be introduced for online storage and retrieval of the records, indexing of data and images, etc. so as to move towards cyber record rooms/maintenance of land records in the dematerialized (demat) format.

#### **INTER-CONNECTIVITY AMONG REVENUE AND REGISTRATION OFFICES:**

All the land record offices, from the State/UT level to the tehsil or equivalent level, as well as the registration offices may be securely connected via local area network (LAN) or wide area network (WAN) in an appropriate configuration based on the functional and technical requirements. In order to achieve functional integration among the tehsils, districts, SROs and State data centres, each location would be provided with

network connectivity with 2 mbps link for last mile connectivity from the point of presence (PoP) of the State Wide Area Network (SWAN). From there upwards, the data would ride over the NICNET network. In addition, each site would require one set of switch/ router and modem. Time required for this would vary, depending upon the progress made on the SWAN project of the Department of Information Technology. However, alternative approaches can be taken for connectivity in the interim period, such as broadband/leased line with virtual private network (VPN) infrastructure for secure data transmission. This network may have a centralized architecture connecting the tehsils, sub-registrar offices, sub-divisions, districts and the State/UT Data Centres for enabling online data updation, easy access and sharing of data. The network may be designed by or with input from the NIC and by enforcing the approved security protocols and access control protocols of the DIT, GoI. Where the SWAN is available, horizontal connectivity to tehsils or SR offices may be drawn from the nearest available PoP using leased lines or other secure connectivity. At places where the SWAN is yet to be implemented, other options such as broadband with VPN or VSAT connectivity could be established. From the district upwards, the system could ride over the NICNET network.

#### TRAINING & CAPACITY BUILDING:

States/UTs are required to draw up a comprehensive training programme to develop their human resources for effective maintenance and sustenance of the NLRMP, covering the policy makers, heads of the departments of revenue, survey, registration and their offices and staff, master trainers and field-level functionaries including the surveyors, village accountants and other revenue staff, who will be trained for operating the system including mutation and updating of land records, issue of authenticated copies of RoRs with maps-to-scale, handling modern survey equipment such as GPS, TS and photogrammetry. Expert organizations like the Survey of India, NIC and Indian Space Research Organization (ISRO), etc. should be involved in imparting training to master trainers, who in turn, will train the State/UT staff on TS/GPS, survey methodologies, scanning, digitization, GIS and ICT activities. For better outreach, e-learning and videoconferencing facilities may be used. The capacity building programme should include awareness/appraisal workshops, long-term training programmes for field-level officers with hands-on training, and short-term training

modules for senior-level officers.

The capacity building programme should cover not only technical contents, but also quality procedures, technological advancements, outsourcing procedures, project management, etc. The States/UTs may tie up with leading training institutions for this purpose. A core group of officers and staff from the States/UTs may be sent on exposure visits to other States/UTs which have demonstrated considerable success in implementing the project. Discussion forums and help lines may be established to guide the field staff in solving technical problems.

#### **MONITORING AND REVIEW MECHANISM:**

The following monitoring and review mechanism at different levels is to be adopted under the Programme.

District-level Monitoring and Review Committee: All the districts need to have a District-level Monitoring and Review Committee under the Chairpersonship of the District Collector/Deputy Commissioner/District Magistrate, along with ADMs/SDMs dealing with land revenue matters, CEO/Executive Officer of the Zilla Parishad, Subdistrict Registrar, Survey & Settlement/Consolidation Officer having jurisdiction over the district, and District Informatics Officer of the NIC as members. Representatives from other technical agencies such as the SoI, NRSC/ISRO, C- DAC, FSI, and SLUSI may be involved as per the need as special invitees. The Committee will review the progress of implementation of the Programme at least once a quarter, and the District Collector/Deputy Commissioner shall submit report to the State-level Monitoring and Review Committee. Online monitoring reports shall be submitted by the District Collector/Deputy Commissioner to the State Govt. as well as to the DoLR as per the MIS reporting formats and periodicity prescribed.

State/UT-level Monitoring and Review Committee: A State/UT-level Monitoring and Review Committee shall be constituted in each State/UT for the NLRMP under the chairpersonship of the Chief Secretary/Chairman, Board of Revenue. It is recommended that a representative from the Board of Revenue, Principal Secretary/Secretary of the Departments of Revenue, Registration, Finance, Planning and IT, the Divisional Commissioners, Inspector General of Registration, Commissioner/Director of Survey & Settlement and of Land Records, State Informatics Officer of the NIC and any other expert as decided by the State Government/UT Administration should be its members. The Committee shall monitor and review the progress of implementation of the Programme, facilitate the necessary process reengineering, and guide the implementation authorities. The Committee shall submit quarterly progress reports in the prescribed format. The States/UTs shall develop a system of spot checks by the State/UT officers through field visits.

Monitoring and Review at the National Level: At the national level, for sanctioning of projects and monitoring and reviewing of the programme, a Project Sanctioning and Monitoring Committee has been set up under the Chairpersonship of the Secretary, Department of Land resources. The Committee will monitor and review progress of the NLRMP work in the country. Area officers from the Department of Land Resources would also be visiting the States/UTs to review the implementation of the Programme.

#### **EVALUATION OF THE PROGRAMME:**

To get the impact assessment and feedback about the actual implementation of the Programme at field level, the DoLR will get the concurrent and terminal evaluation of the Programme carried out through reputed organizations such as the Lal Bahadur Shastri National Academy of Administration (LBSNAA), the National Institute of Rural Development (NIRD), State Administrative Training Institutes (ATIs), etc. The States/UTs are also advised to carry out concurrent evaluation and impact assessment through in-house teams/experts to assess the on-site progress vis-a-vis deliverables of the sanctioned projects and suggest the measures for improving the system. These concurrent evaluation results must be intimated to the DoLR for obtaining the second installment of Central funding.

#### **FUNDING:**

Allocation of Funds and Fund Flow Mechanism

The DILRMP is a demand-driven scheme. Funds will be allocated to the State Governments/UT Administrations or their designated implementing agencies for carrying out the activities under the NLRMP. Funds for various components of the NLRMP will be provided at different scales by the Central Government. The assistance of Central Government is 100% since 1<sup>st</sup> April, 2016 on the estimated cost approved by the Cabinet as given in Annexure-GL-III. The following will be the funding pattern and sharing of costs between the Centre and the States:

- a) Computerization of land records (100% Central funding maximum upto the approved unit cost norm)
  - Data entry/re-entry/data conversion/mutation data entry
  - Digitization of cadastral maps and integration of textual and spatial data
  - Tehsil, sub-division, and district data centers
  - State-level data centres
  - Inter-connectivity amongst revenue offices
- b) Survey/resurvey and updating of survey & settlement records (including ground control network and ground truthing) (Central funding maximum upto 50% of the approved unit cost norm for the States and 100% for the UTs)
  - · Computerization of registration
  - Data entry of valuation details
  - Data entry of legacy encumbrance data
  - Scanning & preservation of old documents
  - Connectivity to SROs with revenue offices
- c) Modern record rooms/land records management centres at tehsil/taluk/block level
- d) Training & capacity building
  - Training, workshops, etc.
  - Strengthening of Revenue training institutes

Central share released for the years 2008 to 2012 under DILRMP to the combined state of A.P. and the utilization is as follows:

Year	Central share (Rs )	Purpose	Utilization		
2008-09 (on Spl. CS	(75% out of	Ananthapur,	Rs.17.39 lakhs spent		
& CCLR, A.P. letter	4475.465)	Karimnagar,	for tenders, but not		
no. T2/7000/07, dt.	Rs. 33,56,60,000	Cuddapah, SPS	finalized.		
15-10-2008)		Nellore and			
		Srikakulam and			
		setting up of State			
		Level Data Centre			
2010-11	(60% of 196.07)	Setting up of	Rs. 39,07,000 spent for		
	Rs. 1,17,64,000/	NLRMP cell in	NLRMP cell.		
		AALIM, Hyderabad			
2011-12	Rs. 9,90,60,000	Integrated Action	Not spent		
		Plan (IAP) districts			
		i.e. Ananthapur,			
		Srikakulam and			
		Karimnagar			
2012-13	Rs.10.92 crores	for IAP districts of	Not spent		
		Ananthapur,			
		Srikakulam and			
		Karimnagar			
	55,26,84,000		56,46,000		

Based on proposals submitted by GoAP for utilization of the balance amount of Rs. 55.00 crores left over unutilized, the DoLR has approved the proposal in the minutes of meeting of Project Sanctioning Monitoring Committee (PS&MC) held on 5-1-2015 where the proposal of A.P was considered for Rs. 6049.20 lakhs including digitization of FMBs of 49 lakhs @ Rs. 33 per FMB towards central share for 13 district i.e. Srikakulam, Krishna, **East** Vizianagaram, Nellore, Godavari. Visakhapatnam, West Godavari, Guntur, Prakasam, YSR Kadapa, Ananthapur, Chittoor and Kurnool and for NLRMP cell, State Data Center and PMU to utilize the unspent central share from the years 2008 to 2012. The matching state share also has to be released by GoAP simultaneously as per NLRMP guidelines.

Under the component survey/resurvey, it is decided that only need based survey for required villages in the state of A.P. may be taken up the details are awaited from the district Collectors. Digitization of about available 49 lakh FMBs has been entrusted APSAC.

#### NOTE ON SETTLEMENT WING

#### I. A.P.ESTATES ABOLITION ACT, 1948:

The A.P. (Andhra Area) Estates Abolition Act, 1948 came into force with effect from 19-4-1949. Under the provisions of this Act, all Zamin, under-tenure, Inam and Sub-Divided Estates were abolished by the Government by applying the provisions of the Act to each and every estate under the Act on a date notified. The effect of the abolition of an estate was that the entire estate vested in the Government and estatedar was paid compensation under the provisions of this Act. Every ryot who acquired occupancy rights (Kudivaram rights) prior to 1.7.1945 in respect of ryoti lands shall be entitled to a ryotwari patta under Sec.11 (a) of the Act and at the same time the Estatedar is entitled to a ryotwari patta for the private lands which were under his personal cultivation prior to 1.7.1939 under Sec. 12 to 14 of the Act, patta will be given to the Estatedar under Sec. 15 of the E.A. Act 1948 an appeal lies to the District Judge & Estate Abolition Tribunal u/s 15 (2) of Act.

#### **AUTHORITIES UNDER THE ACT:**

The Settlement Officer is the original authority under this enactment. After abolition of the posts of the Settlement Officers, the Joint Collectors of Andhra Region are exercising powers as Settlement Officers vide orders issued by the Government in G.O.Ms. No. 881, Rev.(J) Dept., dt. 25.9.1990. The Director of Settlements is the first revisional authority against the decision of the Joint Collector passed under Sec. 11, 17 and 63 of the E.A. Act 1948. The Commissioner Appeals, U/s. 7(d) of the E.A. Act 1948 is the final revisional authority against the orders of the Director of Settlements.

The following are the details of the estates notified and taken over by the Government under the E.A. Act 1948:

Total No. of Estates in the State -- 11,141

Total No. of Estates notified. -- 11,132

Total No. of estates to be notified -- 9

#### **COMPENSATION:**

Under the provisions of the estates abolition Act, the estates in the erstwhile Andhra area taken over on the dates notified by the Government from time to time. There are 3 categories of estates i.e. Zamindari, Under Tenure and Inam Estates. As soon as an estate is taken over, its survey and settlement operations are taken-up. Compensation is payable to the landholders under Sec.3(e) of the Act. Compensation is calculated and determined by the Director of Settlements under the provisions contained in Sec. 24 to 39 and Sec.54 and 54-A of the said Act. It is deposited with the Estates Abolition Tribunal who's is the District Judge of the district concerned.

]	PROPOSALS PENDING AT VARIOUS LEVELS UNDER E.A.ACT 1948									
Sl.No.	Name of the District	Survey Operat ions pendin g	Proposals pending for notification u/s 22	Settlement operations & submission of scheme reports	Proposals pending for Tasdic Allowance u/s 38(2)	Proposals pending for Final Compensa tion u/s 39(1)				
1	Srikakulam	0	1	3	11	5				
2	Vizianagaram	0	1	2	5	7				
3	Visakhapatnam	0	0	2	4	2				
4	East Godavari	odavari 0		0	0	0				
5	West Godavari	0	0	1	0	0				
6	Krishna	0	0	0	11	3				
7	Prakasam	1	0	1	3	3				
8	Nellore	1	0	0	1	2				
9	Chittoor	0	0	1	15	5				
10	Anantapur	0	0	1	4	9				
11	Kadapa	0	0	0	0	3				
12	Guntur	0	0	0	1	0				
	Total	2	2	11	55	39				

#### NUMBER OF R.P.CASES PENDING BEFORE COMMISSIONER & **D.O.S. UNDER E.A. ACT, 1948** Sl.No No. of Cases District Srikakulam 1 11 2 Visakhapatnam 12 3 Vizianagaram 5 Prakasam 10 4 5 Krishna 11 Ananthapur 1 6 Kadapa 7 64 8 SPSR Nellore 47 2 9 East Godavari 10 West Godavari 2 Chittoor 11 56 Total 221

## NUMBER OF CASES PENDING WITH J.C./S.O. UNDER SEC 11(a) OF E.A. ACT.1948 (ANDHRA AREA)

Sl.No.	Name of the District	Balance
1	Srikakulam	7
2	Vizianagaram	5
3	Visakhapatnam	12
4	East Godavari	1
5	West Godavari	Report to be received
6	Krishna	35
7	Prakasam	40
8	Nellore	25
9	Chittoor	46
10	Anantapur	49
11	Kadapa	77
12	Guntur	
	Total	297

#### II. A.P. REGULATIONS 1/69 & 2/70

The DOS was exercising the Power as 1<sup>st</sup> appellate authority under A.P. Mahals Regulation 1/69 and A.P. Scheduled Areas Ryotwari Settlement Regulation 2/70 as contemplated under section 9 and 9 (3) of the above Regulations from the date coming into force of said Regulations on 26-12-1970 and 1-7-1971 respectively. In G.O. Rt.No.1001 Revenue (Services I/1) Department dt.2-5-2008, the Govt. have conferred power of the DOS to project Officers ITDA as 1<sup>st</sup> appellate authority under these Settlement Regulations. In pursuance of the orders of the Govt. all appeals pertaining to the above two Regulations were already transferred and handed over to the concerned Project Officers. The Hon'ble High Court of A.P. have issued interim suspension orders of the G.O. In this connection a report has already been sent to Govt. vide this office ref. No. D1/7728 /2007, dt .23-3-10.

PENDENCY OF CASES BEFORE COMMISSIONER & D.O.S. UNDER A.P. REGULATIONS (2/70) (REMANDED BY HON'BLE HIGH COURT)							
1	West Godavari	1					
2	East Godavari	1					

Note: As per G.O.Ms.No.1001 Revenue (SS) Dept. Dated. 2-5-2008 the powers of Director of Settlements were delegated to Project officers, ITDAs oncerned.

#### **III. SURVEY SETTLEMENT OF FOREST BOUNDARIES:**

Government had issued orders in G.O. Ms. No 54 G.A. (AR& TI) Department dt .31-1-2008 transferring the subject "Survey Settlement of Forest Boundaries" from Environment, Forest, Science & Technology Department to Revenue Department. Govt in G.O. Rt.. No 1048 Rev (Ser I / 1) Dept dt. 6-5-2008 has requested the CCLA to authorize the Commissioner SS&LRs, to meet the salaries and other expenditure of the scheme. In turn the CCLA., in his ref. No.L1/21/2007 dt 15-5-2008 authorized the CSS&LRs to take necessary action

#### DETAILS OF AREA NOTIFIED U/S 4 AND U/S 15 OF FOREST ACT

Sl.N o	Name of the District		xtent Notified u/s 4	already	Extent y notified /s.15	Balance for Notification u/s.15		
		No. of Blocks	Extent	No.of Blocks	Extent	No. of Blocks	Extent covered	
1	Ananthapur	18	9775.78	8	7890.54	5	1828.98	
2	Chittoor	18	265831.35	0	0	18	265831.35	
3	East Godavari	9	43436.40	0	0	9	43436.40	
4	Kadapa	9	18400.13	0	0	9	18400.13	
5	W Godavari	6	10615.81	0	0	5	10343.83	
6	Krishna	20	44356.59	1	0	19	43411.61	
7	Nellore	15	77608.68	1	79.00	14	77529.68	
8	Prakasam	5	9136.56	0	0.00	2	8902.55	
9	Guntur	2	542.04	1	511.99	1	30.05	
10	Srikakulam	6	56106.85	4	2432.44	2	53674.41	
11	Visakhapatnam	45	591553.02	6	12653.50	39	578899.52	
12	Vizianagaram	13	86666.36	1	8.50	12	85816.00	
	Total	166	1214029.57	22	23575.97	135	1188104.51	

ANNEXURE-I

Dates of Initial Surveys, Resurveys/Revision surveys

Sl No	District	Initial survey	1 <sup>st</sup> re-survey/ revision survey	2 <sup>nd</sup> re-survey/ revision survey
1	Srikakulam	1872-1926	1904-08	1957-71
	*** ·	1001 10	1960-65	1050 50
2	Vizianagaram	1901-12	1952-68	1958-73
3	Visakhapatnam	1888-1912	1909-11	1955-66
		1970-73	(Portion)	
		(Agency)		
4	East Godavari	1861-96	1894-96	1920-29
		1972-73		1955-66
		(Agency)		
5	West Godavari	1861-96	1892-96	1912-28
		1925-28		1956-63
6	Krishna	1864-65 1892-98		1923-28
				1952-53
7	Guntur	1867-1905	1893-03	1916-20
8	Prakasam	1867-75	1902-08	1950-53
9	Nellore	1867- 72	1900-04	1949-54
		1920		1952-62
10	Chittoor	1879-82	1908-12	1951-63
		1914-19		
11	Kadapa	1873-1877	1904-11	1951-69
12	Ananthapur	1881-1894	1911-13	1959-72
13	Kurnool	1862-1874	1895-07	1954-68

#### ANNEXURE-II STATEMENT SHOWING THE DISTRICT WISE DETAILS OF SURVEYORS & DEPUTY SURVEYORS IN ANDHRA PRADESH

Sl.	District/ Office		Surveyor		Dy.Surveyor			
No.		Sanctioned	Effective	Vacancies	Sanctioned	Effective	Vacancies	
1	Srikakulam	33	33	0	41	41	0	
2	Vizianagaram	29	29	0	26	9	17	
3	Visakhapatnam	39	39	0	33	12	21	
4	East Godavari	44	44	0	39	22	17	
5	West Godavari	34	34	0	31	10	21	
6	Krishna	rishna 37 37		0 32		17	15	
7	Nellore	32	32	0	40	19	21	
8	Guntur	36	36	0	39	24	15	
9	Prakasam	33	33	0	38	17	21	
10	Kurnool	37	35	2	40	18	22	
11	Chittoor	42	42	0	44	25	19	
12	Kadapa	Kadapa 37		0	30	14	16	
13	Anantapur 38 37		37	1	38	15	23	
14	CSO, Hyderabad	0	0	0	0	0	0	
	Total	471	468	3	471	243	228	

#### **ANNEXURE-III**

#### Status of Land Records in A.P. as on 20-05-2016

SI.No.	Name of the District	No of villages	Village Maps			FMBs				RSRs / SFAs				
		villages	Availa ble	Missin g	Scann ed	Digitiz ed	Total	Available	Missing	Scanned	Total	Availa ble	Missi ng	Scann ed
1	2	3	4	5	6	7	8	9	10	11	12	13	14	15
01	Srikakulam	1858	1832	26	1007	720	243703	240540	3163	240540	1858	1664	194	1661
02	Vizianagaram	1547	1155	238	1006	430	201910	198322	3588	198322	1547	1297	250	1291
03	Vishakhapatn am	3022	2789	233	1887	303	241990	227163	14827	227163	3022	2643	379	2621
04	East Godavari	1411	1086	325	944	210	295845	292996	2849	292996	1411	1255	156	1248
05	West Godavari	901	693	208	758	264	293578	291834	1744	291834	901	890	11	890
06	Krishna	1005	993	12	897	854	317579	315414	2165	315414	1005	957	48	956
07	Guntur	727	701	26	567	0	394073	391893	2180	391893	727	652	75	652
08	Prakasam	1058	1052	6	615	57	439054	435602	3452	435602	1058	1005	53	1005
09	Nellore	1201	1197	4	848	842	413409	401926	11483	401926	1201	1146	55	1144
10	Chittoor	1545	1527	18	918	621	549241	540384	8857	540384	1545	1461	84	1461
11	Kadapa	981	981	0	603	793	539249	535008	4241	535008	981	959	22	959
12	Ananthapur	964	964	0	754	354	451553	447449	4104	447449	964	964	0	964
13	Kurnool	917	915	2	679	402	486796	484804	1992	484804	917	893	24	892
	Total	17137	15885	1098	11483	5850	4867980	4803335	64645	4803335	17137	15786	1351	15744

Note:- Village Maps digitized by APSAC.

#### **ANNEXURE-IV**

	STATUS OF LICENSED S	SURV	EYORS as	on 20-05-2	016
SI.No	Name of the District	IKP	Non IKP	Retired	Grand Total
1	Srikakulam	23	7	17	47
2	Vizianagaram	25	15	3	43
3	Vishakhapatnam	42	107	12	161
4	East Godavari	30	57	9	96
5	West Godavari	23	49	9	81
6	Krishna	8	62	3	73
7	Guntur	15	44	2	61
8	Prakasam	23	43	2	68
9	Nellore	22	25	7	51
10	Chittoor	46	30	4	80
11	Ananthapur	23	122	12	157
12	Kadapa	17	15	11	43
13	Kurnool	19	75	9	103
	Total:	316	651	100	1067