



GOVERNMENT OF ANDHRA PRADESH

WHITE PAPER
ON

Agriculture, Horticulture, Animal Husbandry, Sericulture,
Dairy Development, Fisheries & Agricultural Marketing Departments

2019

Department of Agriculture

Background

The White Paper of Agriculture Department highlights the issues, challenges, at the time of State bifurcation, schemes, and policies adopted there after by the Government, significant achievement despite challenges, status on key performance indicators and sustainable development goals, awards and way forward.

Identifies key issues and opportunities and sets out proposed reforms that could support more effective policies and management practices to gradually improve the productivity in agriculture to increase net benefits to the farming community.

Introduction

Andhra Pradesh State is “**the bejeweled rice bowl of India**”. Agriculture plays an important role in the livelihoods of people as 62% of the population in Andhra Pradesh live in rural areas and depend on agriculture and related sectors. The agriculture plays an important role not only in the economy but also for achieving the food security for the state and for the country.

State main challenges are water scarcity, degrading natural resources like land, decreasing per capita availability of land and water resources. Further, rainfed agriculture in Rayalaseema and North Coastal Districts, Natural calamities like deficit rainfall, prolonged dry spells, cyclones and heavy rains have great impact on production and income of the farmer.

The new State of Andhra Pradesh with 13 districts has great potential for agriculture and allied sectors. Andhra Pradesh State consists of 6 Agro Climatic Zones and 5 different soil types to grow wide range of crops throughout the year. Godavari and Krishna rivers running through the State provides ample opportunity for increasing irrigation potential.

Issues, and Challenges at the time of State Bifurcation: During the period from 2004 to 2014:

During the decade of 2004 to 2014 the agriculture in united AP faced number of problems and farmers suffered due to declining crop yields, widening yield gaps in comparison with best yields in the country, increasing prices of agriculture inputs resulting in increased cost of cultivation and changes associated with climate variability.

Major problems noticed during this period were:

- a) **Cost of cultivation:** The cost of cultivation registered steep increase in this period thus affecting the net income of the farmers. Due to low farm income, the financial condition of the farmers got worse leaving them in an unending cycle of indebtedness and adversity.
- b) **Inflation:** Over the years the rate of inflation was 4.43 in 2005-06, 6.59 in 2006-07, 4.74 in 2007-08, 8.05 in 2008-09, 3.80 in 2009-10, 9.56 in 2010-11, 8.94 in 2011-12, 7.36 in 2012-13 and 5.98 in 2013-14. Consequently, the real income of the farmer has come down drastically due to increase in labour cost and inflationary pressures on prices of inputs and other consumer items which farmer buys.

c) Low and stagnant productivity:

During this period the area and yield of crops like paddy, pulses remained stagnant and in oilseeds there was decline.

The yield levels in comparison with other States, showed gaps in all crops except in maize. In crops like rice, redgram, groundnut, sunflower, castor the wide gap between the yield of AP State and the highest yielding State in the country was observed. Though there is possible potential for enhancement of productivity in the State and highlights the failure of Government initiated programmes including the research initiatives of the university.

Research efforts have not been successful in developing varieties which are viable in the field. Continuous dependence on old varieties has pushed the farmers into a tough situation of stagnant yields and increasing cost, ultimately cutting into their income.

d) Failure of extension system:

Adarsha rythus were introduced in the year 2007 to provide interface between farmers and extension staff of agriculture and allied departments for dissemination of technology and other activities.

There is no tangible contribution of Adarsha rythus in extension work, though the Government spent Rs.28 crores approximately every year. It is felt that most of the Adarsha rythus were non practicing farmers and were not qualified or not having requisite knowledge to sensitize the farmers.

e) Soil Health Management:

Soil health management was not given due importance which resulted in land degradation and excess use of chemical fertilizers thereby disturbing the nutrient imbalance in the soil and crop growth. The saline and alkali soils where productivity and income to farmers was very low have not been addressed.

Indiscriminate use of fertilizers led to imbalance in soil fertility and increase in input cost resulting into not only non availability of micronutrients but also resulted in yield losses.

f) Fertilizer crisis in 2008-09 & price rise in DAP and other complexes:

During 2008-09, timely action was not taken for indenting and positioning of fertilizers. The delay in supply of fertilizers like DAP and other complexes resulted in long queues of farmers at sale points causing unrest among the farming community and law and order problem.

In the years 2011-12 and 2012-13, there was steep rise in price of DAP (from Rs.485/- in 2009 to Rs.1193/- in 2013) and other complex fertilizers (Rs.362/- in 2008 to Rs. 1155/- in 2013) and as a result the cost of cultivation has gone up substantially.

Due to increase in the cost of complex fertilizers, the farmers opted for excessive use of urea which resulted in crisis of fertilizers and also in increase of cost cultivation.

g) Cloud seeding:

Cloud seeding operations were conducted by the government from 2004 to 2009 at a cost of Rs. 127.10 crores in united state of Andhra Pradesh.

During 2005 and 2006 ten districts were covered in each year and from 2007 to 2009 twelve districts were covered in each year. Though the programme was intended to induce rain by using technology of cloud seeding there is no effective evidence to show that it really induced rains and benefitted the farmers.

h) Crop holiday:

The crisis in agriculture sector is evidenced by the “Crop holiday” observed by the farmers of East Godavari district in an area of 85,050 acres in Kharif, 2011. The farmers did not take up agricultural operations due to late release of canal water and marketing issues. This shows the condition of agriculture and problems of the farmers.

i) Farmer suicides:

Farmer suicides are a key concern in agriculture sector. The farmers were in deep distress due to failures of cotton crop and heavy indebtedness as the farmers were more dependent on private money lenders with higher rates of interest. The number of suicides from 1994 to 2003 was 310, whereas from 2004 to 2014 they were 1987. Due to the insecure conditions and increasing uncertainty and un-sustainability in agriculture, the younger generations are not coming forward to take up agriculture as a career.

j) Marketing, storage and processing:

Farmers were not getting remunerative price for their produce due to market price fluctuations and undue dependence on the middle men who exploited the farmers. Adequate storage facilities were not available for the farmers to store the produce in times of distress sale. Processing facilities for agriculture commodities were not given any impetus and value addition was not created.

k) Growth rates in agriculture:

In agriculture, with regard to agricultural production in 13 districts, the per cent of growth over previous years at constant prices (2004-05) in some years recorded negative growth i.e., 2005-06 (-3.47), 2006-07 (-3.14), 2008-09 (-12.41), 2010-11 (-7.93) and 2011-12 (-7.33) and during 2007-08 (32.36), 2009-10 (4.45), 2012-13 (6.12) and 2013-14 (6.25) recorded the percentage of positive growth over previous years.

l) Impact of bifurcation of Andhra Pradesh state on newly formed Andhra Pradesh in agriculture sector:

- i. Agricultural education, research and extension:** In united Andhra Pradesh there is one Agricultural University, located in Hyderabad and presently it is in Telangana state. So, the important laboratories like DNA Finger Printing, Tissue culture, NMR Oil analysis are in Telangana state. Colleges and Research Stations, based on the location, are allotted to respective States.
- ii. Department of Agriculture:** The DNA finger printing & transgenic crops monitoring laboratory, Bio-pesticides quality control laboratory and pesticide residue testing laboratory are in Hyderabad and are allotted to Telangana State. No such facilities are available in A.P. The Apex agriculture training institute SAMETI is also allotted to Telangana state. It takes considerable time and expenditure to develop such facilities in A.P.
- iii. Seed industry:** There are 969 private seed processing units in Telangana as against 309 in Andhra Pradesh. As a result, the capacity of seed processing facility and supply are affected adversely in the State of Andhra Pradesh.

Schemes and policies adopted thereafter by the Government:

The Government launched seven missions and out of seven missions, Primary Sector mission is launched to transform Agriculture and allied sectors through synergy and coherence among the related departments for achievement of tangible and critical outcomes in a sustained manner.

The vision of the Government is to become:

- i. One of the top three developed States in India by 2022,
- ii. No.1 State in India by 2029 and
- iii. One of the States with highest standard in the world by 2050.

To achieve the goals as per AP vision, strategically utilizing the services of National and International Research Institutes to make the farmers prosperous by increasing the productivity and profitability through scientific soil health management, enhancement of water use efficiency and making Agriculture more resilient to climate change impact.

The overall goal of the Agriculture Department is to achieve the food and nutritional security along with improved livelihoods for the rural farming families through sustainable intensification of agriculture in the State. The main goal is to make agriculture in the state climate resilient, sustainable, productive, profitable and transform agriculture from “a way of life” into an “enterprise”.

The specific objectives of the plan are as follows:

- a) Increasing productivity of the crops
- b) Use of advanced tools like soil health mapping, use of Remote Sensing Data GIS, simulation model optimum utilization of balanced fertilizer application for reducing cost of cultivation and increasing profits.
- c) To strengthen the agricultural extension system for increasing productivity, profitability, sustainability and incomes for the farmers.
- d) Use of IoT in Agriculture
- e) Enabling policies for providing the market access to small and marginal farmers.

Budget allocation:

Budget allocated during 2013-14 was 4.5% to Agriculture sector, but for the last four years, allocated more than 10% of budget to Agriculture. The year wise budget allocation in 2014-15 was Rs.13,846 crore, in 2015-16 was Rs.14,174 crore, in 2016-17 was Rs.16,250 crore, in 2017-18 was Rs.18,214 crore and in 2018-19 was Rs.19070 crore as against budget allocation of Rs.6127 crore during 2013-14.

Food grain Production:

In 2014-15, food grain production was 160.05 Lakh MTs, In 2015-16, 143.78 Lakh MTs. In 2017-18, food grain production was 167.22 Lakh MTs. which is 12% excess over 2016-17 production of 149.16 Lakh MTs. The targeted foodgrain production for 2018-19 is 186.41 Lakh M.T.

Productivity:

The productivity of major crops grown in AP are significantly increased year by year since 2014-15 to 2017-18. In 2016-17, AP stands 1st place in India in Maize (6612 kg/ha) & Jowar (2041 kg/ha) and 2nd place in Rice (3540 kg/ha) productivity.

Productivity of Major crops in Andhra Pradesh from 2014-15 to 2017-18: (kg/ha)

S.No.	Crop	2014-15	2015-16	2016-17	2017-18
1	Rice	3022	3465	3540	3815
2	Jowar	2015	2052	2041	2382
3	Maize	6396	6056	6612	6911
4	Blackgram	946	901	658	920
5	Greengram	825	646	493	662
6	Bengalgram	1143	1062	960	1132
7	Redgram	503	600	380	430
8	Groundnut	564	1034	595	1426
9	Cotton	588	482	563	549
10	Sugarcane	71849	76664	76019	78532

Source: Directorate of Economics & Statistics, Gol, DES, AP

Growth rate in Agriculture & allied sectors:

S. No	Year	Growth Rate in Agriculture Sector (%)
1	2014-15	3.55
2	2015-16	7.78
3	2016-17	14.91
4	2017-18	17.76

Productivity Enhancement Activities:

North Coastal districts:

In view of the low crop productivity in North Coastal Andhra, awareness campaigns were organized involving farmers, extension officers and Scientists. As per the gaps identified, distributed required seeds and herbicides on 50% subsidy. Direct seeding is one of the main interventions in paddy for timely sowing and avoiding aged seedling transplanting for enhancement of productivity.

In Srikakulam district, an additional sown area of 0.70 Lakh ha achieved during Rabi 2017-18. In addition to that, awareness created to farmers on utilization of farm mechanization scheme in a bigger way by allocating additional budget. 581 Qtls of Rajma seed is distributed to tribal farmers on 90% subsidy with investment of Rs.44 lakhs in 2017-18.

Krishna and Godavari Delta:

Coordination with Department of water Resources:

Advance planning of water budgeting, time and quantity of water release before the season helped in optimum and effective utilization of resources.

The release of water in Godavari Delta by June 1st of every year, Adoption of warabandhi and water budgeting, improved drainage facility in canals. By early release of water, Kharif Crop is advanced in addition to escaping it from cyclones and got opportunity for third crop of summer pulse and green manure.

In 2017-18, released water by 2nd fortnight of June through Pattiseema project which facilitated second crop by completing first crop in time.

Rayalaseema and Prakasam districts:

Drought is a regular phenomenon in Rayalaseema and Prakasam districts. AP Drought Mitigation Project is implemented. This project is envisaged to improve the income of 1.65 Lakh farm house holds. Strengthen resilience to drought with total outlay of Rs.1042 crore out of which about Rs.500 crore is being funded by International Fund for Agriculture Development (IFAD) in a span of 5 years.

Rain guns:

The Government has decided to mitigate the dry spell by adopting Raingun method of irrigation with an objective of enhancing the productivity of Groundnut crop during 2016-17. Procured 13,334 Rainguns & Sprinklers, 7970 oil engines and 3.50 lakh additional water carrying pipes, with an expenditure of Rs.111.97 crore placed in godowns at mandal level for use by the farmers.

2016-17: An area of 2.54 lakh ha benefitting to 1.47 lakh farmers has been covered with Rainguns and Sprinklers under drought mitigation during Kharif and Rabi seasons of 2016-17.

During Kharif, 2017: From last week of July to the end of August, an extent of 810 acres was protected from moisture stress through Raingun operation in 40 mandals of Ananthapuramu district. Later due to frequent rains no moisture stress area was reported.

During 2018-19: During Kharif, 2018 an extent of 25795 ha was protected from moisture stress through Raingun operation in 6 districts i.e., Ananthapuramu, Chittoor, Kadapa, Kurnool, Prakasam and Nellore.

During Rabi, 2018-19, an extent of 15296 ha was protected from moisture stress through Raingun operation in 4 districts i.e. Ananthapuram, Kadapa, Kurnool and Nellore.

Externally Aided Projects

AP Integrated Irrigation & Agriculture Transformation Project (APII&ATP), world bank:

Government is implementing this Project funded by World Bank which would be implemented over a period of 6 years, providing benefits to 2 lakh farming families covering 1.47 lakh ha of agriculture land in 1211 tank command areas. The total estimated project cost is Rs.1600 crore, out of which, Rs.450 crore was allocated to Agriculture.

AP. Irrigation and Livelihood Improvement Project (APILIP-Phase II) JICA:

Government is implementing this Project funded by JICA, which would be implementing over a period of 6 years, with total outlay of Rs.2000 crore, out of which, Rs.15.20 crore is allocated to Agriculture for 2018-19 to be implemented in 13 districts for 20 medium irrigation projects and 445 minor irrigation tanks.

Significant achievements despite challenges:

Seed Supply:

The Certified Seed is distributed on subsidy to the farmers through d-Krishi (Digital Krishi Kalyan), a tab based Android Application, which identifies the actual cultivator by biometric thumb impression using their Aadhar Number for validation and distribute the required quantity of subsidized seeds.

Won the prestigious “CSI- Nihilent e-Governance Project Excellence” National Award, 2016-17 for D-Krishi app developed by Agriculture Department.

Subsidy seed Distribution from 2014-15 to 2018-19 (Lakh Qtls & Rs Cr.)

Year	Distribution	Subsidy value
2014-15	5.44	76.79
2015-16	9.84	206.13
2016-17	11.24	302.46
2017-18	10.62	324.68
2018-19 (uptoDec,2018)	10.03	307.16

Mega Seed Park:

Keeping in view of the limited existing infrastructure in seed industry, Government focused on developing Andhra Pradesh as Global seed hub and to ensure the availability of quality seed with low cost to every farm holder in the State. Establishing Mega Seed Park in 650 acres at Tangadencha Agriculture Farm in Kurnool District in collaboration with IOWA State University, USA. GoAP with a total allocation of Rs.670 crore.

Andhra Pradesh State Mega Seed Park Ltd has been incorporated on 13.04.2018 as a public limited company. Government has allocated an amount of Rs.100 crore budget for 2018-19 towards establishing Mega Seed Park.

Government announced the APSMSP Policy'2018 to support the Stake holders through GO Rtno.597 Dt.14.08.2018. An agreement was entered on 3rd Dec.2018 with ILFS as Project Management Consultant for executing the works in Mega Seed Park. Digital Survey was conducted and prepared the Master plan/Lay out of the Mega Seed Park. Designs, plans and estimates for construction various structures are being prepared by the PMC.

Soil Health Cards distribution (SHC):

Andhra Pradesh state has achieved 1st place in distribution of Soil Health Cards during 1st cycle of Soil Health Card Scheme (2015-16 & 2016-17) and distributed 64.38 lakh SHCs. During 2nd cycle (2017-18 & 2018-19), 34.65 lakh SHCs distributed for the year 2017-18. Distribution of SHCs for the year 2018-19 is under progress and 35.14 lakh SHCs distribution will be completed by March 2019.

Strengthening of the soil testing labs:

To focus on soil health management and improve productivity, the following Soil Testing Laboratories are engaged in soil analysis and distribution of soil health cards to farmers.

S. No.	Type of Soil testing Lab	Nos	Facility
1	Regional Soil Testing Lab	1	Macro & Micro Nutrient & Water analysis
2	District Soil Testing Labs	16	Macro & Micro Nutrient & Water analysis
3	Mobile Soil Testing Labs	13	Macro & Micro Nutrient & Water analysis
4	Soil Testing Labs in AMCs	30	Macro & Micro Nutrient analysis
	Total	60	

Digital soil mapping:

Working with Bill & Melinda Gates Foundation by sharing new and innovative technology in soil analysis and soil health management for digital soil mapping to educate the farmers on soil nutrient status and fertilizer management.

A MoU has been signed between CIMMYT and GoAP. A Spectroscope supplied by CIMMYT has been installed in the existing lab at RARS, ANGRAU, Tirupati. The spectroscope which is required for performing digital soil mapping is to be purchased soon.

Future Strategies:

Setting up of a gold standard soil testing lab in AP under the guidance of BMGF. Developing technically sound manpower by imparting trainings. Generation of DSMs and subsequent production of soil health cards.

Correction of Micronutrient deficiencies:

The GoAP has given utmost importance for correcting the micronutrient deficiencies in Soils for enhancing the productivity in various crops.

For the first time in India, GoAP has enhanced micronutrient subsidy from 50% to 100%.

Outcome:

Farmers have realized additional benefit of Rs.2000 to 3000/- per ha. The crop cutting experiments in major crops revealed significant increase in yields of about 8-15% by application of micronutrients.

For reclamation of alkaline soils, the farmer has to spend Rs. 10000/- to 17000/- per ha on Gypsum which has been provided free of cost by Govt. on production of SHCs.

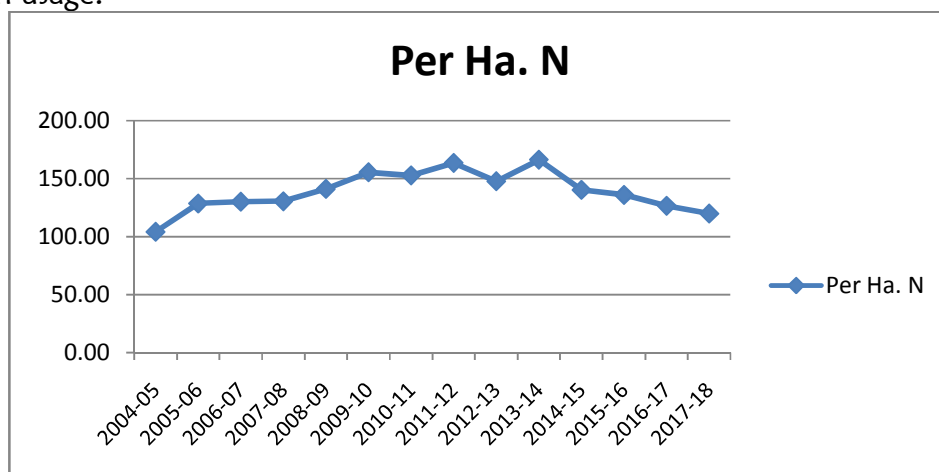
Micronutrients supplied to farmers under INM scheme from 2014 to 2018

Year	Subsidy	Quantity Distributed in Mts			Total Qty distributed in Mts	Total Area covered in Ha	Total Subsidy Value Rs. in Lakhs
		Zinc Sulphate	Borax	Gypsum			
2014-15	50%	3600	121.8	10346	14068	287545	1219.75
2015-16	50%	6833	258	33232	40323	751390	2978.69
2016-17	50%	6613	266.2	60059	66938	818077	4835.59
2017-18	100%	13465	408	86071	99944	1273205	8650.54
2018-19	100%	7922	203	72102	80227	730426	7028.4
Grand Total		37440	1193	257521	296154	3662522	24712.97

Fertilizers:

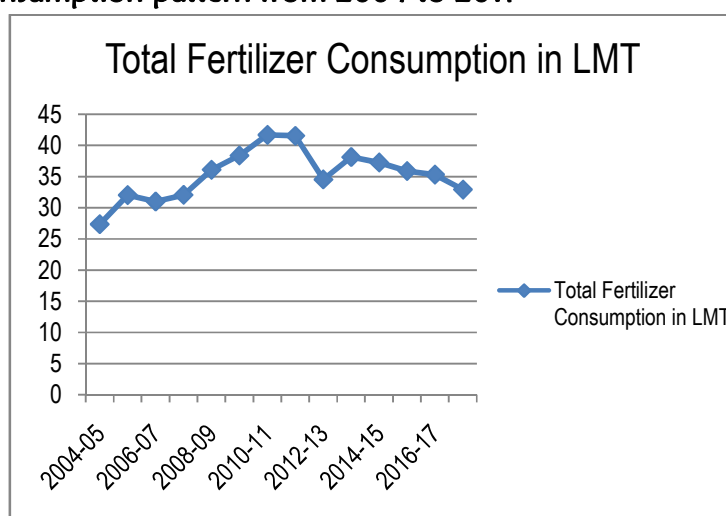
To avoid indiscriminate use of Fertilizers, supplied Fertilizers through e-pos machines from Kharif 2017 based on Soil Test recommendation. Due to increase in availability of Green manure seed, use of organic manures, correction of micronutrient deficiency, encouraged farmers to go for balanced fertilization resulting in gradual decrease of Nitrogen usage.

Year	Per Ha. N
2004-05	104.11
2005-06	128.52
2006-07	129.95
2007-08	130.40
2008-09	140.98
2009-10	155.34
2010-11	152.70
2011-12	163.43
2012-13	147.57
2013-14	166.13
2014-15	140.12
2015-16	135.82
2016-17	126.57
2017-18	119.85



Fertilizer Consumption pattern from 2004 to 2017

Year	Total Fertilizer Consumption in LMT	Fertilizer Consumption per Ha in Kg	%
2004-05	27.348	178.942	-
2005-06	32.027	215.532	16.98
2006-07	30.977	220.151	2.10
2007-08	32.053	222.918	1.24
2008-09	36.094	251.489	11.36
2009-10	38.385	278.464	9.69
2010-11	41.681	271.485	-2.57
2011-12	41.543	276.275	1.73
2012-13	34.526	227.630	-21.37
2013-14	38.118	260.576	12.64
2014-15	37.253	226.338	-15.13
2015-16	35.886	225.489	-0.38
2016-17	35.311	217.258	-3.79
2017-18	32.912	203.842	-6.58



Farm Mechanization:

Special Focus is laid on Farm Mechanization to decrease cost of cultivation and for timely operations. For SC & ST farmers subsidy has been increased from 50% to 70%. To make available high cost machinery to small and marginal farmers, CHCs are encouraged on PPP mode.

An app is developed for Uberization of farm equipment for effective utilization of farm equipment owned by the farmers. The needy farmers can indent the required farm equipment through app. and 21 lakh farmers has registered online.

Budget Releases and Expenditures from 2014-15 to 2017-18

(Fin. Rs. in Lakhs)

S. No.	Year	Scheme	Target		Achievement	
			Phy	Fin.	Phy	Fin.
1	2014-15	NSP	99697	13260.47	85225	11775.07
		SMAM	10555	1382.92	7044	1206.77
		RKVY	13768	2809.2	16220	2341.23
	Total		124020	17452.59	108489	15323.07
2	2015-16	NSP	144146	14162.98	115897	13841.62
		SMAM	4437	1448	5874	1125.86
		RKVY	4827	3328	3758	3108.94
	Total		153410	18938.98	125529	18076.42
3	2016-17	SDP	62839	14663.11	508870	13191.61
		SMAM	37230	8204.51	30214	8114.7
		RKVY	39555	6790	12482	5624.18
	Total		139624	29657.62	551566	26930.49
4	2017-18	SDP (Rythu Radham)	12736	20492.23	12217	20229.5
		SMAM	52324	22155.5	60426	21100
		RKVY	95663	4975.27	45289	4422.31
	Total		160723	47623	117932	45751.81

Rythu Radham:

For the first time in the State, initiated a novel program called “**Rythu Radham**” for distribution of tractors (>35 HP) and Rotovators to the farmers during 2017-18 with maximum subsidy of Rs.2.50 Lakhs and distributed 12,217 tractors. In 2018-19, so far, 5732 tractors were sanctioned as against target of 11,664.

Programmes Implemented to strengthen Extension:

Multi Purpose Extension Officers (MPEOs):

To ensure strong extension delivery system for the benefit of farmers, Government has appointed MPEOs @one MPEO to every 1000 ha during 2014-15. The Govt. has placed 4354 MPEOs across the State and at present 4095 MPEOs are working in the State. The Performance of these MPEOs is assessed every month as per the Key Performance Indicators and the MPEOs are graded accordingly for providing incentives.

Chandranna Rythu Kshetralu (CRK):

CRK is the new On Farm Demonstration programme implemented in the farmers field itself to promote best agronomic and farm management practices for achieving increase in productivity and reducing cost of cultivation.

Targets and achievements are detailed below

Sl.No	Year	Physical In (CRK No)		Financial (Rs in Lakhs)	
		Target	Achievement	Target	Achievement
1	2014-15	1883	1608	941.50	404.10
2	2015-16	1892	1892	946.00	843.18
3	2016-17	5500	5126	1750.00	757.11
4	2017-18	3500	3500	1732.76	1351.44
5	2018-19	2600	2600	1258.00	870.50

Polam Pilusthondhi:

To strengthen the extension, reach at farmers door steps for increasing productivity in Agriculture and allied sectors, the Polam Pilusthondhi program was introduced in the year 2014-15. The Agricultural Dept staff along with the allied dept and scientists of the Agricultural, Horticultural and Veterinary universities, with the consent of the concerned people representatives at Mandal level has conducted 3.35 lakh village visits creating awareness to 97.40 lakh farmers on the Govt. priority programmes as well as the day to day problems faced by the farmers.

Achievements during the past four and half years:

S.No.	Year	Village Visits	Farmers covered in lakhs
1	2014-15	50968	16.41
2	2015-16	61405	16.51
3	2016-17	76043	22.59
4	2017-18	85251	22.33
5	2018-19	61346	19.56
	Total	3,35,013	97.40

Farmer Suicides:

The numbers of suicides from 2004 to 2014 were 1987 on an average of 199 suicides per year. With the continuous focus on the farm related issues, the Govt. has safeguarded the farmers from the private moneylenders and able to reduce the **farmer suicides** to an average of 79 per year during the last 5 years.

Loaning to Tenant Farmers:

First time in India, GoAP has made arrangements for issue of Certificate of Cultivation (COC) to tenant farmers through Dept. of Agriculture to facilitate the availability of institutional credit, crop insurance, farm implements and input subsidy to the tenant farmers.

The tenant loaning in 2014-15 was Rs.272 crore covering 1.34 lakh farmers, in 2015-16 it was Rs.478 crore (2.08 lakh farmers), in 2016-17 was Rs.705 crore (2.28 lakh farmers), in 2017-18 was Rs.3145 crore (9.80 lakh farmers) and in 2018-19 so far Rs.4757 crore was distributed to 10.69 lakh farmers.

Crop Insurance:

To extend more benefit to the farming community, the new crop insurance policy namely "Pradhan Mantri Fasal Bima Yojana" (PMFBY) is being implemented successfully from Kharif 2016 season in the State. Restructured Weather Based Crop Insurance Scheme (RWBCIS) is continued with new premium slabs on par with PMFBY. It incorporates the best features of all previous schemes and at the same time, all previous shortcomings have been removed.

During the year 2016-17, the State Govt. has paid premium subsidy amount of Rs.311.27 crores and Crop Insurance claims to a tune of Rs. 923.26 crores has been paid by the Insurance Companies benefitting 9.39 lakh farmers.

During the year 2017-18, the State Govt. has paid premium subsidy amount of Rs.463.91 crores and Crop Insurance claims to a tune of Rs. 492.18 crores has been paid by the Insurance Companies benefitting 7.02 lakh farmers.

During Rabi 2018-19, so far, 5.82 Lakh Non loanee farmers have been enrolled through Common Service Centres (CSCs) when compared to previous Rabi seasons where maximum enrolment is 2 lakh farmers only. Now Rabi 2018-19 CSC enrolment is 3rd Highest in the Country after Maharashtra and Tamilnadu.

Input Subsidy:

Andhra Pradesh Government has enhanced input subsidy from 2014-15. Input subsidy for Paddy, Sugarcane, Cotton and Groundnut crops has been enhanced from Rs.10,000 to Rs.15,000/- and for Maize from Rs.8333 to Rs.12,500/- and for Pulses & Sunflower crops from Rs.6,250 to Rs.10,000/-.

From 2014-15 to 2018-19, an amount of Rs.3608 Cr. input subsidy has been released to 39.33 lakh affected farmers with an extent of 35.67 Lakh ha due to various Natural calamities.

GoAP has taken initiation to enhance relief assistance for the benefit of the cyclone affected paddy farmers of Titli & Phethai cyclones from Rs.15,000/- to Rs.20,000/- per ha. GoAP has extended relief assistance of Rs.159.96 Cr for Titli cyclone affected farmers in Srikakulam & Vizianagaram districts, even before the release of assistance under NDRF from Gol.

Zero Budget Natural Farming (ZBNF):

ZBNF aims to reduce the cost of cultivation, reduce risks associated with farming, increase the yields, produce healthy and nutritious food. ZBNF for the comprehensive, long term welfare, prosperity of farmers and to safeguard them from the adverse climate change effects. The programme being funded under RKVY & PKVY, Gol. A major highlight is the inspirational training given to the farmers by Sri Subhash Palekar.

Azim Premji Philanthropic initiatives is supporting the ZBNF programme with a grant of Rs. 100 crores over a period of 5 Years. The coverage of farmers in ZBNF in 2016-17: 40,656 farmers across 704 villages in 116 Mandals, in 2017-18: 1.63 lakh farmers across 972 villages in 331 Mandals, in 2018-19: 5.23 lakh farmers across 3015 villages in all mandals in the state.

ZBNF was selected as one of the 10 Best Projects out of 120 global entries and won 3rd place in the Global Award at Paris Peace Forum in November 2018.

IoT in Agriculture:

Ag Tech: Technological innovations to farming community:

As per the directions of Hon'ble Chief Minister, organized an international event, in the name of "A.P. AgTech Summit 2017" at Visakhapatnam to facilitate the availability of latest technological innovations to the farming community.

During this event, conducted pitch competition and selected 5 winners to utilize latest technological innovations for the benefit of farming community. Infinium Solutionz Pvt. Ltd, Sat Sure analytics India, Kisan Network, Krishi Star and Big Haat Agro Pvt. Ltd are in MoU with Agriculture Department to provide technical information with defined action plans. Digital Technology in agriculture can improve the performance and monitoring on real time basis. Government has taken keen interest and initiated IoT in agriculture.

Agri Crop Zone (ACZ) analysis:

Agri Crop Zone analysis is for Primary sector department for achieving maximum net income per ha with available resources. Vassar Labs has developed ACZ analysis considering Agriculture, Horticulture, Sericulture, Animal Husbandry and Fisheries Dept that uses these multi-faceted variables and constrain the hydrology towards sustainable ground water for advising cropping patterns at mandal level for a given soil type and source of irrigation, such that each farmer that gives a better economic produce with better success rate. As a result, uncertain groundnut crop grown in low rainfall areas is replaced by horticultural crops.

Crop Advisories:

Crop sowing: When to Sow the crop is the next most important decision in rainfed crops that impacts the crop yield. Vassar Labs has developed these advisories to the farmers on current soil moisture and weather forecast, so that the farmer should sow during the week or wait. In Kharif, 2018 advisory were raised in vernacular language through SMS to around 10,000 villages of 403 mandals covering all rainfed crops.

Crop moisture stress monitoring: One week advance early warning system is developed by Vassar Labs that raises advisories for alerting each village level agriculture functionaries on how many acres of Farm land is under severe soil moisture stress condition, that will suffer if no external intervention is done in form of irrigation, and provides the information on water source and quantity needed for supplementary irrigation.

Pest and Disease Management: An early warning system for pest and diseases developed by Vassar Labs in collaboration with SAUs is making use of Artificial Intelligence (AI) based predictive modeling on weather data, Crop type, and soil moisture conditions to providing widespread alert on incidence on Pest/Diseases for crops. One week advance alerts are given for 56 different pests and diseases of important field crops.

Plantix app is used for scanning the infested crops to get a field validation and provide curative prescription to the farmers.

e-Panta:

Season wise real time crop coverage on ground using android app by joint team enumerations of Agriculture, Revenue, Horticulture and Department of Economics & Statistics. During Kharif, 2018 e-panta booking is done in 36.68 lakh ha in Agriculture, 6.68 lakh ha in Horticulture & 0.87 lakh ha in Social Forestry. During Rabi 2018-19, e-panta booking is in progress.

Satellite based crop area estimation and loss assessment project: is being undertaken by **M/s.Amnex Infotechnologies Pvt. Ltd.** which is adopting the methodologies like Satellite image processing, Crop classification, machine Learning, Artificial Intelligence, Big data analytics and field survey for Ground truth, the same will be updated in the web portal & APAGNET.

Satellite based Agriculture Risk Management project: is being undertaken by **M/s. Satsure Analytics India Pvt. Ltd.** to provide Decision Intelligence for efficient administration of crop insurance under Pradhan Mantri FasalBima Yojana (PMFBY) by using satellite enabled large area analytics.

Rythuseva app: Developed by **Blue Frog Mobile Technologies.** App provides multiple sources of information, assistance and guidance to farmers with **35 stake holders services.** Registration of Seed, Fertilizer, Nursery dealers & equipment's along with 21.15 lakh farmers,

Status of establishing Labs in Amaravati Agriculture Complex:

Due to state bifurcation all the infrastructure of the Agriculture Department located in Hyderabad viz. State Institutions/ Laboratories were taken over by Telangana State. The AP Agricultural Department has made temporary arrangements for the Institutions & labs in Guntur.

The Department of Agriculture is establishing the State Agricultural Management & Training Institute (SAMETI), **DNA Fingerprinting & Transgenic Crops lab (DFTCML)**, Pesticide Coding Centre, Bio-pesticide Quality Control Lab, Pesticide Residue Laboratory, Fertilizer Coding Centre & Fertilizer Quality control lab at State Seed Farm, Amaravati. The construction work of these labs is in progress.

Market intervention Scheme:

Government of AP has intervened in the market through Govt. agencies to provide remunerative prices to farmers. Procurement details from 2014-15 to 2017-18, 9,27,189 MTs of various agriculture produces were purchased from farmers, with an amount of Rs.3556 crore.

For Rabi 2017-18, Price Subvention scheme implemented for Jowar & Maize with the financial support @200/- per quintal, which will be limited to 100 quintal per farmer, so far Maize 123.42 lakh Qtls and Jowar 20.98 lakh Qtls enrolled for the worth of Rs.289 crore.

Agricultural Debt Redemption Scheme to farmers:

Government of AP is implementing the Agriculture Debt Redemption scheme with an outlay of Rs.24000 Crores. Debt Redemption were released upto 3rd installment, including horticulture debt redemption, Girijan corporation society and 10 lakh grievances, deceased, tenant farmers including RMGs & JLGs totaling Rs.15147.57 Crores has been credited into farmers accounts.

Horticulture Debt Redemption: For horticultural crop loan, it is considered up to maximum of Rs.50000/- @ Rs.10000 per Acre. So far Horticulture Debt Redemption Rs.384.47 crores were credited into 2.23 lakh loan accounts of farmers.

Conclusion:

The Government has set the highest priority to the agriculture sector and the welfare of farmers. The constraints and problems which have been troubling the farmers over the years are being well addressed through a systematic and holistic approach. Every effort is being made to make agriculture in the state productive, profitable, sustainable and climate resilient through building the partnerships with the farmers, research organizations and all stake holders.

The primary focus is on cost reduction and increasing productivity by strengthening the extension system through IoT, introducing new seed varieties/hybrids, adopting appropriate farm mechanization tools and resource conservation technologies and focusing on soil test-based fertilizer use to maintain sustainable soil health.

The Government requests all stakeholders and general public to study this white paper and provide their valuable suggestions/comments which would help the agriculture sector to achieve the goal of doubling the farmers income for the welfare and prosperity of the farmers.

HORTICULTURE DEPARTMENT

The Government of Andhra Pradesh is committed to farmer centric programmes and identified Horticulture sector as one of the growth engines to achieve double digit inclusive growth.

In Andhra Pradesh area under Horticulture crops is **16.02 Lakh Ha.** with a production of **251.35 Lakh MTs.** The vision of Hon'ble Chief Minister is to make Andhra Pradesh as major Horticulture Hub and aims to expand the area under Horticulture crops from existing **16.02 Lakh Ha** to **40 Lakh Ha (1 Crore Acres)** and also to cover the entire area under Micro Irrigation.

Significant achievements of Department of Horticulture

- Andhra Pradesh stands at **1st** position in productivity for Chillies, Cocoa, Lime, Oil Palm, Papaya, Coconut and Tomato,
- **2nd** in Cashew, Mango, Turmeric and Sweet Orange in India.
- State has emerged as the "Fruit Basket" of the country with highest production of fruits at the National level.
- State has emerged as the largest producer of Spices in the Country.
- Andhra Pradesh is emerging as the largest hub for Cocoa in India with an area of 26,600 Ha. The Cocoa beans produced in A.P. are comparable to the best quality of Ghana.
- Andhra Pradesh has highest area under Oil palm cultivation with an area of 1.62 Lakh Ha.
- The Andhra Pradesh **Banganapalle Mango** has got a Geographical Indication (GI) tag, making Andhra Pradesh the proprietor of the variety known for its sweetness.
- Centre of Excellence for Vegetables & Floriculture in Kuppam with State of Art facilities to disseminate latest technologies to the Horticulture farmers of Andhra Pradesh.
- State achieved the highest coverage under micro-irrigation in the Country during 2017-18 and 2018-18
- Under Drip Irrigation implementation **Kadapa and Ananthapuramu Districts stands in 1st and 2nd place in India among the top 10 districts in area coverage (2018-19)** and whereas Prakasam, Kurnool, Chittoor and West Godavari are also among the top 10 districts in area coverage.
- So far an area of **11.53** lakh ha. has been covered under Micro irrigation in all the 13 Districts in the state benefitting 9.16 lakh farmers.

Awards & Recognition

- Dr. YSRHU ranked **No.1** in the Country amongst Horticulture University and ranked **No.11** among all other Universities by ICAR.
- Received Excellence Award from Govt. of India in DBT implementation using **HORTNET** for the year 2017-18.
- Certificate of Recognition from Govt. of India for implementation of **DBT** using **HORTNET 2017-18.**
- APMIP has received **SKOCH Order-of-Merit** award for best practices in Micro Irrigation and on the uniqueness of the project, Excellence, Scalability / Replicability and Future Road Map.

- **SKOCH AWARD** – Gold award for overall performance.
- **Best Citrus Farmer Award** to Sri. S. Bramham Reddy, S/o. Pedda Poli Reddy, Gangadevipalli Village, Muddanuru Mandal, Kadapa District
- **Best Quality Fruit Award (CITRUS)** to P. Ramanjineya Reddy, S/o. Ramanjula Reddy, Cherlopalli village, Simhadripuram Mandal, from National Research Centre for Citrus, Nagpur.
- **KVK Venkata Ramanna Gudem** awarded **Pandit Deen Dayal Upadhyay Award** for best KVK in Zone-V at National Level by Hon'ble PM.
- GVA from Horticulture Sector during 2017-18 was Rs.26,973 crores with growth rate of 17.16% (at Constant Price)
- FPO Policy and Operational Guidelines are announced for promoting Farmers Producers Organizations in Andhra Pradesh. Under Horticulture Sector, **151 FPOs** have been registered with membership of **89390** No. of farmers.
- The Department of Horticulture is promoting Public Private Partnerships (PPP) in the State in association with FPOs. Ten such active projects are under implementation with total project cost of Rs.424 Cr.

Education and Research

- 02 new Govt. College of Horticulture at Parvathipuram in Vizianagaram & at Chinna Latrapi in Prakasham have been sanctioned under Dr. Y S R Horticultural University with intake of 120 students every academic year for B.Sc (H) Horticulture
- 04 new College of Horticulture affiliated to Dr. Y S R Horticultural University in private sector have been sanctioned at Tadipatri & Ananthapuram in Ananthapuramu District, at Markapuram & C.S. Puram (Kanigiri) in Prakasham District with intake of 240 students every academic year for B.Sc (H) Horticulture
- 07 Horticultural Polytechnics affiliated in private sector sanctioned under Dr. Y S R Horticultural University with intake of 280 students in Horticulture Diploma every academic year
- 03 New Horticulture Research Stations have been sanctioned under Dr. Y S R Horticultural University
- 23 new & improved variety in Banana, Coconut, acid lime, Tamarind, Chillies, Turmeric, Cassava released by the Dr. Y S R Horticultural University
- Establishment of Regional Floriculture Research Station (ICAR Institution, GOI) at Kadiyam
- Central Plantation Crops Research Institute (CPCRI) (ICAR Institution, GOI) at Samarlakota,
- Indian Institute of Plantation Management (IIPM) at Vijayawada.

Input subsidy for Natural Calamities

- Since 2014, an amount of **Rs. 281.86 Crores** was released towards **Input Subsidy** to the Horticulture crops affected due to **Natural Calamities**.

Debt Redemption

- **Debt Redemption** scheme for Horticulture crops was implemented to **2.23 Lakh farmers** with an expenditure of **Rs. 384.47 Crores**.

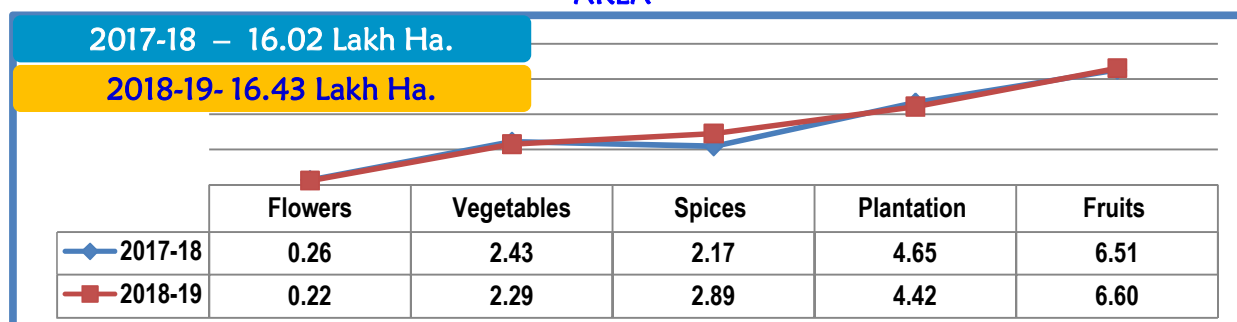
Market Intervention to Support Farmers

- Rs. 26.27 crores released to Mango Farmers as part of Price Support due to prevailing low price in the Market
- Rs.96.49 Crores released to Oil Palm Farmers as part of price support to compensate for the low price of FFBs

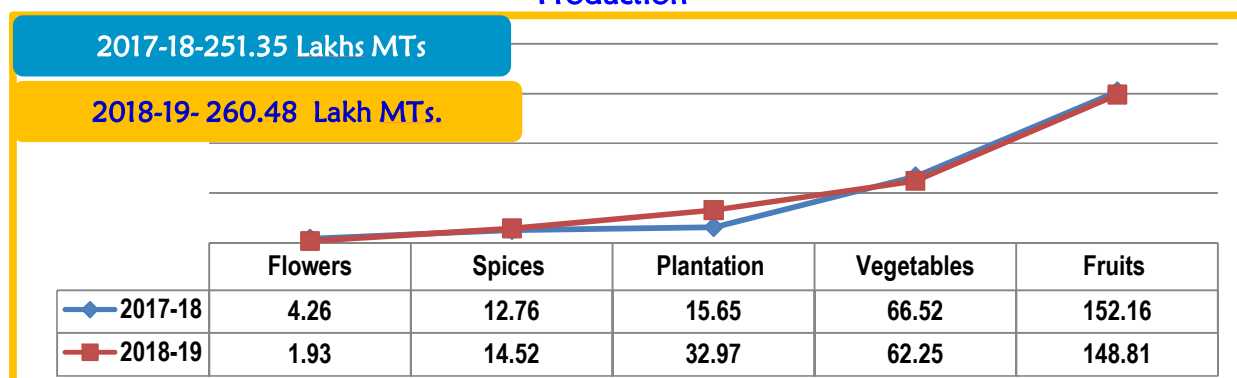
Horticulture Area & Production - First Four Best States in India

S. No	STATE	Area in Lakh Ha.	Production in Lakh MTs
1	Uttar Pradesh	20.88	371.35
2	Madhya Pradesh	17.41	240.12
3	Maharashtra	17.26	216.68
4	Andhra Pradesh	16.02	251.35

AREA



Production



AREA AND PRODUCTION PARTICULARS IN THE STATE 2017-18

Sl. No	Crop	2017-18 (Final)	
		Area (Lakh Ha.)	Production (Lakh MTs)
1	Fruits	6.51	152.16
2	Vegetables	2.43	66.52
3	Flowers	0.26	4.26
4	Plantation Crops	4.65	15.65
5	Spices	2.17	12.76
	Total	16.02	251.35

GVA from 2014-15 to 2017-18

S. No	Year	Area in Lakh Ha.	Total Production in Lakh. MTs	GVA in Cr.
1	2014-15	14.49	169.00	26127
2	2015-16	15.27	198.45	28729
3	2016-17	15.91	249.01	33389
4	2017-18	16.02	251.35	42462
5	2018-19 Targeted	16.43	260.48 (Estimated)	53994

***** From 2014-15 to 2018-19, there is Area increase of 11.33% and Production increase by 15.41%.**

***** Lingala Mandal of Kadapa with highest per capita income in the State.**

ANDHRA PRADESH MICRO IRRIGATION PROJECT (APMIP)

- State Government has established a special purpose vehicle i.e., APMIP with institutional structure till Mandal level for effective implementation & monitoring Micro Irrigation.
- So far an area of **11.53** lakh ha. has been covered under Micro irrigation in all the 13 Districts in the state since inception i.e. from 2003-04 to 2018-19, benefitting 9.16 lakh farmers.
- Potential area available for micro irrigation is 13.51 lakh Ha., to be covered under Micro Irrigation in state.
- During 2017-18 and 2018-19, Andhra Pradesh has achieved highest coverage under micro-irrigation in the country
- Out of top 10 districts at the national level, 06 districts are from Andhra Pradesh

Micro Irrigation during last 4 years:

Year	Area covered Micro Irrigation (Ha.)
2014-15	36122
2015-16	94103
2016-17	141098
2017-18	186397
2018-19	134073 as on date

DISTRICT WISE AREA COVERED FROM 2003-04 TO 2018-19 (AS ON 19-12-2018)

Sl. No	District	2003-04 to 2013-14	2014-15	2015-16	2016-17	2017-18	2018-19 (As on 19-12-2018)	2014-15 to 2017-18	Total	% of area covered 2003-04 to 2013-14 (10 Years)	% of area covered 2014-15 to 2018-19 (4.5 Years)
1	Srikakulam	10160	441	1390	1690	6146	1590	11257	21416	47	53
2	Vizianagaram	14627	869	2452	2024	3721	2108	11174	25801	57	43
3	Visakhapatnam	13296	665	2489	2703	3711	2262	11829	25125	53	47
4	East Godavari	17437	1075	2246	2514	6656	4561	17052	34489	51	49
5	West Godavari	39652	3833	6659	13740	14767	12061	51061	90712	44	56
6	Krishna	24469	917	3622	4303	6149	5538	20529	44998	54	46
7	Guntur	17488	1537	3203	4114	5734	6070	20658	38147	46	54
8	Prakasam	28507	1401	6057	10869	15140	17454	50920	79427	36	64
9	Nellore	28345	2382	6414	5312	6885	4590	25583	53927	53	47
10	Chittoor	73478	6169	15916	26781	32260	14261	95387	168865	44	56
11	Kadapa	84380	4284	13081	25427	28386	23672	94850	179230	47	53
12	Ananthapuramu	171230	8548	23194	27358	35825	23544	118469	289699	59	41
13	Kurnool	39829	4002	7380	14264	21016	16362	63023	102853	39	61
	Total	562897	36122	94103	141098	186397	134073	591793	1154690	49	51

RAYALASEEMA AS HORTICULTURE HUB

Government of Andhra Pradesh is committed to make Rayalaseema as Horticulture Hub. In pursuance, the following initiatives have been taken up by the Department of Horticulture to achieve this goal.

- Focus is on reducing the cost of cultivation, increasing productivity & quality produce to achieve higher net income / returns.
- GVA from Horticulture Sector during 2017-18 was Rs.26,973 crores (63.52% of the state share) in Rayalaseema Districts (constant price).

Area Expansion:

- An additional area of **1.40 Lakh Ha** is brought under Horticulture plantations.

Promotion of Micro Irrigation:

- An area of **7.30 lakh Ha**. (63.31%) has been covered under Micro irrigation in all the 4 Districts benefitting **7.25 lakh** farmers.

Production and Quality Enhancement:

- Rejuvenation and Canopy Management - **44,000 Ha**.
- Protected Cultivation (Poly Houses and Shade net Houses)-**18.00 Lakh Sq. Mtrs**.
- Pandals & Trellis system of vegetable cultivation - **8,000 Acres**.
- Mulching - **12,000 Ha**.

Promotion of Marketing Infrastructure

- 2500 Nos of Post Harvest Management units including Cold Storages, Ripening Chambers, Pack Houses, Processing units etc.
- M/s. Kusalava Organic Products, Konduru (V), Lepakshi (M), Anantapuram District has exported 5 lakh rose cut flowers to different countries.
- Six Integrated Pack Houses with State of Art facilities have been created in Ananthapur for exporting High Value herbs like Onion Chives, Moroccan Mint, vegetables etc. used for culinary purpose in western countries.
- Modern integrated APEDA certified Packhouse with facility of Vapour Heat Treatment (VHTP) at Tirupathi & Nuzvid.
- Among all the 4 districts of Rayalaseema Ananthapuram is fast emerging as Horticulture Hub with presence of many private corporate i.e. Future Group, INI Farms, Big Basket, Ninja Cart, Desai Fruits etc.
- 72 Farmers Producers Organization (FPOs) have been registered with coverage of 30,000 No. of farmers and Rs. 7.50 crores provided to FPOs to implement Business plans.

HORTICULTURE INFRASTRUCTURE IN THE STATE

Pack House / Farm Collection Unit	3068
Fruit Ripening Chamber	240
Cold Storages (Single Temperature)	341
Cashew / Minimal Processing Units	380
Onion Ventilated Storage Structure	67
Coconut Pack House	282
Refrigerated Transport Vehicles	4
Vapour Heat Treatment	2 (Chittoor & Krishna)
Integrated Pack Houses	4 (Vizianagaram & Ananthapuram)
Hot Water Treatment Plant	1 (Gopalapuram, West Godavari)

FARMERS PRODUCERS ORGANIZATION (FPOs)

- The Department is encouraging the expansion and network of FPOs to enable farmers to reduce transaction costs, access technology, raise bargaining power and integrate with value chains.
- Under Horticulture sector, **151 FPOs** have been registered with membership of **89390** No. of farmers.
- Rs. **1232.64 Lakhs** provided to **50 FPOs** to implement Business plans.

FPO-PPP PROJECTS

Name of the Company	Interventions	Crop & Extent	Activity
Future Group	Fruit care, Capacity Building, R&D, Post Harvest infrastructure for Banana and Pomegranate in Ananthapuram District	Banana-200 acres and Pomegranate 50 acres	Procured 5688 Mt of Banana and 78 Mt of Pomegranate out of which 3300 Mt of Banana exported to Saudi, Muscat, Oman, UAE and Kuwait Targeted Export for the year 2018-19 -10,000 MTs
DESAI Fruits Private Limited	FPO Promotion, Fruit care, Capacity Building, infrastructure and Marketing	Banana 500 Ha.	Export target – 25,000 Mts
LEAF	FPO Promotion, Capacity Building, production of exotic vegetables and marketing for Tribal Farmers of LAMBASINGI in Visakhapatnam.	100 acres	Production of exotic vegetables and marketing of 550 MTs through LEAF organization.
JAIN	Ultra High density Mango Plantation	220 acres	Under UNNATI Project with buy back by JAIN Irrigation
ITC	Quality improvement for production of Food Safe Chilli in Guntur, Prakasham, Krishna & Kurnool	3000 acres	3500 MTs of food safe chilli has been procured at premium price @Rs 62-89 per kg.
BAYER	Quality improvement in chilli in Prakasham & Guntur Districts.	2175 Acres	1200 Mt has been procured from farmers and premium price paid for Teja variety @Rs.90/- per kg and Rs 65-70 per kg for US 341 and DD varieties.
Mondalez	Cocoa area expansion and procurement	42,000 Acres	5700 Mt Cocoa beans were procured from farmers @ Rs 175/- per kg
Sreeni Food Park	Introduction of processing varieties in Tomato in Chittoor District.	110 Acres	SAKATA variety of Emerald company has been introduced with high yield.
Big basket	Collection centres & Packhouse in Ananthapur (Garladinne)	10200 farmers	Procurement of Coconut, Melons Tamarind and Capsicum

INDIA EXPORT STATISTICS - PORT/STATE REPORT-2018-19 (APR-AUG)

Sl. No	Product	INDIA		Andhra Pradesh (Apr to Aug)	
		Qty in Tons	Amount in Crores	Qty in Tons	Amount in Crores
1	Cocoa Products	25649.00	1086.75	769.78	11.40
2	Cucumber and Gherkins (Prepd. & Presvd)	179656.00	936.2	3553.58	23.19
3	Dried & Preserved Vegetables	86791.00	1081.7	2.75	0.06
4	Floriculture	22020.00	546.72	279.59	5.84
5	Fresh Mangoes	52761.00	443.71	672.55	7.27
6	Fruits & Vegetables Seeds	11289.00	522.75	211.59	60.08
7	Fresh Onions	2415738.00	3106.05	46.85	0.15
8	Mango Pulp	130886.00	846	83.14	0.72
9	Other Fresh Fruits	409081.00	1835.92	707.21	16.95
10	Other Fresh Vegetables	1016436.00	2832	2765.91	14.92
11	Processed Vegetables			400.26	2.35
12	Processed Fruits, Juices & Nuts			1046.26	7.60
13	Natural Honey			0.09	0.01
14	Other Processed Fruits & Vegetables	355314.00	3148.82	3759.82	27.17
15	Wallnuts	2191.00	55.28	0	0
16	Fresh Grapes	231116.00	2065.29	0	0
	TOTAL	4938928.00	18507.19	14299.38	177.71

DETAILS OF MANGO EXPORTS FROM ANDHRA PRADESH

S. No.	Source of Pack House	Protocol	Name of the Produce	Variety	Quantity Exported	Point to entry
1	VHT, Tirupathi	VHT	Mango	Beneshan	33 MTS	Newzealand
					20 MTS	Europe
					6 MTS	Japan
					6 MTS	South Korea
					7.5 MTS	Brune
					4 MTS	China
					25 MTS	Singapore
					10 MTS	Canada
2	Harsha Pack house, VZM	HWT	Mango	Suvemarekha	3.5 MTS	South Korea
					2.5 MTS	Germany
					3 MTS	England
3	Hotha Pack House, WG	HWT	Mango	Beneshan	170 MTS	USA, Korea, China, Singapore, Hong Kong and Middle East
4	Vistas Investment PVT, LTD and others		Mango	Alphonso & Beneshan	165 MTS	Middle East, Newzealand, EU,
5	Suvidha FPO, CTR	Irradiation	Mango	Beneshan	8 MTS	USA
					58 MTS	Middle East
6	Life Style Solutions		Mango	Beneshan	300 MTS	Singapore, Malaysia
7	ARS Exports		Mango	Beneshan	400 MTS	Singapore, Malaysia
8	VHS Exporters, Kadapa		Mango	Beneshan	250 MTS	South Korea, Middle East
	TOTAL				1471 MTS	
9	Pulp Industries		Mango Pulp	Bangolora/ Alphonso	82500 MTS	Algeria, Middle East, Netherlands, Austria

Important Policy Decisions taken by the Govt., for Farmer's Welfare

- FPO Policy for promoting Farmers Producers Organizations in Andhra Pradesh issued vide G.O.Rt.No.398. Dated:02.06.2016 of Agriculture & Cooperation (H&S) Department duly indicating the intuitional frame work.
- Operational Guidelines of FPO issued vide G.O. RT. No. 928, Dated: 13-12-2016 of Agriculture & Cooperation (H&s) Department.
- For creation of Post harvest and Marketing infrastructure for FPO 75% assistance is provided vide G.O. M.S. No.140, Dated:09.03.2017 of Agriculture & Cooperation (H&s) Department. Assistance for FPO members to be met under various programmes of MIDH, RKVY / State Plan on priority.

NEW INITIATIVES

VARIETAL DIVERSIFICATION:

- Introduction of Onion new varieties in KURNOOL.
- Introduction of new varieties of Tomato suitable for processing.
- Introduction of high curcumin content varieties of Turmeric.
- Introduction of exotic varieties of Dragon Fruit.
- Promotion of Strawberry cultivation in Visakhapatnam.
- Promotion of Ginger varieties with low fiber content suitable for processing.
- Cocoa Clonal Garden at HRS, Vijayrai, West Godavari to augment seed requirement.
- Introduction of Mauritius variety of Pineapple for processing.
- Introduction of Panniyur variety of Black pepper for high productivity.
- Orchid cultivation under Protected condition

PRODUCTIVITY & QUALITY ENHANCEMENT INTERVENTIONS:

- Multi-layer cropping for higher returns per unit of land
- Quality care interventions in Mango, Banana & Pomegranate for export quality produce linked to market.
- To promote IPM, sticky traps production unit established by FPO at Bobbepalli, Martur (M), PRAKASAM Dist.
- Promotion of Mulching for productivity & quality enhancement.
- Promotion of Fertigation (water soluble fertilizer) integrated with Drip

POST HARVEST MANAGEMENT AND STORAGE:

- Solar Cold Room for storage of fruits & vegetables
- Solar Dehydration Units for value addition
- Naturally Ventilated Storage Structure for Onions & Coconut
- Integrated Pack House in cluster to FPOs
- Plastic crate manufacturing unit in Rayachoti by FPO in KADAPA.
- Chillies destemming units for quality enhancement.

PROCESSING & VALUE ADDITION:

- 74 Cold Storages with total storage capacity of 4,47,000 Mts.
- 43 Ripening Chamber/units with total capacity of 28,000 Mts.
- 78 nos of Cashew Processing units
- 06 Vegetable Seed Processing units
- 03Tuti-Fruti, Mango Bars, Lemon Dehydration Units

ANIMAL HUSBANDRY DEPARTMENT

The state is endowed with rich natural livestock resources and has got 112 lakh cattle & buffalo 135 lakh sheep and goats (first in country) and 805 lakh poultry (3rd in country owned by 62.54 lakh households who are engaged in livestock related activities including 4 lakh shepherd families.

Andhra Pradesh is homeland for world famous Ongole and Punganur cattle breeds, Godavari Buffaloes, Nellore sheep and Assel Poultry

Impact of Reorganisation.

- Due to A.P. Re-organization and Division of Animal Husbandry department has incurred huge loss particularly in 9th and 10th schedule institutions i.e VBRI, SDBP, APLDA, APVC Sheep and Goat Development Federation.
- The Farmers in the residual state suffered a lot for want of livestock vaccines due to loss of vaccine production unit (nearly worth Rs.100 Crores) which is located in Hyderabad and entire infrastructures taken over by the in Telangana State.
- Presently the A.P State is purchasing lot of Livestock Vaccines like H.S, B.Q, E.T, Sheep pox , Goat pox, PPR etc.
- Every year the State Government is bearing an amount of Rs.15 to 20crores for purchase of Livestock Vaccines.
- The Residual State is unable to test the vaccines due to the loss of SDBP (Standardization of Biological Products) which is under 10th Schedule.
- The APLDA which is comes under 9th schedule could not get its share of Rs. 51.20 Crores which is kept at the joint account of Hyderabad.
- In the same way the Funds Rs. 35 Lakhs which are belongs to APVC also kept at the joint account of Hyderabad.
- Sheep and Goat Development Federation which is comes under 9th schedule also did not get it share Rs.46.4 Crores. In spite of repeated request it could not be resolved by the GOI and state of Telangana.
- Major National Institutes related to Livestock Development like National Research Centre on Meat; National Institute of Animal Bio-Technology (NIAB); Central Research Institute for Dry Land Agriculture (CRIDA), Centre for Cellular Micro-Biology (CCMB), Indian Immunological Limited (IIL), Fodder Research Station, AICRP on Poultry and Project Directorate on Poultry etc., have devolved to Telangana, as such the residual Andhra Pradesh is devoid of such national institutes.

Departmental Growth after State Reorganization

Vision:-

- The department has achieved a growth rate of 13.05% in 2017-18 with a GVA of Rs.76, 974.00Cr and aiming to achieve a GVA of Rs.1, 00,000Cr with a growth rate of 25%.

Aim:-

- The department aims at increasing the milk production capacity of cows and buffaloes from 7.63k.g to 11k.g and 5.62k.g to 8.50k.g per day respectively

Policy initiatives as mentioned under:-

- Fodder policy with Rs.250Cr, was initiated in the year 2015 with introduction of an innovative, Silage production, TMR Technologies, and fodder production through OPGK/MPGK to all villages fodder self sufficient.
- Promoted large number entrepreneurs' in this sector to established silage baling machines and TMR Block making using latest technology.
- To tackle fodder shortage and to mitigate the drought supply of inputs like Silage, TMR and Concentrate feed at the door step of the farmers through Dept. Staff, Pashusakhs and VLRPs.
- Poultry Development Policy with Rs.573.00 Crs was introduced in the year 2015 under which interest subvention of Rs.62.00Cr on working capital for establishment of Chicken and Egg processing units in the state.
- Small Ruminant Development Policy with the budget allocation of Rs.575.00 Crs was approved by State Government under which NCDC loaning has been provided in all districts to a tune of Rs.275.00 Crs.
- Strengthened Co operative sector with NCDC loans to the members of the primary sheep breeders co op societies in the state.
- Established the "Navyandra meat development corporation" under company act to export meat and meat products.
- Livestock Breeding policy : Covering of All villages with AI 3130 Dept. Institution 2785 Gopalamitras centres are established 3 J.K.Trust by establishing ILDC's in 240 in tribal areas and 156 in plain areas.
- Established National Kamadenu Centre for preservation native breed of the country at Chinthal Devi of Nellore district
- 42417 Shelters for livestock i.eGokulams, Mini Gokulams, Sheep and Goat sheds and Poultry Shelters in Convergence with MGNREGS is takenup.
- Established 180MVC to provide health care facilities in 3240 rural areas.
- Livestock Compensation scheme for risk management of the farmers is under consideration and Rs50 Crs released to this activity
- Animal induction policy to inducting 50000 high yielding animals from other states by the Govt.

Restructuring of the Department:

- (495) various category of posts were created from the Director of Animal Husbandry level to Junior Assistant under restructuring of the Dept and Upgraded 194 posts in various categories in the state .
- Redeployed 1308 posts in the state from one institution to the other for rationalisation in order to deliver the services effectively through institutions like: APLDA, MDS&GF, APVC etc. for the benefit of farmers.
- Recruited 652 Veterinary Assistant Surgeons to fill up the the vacancies in the Department to render quality service in rural areas in the state.
- To strengthen the Extension wing of the Dept. the Government has sanctioned (500) MPDEA posts on contract basis.
- State Management institute of Livestock Entrepreneurship (SMILE) is established at Visakhapatnam to fill up the gap on account of devolution of SMILDA to Telangana state to promote entrepreneurs in the sector

Key Achievements:-

S. No.	Achievement	2013-14 (Before bifurcation)	2014-15	2015-16	2016-17	2017-18	2018-19 (Upto Nov.18)
1	Milk (LMT)	90.00	90.82	108.17	121.78	138.25	51.79
2	Meat(LMT)	4.82	4.89	5.66	6.33	7.08	2.86
3	Eggs no. in Crs	1273	1309.79	1417	1583	1777.76	722
4	GVA (Rs in .Crs)	380000	43127.15	53472.10	66418.32	76974.00	

Budget release and Expenditure

(Rupees in Crores)

Sl. No.	Year	BE			Expenditure		
		Plan	Non-Plan	Total	Plan	Non-Plan	Total
1	2014-15	196.00	527.32	723.32	104.12	424.38	528.50
2	2015-16	183.00	489.74	672.74	180.84	397.35	578.19
3	2016-17	297.94	521.41	819.35	314.60	505.66	820.26
4	2017-18	391.81	564.45	956.26	371.62	518.82	890.44
5	2018-19 (as on 14.12.2018)	586.32	637.09	1223.41	274.90	369.24	644.14

AP all India Ranking

Year	Category of production	Production	All India Rank
2016-17	Milk (LMT)	212.78	5th
	Meat(LMT)	6.33	4th
	Eggs No. Crs	1582.75	2nd
	GVA Rs Crs	41907	12.52% growth
2017-18	Milk (LMT)	138.25	4th
	Meat (LMT)	7.09	4th
	Eggs no. Crs	1777.77	1st
	GVA Rs Crs	47376	13.05% growth

ANIMAL HUSBANDRY DEPARTMENT

(Rupees in Crores)

Sl. No.	Year	BE			Expenditure		
		Plan	Non-Plan	Total	Plan	Non-Plan	Total
1	2014-15	196.00	527.32	723.32	104.12	424.38	528.50
2	2015-16	183.00	489.74	672.74	180.84	397.35	578.19
3	2016-17	297.94	521.41	819.35	314.60	505.66	820.26
4	2017-18	391.81	564.45	956.26	371.62	518.82	890.44
5	2018-19 (as on 14.12.2018)	586.32	637.09	1223.41	274.90	369.24	644.14

Awards:-

- The department has won various awards for the services rendered during the last 2yrs. To mention a few, the Department has won **10th Global Leader Ship award - 2017** for initiatives taken up in fodder security, **Manthan award -2016** for the ICT initiatives, **Skoch award** for implementation of RIDS

SERICULTURE

YEAR WISE PHYSICAL ACHIEVEMENTS:

1. MULBERRY PLANTATION:

Item	Unit	2014-15	2015-16	2016-17	2017-18	2018-19 up to Nov-2018
Mulberry Plantation	Acres	67,456	74,572	82,886	91,595	1,03,932

2. COCOON PRODUCTION:

Item	Unit	2014-15	2015-16	2016-17	2017-18	2018-19 up to Nov-2018
Cross Breed	MTs	27878	33561	35625	40300	27548
Bivoltine		3220	4530	6603	8149	5892
Total		31098	38091	42228	48449	33440

3. RAW SILK PRODUCTION:

Item	Unit	2014-15	2015-16	2016-17	2017-18	2018-19 up to Nov-2018
Cross Breed	MTs	3845	4629	4914	5559	3800
Bivoltine		495	708	1057	1216	906
Total		4340	5337	5971	6775	4706

4. PRODUCTIVITY:

Item	Unit	2014-15	2015-16	2016-17	2017-18	2018-19 up to Nov-2018
Cross Breed	Kgs	62	62	64	65	68
Bivoltine		63	67	69	71	72

5. ESTABLISHMENT OF REELING UNITS:

Item	Unit	2014-15	2015-16	2016-17	2017-18	2018-19 up to Nov-2018
Multi End Reeling Units	No. of Basins	788	1218	1385	1420	1620
Automatic Reeling Machines (ARM)	No. of Ends / Unit	400 (1 unit)	800 (2 units)	800 (2 units)	1400 (4 units)	5000 (10 units)

6. GVA:

Item	Unit	2014-15	2015-16	2016-17	2017-18	2018-19 up to Nov-2018
GVA Realized	Rs. in Crores	554.64	679.37	753.15	824.71	576.25

SIGNIFICANT ACHIEVEMENT IN SCIENTIFIC PARAMETERS:

Sl. No.	Technical parameter	State	Results	Position
1.	Estimated Renditta	1.Andhra Pradesh 2. Tamil Nadu 3. Karnataka	6.52 6.54 6.71	I II III
2.	Shell Ratio percentage	1. Andhra Pradesh 2. Karnataka 3. Tamil Nadu	21.13% 20.74% 20.57%	I II III
3.	Defective Cocoon percentage	1. Tamil Nadu 2. Andhra Pradesh 3. Karnataka	7.13% 7.53% 9.39%	I II III

RELEASE OF BUDGET TO SERICULTURE SECTOR:

Rs. In Lakhs					
Sl. No.	Year	CDP / CSS	PLAN / SDP	RKVY	TOTAL
1.	2014-15	1888.74	3897.22	570.00	6355.96
2.	2015-16	490.28	1568.19	1318.00	3376.47
3.	2016-17	1129.11	6968.13	1426.20	9523.44
4.	2017-18	808.92	7244.16	827.00	8880.08
5.	2018-19	263.952	7497.60	835.38	8596.93
	TOTAL	4581.00	27175.3	4976.58	36732.88

POLICY DECISIONS TAKEN:

- To safeguard the interests of 79,500 Sericulture farmers in the State, the Hon'ble Chief Minister has addressed D.O. Letters to Central Ministers for enhancement of import duty on 3A grade and below silk due to which the import duty is increased to US \$ 1.85 per kg, which helped in the increase of cocoon prices locally.
- To assure sustainable livelihood to the **SC and ST farmers** through Sericulture activities, **assistance is enhanced from 75% to 90% under different Sericulture Schemes.**
- To encourage the deprived Handloom Silk Weavers, Yarn support price is **increased from Rs.600/- to Rs.1000/- per weaver family per month.Rs.139.23 Crores is released from 2014-15 to 2018-19,benefitting 35069 Silk Weaver families in the State.**
- Promoted Chinese entrepreneur to establish Automatic Reeling Machinery at Madanapalli without providing any financial assistance for production of International Grade Raw Silk in A.P.
- To encourage production of International Grade Raw silk (3A and above grade) in the State, the Govt. have sanctioned (10) Automatic Reeling Machine Units with 5000 ends (3000 ends indigenous entrepreneurs +2000 ends China entrepreneur) which also triggered to increase average cocoon prices, helps in increasing the income of Sericulture farmers in the State.
- Sericulture is included in convergence works under MG-NREGS providing assistance to Sericulture farmers towards Mulberry plantation & construction of Silkworm Rearing Sheds. Since June 2014 an assistance of **Rs.63.61 crores** is released to the Sericulture farmers.

ANDHRA PRADESH DAIRY DEVELOPMENT CO-OPERATIVE FEDERATION LTD., DAIRY

Introduction

- The APDDCF (Andhra Pradesh Dairy Development Cooperative Federation) has its genesis in the year 1981 under cooperative ambit, Plays a vital role between Milk Producer (Procure at remunerative price) and Consumer (sell at affordable price).
- The objective of APDDCF is to develop Dairy Value Chain with primary focus on Milk Procurement by organized sector. The APDDCF is a nodal agency for implementing Dairy Development Schemes on behalf of Government and is involved in formulating Dairy Development policies.

Status during the period from 1994-2004

- VIJAYA brand was made popular by enhancing its national presence. The markets were developed for VIJAYA by expanding marketing network to Delhi, Jaipur, Jodhpur, Chandigarh, Jammu & Kashmir, Ahmedabad, Bhubaneswar, Mumbai, Calcutta, Goa, Bangalore, Chennai, Guwahati, Pune etc.
- Because of these efforts the brand value of VIJAYA, which was Rs.800 Cr. has increased to Rs.1500 Cr., now.
- The milk producers were extended subsidy towards differential milk purchase price.
- The District Milk Unions were supported by creating facilities for Ultra High Temperature (UHT) packing, Table Butter, Cheese making, VIJAYA Baby food.
- Dairy Plants were established at Visakhapatnam, Krishna, Guntur, Prakasam, Nellore and Kunool with modern facilities to benefit the small and marginal farmers in terms of higher payment for their produce.

Status during the period from 2004-2014

- Milk Unions under APMACS Act 1995 could not be prevented from conversion as Producers Companies under Indian Companies Act 1956, leading to loss of Government control over its assets.
- No efforts were made for resumption of the Government assets from the MAC Milk Unions or getting lease on it. Consequently, no revenue to Government for developing dairying in the State.
- Development of milk marketing in different parts of the State ignored, importance was given only to develop Hyderabad market at the cost of other areas.
- No efforts were made to revive the Sick Milk Unions viz., Kadapa, Chittoor and Godavari Milk Union.
- No focus was given to build local pouch milk markets at district level in AP and the focus has been given only to develop Hyderabad market at the cost of other areas.
- The National glory of Vijaya Brand was diminished

Challenges after bifurcation

- The Milk Products Factory at Hyderabad was kept unilaterally under the maintenance of Telangana until final bifurcation. Consequently, there is no Milk Products Factory under AP Dairy Federation in Andhra Pradesh. Because of this loss, the Andhra Pradesh would suffer severely in serving the consumers with milk and variety of milk products;
- Also there are no cattle feed factories in the residuary Andhra Pradesh as the Gadwal Cattle Feed Factory devolved to Telangana.

Way forward

- Develop dairy value chain, cover uncovered areas in the State under cooperative ambit
- Facilitate common cooperative brand i.e., “VIJAYA”. Make the cooperatives competitive to International Brands;
- Enabling establishment of Dairies in all the Smart Cities with Private Participation, Joint Venture and Cooperatives;
- Formulate HR Policy on the lines of corporate/professional like that Amul.
- Increase the share of milk procurement by organized sector to about 70% from the present level of 30% by establishing rural cold chain i.e., Bulk Milk Cooling Units(BMCUs), Milk Chilling Centers(MCC), Dairy Plants under Cooperative, Joint Venture, PPP modes;
- Invite and involve various stakeholders at National and International level in Dairy Development in the State;
- Expand pouch milk market to the uncovered areas/new market on Vijaya Brand through franchise arrangement;
- Ensure transparency and accountability at all layers of Milk procurement network for timely and direct payment to the bank accounts of dairy farmers;
- Ensure optimum utilization of Dairy Infrastructure through Public Private Partnership;
- Evolve effective coordination between Livestock Development and Dairy-Development activities to ensure seamless service delivery to farmers;
- Policy initiatives and institutional support to
 - Encourage Research and Development in Milk and Milk Products;
 - Capacity building through training & extension rural women;
 - Research and knowledge transfer.

FISHERIES DEPARTMENT

Status of Fisheries Sector before bifurcation:

- The Fish Production was only 17.68 Lakh Tonnes during 2013-14 with GVA of Rs. 15,515 Crores (constant prices) with growth rate of 11.4 % on production and 14% on GVA.
- The Marine sea food products from AP are valued around Rs.12000 Crores in 2013-14.
- The Budget released for fisheries sector during 2013-14 is Rs.20.83 Crores for Plan schemes.
- The GSDP from Fisheries was about 3.5%
- The Aquaculture area in State was around 1.40 lakh hectares.
- There was no diversification of species in Aquaculture.

Issues and Challenges:

- Inadequate availability of quality/SPF shrimp seed in Aquaculture
- Inadequate cadre strength at field level for vessel monitoring for coastal security
- Inadequate staff for monitoring and surveillance for disease control and to cater lab and technical services to aquaculture farmers
- Inadequate development of Fisheries Infrastructure which resulted in post harvest losses of 20-30%.
- Slow pace of Regularization of Aquaculture in the State
- Low percentage of Value addition and processing in Fisheries
- No Policy framework for development of Fisheries Sector in the State.

Gol Promises in APSR Act, 2014

- As the New Sunrise State of Andhra Pradesh is having 974 Kms of Coastline and 1.74 Brackishwater potential area, Gol under XIII schedule of APSR Act, 2014 promised to establish two Institutions
 - Central Institute of Brackish water Aquaculture
 - Brood Stock Multiplication Centre for P.vannamei
- The Promised Institutions are not yet established
- Current Status of these Institutions :

Institutes/ Projects/Office	Snapshot of status	Detailed Latest status
Central Institute of Brackish water Aquaculture (CIBA) regional office at Vijayawada	Land is earmarked for CIBA. Funds yet to be released from Gol	<ul style="list-style-type: none"> ○ 12.30 Acres of land at Tallapalem, Krishna Dist earmarked for CIBA. Team of ICAR Scientists have visited and inspected the site and expressed consent to ICAR (Gol) for establishment of Regional Office. ○ CIBA expressed budget constraint for establishment. CIBA is waiting for budget from ICAR, Gol.
Brood Multiplication centre at Nakkapalli, Visakhapatnam district	Pending with Gol	<ul style="list-style-type: none"> ○ 30 Acs of land identified and taken possession. Gol was requested to sanction the project with funding support of Rs.47.60 crores. Detailed proposal sent to Gol for final permission. ○ GOAP requested GOI for declaring Visakhapatnam as the second port of entry for P.vannamei broodstock to India and establishment of an office of Animal Quarantine (AQ) and Certification Services (CS) in the port at Vizag. ○ CAA during its 60th meeting held on 4-9-2018, resolved duly recommending to declare Vizag Airport as Port of Entry to import brood stock of P.vannamei shrimp and to establish AQCS unit office at Visakhapatnam. ○ DPR submitted to Gol with all clearances. Sanction of funds from Gol is awaited.

- Further, the total amount released by Gol under CSS- Blue revolution is Rs.48.85 Crores from 2014-15 to 2018-19. Whereas, the State Government released Rs. 1036.28 Crores for State development schemes for Fisheries sector of AP (GOI share is only 4.71%).
- The table showing the year wise releases by Gol and GoAP to Fisheries sector development (Amount in Rs. Crores)

Year	Gol Releases Under CSS- Blue Revolution (Rs. in Crores)	Budget allocation by GoAP (Rs. in Crores)
2014-15	1.5	25.21
2015-16	4.8	152.72
2016-17	18.97	291.54
2017-18	21.63	243.88
2018-19	1.95	322.93
Total	48.85	1036.28

Innovations, Initiatives and Policy measures taken by State Government: Despite the Non- fulfilment of Gol promises by Gol, the State Government introduced innovations, initiatives and policy measures for promotion of fisheries sector in the state which includes:

- Simplified the procedure for registration of aquaculture farms
- Permitted fresh water for Aquaculture farms
- Issue of Certificate of Cultivation in DKT lands suitable for aquaculture to increase productivity and production from 2016.
- Department was restructured with sanction of additional 118 posts for effective services to farmers and fishers.
- 300 Multipurpose Fisheries Extension Assistants were sanctioned to provide effective extension services to farmers at field
- The relief during marine fishing ban period was increased from Rs.2000/- per family to Rs.4000/- from 2016.(Before 2014, Only 31kgs of Rice per family was distributed). An amount of Rs. 31.10 Crores was provided as relief to 77754 fishermen during marine fishing ban period.
- All Mechanized and Motorized crafts are made eligible for to avail HSD oil subsidy. Previously it was restricted to boats registered before 31-3-2002.
- **Electricity tariff reduced to Rs.2.00 ps/ unit from Rs.4.63 ps for Aquaculture.**
- **Announced A.P. Fisheries Policy, 2015** providing incentives and subsidies to farmers. Some important incentives include
 - **For shrimp processing units** including cold chain maintenance, Capital subsidy of 50% inclusive of land cost with **upper ceiling limit of Rs.5 crores**, will be provided.
 - **For fish processing / filleting units** including cold chain, land cost etc., subsidy of 50% with **upper ceiling limit of Rs. 7 crores** will be provided.
 - **Interest subvention of 6% will be provided** on bank loan subject to **maximum of Rs.2.5 Crores for 5 year period** to aqua processing units, ice plants and cold storages.
 - Cold storage at ports/ Fishing harbours with subsidy will be permitted on par with industrial policy.

- Stocking of high quality fish fingerlings in all potential fresh water bodies in every year.
- Registered AP Centre for Aquaculture for promoting sustainable aquaculture in the State for supply of quality seed and inputs.
- Establishment of Aquatic Quarantine Facility for *P. vannamei* prawn at Bangarammapeta, Visakhapatnam district is under progress for supply of quality brood stock. No other State Fisheries Dept has such facility.

Significant Achievements during last four and half years and Key

Performance Indicators:

- The fisheries contribution to State GSDP increased from 4.3% in 2014-15 to 7.4% during 2017-18. (AE, constant prices)
- The Fish Production increased from 19.78 Lakh Tonnes in 2014-15 to 34.49 Lakh Tonnes in 2017-18 with average annual growth rate of 19%.
- The GVA from fisheries increased from Rs.17621 Crores in 2014-15 to Rs.41328 Crores in 2017-18 with average annual growth rate of 33.5% (constant prices)
- The target for fish Production for 2018-19 is 44.85 LMT with GVA of Rs.52832 Crores. As on November, 2018, the achievement is 29.98 LMT with GVA of Rs. 37195 Crores. Growth rate of 21% on Production.
- The Marine sea food products exports value from State increased from Rs.15000 Crores in 2014-15 to about Rs.20,600 Crores in 2017-18.
- The Aquaculture area in State increased from 1.40 lakh hectares in 2014-15 to about 2.00 lakh hectares in 2017-18 due to incentives and subsidies provided by the department. State stands First in Aquaculture area and Production
- State Budget enhanced from Rs. 25.21 Cr. (2014-15) to Rs.322.93 Cr. (2018-19) for development schemes
- 28 projects were completed out of 47 Fisheries infrastructure projects sanctioned under RIDF- XX tranche (2014-15) at an amount of Rs. Rs.67.14 Crores. Balance of works are under progress.
- Taken up Desilting and Deweeding of 31 potential creeks for free flow of tidal water and to control pollution.
- Under MGNREGS, 4006 works were sanctioned at an amount of Rs. 214 Crores for construction of Fish ponds, fish drying platforms and laying of approach roads.
- All these initiatives have been taken up with an objective of making Andhra Pradesh, a Aqua Hub of World.

Sl. No.	Item	Progress of Fisheries Sector					Achievement Upto 30-11-2018
		2014-15	2015-16	2016-17	2017-18	2018-19 Target	
I	Key performance Indicators:		Production in M.Tonnes				
1	Marine Fish	406249	436723	471692	479626	502000	289782
2	Inland Fish	1276817	1424891	1617483	1994871	2805000	1831415
3	Marine Shrimp	69152	83551	108551	125324	130000	87172
4	Brackish water Shrimp	105162	231375	317270	416475	575000	416188
5	Fresh Water Prawn	121198	175723	251197	433262	473200	373956
	Total production (in MT)	1978578	2352263	2766193	3449558	4485200	2998513
II	GVA in Rs. Crores (Current prices)	22707	30099	42995	58325	77295	51668
	GVA in Rs. Crores (Constant prices)	17621	23397	31072	41328	52832	37195
III	Growth rate on Production (%)	11.81	18.89	17.6	24.70	30.02	21
	Growth rate on GVA (%) constant prices	13.57	32.78	32.8	33.32	30.26	20

Inclusive Growth: The important steps taken by the Govt. are as follows :

- Enhancement of the relief during marine fishing ban period was **increased from Rs.2000/- per family to Rs.4000/-** from 2016 (Before 2014, Only 31kgs of Rice per family was distributed).
- All Mechanized and Motorized crafts are made eligible for to avail HSD oil subsidy@Rs.6.03 ps/ liter. Previously it was restricted to the boats registered before 31-3-2002.
- The subsidy for livelihood schemes for SC/ ST categories enhanced to 90% for State development schemes for inclusive growth.
- Mahila Matsya Mitra Groups were continuously promoted with sanction of revolving fund of Rs.0.50 lakh per group for gainful marketing activities.

Important Schemes of Fisheries Department during 2018-19

- **Assistance for livelihood Enhancement of Fishermen – Total amount proposed is Rs.7700.00 Lakhs.**
 - **Exemption of Sales Tax on HSD oil:** Supply HSD oil on subsidy @Rs.6.03 per litre to all the registered and active mechanized (1938 No.) and motorized (15804 No.) fishing vessels. The ceiling limit is 3000 litres per month per boat for mechanized boats and 300 litres per month per boat for motorized crafts. **The amount sanctioned is Rs.5728.00 Lakhs.**
 - **Deep sea Fishing Implements:** Accessories for long line fishing and for gill nets will be provided for 420 mechanized / motorized boats. **Subsidy will be 75%** on unit cost or actual whichever is lower. The amount sanctioned is Rs. 420.00 lakhs.

- **Fibre Boats to Marine Fishers:** Supply of 200 fibre boats to marine fishers at the unit cost of up to Rs.5.00 lakhs. **Subsidy is 75%** on unit cost or actual whichever is lower. The amount sanctioned is Rs.500.00 lakhs.
- **Nets and Ice boxes to Marine Fishers:** supply of 480 units to fishermen. The unit cost is up to Rs.0.50 lakhs. The **subsidy will be 75%** on the unit cost with ceiling of Rs. 0.375 lakhs per unit whichever is less. The amount sanctioned is Rs.180.00 lakhs.
- **Supply of OBMs and IBMs to Marine Boats:** The scheme is to provide Out board Motors (OBMs) and Inboard Motors (IBMs) to traditional boats and replace the aged motors to the existing motorised boats on **75 % subsidy**. The unit cost is Rs.1.20 lakhs. The amount sanctioned is Rs.252.00 lakhs.
- **Deep Sea Fishing Vessels:** Supply of Deep Sea fishing Vessels with a unit cost of Rs. 25.00 lakhs. **The subsidy is 50%** on unit cost or actual whichever is less. Sanctioned Rs.620.00 lakhs.
- **Relief to Marine Fisher during ban period:** To cover **80,000** sea going marine fishers operated on motorised and mechanised boats with a relief (**@Rs.4000/- per fishers**) during 61 day marine fishing ban period (15th April to 14th June) with an objective of conserving the fishery wealth and to sustain the fish production from marine waters. The amount sanctioned is Rs.3200.00 lakhs.
- **Scheduled Caste Component (SCC):** Under SCC, fishing inputs like Bicycle with nets and Ice boxes, 2 or 3 or 4 wheelers with Ice boxes/freezer mounted mopeds for fish retail marketing, mobile fish retail outlets, Fish seed stocking, Development of Model SC Fishermen Co-operative Societies etc are proposed on **90% subsidy**. The total amount sanctioned is Rs.5931.00 lakhs.
- **Scheduled Tribes Component (STC):** Under STC, fishing inputs like Bicycle with nets and Ice boxes, 2 or 3 or 4 wheelers with Ice boxes/freezer mounted mopeds for fish retail marketing, mobile fish retail outlets, Fish seed stocking, Development of Model SC Fishermen Co-operative Societies etc are proposed on **90% subsidy**. The total amount sanctioned is Rs.2041.00 lakhs.
- **Fisheries Development Scheme:** A total of Rs.8168.00 lakhs is proposed under the “Fisheries Development”, Scheme under which the following beneficiary oriented sub-schemes are as follows:
 - **Revolving fund for MMGs: 100% grant** to assist 1200 MMGs / Women Groups by providing revolving fund of Rs.0.50 lakh per group to engage in gainful income earning activities like retail fish vending, net mending etc., the amount sanctioned is Rs.600.00 lakhs.
 - **Enhancement of production, productivity of inland water bodies:** To meet the expenditure on Govt farms maintenance for fish seed production, **100% Grant** is for seed rearing in cages, pens, farm ponds, captive seed nurseries, village tanks and procurement of spawn, fry, fingerlings for stocking in public water bodies, petty repairs to Govt fish seed farm for seed production etc., The amount sanctioned is Rs.800.00 lakhs. 100% grant
 - a) **Activities include:** To procure the farm equipment required for seed production/ rearing
 - b) To purchase the feed for rearing of seed in the Govt farms or identified private leased tanks

- c) To incur on wages for fishers engaged in the farms during seed production season
- **Mobile vehicles for fish vending / seed transport/ fish transport:** To assist the active fishers / FCSs by supply of 2/3/4 wheeler vehicles for fish vending / seed transport/ fish transport on **75% subsidy** on unit cost or actual whichever is less. The amount sanctioned is Rs.1508.00 lakhs.
- **iv. Supply of Cycles, nets, ice boxes to inland fishers:** To assist the Inland fishers by providing cycles / nets/ ice boxes / boats to inland fishers on **75% subsidy** on unit cost of Rs.0.50 lakhs. The amount sanctioned is Rs.450.00 lakhs.
- **Incentives and subsidies under Fisheries Policy:** To extend subsidies and incentives announced under A.P., Fisheries Policy, 2015 to feed manufacturing plants, reefer vans, aqua labs, quality control labs and mechanization of aquaculture etc., the amount sanctioned is Rs.1200.00 lakhs.
- **Under Fishery Policy** to meet the operational expenditure of the proposed "AP Centre for Aquaculture" which includes Aquatic Quarantine Facility (AQF), **Brood Stock Multiplication Centre(BMC)**, Sea bass and Mud crab hatcheries, one State Level Apex Society and 6 District Level Societies. The amount sanctioned for the society is Rs.2000.00 lakhs.

Capital Expenditure under RIDF – Fish Landing centres (FLCs) and Fish Seed Farms (FSFs) –Rs. 2000.00 lakhs : Under Rural Infrastructure Development Fund (RIDF), an amount of Rs.2000.00 lakhs is proposed to be spent for the approved ongoing projects i.e additional shore based facilities, fish seed farms, approach roads and other fisheries projects sanctioned under RIDF, The BE proposed during 2018-19 is Rs.2000.00 lakhs

Best Practices adopted:

- Simplifying the procedures for registration of farms,
- Ensuring disease free seed supply to farmers,
- Strict compliance with biosecurity measures,
- Continuous awareness campaign at primary producer level through Cluster approach
- Database & information networks to collect, share and disseminate data
- Disease Surveillance by establishing disease diagnostic labs static & mobile.
- Use of Two Stage (Nursery and grow-out phases) culture practice which is more efficient and cost effective.
- Zero water exchange(only topping up) – Biofloc Technology
- Sludge pit for shrimp faeces removal
- Record Keeping and usage of antibiotic free inputs
- Promotion of Pond automation and ICT technologies
- Farm mechanization through supply of aerators, installation of sensors, feed dispensers, pond liners, Solar pumpsets etc ,

Innovations:

- On line registration of Aquaculture farms a
- Permitting Aquaculture in DKT lands
 - The relief during marine fishing ban period is provided to 80000 seagoing marine fishers @Rs.4000/- per fisher is through DBT with a specialized designed software. (Before 2014, only 31 kgs of Rice per family was distributed)
 - All the existing registered marine motorised and mechanized fishing craft of about 17000 Nos. are provided with diesel oil on subsidy (@Rs.6.03 per litre) with a total financial allocation of Rs.57.28 crores. Previously it was restricted to the boats registered before 31-3-2002.

Bench Mark Indicators of AP among Southern States & Nation:

- **First** in total fish production and value in the country
- **First** in Aquaculture area and Production
- **First** in Inland fish Production
- Fourth in marine fish production
- Contributes 22 % of total fish production and 65 % of Shrimp Production in India
- Major Exporter of Shrimp in India with share of 45% in total shrimp exports from AP to India.

Vision of the Department:

Short term - 2022	<ul style="list-style-type: none">○ To achieve 42 LT of fish Production with an estimated GVA value of Rs.80,000 Crores by 2019○ Promotion of Value added products○ By 2021-22- AP to become one of top three best States in Asia
Medium term- 2029	<ul style="list-style-type: none">○ To achieve 72 LT of fish production by 2029 from present production of 27.66 LT in 2016-17 by integration of innovative practices like Nursery management and Grow out pond management.○ Organic Aqua farming○ To achieve fish processing and value addition to 40% by 2029 from the present level of 12%
Long term- 2050	<ul style="list-style-type: none">○ To make Aquaculture capital of the world and marine processing hub of the country○ Environmental friendly Sustainable Aquaculture Practices

Agriculture Marketing Department

Top 10 achievements

- Interest free loans under Rythu Bandhu Pathakam doubled from Rs.26 crores in 2014-15 to 54.07 Crores in 2018.
- Market intervention fund with Rs.500 Crores set up, out of which 250 Crores used for Red gram procurement and Price subvention @ Rs.200/- per quintal paid to Maize & Jowar farmers with 250 Crores.
 - Under Market intervention scheme Rs.135 Crores paid to 57910 chilli farmers in 2017-18.
 - Onions and Tomatoes procured to stabilize the prices of Onions & Tomatoes 3.10 Lakhs Quintals worth Rs. 26 Crores Onions procured to help farmers.
- Introduced Market reforms by amending AP (AP & LS) Markets Act 1966 in 2015.
 - Electronic trading introduced in 2015 in 12 markets and integrated with e-NAM (electronic National Agriculture Market) system in 2016 in 22 markets.
 - **Andhra Pradesh stands First in the Country with 85% eTrade in quantity terms and 86% in Value terms in eNAM markets.**
 - Out of 585 eNAM markets in the Country, **Guntur Market Yard stands first in the country in terms of e-Trade worth Rs.4700/- Crores.**
 - **Duggirala Market stands first in the Country with 3530 electronic payments in e-NAM worth Rs.36 Crores.**
 - **92000 Cotton farmers benefited selling Cotton at higher prices than MSP through eNam- Net benefit of Rs.549 per quintal to farmers.**
 - **17 Quality assaying labs set up in e-NAM Markets where farmers have gained 2 to 5 % extra price for their produce.**
- Primary processing centres being setup in Duggirala, Kadapa and Adoni Markets for Value addition to benefit farmers.
- 64 Rythu Bazars modernized with all facilities with Rs.10 Crores.
- Godowns storage capacity of Market committees increased by 60% from 5.72 Lakh MTs to 9.12 Lakh MTs.
- 13 Cold storages with 52000 MTs capacity under construction at a cost of Rs.65 Crores.
- Rs.192 Crores worth of developmental works taken up in Markets Yards from 2014 to 2018 for creation of modern warehouses, drying platforms etc.
- 3310 Link roads Laid with Rs.109 Crores with convergence of Market Committee and MGNREGS Funds.

Rythu Bandhu Pathakam (Pledge loan scheme)

- Through Rythu Bandhu Pathakam, interest free pledge loans are given to farmers on the pledge of their produce kept in AMC godowns whenever there is a fall in price of Commodities due to glut in the Market. The Pledge Loans were given during the financial years is as follows.

Year	(Rs.in Lakhs)	(Beneficiaries)
2014-2015	2601.60	3145
2015-2016	3342.66	3414
2016-2017	4373.80	3890
2017-2018	5407.65	4723
2018-2019 (Upto Nov-2018)	3066.55	2328

Rythu Bazars:

- Modernization taken-up for 80 Rythu Bazars with cost of Rs.10 Crores for providing all facilities like RO plants for Drinking water, Separate toilets for men and women, new shops construction, LED boards for price display, bio-compost machines for waste management and Walk in coolers for vegetables.
- In addition to existing 96 Rythu Bazars in the State **64 new Rythu Bazars** are sanctioned and works are in progress.
- **Under Zero Waste Mission**, initially two bio- compost units have been installed at Payakapuram Rythu Bazar in Krishna District and at Chuttuguntta Rythu Bazar in Guntur District as a pilot project.

e-NAM:-

- Electronic trading introduced in 2015 in 12 markets for better price discovery for farmers. e-NAM was introduced in 22 markets in 2016.
- **Assaying labs** are setup in 17 Market Yards in the State and more than 1,00,950 sample have been tested till now. Farmers have realised 2 to 5 per cent increase in price realisation due to assaying.
- Out of 585 eNam Markets in the Country, Guntur market is at No.1 position in the country in electronic trade with Rs.4668 crores of e-Trade since the introduction of e-Nam
- Duggirala Market Yard under e-NAM is **1st in the Country, in making direct online payments to the farmers for 3533 lots**
- In Adoni Market, more than 91000 farmers got better price for their cotton due to electronic bidding in e-Nam. **Rs.549 per quintal of extra benefit received by the farmers. 25000 farmers received Rs.700 more than MSP. More than 80% of lots received more than 30 bids per lot**
- Integration of weighing machines with e-NAM software done for direct data transfer and for better price for farmers in 17 eNam markets.

Development Works in Market Yards.

- **Developmental works** taken up with Rs.195 crores from AMC funds during the years 2014-15 to 2018-2019 for construction of warehouses and drying platforms etc.
- **60 per cent increase in Storage capacity of godowns** from 2014 – From 5.71 Lakh MTs. In 2014, storage capacity of godowns increased in 9.12 Lakh MTs.in 2018.
- **Multi Commodity Cold Storages** have been sanctioned with a capacity of 52,000 MTs with a cost of Rs. 65.00 Crores and works are in progress.
- The Agrl. Marketing Department has taken-up 3013 Nos. of **Link Roads** with a costing of Rs.108.36 Crores with the convergence of MGNREGS Funds.
- Developmental Works with an outlay of Rs.242 crores taken up in Agriculture Market Committees under **RDF** Scheme:-
- The year wise break up is given below.

○ 2014-2015- Rs.56.47	2015-2016- Rs.41.20
○ 2016-2017- Rs.61.02	2017-2018- Rs.70.81
○ 2018-2019- Rs.12.00	

Market Intervention Scheme

- The Agrl. Marketing Department have taken-up the **Onion** Procurement for the year 2016 to help the Onion farmers in 1st phase and procured in 26780.13 Qtls. with a cost of Rs. 2.50 Crores and benefitted 136 farmers. In 2nd phase 2747.30 Qtls. with a cost of Rs. 2.20 Crores and benefitted 103 farmers.
- 5.2 The Government has introduced Price Support Scheme to the **Onion** farmers in Kurnool District during the period 01.09.2016 to 28.02.2017. In this scheme applicable to the quantity in Qtls. i.e., 3.03 Lakh Qtls. with worth of Rs.21.60 Crores and benefitted the 7906 farmers.
- 5.3. The department has taken-up Price Support Scheme operations for **Red Chillies** during the year 2017, with an expenditure of Rs. 136.81 crores. While benefitting 59,710 No.of farmers.
- 5.4. Rs. 250.00 Crores has been released to A P Markfed for procurement of **Redgram** and Rs. 250.00 Crores to the Agriculture Department towards Price Subvention Scheme for payment to the farmers of **Jowar & Maize**.
- 5.5. An amount of Rs. 150.00 Crores are released as an advance from the Marketing Department towards procurement of **Turmeric** through APMarkfed under Market Intervention Scheme during the year 2017-18.

Mandi Modernisation;

- Thirteen Market Yards in the State are being modernised at the rate of One Market Yard per district, with the state of the art facilities like primary processing centres for Turmeric, Ground Nuts and Chillis, Electronic weigh bridges, loading and unloading platforms, colour and size graders in Vegetable and fruit market yards, LED screens for real time display of trade and price information, modern warehouses, Collateral management services, Negotiable warehouse receipts.
- An integrated Market Complex has been sanctioned with Rs.9.45 crores at Kuppam and works are in progress

Market Reforms:

- **Through amendment to the AP (AP&LM) Act 1966, the following reforms have been introduced in 2015.**
 - Provision for Establishment of Private Markets
 - Provision for setting up Direct Purchase Centres by bulk buyers
 - Contract Forming.
 - Provision for trading through Electronic Platform.
 - Single Point Levy of Market Fee.
 - Unified Single Trading Licence.
 - Establishment of farmers consumer markets.
- In addition, to help the farmers, the following reforms have been taken up.
 - Removal market cess on Cotton seed.
 - Removal of Market cess on Fruits and vegetables including Onions.
