

**CHAPTER**

**5**

---

**AGRICULTURE &  
ALLIED ACTIVITIES**

## Agriculture

Agriculture growth throughout global history has been the progenitor of broad-based economic growth and development. The strengths of fundamentals of the economy is evident from the remarkable transition to a high growth path, which was achieved in the recent past. Sustainable growth in Agriculture sector is the major emphasis both for the State of Andhra Pradesh and for the Country as a whole. With Agriculture remaining as the primary source of livelihood for about 60 per cent of India's population, India's production of food grains has been increasing every year and is among the top producers of several crops.

However, the agricultural yield (quantity of a crop produced per unit of land) which is regarded as the most important element after crop production, is found to be lower in the case of most crops, as compared to other top producing countries such as China, Brazil and the United States. Andhra Pradesh is giving focus on productivity enhancement.

The agriculture sector in India is expected to generate better momentum in the next few years due to increased investments in agricultural infrastructure such as irrigation facilities, warehousing and cold storage and the country is planning to double the farm income by 2022. India is expected to be self-sufficient in pulses in the coming few years due to concerted efforts of scientists to get early-maturing varieties of pulses and the increase in minimum support price. In sync with the national agenda, Andhra Pradesh is also aiming to double the farmer's income.

Decreasing size of agricultural land holdings, continued dependence on the monsoon, inadequate access to irrigation, imbalanced use of soil nutrients resulting in loss of fertility of soil, uneven access to modern technology, lack of access to formal agricultural credit, limited procurement of food grains by government agencies and failure to provide remunerative prices to farmers are some of the key issues affecting agricultural productivity at the national and State level. In the recent years, the focus has shifted from production to processing, packaging and marketing through a strengthened supply chain.

## Agricultural transformation – focused approach

Andhra Pradesh endeavours to provide agricultural extension services to farmers and to transfer the latest technical knowledge to the farming community. Under the Agriculture Sector, the government is determined to focus on productivity enhancement, mitigating the impact of droughts through water conservation and micro-irrigation; post-harvest management to reduce wastage and to strengthen the processing, value addition capacity and supply chain.

## Land Utilization

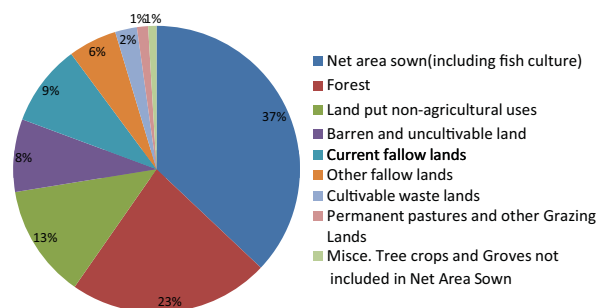
The percent share of the different segments of land use of the total geographical area in the year 2021-22 of the state: 162.97 lakh hectares is as follows in Table 5.1

Table 5.1 Land Utilization

| Sl.No | Area Classification  | Area in Lakh hect. | Percentage to Total Geographical Area(%) |
|-------|--|--------------------|--|
| 1     | Net area sown (including fish culture)                     | 60.38              | 37.05%                                   |
| 2     | Forest   | 36.88              | 22.63 %                                  |
| 3     | Land put non-agricultural uses                             | 20.82              | 12.78%                                   |
| 4     | Barren and uncultivable land                               | 13.35              | 8.19%                                    |
| 5     | Current fallow lands                                       | 15.00              | 9.20%                                    |
| 6     | Other fallow lands   | 8.94               | 5.49%                                    |
| 7     | Cultivable waste lands                                     | 4.02               | 2.47%                                    |
| 8     | Permanent pastures and other Grazing Lands                 | 2.04               | 1.25%                                    |
| 9     | Misce. Tree crops and Groves not included in Net Area Sown | 1.54               | 0.94%                                    |

The Land utilisation particulars from 2008-09 to 2021-22 are given in Annexure 5.1 and district wise land utilisation particulars during 2021-22 are given in Annexure 5.2. The following Chart. 5.1 depicts Land utilisation details for 2021-22.

Chart 5.1: Land Utilisation in Andhra Pradesh 2021-22



Source: Directorate of Economics & Statistics

## Soil Types

There are various types of soils and the formation of a soil is primarily influenced by factors like climate, altitude and composition of bedrock etc. Disproportion in the distribution of rainfall in the country and excessive heat contribute special characters to the soils. Most of soils in the State are made up of a combination of three basic types, namely, sand, silt, and clay. Category-wise soils are given in Annexure 5.3. Of the 22 categories of soils adding to the total geographical area of the state, ten types are predominant and together account for over 88% of the area.

## Agro Climatic Zones

Table 5.2 The following are the Six Agro climatic zones in the State.

| Sl. No. | Name of the zone                  | Districts  |
|---------|-----------------------------------|--|
| 1       | North coastal zone                | Srikakulam, Vizianagaram, Visakhapatnam  |
| 2       | Godavari zone                     | East Godavari, West Godavari   |
| 3       | Krishna zone                      | Krishna, Guntur, Prakasam  |
| 4       | Southern zone                     | Chittoor, YSR, SPS Nellore   |
| 5       | Scarce rainfall zone              | Kurnool, Anantapuramu  |
| 6       | High altitude & tribal areas zone | High Altitude & tribal areas of Srikakulam, Visakhapatnam, East Godavari districts |

## Land Holdings

Data on landholdings is being collected since 1970-71 through a quinquennial Census of landholdings and the latest available data relates to 2015-16. The average size of Land holdings in the state marginally declined to 0.94 hectares during 2015-16 from 1.06 hectares in 2010-11. The number of holdings has increased from 76.21 lakhs in 2010-11 to 85.24 lakhs in 2015-16. Distribution of landholdings and area according to size class groups are given in Annexure 5.4 and the District wise distribution of

Table 5.3: Rainfall in mm

| Year                           | South West Monsoon |        |                | North East Monsoon |        |                | Total (June to May) |        |                |
|--------------------------------|--------------------|--------|----------------|--------------------|--------|----------------|---------------------|--------|----------------|
|                                | Normal             | Actual | % of deviation | Normal             | Actual | % of deviation | Normal              | Actual | % of deviation |
| 2021-22                        | 556.0              | 607.3  | 9.2            | 296.0              | 368.2  | 24.4           | 966.0               | 1105.1 | 14.4           |
| 2022-23<br>(June to Dec. 2022) | 574.8              | 583.2  | 1.5            | 285.5              | 310.4  | 8.7            | 860.3               | 893.6  | 3.9            |

land holdings and area according to size class groups are given in Annexure 5.5

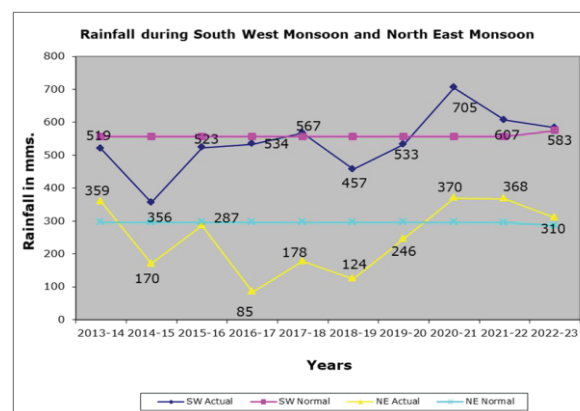
## Rainfall scenario

The State received rainfall of 583.2 mm during the South West Monsoon period in 2022-23 as against the normal rainfall of 574.8 mm, indicating an excess of 1.5% (Normal). Kakinada, Bapatla, Anantapuramu and Sri Satyasai districts received excess rainfall and remaining districts in the state received normal rainfall.

During the North East monsoon period of 2022-23 (October to December) an excess rainfall of 8.7% (Normal) was recorded. The rainfall received during this period is 310.4 mm as against the normal rainfall of 285.5 mm.

Monsoon wise rainfall shown in Table 5.3, Season wise rainfall details are given in the Annexure 5.6 and District wise and Region wise rainfall is given in Annexure 5.7. Rainfall trend over the past 10 years is depicted in chart 5.2

Chart 5.2: Rainfall during South-West Monsoon and North-East monsoon



## AGRICULTURE &amp; ALLIED ACTIVITIES

## Trends in Area and Production under food grains and paddy

As per the 2nd Advance Estimates, the area as well as production of food grains for the year 2022-23 are estimated and compared with the previous year achievements viz, 2021-22. While the area under

Table 5.4: Area and Production under Food grains & Paddy

| Year      | FOOD GRAINS     |       |       |                          |       |        | PADDY           |      |       |                          |       |        |
|-----------|-----------------|-------|-------|--------------------------|-------|--------|-----------------|------|-------|--------------------------|-------|--------|
|           | Area (Lakh hec) |       |       | Production (Lakh tonnes) |       |        | Area (Lakh hec) |      |       | Production (Lakh tonnes) |       |        |
|           | Kharif          | Rabi  | Total | Kharif                   | Rabi  | Total  | Kharif          | Rabi | Total | Kharif                   | Rabi  | Total  |
| 2021 - 22 | 21.27           | 21.41 | 41.34 | 76.44                    | 78.41 | 154.85 | 16.31           | 7.81 | 24.12 | 70.19                    | 51.57 | 121.76 |
| 2022 - 23 | 19.13           | 19.26 | 39.59 | 86.05                    | 83.25 | 169.30 | 14.41           | 8.09 | 22.50 | 77.47                    | 56.18 | 133.65 |
| % Change  | -10.1           | 1.9   | -4.2  | 12.6                     | 6.2   | 9.3    | -11.6           | 3.6  | - 6.7 | 10.4                     | 8.9   | 9.8    |

### Kharif

The area under food grains in Kharif 2022-23 is 19.13 lakh hectares while it was 21.27 lakh hectares in 2021-22 showing a decrease of 10.1%. Whereas the production of food grains in Kharif 2022-23 is 86.05 lakh tonnes while it was 76.44 lakh tonnes in 2021-22, showing an increase of 12.6%.

The area under Paddy in Kharif 2022-23 is 14.41 lakh hectares while it was 16.31 lakh hectares in 2021-22, showing a decrease of 11.6%. The production of Paddy in Kharif 2022-23 is 77.47 lakh tonnes while it was 70.19 lakh tonnes in 2021-22, showing an increase of 10.4%.

### Rabi

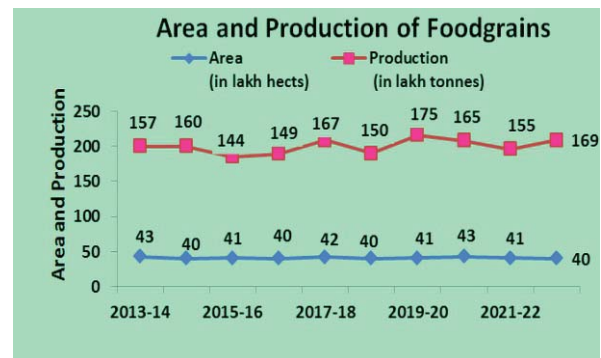
The estimated area under food grains in Rabi 2022-23 is 20.46 lakh hectares while it was 20.07 lakh hectares in 2021-22 showing an increase of 1.9%. Similarly, the production of food grains in Rabi 2022-23 is 83.25 lakh tonnes while it was 78.41 lakh tonnes in 2021-22 showing an increase of 6.2%.

The area under Paddy in Rabi 2022-23 is 8.09 lakh hectares while it was 7.81 lakh hectares in 2021-22, showing an increase of 3.6%. Similarly, the production under Paddy in Rabi 2022-23 is 56.18 lakh tonnes while it was 51.57 lakh tonnes in 2021-22 showing an increase of 8.9%.

food-grains is 39.59 lakh hectares in 2022-23 against 41.34 lakh hectares in 2021-22, showing a decrease of 4.2%. The total production of food grains in 2022-23 is 169.30 lakh tonnes while it was 154.85 lakh tonnes in 2021-22 showing an increase of 9.3%. The Area and Production under Food Grains and Paddy during 2021-22 & 2022-23 is shown in Table 5.4 below.

The time series trends in area and production of food grains and the Season wise area, production and productivity of selected crops are presented in Annexures 5.8, 5.9, 5.10 and 5.11 respectively.

Chart 5.3: Area and Production under food-grains



### Cropping Intensity

The cropping intensity, the ratio of gross cropped area to net cropped area, one of the indicators of assessing efficiency of agriculture sector has not undergone much change in the recent past. The cropping intensity (the ratio of gross cropped area to net cropped area) is one of the indices of assessing efficiency of agriculture sector. The cropping intensity for the year 2021-22 is 1.23.

## Gross and Net Area Irrigated

The gross area irrigated in the State decreased to 38.44 lakh hectares in 2021-22 from 39.85 lakh hectares in 2020-21. The net area irrigated in the state stands at 29.52 lakh hectares in 2021-22. The source-wise district wise Gross and Net area irrigated in the State from 2009-10 to 2021-22 are given in Annexure 5.12, 5.13, 5.14 and 5.15 respectively.

## Key Strategies to make Agriculture Profitable

- Extending financial assistance of Rs.13,500/- per farmer family per year (including Rs. 6000/- from PM-KISAN) under Dr. YSR Rythu Bharosa - PMKISAN as an investment support to the farmers started from Rabi, 2019.
- The tenant farmers are also made eligible for Navaratnalu, i.e., Crop Insurance, Interest Free Loans, 9 Hours free power, guaranteed support price to the produce and also an amount of Rs 7 lakhs to the Suicide victim farmer families as exgratia in addition to YSR Rythu Bharosa.
- Government of Andhra Pradesh has established 10,778 Dr.YSR Rythu Bharosa Kendralu (Dr.YSR RBKs) & 154 Hubs, an integration of Agri Input Shop and Farmer Knowledge Centre in coterminous with Village Secretariats /Gram Panchayats for rendering all services of Agriculture and Allied sectors at village itself. These RBKs are the one stop shop for the farmers meeting all their requirements
- Agri Input Shop ensures supply of pretested & Certified & quality multi-branded Agri inputs to farmers at their village.
- Farmer Knowledge Centre for delivery of services, capacity building and knowledge dissemination.
- Procurement Centers to procure all the agricultural commodities from the farmers at MSP to combat the exploitation of farmers from middle men.
- Farm Advisories and Integrated Call Centre to provide technical / scientific upgradation both to the field level functionaries as well as to farmers.
- e-Crop booking is done to create farmer's database through e-Crop Application. This data base is made mandatory for usage in implementation of Crop Insurance, providing Input subsidy, Sunna Vaddi Panta Runalu and procurement of agriculture produce.
- Encouraging the farmers to go for market driven cropping system based on market intelligence system by establishing the Agri Advisory Boards right from RBK level to Mandal, District and finally at State level duly placing farmers taking decisions.
- Extending free crop insurance scheme to all the farmers and Sunna Vaddi Panta Runalu to all the eligible farmers.
- Providing exgratia to the farmer families in the event of death by suicides (Agrarian Reasons) / Accidents @ Rs.7 lakhs per family.
- "Andhra Pradesh State Agriculture Mission" established as a policy making & advisory body to address the challenges in delivering quality and timely services to the farming community and also to look into all aspects of production, marketing and pricing of Agriculture and Horticultural commodities to mitigate the agrarian issues with an objective to provide a policy level platform that works towards providing resilience among farmers and their empowerment.
- Organization of Dr.YSR Polambadi (Farmer Field Schools) to empower the farmers to take economically viable decisions by adopting eco-friendly practices of Integrated Crop Management in a scientific manner and also to reduce the cost of cultivation and enhance the productivity.
- Dr.YSR Agri Testing Labs are being established to test the agri inputs like seed, fertilizer & pesticides to ensure the availability of quality agricultural inputs to the farmers at RBK level at their villages.
- Discouraging the farmers from growing paddy under bore wells by promoting alternate crops. Promotion of millets to improve nutritional status among public. Sensitizing farmers on soil test based fertilizer application.
- Supply of 100% Neem Coated Urea to farmers and certified seed on subsidy. Sensitizing farmers on customized fertilizers, which are crop specific, crop stage specific & location specific which are efficient

## AGRICULTURE &amp; ALLIED ACTIVITIES

and provide required nutrients in optimum quantities and at right stage to the crops. This reduces excessive usage of fertilizers.

- Encourage farmers to use Micronutrients for correction of Micronutrient deficiencies and also Soil Amendments for correction of Soil Salinity and Alkalinity.
- Encourage farmers to go for Micro Irrigation and Fertigation, Organic farming / AP Community managed Natural Farming.
- High cost farm implements are made available to farmers through custom hiring centers.
- Promotion of intercropping, poly cropping and mixed cropping, diversified farming systems.
- Extending crop loans to maximum no. of tenant farmers individually by issuing Crop Cultivator Rights Cards (CCRCs) (or) by forming them into Joint Liability Groups (JLGs).
- Promotion of integrating farming systems in rainfed areas and strengthening their resilience to drought through soil and water conservation methods.
- Conducting field diagnostic visits and human resource development in the form of training programmes to the VAAs as well as farmers through District Resource Centres established in each and every district.
- Integrated Call Centre – strengthened with technically qualified persons duly having a MOU with the scientists from ANGRAU, Dr.YSRHU and SVV University for answering the calls received through Toll free number No. 155251.
- Pest control by monitoring pest forecast and adopting appropriate control measures.
- Special focus on promotion of Green Manure crops and Organic Fertilizers.
- Periodical crop advisories to the farmers through IT applications.

### YSR Rythu Bharosa-PM-KISAN:

YSR Rythu Bharosa scheme is one of the prestigious Government Flagship programmes and also a key promise among the 9 promises of the Navaratnalu designed for farmers welfare by providing financial

assistance to farmers and making farming a remunerative profession. The scheme was launched on 15th October, 2019.

Under the scheme, financial assistance is being provided to land owning farmer families @ Rs. 13,500/- per year per family including Rs. 6000/- from the GOI under PM KISAN in 3 instalments. Financial assistance is also being provided to SC, ST, BC, Minority category Landless tenant farmers & ROFR cultivators @ Rs. 13,500/- per year per family from the budget of the State Govt of A.P in 3 installments as detailed below. Rs.50,000/- in four annual instalments of Rs.12,500/- each, and now the amount is increased to Rs.13,500/- per year and to be paid for five years, bringing the total up to Rs.67,500/-

- 1st installment @ Rs. 7,500/- during the month of May.(including Rs.2000/- from PM-KISAN)
- 2nd installment @ Rs. 4,000/- during the October (including Rs. 2000/- from PM-KISAN)
- 3rd Installment @ Rs. 2,000/- during the January month (Exclusively of PM- KISAN scheme).

During 2022-23 upto second installments, an amount of Rs. 6900 Cr was allocated in the Budget Estimates (Rs.3900 Cr state share and Rs.3000 Cr central share) against which an amount of 5853.74 Cr was paid to 50.92 lakh farmer families including 1.97 lakh tenant/RoFR farmer families.

Social Audit has also been taken for the scheme duly displaying YSR RB beneficiary lists in all the villages including rejected farmers list with due reasons.



### Dr.YSR Rythu Bharosa Kendralu

Agriculture is one of the paramount sectors in Andhra Pradesh and farmers striving hard to ensure food security for the entire nation since ages. Despite technology gained wide publicity, extended to village level & made

## AGRICULTURE &amp; ALLIED ACTIVITIES

ease of doing things without venturing out of homes, still farmer's economic levels and their livelihood remained intact. The availability of quality farm inputs and right advisories at right time are very critical in improving the crop productivity and in reducing the cost of cultivation.

Government of AP has initiated esteemed project of Dr.YSR. Rythu Bharosa Kendralu established them across the state and are functioning since May, 2020. The RBKs are established to augment income of farmer by ensuring the availability of certified quality inputs & dissemination of latest technology and crop specific MSPs, more so "One Stop Shop" so that farmers could not be fleeced.



The RBKs are provided with amenities viz., Kiosks & Smart TVs etc at village level. Main objectives are to ensure the availability of quality inputs of Agri.& allied sectors at competitive price and knowledge dissemination. It is first of its kind in the entire nation and rendering incessant services "Vitthanam Nundi Vikrayam Varaku" (Seed to Sale) of Agri.& Allied sectors in transparent manner at village level. Utmost intention of RBKs is to augment farmer income & livelihood.

### Implementation Strategy- Infrastructure

To ensure hassle free operations at Dr.YSR RBKs & Hubs, the Govt. of A.P has facilitated the required infrastructure in each district.

### District Resource Centers

FTCs and ATMA offices in the districts are integrated to effectively utilize the resources & manpower to achieve the common objective of Farmers empowerment through Trainings. The Integrated district level training centre is named as RBKs District Resource Centre (DRC). The District Resource Center is constituted with officials of ATMA & FTC to reach more number of farmers. Scientists of KVK, DAATC etc., are working in tandem with DRCs to conduct field diagnostic visits & cater the

training needs of officials & farmers. Field diagnostic visits are being conducted at village level to enlighten the farmers on identification, causes & symptoms, immediate remedies of pests & diseases and also to anticipate the possibility of immense pest outbreak.



### Integrated Call Centre

To facilitate instant remedies & immediate redressal of farmer grievances, an Integrated Call Center was established on shift basis with 64 executives of 6 to 9 years field experience and 6 Scientists. Telephone based advisory services are being provided not only on agronomic & management practices of various crops but also on various welfare schemes of Govt over Toll Free Number 155251. Virtual diagnosis through whatsapp is also facilitated (Farmers share images for advise) duly percolating the technology to the farmer fields.



### Rythu Bharosa Ratham

Rythu Bharosa Ratham is a new innovation which is a mobile campaign vehicle. Playing of short videos at major centers of a village on pest and disease management practices of various crops, latest technologies & services rendered at RBK through embodied LED wall & backlit posters. Video calling facility is also embodied to have live interaction with concerned on specific issues

## AGRICULTURE &amp; ALLIED ACTIVITIES



### RBK Channel

Telecasting need based & latest technical content through Smart TVs at RBKs to keep away the farmers frequenting the agriculture offices at mandals & seeking for advises. Live interaction with officials of Agri & Allied departments, Scientists & progressive farmers on innovative methods & recommended practices to enhance net farm income of a farmer.



### RBK Permanent buildings under MGNREGS

Government sanctioned 10,243 new RBK buildings to build as permanent assets for the welfare of farmer at village level duly earmarking an amount of Rs.2232.9 Cr towards construction of RBKs @Rs.21.80 Lakh per unit by PR&RD.



### Functioning of RBKs

RBKs are being operated through 4 verticals by qualified staff viz., Village Agriculture Assistants/ Village

Horticulture Assistant/ Village Sericulture Assistants & Village Animal Husbandry/ Village Fisheries Assistant with Diploma/ Graduation/ Post Graduation certification in their respective fields.

RBKs are chiefly functioning through 4 verticals "Shouldering by qualified staff VAAs/ VHAs/ VSAs & VAHAs/ VFSAs" 1). Supply of Pretested Quality Inputs , 2).Delivery of Services, Capacity Building & Knowledge Dissemination, 3).Farmer Advisories & Call Center and 4). Procurement Operations.

### Appreciations to RBKs

In the past Agriculture officials of AP Government frequented the Innovative/Schemes adopted by other states to replicate & help the farmers in AP. Now each and every state in the entire nation keep an eye on historic initiation of Dr. YSR Rythu Bharosa Kendralu and services delivered to augment the incomes & livelihood of farmers in AP at village level.

Germany diplomats applauded the incessant services from "seed to sale" rendered through Dr.YSR Rythu Bharosa Kendralu. The CEO, Niti Ayog , World bank Sr. Consultant for Agri & Food Global Practices, Chairman, NABARD hailed the services of supply of quality inputs and farmer welfare schemes at the door steps of farmers, Agriculture Ministers of Kerala, Tamilnadu and Telangana praised the one stop services rendered by RBKs.

RBK concept grabs much emphasis in Asia – Pacific Summit held in 2022 & Government of India recommended the World Bank to replicate RBK Model in Ethiopia to enhance farmers livelihood and net income levels

### Awards

- RBKs bagged SKOCH Gold Award for the year 2021, a stupendous achievement.
- RBK Channel achieved Silver button award from Youtube for crossing 143k subscriptions.
- RBKs received ISO Certification for excelling multifarious services to farmers at village level
- RBKs are nominated for Internationally prestigious UN – FAO "Champion" Award by Central Government on behalf of India



### Assistance to unfortunate diseased farmer families (Farmer Suicides)

Financial Assistance of Rs.7.00 Lakhs is being released directly to the family members of the deceased farmer for supporting the family. During 2022-23, an amount of Rs.20.00 Cr was allocated for Exgratia to farmers, out of which Rs.16.52 Cr was utilized to extend the Exgratia to the family of the deceased farmers upto the year 2022 including previous old cases. During the year 2022, 210 farmer suicides were reported and paid an Exgratia amount of Rs. 13.30 Cr to 190 farmers suicides @ Rs.7.00 Lakhs per farmer family.

### Agricultural Credit

The Annual Credit Plan for the year 2022-23 is Rs.1,64,740 Cr which is 11 % increase over previous year. An amount of Rs.1,22,778 Cr (75%) was disbursed upto December, 2022 under agriculture credit. An amount of Rs.59793 Cr (83%) was disbursed under crop loans (short term loans) against the target of Rs.71732 Cr and under Agriculture Term Loans including allied activities, an amount of Rs.43,153 Cr (174%) was disbursed against the target of Rs.24744 Cr during Kharif, 2022

During Rabi 2022-23, an amount of Rs.14360 Cr (29%) was disbursed under crop loans (short term loans) against the target of Rs.49848 Cr and an amount of Rs.3220 Cr (17%) was disbursed against the target of Rs.18416 Cr under Agriculture Term Loans including allied activities.

Details about Agricultural Credit disbursement during Kharif 2022 and Rabi, 2022-23 (up to December 2022) are given in Annexure 5.16.

### Action Plan for 2023-24:

The Annual Credit Plan of Rs.1,66,390 Cr is proposed for the year 2023-24 towards Agriculture Credit with 10 % increase over previous year.

### Financing to tenant farmers

#### Crop Cultivators Right Act 2019

To safeguard the tenant farmers, the Government has made a special focus on tenant loaning. Andhra Pradesh is pioneer in tenant farmer finance and highest tenant farmer finance represents that large number of "actual

cultivators" belongs to tenant category. Most of them are marginal farmers particularly from under privileged sections who are in dire need of institutional finance. The tenant farmer finance has been extended in the form of RMG, JLG and individually through CCRCs. The Govt. of Andhra Pradesh has brought "Andhra Pradesh Crop Cultivators Right Act 2019" to provide all facilities including banking, insurance and other Govt. benefits to tenant farmers without effecting the rights of the owner of the land which came in to force from 17-08-2019.

Crop Cultivator Right Cards (CCRC) were issued to the Tenant farmers on 2nd October, 2019. According to the Act, Crop Cultivator Rights Cards (CCRC) will be issued with the mutual agreement of land owner and cultivator for a period of 11 months, which entitles the tenant farmer to avail bank finance. The CCRC holders are also eligible to get benefits of Government schemes like Rythu Bharosa, Sunna Vaddi Panta Runalu, YSR Free crop insurance, Input Subsidy, Seed and Farm Machinery on subsidy and Minimum Support Price etc.

During 2022-23, CCRCs were issued to 5,39,683 actual cultivators in the state upto December, 2022. An amount of Rs.611.84 Cr was given to 80,505 CCRC holders.

Joint Liability Groups (JLG): The Department has proposed to form Joint Liability Groups (JLG) with land less tenant farmers and also with small and marginal farmers who are owning small extents and doing tenancy. The GoAP has issued guidelines vide Go.Rt.No.252 on 25.04.2022 for integration of PACS/DCCBs with RBKs for providing credit services to farmers particularly tenants through RBKs. During 2022-23, an amount of Rs.164.16 Cr was given to 9268 JLGs covering 46,340 Tenant farmers. Details are given in Annexure-5.17

### YSR-Sunna Vaddi Panta Runalu (SVPR) Scheme

- The Government of AP is implementing the "YSR – Sunna Vaddi Panta Runalu (SVPR)" Scheme w.e.f., Kharif 2019 Interest subsidy for the crop loans upto Rs.1.00 lakh will be transferred directly to the accounts of farmers who have repaid their loans in time (maximum period of one year from date of disbursement of crop loan).

---

 AGRICULTURE & ALLIED ACTIVITIES
 

---

- Government has settled the Rs.160.55 Cr of interest subsidy to 8.22 lakhs farmers under Sunna Vaddi Panta Runalu for the crop loans taken during Rabi 2020-21 and Kharif 2021 seasons during 2022-23 (as on 28.11.2022). From 2019 to December 2022 an amount of Rs. 657.95 Cr of interest subsidy was settled to 34.81 lakhs farmers under Sunna Vaddi Panta Runalu.
- The Government has also settled the Rs.1180.66 Cr of Vaddi Leni Runalu (VLR) pending claims from 2014-15 to 2018-19 to 39.06 Lakhs farmers during 2019-20 and 2020-21.
- The Government has settled a total amount of Rs. 1838.61 Cr of interest subsidy to 73.88 lakhs farmers under SVPR and VLR from 2019 to till date.

### Village Secretariat Functionaries

The Government is committed to revamp delivery system in the State with an aim to improve living standards of the people through the concept of NAVARATHNALU as core theme of Governance. To achieve this, the Government has established a system of Village Secretariats consisting 6,758 Functional Assistants from Agriculture to strengthen the Extension services at village secretariat level. Accordingly, the Government has so far appointed 6355 Village Agriculture Assistants. At present 403 posts are vacant for which Govt. of A.P has requested the APPSC to issue 3rd notification for recruiting the 370 VAAs posts duly excluding the 33 VAA posts towards the pending court cases. The recruitment is under process.

### YSR Free Crop Insurance Scheme

The State government has launched "Free Crop insurance scheme" on 08.07.2019 under Navaratnalu programme from Kharif 2019 onwards. During Kharif 2019, the farmers have insured their crops just by paying token amount of Rs.1/- and the remaining farmer share of premium was also transferred to the State Govt liability. State Govt paid an amount of Rs.971.23 Cr to the Insurance companies (Rs.467.87 Cr paid on behalf of the farmers share and Rs.503.36 Cr regular 50% state share). With a view to cover each and every acre under Crop Insurance scheme, the State Govt implemented Dr YSR Free Crop Insurance (from Kharif 2020).

All the notified crops which were captured through e-crop will automatically be provided insurance protection and the State Govt. is shouldering the entire claim settlement responsibility to the eligible farmers. The Department of Agriculture is the nodal agency for implementation of State sponsored Dr YSR Free Crop Insurance scheme. Free Crop Insurance is implementing without any separate registration and the claims are settled directly by the State Government without involvement of any Insurance companies, which is very unique of its kind in the Country.

Since implementation of Free crop insurance is based on e-crop, entire notified area has been covered and the claims have been calculated based on the results of the Crop Cutting Experiments and Weather data.

For 2021-22, Government released claim amount of Rs.2977.82 Cr directly to the Aadhar linked bank accounts of the 15.61 lakhs farmers during the month of June 2022.

Andhra Pradesh is the first state to achieve universal coverage of farmers in a very transparent and unique way. As requested by the Govt of India, State agreed to implement Dr YSR Free Crop insurance jointly with the PMFBY in its current form during 2022-23. The scheme is being implementing in a saturation mode without any premium burden on the farmer. Hence, the Farmer's share of premium for all farmers will also be borne by the State Govt under Yield based scheme. E-crop is the source data for yield and weather basis schemes. RWBCIS scheme is implementing by the State Govt with the existing modalities of Dr YSR FCI.

### Dr. YSR Polambadi

The excess use of chemical pesticides for controlling various pests and diseases in crops poses many challenges to Agriculture like increase in cost of cultivation, insect pests developing resistance to chemical pesticides, resurgence of secondary pests, surge in environmental pollution, human health hazards etc., nowadays. The Department of Agriculture has adapted the concept of Polambadi (Farmer Field School) to counteract these adverse impacts and to transform agriculture into a more prosperous occupation. Consequently, the program of 'Dr. YSR Polambadi' was ambitiously launched in 2019 to organize the program in the vicinity of every RBK functioning in the State.

Dr YSR Polambadi is a field oriented training program organized to 30 farmers in an RBK for a period of 14 weeks, holding one session per week on a fixed day in the row of a week. The farmers are trained on studying, analyzing and understanding the agro ecological factors existing in the field correlating them to the incidence of pests and diseases and to reach to the point of decision making for optimization of chemical inputs that ultimately brings in a significant decline in cost of cultivation and increase in the yields of crops.

Dr YSR Polambadi also teaches various sustainable technologies like Integrated Pest Management, Integrated Disease Management, Integrated Weed Management, Water Management, Farm Mechanization etc., to the farmers to utilize them for enhancing farm productivity and quality of the output. The evaluation of the impact of Dr YSR Polambadi would be done by the Scientists of ANGRAU at the end of the program to understand its outcome that tends to benefit the farmers.

The program is being organized in Field crops like Rice, Cotton, Maize, Pulses, Oilseeds, Millets etc grown in different districts of Andhra Pradesh. During Kharif 2022-23, 8,509 Polambadi training programmes were conducted, 2.55 Lakh farmers were benefitted.

### Impact analysis of Dr YSR Polambadi on cost and Yield factors in 2021-22

The impact analysis of Dr YSR Polambadi (FFS) done in 2021-22 illustrates that, the cost of cultivation has been substantially decreased due to adoption of the approach of Dr YSR Polambadi (FFS) when compared with farmers own practice adopted, and the cost reduction is found to be ranging from 10 to 22% in different crops like Rice, Maize, Cotton, Groundnut and Pulse crops. This cost reduction is mainly attributed to significant decline in the intensity of usage of chemical inputs like fertilizers and pesticides.

The impact analysis also gives a positive inference on the dynamics of yields. Integrated Crop Management (ICM) Technology adopted in FFS plots has contributed to significant increase in yields ranging from 6 to 24% when compared with Farmers practice in the above crops.

### Future vision of Dr YSR Polambadi (FFS)

The Government of Andhra Pradesh envisions Dr YSR Polambadi (FFS) as a good technical tool for production of quality output. Government have chosen the FFS as an effective and suitable platform to take forward the concept of Good Agricultural Practices (GAPs) to farmers' level to enable them produce quality output that would be tagged with quality accreditation by issuing a GAP Certificate for fetching good remunerative prices to the farmers.

### FAO-ICAR-TCP Programme

The Department of Agriculture in collaboration with the Food and Agriculture Organization (FAO) has developed FAO-TCP Project to "Strengthen the capacities of the Government of Andhra Pradesh to support AP Farmers to adopt sustainable Agri-food systems" and imparted trainings to the identified functionaries of Agriculture & Horticulture Departments; Scientists of ANGRAU & Dr YSRHU; and farmers cultivating Agriculture and Horticulture crops in 3 different spells in Kharif season. Under FAO-TCP project, 130 Officers of Agriculture and Horticulture Departments and 240 farmers cultivating Agriculture and Horticulture crops have been intensively trained on Good Agricultural Practices (GAPs) & Certification.

### Dr YSR Polambadi Clusters

For implementation of GAPs and Certification, Polambadi Clusters have been formed @ one per each District in the State to implement the concept of GAP & GAP certification on pilot basis. Each Cluster consists of 100 Hects of the major crop cultivated in the territorial jurisdiction of RBK and the concept of GAP & Certification will be implemented in the Cluster area under close supervision of the Departmental field functionaries. Trainings have been conducted on GAP & Certification at District and Divisional levels for ADAs, MAOs, VAAs and Cluster Farmers.

### Soil Testing (Soil Health Card Scheme (SHC) / Soil Health Management (SHM))

Soil Sampling and Soil testing programme is organized in a systematic manner to evaluate the fertility status and to identify the problems (Alkalinity/Salinity) and deficiency

## AGRICULTURE &amp; ALLIED ACTIVITIES

of nutrients. The objectives of the scheme include evaluation of the fertility status, nutrient deficiency, identify, reclaim problematic soils and promote soil test based fertilizer usage, adopt balanced and integrated use of fertilizers and thereby reduce cost of cultivation and improve soil health.

There are 16 district level Soil Testing Labs, 1 Regional Soil Testing Lab at Bapatla, Guntur district, 13 Mobile Soil Testing Labs in all the districts and 30 Soil Testing Labs in AMCs in the state. The soil samples are tested for 12 parameters by registering the farmers' details in Soil Health Card portal. The staff at STLs in the district conduct trainings at RBKs to sensitize the farmers. Test soil samples, explain the importance of soil in crop production and train the farmers in improving the soil health and its maintenance.

During 2022-23, Soil Health & Fertility (Soil Health Card (SHC) and Soil Health Management (SHM) schemes are merged with Rashtriya Krishi Vikas Yojana (RKVY) w.e.f. financial year 2022-23 and scheme was indicated as Soil Health component of RKVY Scheme. The Annual Action Plan proposals for the year 2022-23 under soil health component of RKVY Scheme with an outlay of Rs.1427.76 lakhs submitted to GOI.

a. Components of Annual Action plan upto 30.09.2022 for the year 2022-23 approved by the Addl. Secretary (INM), GOI. Physical target of soil samples under Soil Health Component for the year 2022-23 is 237961 and 50% Funds of Rs.713.88 lakhs (Rs.428.33lakhs & State share Rs.285.55 lakhs) are being released by GOI as per approved components of annual action plan.

b. The Annual Action Plan proposal 2022-23 w.e.f. 01.10.2022 was also submitted to GOI for balance 50% funds i.e., for an amount of Rs.713.88 lakhs (Rs.428.33 lakhs central share + Rs.285.55 lakhs State share) duly proposing 7991 no. of farmers trainings and Demonstrations in farmers field covering 7991 RBK villages.

### Subsidy Seed Distribution

During Kharif 2022, a quantity of 5,33,726 Qtl of various crops seed was distributed to 10.13 Lakh farmers with a subsidy value of Rs.15,780 lakhs. In Eluru, Kakinada, Konaseema & West Godavari districts 1756 Qtls of Paddy

and Pulse seed was distributed to 2367 farmers whose fields were damaged due to Heavy Rains with 80 % subsidy incurring Rs.56 lakhs towards subsidy during Kharif-2022.

During Rabi 2022-23, a quantity of 2,22,959 Qtl of various crop seed has been planned for distribution to the farmers on subsidy and so far 1,50,096 quintals of seed has been distributed to 1.77 Lakh farmers with a subsidy value of Rs.3133 Lakhs.

Arrangements were made in Tirupati, Prakasam, Bapatla, Konaseema, Guntur, Nellore, Chittoor & Krishna districts where crops were damaged due to heavy rains, to distribute 33117 Qtls of various crop seed on 80% subsidy with a subsidy value of Rs 1730 Lakhs, so far 73 Qtls of various crop seed was distributed to 81 farmers incurring Rs.2 Lakhs towards subsidy.

### Seed Village Programme (SVP)

The Seed Village scheme ensures supply of quality certified seed of notified varieties to the farmers in time at their places at affordable prices besides ensuring quick multiplication of new seed varieties in a shorter time in that mandal /district based on the crop situation. Compact area approach needs to be followed under this scheme. The number of farmers for a unit of 10 Ha is minimum 25 and subject to a maximum of 150. Funding Pattern is 60% Central share and 40% State share.

In SVP, Foundation seed will be supplied on 50% subsidy for cereals and 60% subsidy for oilseeds and pulses. Under Certified Seed Production (CSP), Foundation seed of oilseeds, Pulses and Green manure will be supplied under 75% subsidy through Seed Villages. 3 one day trainings will be conducted to the farmers on seed production technology and certification charges @600/ha or half of the actual certification charges whichever is less will be paid.

During Kharif, 2022 under SVP & CSP, 3124 Qtls of Foundation seed was distributed benefitting 12875 farmers covering 5150 ha with a certified seed production of 2.48 lakh Qtls. During Rabi, 2021-22, as on date, 420.5 Qtls of seed was distributed benefitting 1375 farmers covering 550 ha with an expected certified seed production of 23585 Qtls

## Fertilizers

**Fertilizer Policy Initiatives:** The Fertilizer consumption during Kharif and Rabi, 2021-22 in terms of product was 36.24 LMT and in term of Nutrient (NPK) was 19.05 LMT. Fertilizer consumption during 2022-23 is 25.46 LMTs (April'22 to Dec'22).

**Nutrient Based Subsidy (NBS) Policy:** Under the NBS Policy, a fixed rate of subsidy (in Rs. Per Kg basis) is announced on nutrients namely Nitrogen(N), Phosphate(P), Potash(K) and Sulphur (S) by the Government on annual basis. The per kg subsidy fixed by the Central Government on nutrients during the year 2022-23 is mentioned in Table 5.5 and year-wise fertilizer consumption is shown in Table.5.6

Table 5.5 Nutrient Based Subsidy (NBS) (Rs. Per Kg of Nutrient)

| S.No | Nutrients | Kharif 2022 | Rabi 2022-23 |
|------|-----------|-------------|--------------|
| 1    | N         | 91.96       | 98.02        |
| 2    | P         | 72.74       | 66.93        |
| 3    | K         | 25.31       | 23.65        |
| 4    | S         | 6.94        | 6.12         |

Table.5.6 Fertilizer Consumption

| Year                         | Fert. Consumption in LMTs |
|------------------------------|---------------------------|
| 2013-14                      | 38.11                     |
| 2014-15                      | 37.25                     |
| 2015-16                      | 35.88                     |
| 2016-17                      | 35.31                     |
| 2017-18                      | 32.91                     |
| 2018-19                      | 33.24                     |
| 2019-20                      | 35.38                     |
| 2020-21                      | 42.26                     |
| 2021-22                      | 36.24                     |
| 2022-23 (April'22 to Dec'22) | 25.46                     |

## Pesticides

In Andhra Pradesh, there was 128.953MT (Active Ingredient) higher Pesticide Consumption during Kharif 2022-23 (1083.593 MTs of Active Ingredient) compared to the last year Kharif 2021-22 of 954.64 MTs ( of Active Ingredient).

The increase in consumption of chemical pesticides was

attributed due to increase in net sown area over the previous year and also due to periodical distribution of adequate rainfall. Farmers are also sensitized by the Agriculture Department by promoting the activities like Integrated Pest Management practices, organization of Polambadi programmes, usage of biopesticides, change in cropping pattern, Organic Farming etc. through the extension functionaries for reduction in consumption of pesticides.

The pesticide consumption has been showing definite decline during the recent past with the consumption falling from 4050 MTs in 2014-15 to 1808.30 MTs in 2021-22.

## Strategies for next year action plan

In Andhra Pradesh, majority of the farmers are using Agro Inputs like Seeds, Micro nutrients, Fertilizers and Pesticides to get higher yields. To protect the crop from pests & diseases, farmers are applying insecticides as per the recommendations of the Agricultural Extension Functionaries. Chemical Pesticides are contributing towards the increase in cost of cultivation in addition to hidden hazards to human beings and animals. The Government of Andhra Pradesh has been educating the farmers to adopt Good Agricultural Practices to get higher returns with minimum cost of cultivation.

## The following Good Agricultural Practices have been adopted by the farmers towards reduction of Pesticide Usage

1. Cultivation of suitable crops varieties which are resistant to Pests and Diseases.
2. Practising Crop rotation to prevent the occurrence of endemic pest and diseases.
3. Prevention of seed borne diseases by seed treatment with recommended fungicide /Insecticide/ bio control agents.
4. Timely weed management.
5. Identification of pests & diseases at early crop stages and adopting appropriate methods like physical, mechanical, biological and chemical control methods as per the pest surveillance and forecasting (Dr.YSR Polambadi and Cluster Demos under NFSM).

## AGRICULTURE &amp; ALLIED ACTIVITIES

6. Educating the farmers about the application of recommended pesticide at right time, right chemical & dose, right method and right spraying equipment to bring down pest population.
7. Application of pesticides in rotation to avoid pest resistance and resurgence.
8. Creating awareness on integrated pest management activity through activities:
  - Farmers Field School (FFS) / Polambadi Programme. Organizing Farmer Field Schools and following the IPM technologies in crop production, Advertising the cultural, Biological approaches to pest control,
  - Promoting production of Bio-agents like trichograma through state Bio control Laboratories, Educating the Farming community about best Agricultural practices to reduce use of Chemical pesticides through KVKs, DATTC, Agricultural Universities, CIPMCs, State Agricultural Department.
  - Conducting regular field diagnostic visits and creating awareness among farmers on IPM and organic farming.
  - The extension services will be extended through RBK centric capacity building and through ICC (Integrated Call Center) with toll free and what's app numbers.
9. Wide publicity through Print and Electronic Media.
10. IT based Pest and Disease diagnosis and surveillance through Plantix, Gatherix apps and Integrated Call Center (ICC).
11. Creation of viable and Sustainable Farm Livelihoods by Promoting Organic Farming / Natural Farming.

Government is committed to achieve the goal of reducing the usage and cost of pesticides for next five years on mission mode by effective utilization of services through Extension functionaries and Research Institutions.

### National Mission for Sustainable Agriculture (NMSA)-Rain-fed Area Development (RAD)

The NMSA-RAD component is initiated by GOI since

2014-15 with an objective of enhancing agricultural productivity in rainfed areas focusing on Integrated Farming, Water use efficiency, soil health management and synergizing resource conservation.

In the State, Rainfed agriculture is more prevalent in (9) districts viz., 8 Rayalaseema districts Kurnool, Nandyal, Anantapuram, Sri Sathya Sai, Kadapa, Annamayya, Chittoor, Tirupati and Prakasam. NMSA-RAD scheme is being implemented with 60:40 share of GOI & State. It is proposed to implement the scheme in these 9 districts with focus through Soil Conservation functionaries.

Under this mission, Rain-Fed Area Development (RAD) component is being taken up in convergence with other schemes to promote integrated farming system and to provide value added developmental activities to the Rain-Fed farmers to improve their economic status, despite failure of crop due to insufficient rains or drought.

The Implementation Strategy is to identify cluster areas in rain-fed areas to promote Agriculture based, Horticulture Based, Livestock based and Agro-Forestry based Farming systems and value addition and developmental activities.

### Proposed Activities under RAD

- I. **Integrated Farming System:** Coarse Cereal Based Farming System, Horticulture Based Farming System (in Ha), Livestock based Farming System (Milch animals @Rs.0.40 Lakh per unit/ Small ruminants (9+1) @Rs.0.25 Lakh per unit & Poultry Rs.0.25 Lakh.
- II. Agro forestry Based Farming System.
- III. **Value Addition and Resource Conservation:** Apiculture (Bee Keeping), Insitu Moisture Conservation, construction of bore wells, lower reach gully control works, retaining walls, vegetative barriers, Green house and low tunnel poly house, Post Harvest Storage(no), Reclamation of saline soils.

In 2022-23, it is planned to implement the proposed activities by the FPOs formed by the APDMP in 9 districts i.e Kurnool, Nandyal, Anantapuram, Sri Sathya Sai, Kadapa, Annamayya, Chittoor, Tirupati and Prakasam. Activity wise action plan under Integrated Farming System and Value Additions and Resource Conservation for 8732 systems/ units has been prepared for the year 2022-23 and approved in SLSC. Govt. of India has

allocated an amount of Rs. 16.66 Cr (Central: Rs. 10.00Cr. + State share: Rs.6.66 Cr) for implementation of project and released the central share.

### Farm Mechanization

Timely and precise field work is necessary to increase productivity. Agricultural machines take an important role to make it possible. Various schemes are being implemented in the state to promote the usage of farm mechanization and increase the ratio of farm power to cultivable unit area up to 2.5 kW/ha. Government provides financial assistance to establish farm machinery hiring centres with machinery and implements under various schemes as per the Government norms prevailing at the time of sanction of financial assistance to increase the reach of farm mechanization to small and marginal farmers and to the regions where availability of farm power is low; promote establishment of 'Community Hiring Centres'(CHC) to offset the adverse economies of scale arising due to small land holdings and high cost of individual ownership.

#### Implementation of Farm Mechanization Scheme

- AP State transacts the supplies of farm equipment through DBT mode where in farmers/farmer groups will be provided with range of equipment, manufacturers and freedom for choice in selection of equipment /manufacturer/dealer.
- Various types of farm equipment for different farm operations from Land Preparation & Primary tillage to Harvesting & Crop residue management, Post harvest and Processing (primary, secondary processing and Value addition) of the produce are being offered as per subsidy norms stipulated under SMAM guidelines stipulated by GOI.

#### Under the scheme it is planned to

- Establish 10750 CHCs at RBK level @Rs.15 Lakhs per unit with a subsidy upto 40% (limited to Rs.6 Lakhs), bank loan of Rs 7.50 Lakh and beneficiary's contribution of Rs 1.50 Lakhs.
- 1615 CHCs at Cluster level @ Rs.25 Lakh per unit with a subsidy upto 40% (limited to Rs.10 Lakhs) , bank loan of Rs 12.50 Lakh and beneficiary's contribution of Rs 2.50 Lakhs

### Achievement of YSR Yantra Seva Padhakam (2021-22)

Established 6525 CHCs at RBK level and 391 CHCs at Cluster level by incurring Rs 690.87 Crores towards procurement of Machinery with a subsidy of Rs 240.67 Crores

Community Hiring Centers (CHCs) :During 2022- 23 the scheme is being implemented with a total allocation of Rs 517.78 Cr. The Government issued orders to establish Community Hiring Centers (CHCs) at RBK level operated by farmers groups with farm machinery worth Rs. 12 to 15 Lakhs in 4225 RBK villages (left over of 2021-22) under SMAM and to establish Cluster CHCs with Combine Harvesters worth Rs. 25 Lakhs @ 400 units in selected major paddy districts viz. Srikakulam, East Godavari, West Godavari, Krishna, Guntur, Nellore, Kadapa and Kurnool districts. It is also focused on establishment of 2000 Nos Kisan Drone CHCs across the state at RBK level @ 3 per mandal with a unit cost of Rs.10 lakhs and subsidy allowed is 40% limited to Rs.4.0 lakhs per project.

Bank loan is mandated to assist the groups and agencies and to achieve transparency in grounding the units. Dept of Agriculture entered into MoU with APCOB for extending loan to the identified Farmer Groups and Agencies for establishing CHCs and Hubs respectively.

The financial pattern for grounding the CHCs and Cluster level CHCs: Out of the total unit cost 10% shall be borne by group contribution, 50% mandatory through bank loan and 40% financial assistance through Govt. subsidy (Department of Agriculture).

### Rashtriya Krishi Vikas Yojana (RKVY-RAFTAAR)

Rashtriya Krishi Vikas Yojana (RKVY) is one of the flagship programmes of Government of India with Central and State sharing 60:40. The scheme is renamed from 2017-18 as Rashtriya Krishi Vikas Yojana –Remunerative Approaches for Agriculture and Allied Sector Rejuvenation (RKVY-RAFTAAR). The main objective is making farming a remunerative economic activity through strengthening the farmer's efforts, risk mitigation and promoting agri-business entrepreneurship. The programmes will be implemented by Agriculture and Allied sectors.

## AGRICULTURE &amp; ALLIED ACTIVITIES

For the year 2022-23, GoI allocated an amount of Rs 305.33 Cr (Central: Rs. 183.20Cr. + State share: Rs.122.13 Cr) for implementation of different projects of Agriculture & Allied sectors under RKVY-RAFTAAR.

An amount of Rs 161.98 Cr was released as 1st instalment funds of 2021-2022 for implementation of RKVY-RAFTAAR Projects (Central :97.1913 Cr+ State :64.792 Cr). The total released amounts of GOI including state share was kept in SNA A/c of RKVY. Out of which an amount of Rs 53.015 Cr. was allocated to Agriculture sector, Rs 19.3445 Cr was released to Dr.YSR Polambadi, Rs.4.42 Cr to RBKs , Rs.7.00 Cr for Strengthening of Integrated Agri. Labs, , Rs.7.00 Cr Supply of alternate crop seed under Drought contingency programme, Rs 2.00 Cr for Rodent control programme.

For implementation of SLSC approved projects of 2021-2022, an amount of Rs. 108.968 Cr was released to Allied Departments such as Horticulture, Animal Husbandry, APMarkfed, Dr. YSR HU, ANGRAU, Fisheries, Food processing Society and Sericulture etc. Implementation of Projects is under progress.

### National Food Security Mission (NFSM)

National Food Security Mission (NFSM) is a centrally sponsored Scheme launched in October, 2007 based on recommendation of National Development Council.

Objectives of the scheme:

- Increasing production of rice, wheat, pulses, Coarse cereals, Nutri-cereals, Cotton and Oil seeds through area expansion and productivity enhancement in a sustainable manner in the identified districts of the State.
- Restoring soil fertility and productivity at the individual farm level.
- Enhancing farm level economy (i.e. farm profits) to restore confidence amongst the farmers.
- To augment the availability of vegetable oils and to reduce the import of edible oils by increasing the production and productivity of vegetable oils sourced from Oilseeds.

The funds allocation during 2022-23 under NFSM scheme is shown below in Table 5.7

Table. 5.7 Funds allocation during 2022-23 under NFSM scheme

(Rs. in Lakhs)

| Sl. No.      | Scheme  | Central Share  | State Share    | Total          |
|--------------|---|----------------|----------------|----------------|
| 1.           | NFSM -Rice  | 387.42         | 258.28         | 645.7          |
| 2.           | NFSM -Pulses  | 2093.56        | 1395.71        | 3489.27        |
| 3.           | NFSM -CC (Maize)  | 88.20          | 58.80          | 147.00         |
| 4.           | NFSM -Nutricereals  | 870.00         | 580.00         | 1450.00        |
| 5.           | NFSM - Commercial crops                                       | 105.96         | 70.64          | 176.60         |
| 6.           | NMEO -OS  | 996.00         | 664.00         | 1660.00        |
| 6a.          | Special programme of purchase of Breeder Seed(100% GoI Share) | 204.00         | 0.00           | 204.00         |
| 7.           | TRFA -OS  | 775.39         | 516.92         | 1292.31        |
| <b>Total</b> |   | <b>5520.53</b> | <b>3544.35</b> | <b>9064.88</b> |

**Funding Pattern:** Funding Pattern is 60:40 percent sharing between Central Govt. and State Govt. respectively.



## Interventions

- During the year 2022-23, main emphasis was given on organization of Cluster Demos (CDs) in various crops with a contiguous area of 20 Ha at RBK level.
- In the cluster demos all critical inputs like seed, bio fertilizers, PP chemicals, are distributed to the farmers on 50% subsidy and need based farm implements are distributed to the farmers on 50% subsidy through DBT mode. PP Chemicals are distributed through Kiosks of RBKs.
- 1374 Cluster Demos under NFSM and 1015 Cluster Demos under NMEO-OS & TRFA-OS together were planned to organize during 2022-23.
- 1700 No. of Dr.YSR Polambadi Programmes under NFSM & 452 No. of Dr.YSR Polambadi under NMEO-OS have been organized to empower the farmers in their own field from seed to seed through practical learning.
- Trainings organized for adoption of new technologies on various crops in all the districts through District Resource Centers (DRC) duly utilizing the funds of NFSM & NMEO-OS schemes.
- Organization of Exposure visits to the farmers to create awareness on innovative technologies adopting by other farmers.
- A Special Programme of Purchase of Breeder Seed with 100% Govt assistance is also planned under NMEO-OS with a total outlay of Rs.204.00 lakhs.

## Sub Mission on Agricultural Extension (Agriculture Technology Management Agency- ATMA)

Under the scheme of "Support to State Extension Programmes for Extension Reforms" (ATMA) the entire state of Andhra Pradesh (13 districts) is covered with 60:40 central and state share. The Extension Reforms (ATMA) has been included in the National Mission on Agricultural Extension & Technology (NMAET) as Sub Mission on Agricultural Extension (SMAE).

## Objectives of the programme

- To develop an efficient, effective, demand driven, research integrated and financially sustainable public extension system. Revitalize the Agricultural Technology Generation Assessment refinement and Dissemination Systems
- Reforming Public Sector Extension. Promoting private sector to effectively complement, supplement and wherever possible to substitute public extension. Main streaming Gender Concerns in Extension.
- Capacity Building/Skill up-gradation of farmers and extension functionaries.
- Increase the Quality and Type of Technologies being disseminated by the Extension System. Strengthen Research-Extension-Farmer(R-E-F) Linkages.

## Benefits of the programme

- Well Integrated technology development and transfer system Decentralized decision-making. Financially sustainable extension system.
- Bottom-up Planning with Increased Use of Information Technology through emphasis on In-Service Training.
- Developing New Public -Private Partnerships and Strengthening Key Institutions with Broad based Extension Delivery

ATMA is a district level autonomous Institution having membership of all key stakeholders involved in agricultural activities. It has the flexibility to receive funds directly. It has the key responsibility of disseminating all technology activities at the district level. It has linkages with all the line departments, research organizations, non-governmental organizations and agencies associated with agricultural development in the district and farmer organizations. Research and extension units within the district, such as KVKs, Department of Agriculture, Horticulture, Animal Husbandry, Fisheries, Sericulture, Marketing, etc. are its constituent members.

ATMA is supported by a Governing Board (GB) and a Management Committee (MC) and Agricultural Advisory

---

 AGRICULTURE & ALLIED ACTIVITIES
 

---

Boards at RBK level, Mandal Level, District and State level, exclusively Progressive farmer's committees which all together involve in preparation of RBK centric Crop action plans and will organize all the Farmer oriented activities through the extension field functionaries. Commodity oriented Farmer Interest Groups (FIGs) are being promoted at block / village level to make the technology generation/dissemination farmer driven and farmer accountable. In order to provide needed HRD support in innovative areas of extension delivery, a State Agricultural Management and Extension Training Institute (SAMETI) has also been established in the project states.

### Strategic Research and Extension Plan (SREP):

One of the first tasks of ATMA is facilitation of the preparation of Strategic Research and Extension Plan (SREP) of the district. The SREP is prepared through participatory methodologies such as Participatory Rural Appraisal (PRA) involving all the stake holders and farmers. The SREP contains detailed analysis of all the information on existing farming systems in the district and research–extension gaps required to be filled-up. It also prioritizes the research–extension strategies within the district. It becomes the basis for development of work plans at blocks/ district level. All the (13) ATMA districts have developed their respective strategic Research and Extension Plans.

### State Extension Work Plan (SEWP):

Based on the research–extension strategies given in the SREPs, the Block/district level plans for the year 2022-23 were developed by all the (13) ATMA districts as per the revised ATMA scheme guidelines and cost norms. The consolidated State Extension Work Plan for the year 2022-23 was developed at state level with an outlay of Rs.5034 lakhs.

GOI has given tentative allocation of Rs.2166.67 lakhs for the year 2022-23 including state share of which Rs 866.67 lakhs and Central Share as Rs.1333.33 lakhs towards Matching State Share. 1st quarter concurred release of Central share of Rs 325.00 Lakhs for implementation of ATMA scheme activities.

### Major activities organized during 2022-23

Training programmes and Demonstrations are organized relating to agriculture, horticulture, animal husbandry and sericulture sectors to know about latest farming techniques, promotion of Rice fallow Ragi, Foxtail millet, management of pests, sowing techniques, short duration millets, awareness on usage of latest farm equipment at field level, improved techniques of milk production in cattle, mulberry cultivation and silk warm rearing etc

Innovative Activities: Integrated farming systems with paddy, Fish, Poultry birds and cultivation of Papaya, Marigold, Guava plantations on bunds; Raising Nurseries under Shade nets, Poly cropping , Cattle shed Linings for Desi cow urine collections under Natural Farming, Usage of Mango Fruit covers, Drone spraying technology in Maize for control of FAW, Backyard poultry rearing, Honey Bee keeping, Post harvest technologies and value addition to fish, Varietal trails of Rajmah, Groundnut Black gram ,Nigerseed. Promotion of Single node/ Bud chip method of Sugarcane Cultivation and IPM in Vegetables.

### Externally Aided Projects

#### Andhra Pradesh Integrated Irrigation and Agriculture Transformations Project (APIIATP)

The main objective of Andhra Pradesh Integrated Irrigation & Agriculture Transformation Project (APIIATP) is improving productivity and farmers income with climate resilience as its cross-cutting theme. This proposed project is based on the impact of Andhra Pradesh Community Based Tank Management Project assisted by World Bank. The total project is to be completed in a span of eight years i.e., from 2017-18 to 2024-25.

The project has proposed four key pillars:

- Improving irrigated agriculture efficiency at farm level
- Promoting adaptive sustainable and resilient agriculture practices
- Supporting climate-friendly market and agri business promotion and
- Project management and capacity building.

In 2022-23, it is implemented in 22 districts of AP except in (West Godavari, Konaseema, Guntur, Palnadu) 565 approved irrigation tank villages. The main activities implemented in 2022-23 under component B1:

1. Maintenance of 16 FPOs formed in 8 districts of AP
2. Support to FIGs/FPOs.
  - Cluster demonstrations on crop diversification and varietal replacement and Good agriculture actices
  - Farmer field schools (Polambadi) integrated with Good Agriculture Practices.
  - Infrastructure support through CHCs, Primary processing units and Water lifting devices and water carrying pipes.

#### Andhra Pradesh Irrigation and Livelihood Project Phase-II

Andhra Pradesh Irrigation and Livelihood Project Phase -II (APILIP-II) with Japan International Cooperation Agency (JICA) assistance is approved by the GOI for implementation in the State of Andhra Pradesh with an objective to increase irrigated area, local productivity and strengthen institutional marketing capacities by rehabilitating existing irrigation systems and supporting integrated farming systems, there by contributing towards improvement of livelihoods of farmers and other rural communities and development of value chain in the state.

The total project is to be completed in a span of eight years i.e from 2017-18 to 2024-25.

Under Agriculture Component of the project, the following activities are being taken up:

1. Promote Farmer Producer Organizations
2. Strengthening of Extension Services of Dept. of Agriculture
3. Establishment of Agricultural Mechanization Training Centres (AMTCs)

In 2022-23 it is implemented in 21 districts of AP except in West Godavari, Kakinada, Konaseema, Krishna, Kurnool. This project is implementing in 298 approved irrigation tank villages.

In 2022-23, it was planned to form 921 VFFs. The awareness trainings are in progress to form VFFS. 150

Farmer Field schools (FFS) and 35 cluster demonstrations are planned to train the farmers. Two AMTCs are planned one at Naira and one in Srikakulam districts. DPRs are submitted to JICA for approval.

#### AP Community managed Natural Farming (APCNF)

Government of Andhra Pradesh has been implementing climate resilient, AP Community managed Natural Farming (APCNF) formerly known as ZBNF in 5300 clusters under PKVY and 5000 clusters under BPKP. For expansion of Natural farming in A.P, Govt. of AP/RySS have secured a Results-Based Lending (RBL) mode 90 million Euro loan from KfW-Germany Bank for the APCNF-KfW Project 2020-25 effective from April 2020. Promotion of APCNF is through capacity building of farmers, long term handholding support with the help of master farmers called CRPs and involvement of Women farmers/Women SHGs.

APCNF incorporates best practices from various agro ecology practices for climate change adaptation like Regenerative Agriculture, Conservation Agriculture, Silviculture, Tree intercropping, Multi-strata Agro - forestry, Farmland restoration, SRI, Nutrient Management and Farmland Irrigation.

#### Outreach and Coverage

APCNF program formerly known as APZBNF has been initiated in June 2015. The field level implementation has commenced from Kharif 2016 on a pilot-basis in 704 villages with funding from Gol and GoAP through Rashtriya Krishi Vikas Yojana (RKVY). During 2020-21, it has been expanded to 3730 villages covering 4.80 lakh farmers and farm workers.

#### APCNF safeguards our collective future by

1. Reducing costs of cultivation, risks, and increasing yields thereby generating more income.
2. It makes agriculture more climate resilient. Producing more food, safe and nutritious food that is free of chemicals.
3. Enhancing soil health, water conservation, regenerating coastal ecosystems and biodiversity. Enhancing human health and nutrition.
4. Reducing the migration of youth from villages and rearing reverse migration to villages.

## AGRICULTURE &amp; ALLIED ACTIVITIES

**Critical Gaps identified in implementation of Scheme:**

- Changing mindset of the farmers and bringing behavioural change takes long time.
- Drudgery involved in preparation of inputs and their application.
- Difficulty in supply of APCNF/ZBNF inputs in large scale due to low cattle population.
- Ready made availability and ease in application of inorganic inputs (Fertilizers, Pesticides, Herbicides etc.)
- Plant material for preparation of botanical extracts is less available.
- Knockdown effect in controlling pests and diseases is high in chemicals when compared to APCNF/ZBNF inputs.

**Action plan for 2023-24**

APCNF programme is implemented under Paramparagat Krishi Vikas Yojana (PKVY), Bharatiya Prakritik Krishi Padhati (BPKP) CSS Schemes of GOI in 3011 Gram Panchayats and expansion of the programme with loan assistance from KFW, a German Government Development Bank (EAP) Project in 719 Gram Panchayats.

- Targeted to cover 10.5 lakh farmers under APCNF with 4.58 lakh ha area.
- Planned to establish 5.0 lakh Kitchen Gardens by the Women Self Help Groups.
- Planned to cover 8.61 lakh farmers to practice PMDS method.
- Knowledge dissemination and handholding support is constantly provided through farmer-driven extension architecture led by Community Resource Persons.
- Mobilization, Planning, Monitoring, input preparation by Women Self Help Groups.
- Focussing Community Resource Persons, SHG leaders, Lead farmers & VOAs for taking up PMDS.
- Conducting State level TOTs, District level TOTs and Village level awareness campaigns.
- Capacity building of field functionaries.
- Model plots for each ICRP to showcase practices.
- Documentation of best-case studies.

- APCNF Package of practices (POPs) to all major crops.
- Convergence with Agriculture and allied departments & other departments like WCD (Nutri gardens), SERP (SHG linkages, Home-stead gardens).
- Establishing Science behind ZBNF by conducting field trials, Research plots.
- Promotion of 365 Days Green Cover (DGC) for increasing cropping intensity through Pre monsoon Dry Sowing (PMDS) and Dry sowing.
- APCNF Video dissemination through Pico projectors, Farmer friendly content and Package of practices.
- Dissemination of APCNF activities and success stories in RBKs and provision of APCNF inputs at RBKs.

**Progress during 2022-23 (From April 2022 to December 2022)**

- APCNF program has been implemented in 661 mandals, 3730 Gram Panchayaths bringing 7,64,796 farmers in 3,29,242 ha area under Natural Farming.
- 6,13,813 farmers practiced Pre- Monsoon Dry Sowing/ Dry sowing methods in 2,48,475 ha.
- 1,50,000 Women SHGs have partnered in the Community managed Natural Farming programme management and extension.
- 2,07,243 Poorest of Poor households raised home stead kitchen gardens in APCNF methods, 3,26,570 farm families have grounded home stead kitchen gardens.
- 9,582 SHGs have purchased cows to take up Natural Farming.
- 5,453 bio-Input shops have been established in villages with the support from Village Organizations (VOs)
- The independent assessment of CCEs data on yields, costs and net incomes in major crops by the Institute for Developmental Studies (IDS), AP proved that Natural farming improves the net incomes of the farmers, as the costs are reduced significantly and there is no signifi-

cant change in yields thereby improving the net incomes of farmers.

- 2,77,920 farmers are practicing NF completely in S2S mode in an extent of 1,11,766 ha.
- 50,000+ SHGs and corresponding 5386 VOs are systematically practicing NF Saptasutra – Implementation of NF Discussions, NF Food, NF Kitchen Gardens, NF Practices, NF Inputs, NF Funds and NF Records.

### Rythu Bharosa Kendrams

- APCNF is already working with 3,009 RBKs out of 10,778 RBKs in the state. VAAs/VHAs are the point persons of RBKs and they have been trained on NF. A community cadre is dedicated to work with each RBK. The APCNF programme shall be implemented in convergence with about 6,360 RBKs by end of 2023-24
- RBKs are becoming Natural Farming Hubs for knowledge dissemination, traceability, certification, identification, E-Crop booking, Farmer Field School, Input-output stalls, Community Hiring Centres (CHCs), Soil and seed testing, etc.

### Farmers Produce Organisation

Farmer Producer Organisation (FPO) is built on the basis of social capital communities, participation in water and soil conservation activities, management of common

property rangelands for livestock, supply of seeds, fertilizer and Community management seed system, Machinery hiring centers, market linkages, networking, financial and technical advices etc. The FPO will intervene in the areas of support for Ground Water Governance, Service to Producer, Agriculture and Livestock, and Credit Linkages.

SFAC, NABARD, NCDC & NAFED are 4 implementing agencies for formation of 10,000 new FPOs across all the states and to provide adequate handholding and professional support for making them economically sustainable duly facilitating adequate market and credit linkages.

State Government has submitted proposal to GOI for designating APDMP as implementing agency and requested for allocation of 130 FPOs. During 2022-23, 5 FPOs are registered under 5 Companies Act out of 91.

Government has issued Orders for constituting the State level Consultative Committee (SLCC) and District level Monitoring Committees (D-MCs). District Level Monitoring & Coordination Committee (D-MC) has been formed in all the 13 districts. The Fourth meeting of SLCC was held on 10th June, 2022.

The implementing agency wise no of CBBOs engaged, FPOs registered for the year 2022-23 are shown in Table.5.8

Table 5.8 Implementing agency wise No of CBBOs engaged, FPOs registered for the year 2022-23

| Sl.No. | Implementing agency | No.of CBBOs engaged | No.of Clusters | No.of FPOs allotted | No.of FPOs registered |
|--------|---------------------|---------------------|----------------|---------------------|-----------------------|
| 1      | NABARD              | 10                  | 61             | 61                  | 03                    |
| 2      | NCDC                | 02                  | 12             | 12                  | 00                    |
| 3      | SFAC                | 3                   | 13             | 13                  | 02                    |
| 4      | NAFED               | 1                   | 05             | 05                  | 00                    |

## AGRICULTURE &amp; ALLIED ACTIVITIES

## Cooperation

Cooperatives have traditionally been promoted and organized in a democratic and structural framework for achieving social and economic betterment of people. Different types of Cooperatives are organized essentially to provide agricultural credit to member farmers, so as to enhance employment to its members and for alleviating rural poverty. Cooperative movement has completed over 100 years of service to farmers and other weaker sections of the Society.

The department of Cooperation is mainly concerned with the administration of Cooperative Laws. The State has been pursuing a liberal policy towards Cooperatives to enable them to function as autonomous and independent bodies. Cooperative Week is celebrated every year starting from November 14th to promote better understanding of the principles and philosophy duly highlighting achievements of various sectors of the Cooperative movement.

### Rural Credit Cooperatives

The Rural Credit Cooperative structure at present is a three tier structure with the Andhra Pradesh State Cooperative Bank at the APEX level 18 branches with 13 District Cooperative Central Banks (DCCBs) at the district level and with 436 branches located in district headquarters, small towns and semi urban areas and 2046 Primary Agricultural Cooperative Credit Societies at village level.

The main objective of the Primary Agricultural Cooperative Credit Societies (PACS) is to provide credit services to its member farmers at village level. The PACSs are actively participating in distribution of Agricultural inputs (Fertilizers, Pesticides, Cattle feed and Seeds) and also doing non-credit business such as Paddy Procurement, Maize etc., Seed Processing, PDS, Insurance services and Supply of Drinking Water by installing RO plants, Maintenance of Petrol Bunks, Rice Mills, Weigh Bridges and Milk Chilling Units and providing warehousing facilities etc. NABARD has been providing assistance to develop PACS as Multi Service Centres.

Kisan Credit Cards have been issued to 15,73,753 farmer members of the PACS. The total financial assistance received so far under Revival Package for Rural

Cooperative Credit Structure is Rs.935.00 Crs and this includes the State's share of Rs.146.31 Crs. The Strategy/action plan to be evolved for restructuring of the PACS in the State coterminous covering areas of 3 to 4 Rythu Barosa Kendras [RBKS] to each PACS.

### Loans to farmers

The A.P. State Cooperative Bank provided Rs.7624.44 Crore (Kharif Rs.5759.27 Crore and Rabi Rs.1865.17 Crore) as production credit (Short term loans) to farmers through the PACS and DCCBs during the year 2022-23 (up to December 2022), under seasonal agricultural operations (SAO/OPP/DTP). APCOB has refinanced an amount of Rs.1819.40 Crore to the DCC Banks under Long Term Agriculture Credit to the extent as against the loaning programme of Rs.4650 Cr. allotted to all the 13 DCCBs during the year 2022-23 up to the end of December, 2022. Towards financial assistance to 20,428 Tenant Farmers, the Andhra Pradesh State Cooperative Bank has disbursed an amount of Rs.134.43 Crores during the year 2022-23 through the PACS.

### Agriculture Infrastructure Fund (AIF) Scheme

Gol launched "Agriculture Infrastructure Fund" under Atmanirbhar Bharat initiative for funding Agri Infra projects at Farm gate and aggregation points to revive the agriculture sector. State government with an objective to develop farm gate infrastructure across the state at RBK level and develop PACS as Multi Purpose facility centres proposed to avail the Central Government Agriculture Infrastructure Fund scheme through Primary Agricultural Cooperative Credit Societies (PACSs) in the State, for which refinance facility is available from NABARD.

Under the scheme, various projects have been approved i.e. Godowns of different capacities, cold rooms, procurement centers, assaying units, collection centres, drying yards and processing equipment like threshers, dryers, boilers and cleaners. These projects were sanctioned for 1282 PACS in Phase-I and in 1305 PACS in Phase-II.

Under Phase I of the project, NABARD has approved for Rs.736.03Crs as loan. The Government has sanctioned 10% margin money of Rs.73.60 Crs (10% of TFO- Rs.736.03 Crs) as loan to PACS on repayment basis. Further, the NABARD has approved Rs. 1108.92 Crs as loan under

Phase II for the transformation of PACS as Multi Purpose Facility Centers at RBKs.

The Government has given administrative sanction for Rs. 30.00 Crs as margin money for the financial years 2021-2022 and 2022-23, out of that Rs.10.00 Crs was released in 2021-2022.

### Construction of Godown

Government has allotted land on long lease of 33 years to the PACS at a nominal rent for construction of Godowns under this scheme. Exemption has been given to the PACS from paying the Stamps duty and Registration fee for availing the land on lease. Mandal level land inspection committees and District level land inspection committees have been appointed for inspecting the land and recommending their suitability.

Under Phase I, out of 1166 godowns sanctioned, 992 are grounded. Under Phase II, out of 1238 sites, 944 sites have been allotted and 842 sites are handed over so far. Under the proposed Phase III of the scheme, 1000 sites have been identified for 2300 godowns and 606 sites are handed over to the societies so far.

### Procurement Centres

Besides godowns, under Phase I, 2156 Procurement centres were sanctioned to 812 PACS and 639 Assaying units have been sanctioned to 345 PACS across the State. As a part of these Assaying centres and Procurement centres, 799 Desktop computers, 1409 Moisture Meters, 455 Weighing Balances and 794 Weighing Scales have been supplied for carrying out procurement and assaying operations.

### Impact of the AIF Schemes

- AIF schemes promoting creation and modernization of agriculture Infrastructure.
- Increase in interest subvention and credit guarantee support provided.
- Improvement in resource provision for agriculture infrastructure and enhancement in agriculture infrastructure capacity.

### Computerization of PACS (Centrally Sponsored Scheme)

The revival of Cooperatives is one of the priorities of the Government and the essential element for revival is computerization of the accounts of 2046 PACS which are primary level societies. APCOB is the nodal agency for implementation of the project. The Cabinet Committee on Economic Affairs (CCEA) in its meeting held on 29.06.2022 has approved the Centrally Sponsored Project for Computerization of PACS. The GoI has estimated Rs.3.91 Lakh as the cost for computerization of PACS under the scheme with a funding pattern of 60:30:10 as Central:State:NABARD shares.

The total cost estimated for computerization is Rs. 80.07 Cr. For the Hardware, digitization and system support components, funds would be shared in the ratio of 60:40 between the Centre and the States. It is estimated that Rs.25.29 Cr would be the State share and Rs.37.94Cr would be the Central share for the above components. The duration of the scheme is 5 years (2022-23 to 2026-27). States were directed to procure hardware by complying with specifications given by NLPSV.

First National Level Monitoring & Implementation Committee (NLMIC) meeting was held on 08.07.2022. As per the Instructions, State Level Implementation & Monitoring Committee and District Level Implementation & Monitoring Committees (DLIMC) have been constituted for implementation of the Project.

The 2nd NLMIC was held on 28.10.2022 following which NABARD has given approval for computerization of 2,037 PACS in the State. An initial amount of Rs.4.83 Cr (Rs. 2.9 Cr towards Central Government Share and Rs.1.93 Cr towards State Government Share) has been sanctioned for rolling out the project. The Nodal Agency i.e., APCOB, State and the District administration are geared up for implementing the project.

### Present Status

Introduced "Digitalization of PACS" to improve the efficiency, transparency and accountability in the functioning of 2037 PACS across the State. As an outcome of the project, farmer members will enhance financial infusion and business opportunities.

## AGRICULTURE &amp; ALLIED ACTIVITIES

## Integrated Cooperative Development Projects (ICDP)

Integrated Cooperative Development Project (ICDP) is being implemented by the Department with the financial assistance of National Cooperative Development Corporation (NCDC) with a core objective of improving infrastructure facilities of societies and to provide Margin Money assistance to societies including the functional societies like Fisheries, Dairies and Handloom etc. Under this scheme, assistance is provided for development of Agricultural production, supply of Agriculture inputs, Marketing, Storage and processing activity.

ICDP Scheme under Phase-I (1989-2016) was implemented in all districts in the State with an outlay of Rs.168.39 Crores. Under Phase-II, the NCDC has sanctioned ICD Projects for (03) Districts i.e. Chittoor, Kurnool and East Godavari with total outlay of Rs. 609.39

Cr with the Project period of five (05) years. NCDC released Rs.141.61 Crores (including State matching share of PIT Component of Rs.2.96 crores) to the State Project Monitoring Cell.

During the year 2021-22, Rs.137.62 Crs loan component was released by the NCDC to the State Government.

During 2021-22 under (3) ICDP-II Projects the activities such as construction of 67 godowns to PACS and repair of 44 old godowns were taken up through e-tender process. 6 Godowns cum office buildings for the PACS under ICDP-II East Godavari are completed and being utilized. The NCDC has released Rs.137.61 Crs towards 2nd year installment. On implementation of the (3) projects over a period of (5) years, 1761 PACSs and other type of societies and 16,34,907 members of those societies will be benefited and improve their livelihoods shown in the Table 5.9

Table 5.9 Sectors covered and get benefitted under the scheme.

| Sl.No. | Name of the Society   | Activities   |
|--------|---|--|
| 1.     | District Cooperative Central Bank                                 | Construction of Office Buildings and Infrastructure and Share Capital assistance for Business development.   |
| 2.     | Primary Agriculture Cooperative Societies                         | Construction of Godowns, Godowns cum Office Buildings, Repairs of existing Godowns and Infrastructure and Share Capital assistance for Business development. |
| 3.     | Cooperative Joint Farming Societies                               | Share Capital & Loan assistance for land development and Agriculture inputs.   |
| 4.     | Weavers Cooperative Societies                                     | Share Capital & Loan assistance for working capital for production & Marketing vehicles etc.,  |
| 5.     | Fisheries Cooperative Societies                                   | Share Capital & Loan assistance for purchase of Nets and Boat & Marketing.   |
| 6.     | Dairy   | Share Capital & Loan assistance for purchase of milk animals and installation of Milk collection centers and other infrastructure etc.,                      |
| 7.     | Mandal Mahila Cooperative Samakhyas                               | Share Capital & Loan assistance to Self Help Groups (SHG's) through the Zilla & Mandal Samaikyas towards Income Generating Activities in Rural areas.        |
| 8.     | The Mission for Elimination of Poverty in Municipal Areas (MEPMA) | Share Capital & Loan assistance to Self Help Groups (SHG's) through the MEPMAs towards Income Generating Activities in Urban areas.                          |



## Revival of Dairy Cooperatives

### Mahila Dairy Sahakara Sanghalu (MDSS)

The State Government has committed for revival of the dairy cooperatives in the State in order to offer the best possible price to the dairy farmers. To fulfill this commitment given to the farmers, the State government has entered MoU with the World's biggest cooperative dairy "Amul" for marketing support and also planned to organize Mahila Dairy Sahakara Sanghalu (MDSS) in all milk potential villages.

Andhra Pradesh has 60 lakhs milch animal population of which 58% are buffaloes. The State has got world famous draught breed known as "Ongole" & the poor man's cattle breed known as "Punganur". More than 27 lakh women in rural areas are engaged in dairying activity. A.P is a state where majority of the milk procured in the state is in unorganized sector.

### Jagananna Paala Velluva Programme

The APDDCFL is implementing the entire innovative program called Jagananna Pala Velluva by organizing Mahila Dairy Associations and Mahila Dairy Sahakara Sangam at village level and providing required infrastructure to the renewal formed societies to become self-sustainable viz., quality testing machines, milk cans and support in identification of secretaries, promoters, training them and developing software to monitor the entire program on real-time basis in the entire State.

Jagananna Paala Velluva Project was launched initially with 24,277 women dairying farmers of 401 villages of erstwhile Chittoor, Prakasam and YSR Kadapa Districts by Hon'ble Chief Minister on 02-12-2020. The initial declared price indicated by Amul was Rs.71.47 per Ltr, but now the price paying to farmers is Rs.87.56 per Ltr.

Now, this project was expanded to 17 districts of the newly formed districts covering 2, 52,193 women dairying farmers of 3,108 villages and collecting 1,71,230 Liters of Milk/day.

The State Government has entered strategic partnership with Gujarat Cooperative Milk Marketing Federation (Amul) on 21.07.2020 to handhold dairy activities through dairy cooperatives in the state. It is proposed to emulate the 3-Tier Amul model to ensure efficiency, transparency, and swiftness in functioning of the

societies. Testing of milk sample is done for its quality (Fat & SNF %) in the presence of farmers at Milk Collection Centers and issue of receipts on the spot to the milk pourers. Payment to the milk pourers is released directly to their bank accounts online once in 10 days.

### Support to the Women Society

The State Government has been allotting 5 cents of Government land for construction of BMCU buildings and 3.50 cents of Government land for construction of AMCU building to support the MDSS at village level. Support is also being given to the MDSS for construction of BMCU buildings @ Rs. 20.42 lakhs and to the AMCU buildings @ Rs.12.81 lakhs for establishment of Milk Collection Centers in the identified Milk Potential Villages with a total projected cost of Rs. 2,451.66 Cr.

Detailed project proposal for the years of 2022-23, 2023-24 and 2024-25 was submitted to Gol for creation of Milk Testing & Chilling Facilities, Trainings and extension services to the women dairying farmers under National Programme for Dairy Development (NPDD) and was sanctioned with a financial outlay of Rs. 202.62 Crores.

#### Success Stories

National Cooperative Development Corporation (Ministry of Cooperative, Government of India) notified with the Regional Awards for the year 2021 and received a cash reward of Rs. 25,000/- for Regional Cooperative Excellence Award and Rs. 20,000/- for Merit Award for the 5 Mahila Dairy Association Centers (MDAC) in the state.

### Marketing Cooperative Societies

The 13 District Cooperative Marketing Societies (DCMSs) undertake procurement of agricultural produce to enable farmers to get minimum administered prices for their produce. Besides this, the DCMSs procure seeds on behalf of AP Seeds Development Corporation and also undertake procurement activities on behalf of MARKFED in addition to carry on local business activities viz. sale of Fertilizers, seeds, Consumable articles, Stationery items etc., to various departments which are available in the districts. The performance status of DCMSs is given in Table 5.10 below.

## AGRICULTURE &amp; ALLIED ACTIVITIES

Table 5.10 The performance status of DCMS

| Sl.No. | Particulars                | For the year 1.4.2022 to 31.12.2022 |
|--------|----------------------------|-------------------------------------|
| 1.     | Share Capital Contribution | 439.56                              |
| 2.     | Business Turnover          | 225166.81                           |
| 3.     | Profit                     | 399.31                              |
| 4.     | Loss                       | 70.69                               |
| 5.     | Accumulated losses         | 262.65                              |
| 6.     | Assets                     | 21433.59                            |
| 7.     | Liabilities                | 18305.56                            |

### AP MARKFED

AP MARKFED is an apex organization for the Cooperative Marketing Societies (CMS) in the State supplying agricultural inputs, Cattle Feed, fertilizers, gypsum, provision and other requirement to private run institutions and Government Hostels. Subsequent to interdiction of single window system in the State in 1987, MARKFED offers its services to through RBKs, PACSs at the primary level.

AP MARKFED played a key role in creation of Price Stabilization Fund with Rs.3000 Crores to protect farmer interest and MSP for certain crops like Turmeric Minor Millets, Sweet Oranges, Banana, Onion Etc., and takes under procurement of other commodities under commercial account every year depending upon the market situation.

### Rashtriya Krishi Vikas Yojana (RKVY- RAFTAAR)

The Rashtriya Krishi Vikas Yojana - Remunerative Approaches for Agriculture and Allied Sector Rejuvenation (RKVY - RAFTAAR) is a flagship programme of the Government of India with 60% grant by the Central Government and 40% grants by the State Plan Scheme for construction of Godowns by the Primary Agricultural Cooperative Society under supervision of Cooperation Department.

### Labour Contract Cooperative Societies

The Rashtriya Krishi Vikas Yojana - Remunerative Approaches for Agriculture and Allied Sector Rejuvenation (RKVY - RAFTAAR) is a flagship programme of the Government of India with 60% grant by the Central Government and 40% grants by the State Plan Scheme

for construction of Godowns by the Primary Agricultural Cooperative Society under supervision of Cooperation Department.

### Labour Contract Cooperative Societies

Labour Contract Cooperative Societies function in a 3-tier structure i.e., Primary Level 1821 LCCS in the State and all District Federations of Labour Contract Cooperative Societies; State Level – AP State Cooperative Labour Contract Cooperative Societies Federation Ltd. Now all the District Level Federation and State Level Federation are under Liquidation.

### Cooperative Joint Farming Societies

Joint Farming Cooperatives are in the three-tier structure i.e., Primary Level-364 CJFS and District Level-13 District Federation of Cooperative Joint Farming Societies and State Level - Andhra Pradesh State Cooperative Joint Farming Societies Federation Ltd. The Government issued orders for winding up of defunct Cooperative Joint Farming Societies (CJFSs) and other Cooperative Joint Farming Societies on the representation of the members of the societies.

### Consumer Cooperative Stores

Consumer Cooperative Stores have been assigned an important role in distribution of good quality consumer articles at competitive prices to control price line in both urban and rural areas. About 259 Consumer Cooperative Stores are functioning in the State. Consumer Cooperative Stores are also undertaking distribution of textbooks, notebooks, cloth, crackers and supply of various stationary items and provisions to Government hostels etc.

### AP State Co-Operative Union

A.P. State Co-Operative Union is an Apex Cooperative institution in the field of Cooperative Education and Training and is functioning with Vijayawada as Headquarters. There are four Cooperative training Centres (CTCs) located at Vijayawada, Rajamundry, Ananthapur and Y.S.R.Kadapa districts in the State working under APSCU. The APSCU is offering Diploma in Co-operative Management and Computer Applications and also publishing a Cooperative monthly magazine titled as "Sahakaara Samaacharam" for awareness building and propagation of Cooperative Principles and Cooperative Movement in the State. It was included in the X schedule of AP Reorganization Act.

With regard to the distribution of funds an amount of Rs.5,08,66,316.28 received from the Telangana State Cooperative Union Ltd., Hyderabad on 20.09.2022 as per the balances as on 01.06.2014. But, The A.P. State Cooperative Union was bifurcated on February 2016. From 02.06.2014 to February 2016 Cooperative Education Fund collected from both states i.e., Telangana and Andhra Pradesh and the funds are held with the Telangana State Cooperative Union only. Hence we have requested the Telangana State Cooperative Union to distribute the funds as per the balances as on February 2016 including interest from February 2016 to up to date.

### AP State Co-Operative Rural Irrigation Corporation Ltd

The AP State Cooperative Rural Irrigation Corporation Ltd., undertakes drilling of bores, construction of check dams etc. in Agriculture sector. The State Horticulture Mission/Horticulture department has identified the APSCRIC Ltd. as the "Nodal Agency" for construction of Farm ponds in Horticulture fields. It was included in IX Schedule of AP Reorganization Act. Demerger proposal was submitted to the Government and the same was approved.

### Rural Electric Cooperative Societies

The key objective of the Rural Electric Cooperative Societies is to purchase electricity in bulk from nearest DISCOM and distribute for domestic, industrial and agricultural purpose, functioning under the control of Cooperative Department. There are 3 RECS 1) Kuppam RECS Ltd., Chittoor District 2) Anakapalli RECS Ltd., Kasimkota Visakhapatnam District 3) Cheepurupalli RECS Ltd., Cheepurupalli, Vizianagaram district.

### Andhra Pradesh Cooperative Tribunal

As per the provisions of Section 75 of AP Cooperative Societies (APCS) Act, 1964, the AP Cooperative Tribunal (APCT) was constituted in the State and is located at Vijayawada. The APCS Act, 1964 provides two different forum of appeal on decisions or orders, awards passed by the Quasi-Judicial Officers of the department. One is the APCT being an appellate forum in respect of certain Sections specified under Section 76 of the Act and as per Section 77 of the Act the other being the Government and the Registrar of Cooperative Societies are the appellate authorities in respect of other orders or decisions which are not covered under the purview of APCT Act, 1964. The APCT, Vijayawada also has original jurisdiction over the disputes filed under AP Mutually Aided Cooperative Societies Act, 1995.

### Audit

There is a separate Audit Wing for Audit in Cooperative Department headed by the Chief Auditor who works under the General superintendence and under the control of Registrar of Cooperative Societies. The Chief Auditor shall audit the accounts of a society at least once in a year. The status of audit for the years 2018-2019 to 2021-2022 (upto 31.12.2022) is shown in Table.5.11

Table.5.11 Status of Societies audit for the years 2018-2019 to 2021-2022 (upto 31.12.2022)

| Sl. No | Year of Audit              | No. of Societies programmed |          | Achievement |          |
|--------|----------------------------|-----------------------------|----------|-------------|----------|
|        |                            | Aided                       | Un-aided | Aided       | Un-aided |
| 1      | 2018-2019                  | 7540                        | 12440    | 7540        | 12440    |
| 2      | 2019-2020                  | 5565                        | 11766    | 5565        | 11766    |
| 3      | 2020-2021                  | 7476                        | 11408    | 7425        | 11390    |
| 4      | 2021-2022(upto 31.12.2022) | 7530                        | 11292    | 7238        | 10728    |

## AGRICULTURE &amp; ALLIED ACTIVITIES

For the year 2021-22, (18822) Cooperative Societies were programmed for audit, of which (7238) are under aided category and remaining (10728) un-aided category and the audit is under progress.

## Horticulture

Over the years, there has been a structural shift in the cropping pattern in the state and horticulture sector is growing at a faster pace than agriculture towards making Andhra Pradesh a major horticulture hub. The agrarian state of Andhra Pradesh is heading towards a value addition platform from the conventional production approach. The returns from Horticulture per unit of land are higher as compared to Agriculture. Horticulture, as a climate resilient alternative involving less risk, assures higher income to farmers. Horticulture sector turned out to be an essential component for food and nutritional security in the state and is integral for food and nutritional security in the State. Horticulture comprises of fruits, vegetables, flowers, spices and plantation crops.

'Horticulture' Sector is integral for food and nutritional security in the State. Horticulture comprises of fruits, vegetables, flowers, spices and plantation crops. Wide range of agro-climatic conditions of Andhra Pradesh is conducive for growing a large variety of Fruits, Vegetable Crops including Root and Tuber crops, Ornamental crops, Spices, plantation crops like Coconut, Cashew and Cocoa etc.,

The Government of Andhra Pradesh is committed to farmer centric programmes and identified Horticulture sector as one of the growth engines in economic development of the State. In Andhra Pradesh, the area under Horticulture crops is 17.95 Lakh Hectares with a production of 314.76 Lakh MTs (Final estimates) during 2020-21. The crop wise Area and Production particulars of Horticulture crops for 2020-21 are given in Annexure 5.18 and the details in brief are shown in Table 5.12

Table.5.12 Area and Production Status:

| Sl. No | Crop Category               | 2020-21 Final    |                        |
|--------|-----------------------------|------------------|------------------------|
|        |                             | Area in Lakh Ha. | Production in Lakh MTs |
| 1      | Fruits                      | 7.39             | 178.86                 |
| 2      | Vegetables                  | 2.35             | 72.92                  |
| 3      | Flowers                     | 0.18             | 2.77                   |
| 4      | Plantation Crops            | 5.44             | 43.52                  |
| 5      | Spices                      | 2.55             | 16.55                  |
| 6      | Medicinal & Aromatic Plants | 0.04             | 0.14                   |
|        | Total                       | 17.95            | 314.76                 |

(Source: Horticulture Department)

### Productivity enhancement and export potential

Andhra Pradesh ranks first in productivity of Oil Palm, Papaya, Lime, Cocoa, Tomato, Coconut and Chillies. Area under Horticulture crops is 17.95 Lakh Hectares and production is 314.76 Lakh MT. Andhra Pradesh is the largest producer of fruits in the country contributing 15.6% of the total country's fruit production. District wise Productivity of Growth Engine crops are given in Annexure.5.19 during 2020-2021

### Goal

- Crop Diversification from traditional agriculture crops to commercial horticulture crops to an extent of 65796 Ha.,
- Bringing additional area 1.50 Lakh Ha., under Micro Irrigation.
- Increasing Production, Productivity & Quality of Horticulture produce by adoption of Multi-Storied Cropping, Intercropping

### Strategy for Development

- Promotion of Multi-Cropping to enhance productivity per unit area for additional income to farmers.
- Encouraging efficient and effective utilization of water and fertilizers through Micro Irrigation.
- Promoting Agri Infrastructure like Collection Centres and Solar Cold Rooms under MIDH.
- Mobilization of farmers into Farmers Producers Organizations (FPOs) for creating forward and backward linkages for better returns and doubling farmer's income.
- Promotion of High Density, Block plantation/ boundary plantation in an extent of 2652 Ha., under National Bamboo Mission.
- Adopting modern technologies such as Protected Cultivation (Poly houses & Shadenet houses) for cultivation of High value flowers and vegetables for higher returns.
- Focus on Post-Harvest Infrastructure like Pre-Cooling, Cold Storages, Ripening Chambers, Refer Vans, Farm Fresh Vegetables, Vending Vans etc.,

### Achievements of 2022-23

- Andhra Pradesh stands in first position in Area, Production and Productivity of Oil Palm with an area of 1.92 lakh ha which is 53% (1.41 lakh Farmers) area in the Country.
- Horticulture Sector has recorded 10.56% growth over the previous year and contributed Rs.52,860 Crore during 2021-22 (AE) to GVA of Andhra Pradesh.
- An area of 28,142 Acres has been brought under Oilpalm cultivation during 2021-22 in the State which is highest in the Country for any one year. During current year, an additional area of 22,433 Acres was brought under Oil palm plantation from other traditional crops as part of Crop Diversification.
- During 2022, Five FPO's have received Dr.YSR Life Time Achievement Awards.
- Andhra Pradesh has emerged as the biggest exporter of Banana and was awarded by ICAR-NRC, Banana, Tiruchirapalli, Tamilnadu for export promotion. About 1,12,571 MT of Banana have been exported during the last three years to different Countries from Andhra Pradesh.
- About 1888 MTs of Mango has been exported to different countries from Andhra Pradesh.
- 12,960 after sales service campaigns were organized covering 1,00,600 farmers for maintenance of Micro Irrigation systems and its optimal utilization under YSR Thotabadi Programme.
- 2060 crop specific Thotabadi programmes were organized in various horticulture crops covering 69,780 farmers for productivity and quality enhancement in Horticulture crops.
- During 2022-23, so far 2,02,079 farmers registered for Micro Irrigation systems to an extent of 2,38,070 ha., through RBKs.
- Under Mission for Integrated Development of Horticulture (MIDH), Centre of Excellence for vegetables and flowers with state of art facility has been created at Kuppam in Chittoor district. 15 Lakh grafted and 29 Lakh non-grafted vegetable seedlings are produced and distributed in 2022-23.
- The Government has proposed for Establishment of Centre of Excellence for Vegetables & Spices in Gundlapalli (V) of Palnadu (D) and Centre of Excellence for Banana in Pulivendula Constituency of YSR District.
- The Government of Andhra Pradesh has focused in encouraging formation of Farmer Producer Organizations (FPOs) for making farmers ease in their operations like aggregation, collection of produce and for marketing to get remunerative price by avoiding middle man.
- The Department of Horticulture has supported 263 FPOs with financial achievement of Rs.18.65 Crores towards Promotional cost, Integrated Pack Houses, Collection Centres, Transport vehicles, other infrastructure facilities and marketing.
- Government of A.P is focused to establish (945) Collection Centres and (344) Cold Rooms in cluster mode at RBKs to connect all the FPOs with the traders in all (26) districts. Out of which (649) Collection Centres and (99) Cold Rooms were sanctioned so far.
- Government of Andhra Pradesh is the first State to announce MSP for Horticulture crops i.e., Banana (Rs.800/Q), Turmeric (Rs.6850/Q), Onion (Rs.770/Q), Sweet Orange (Rs.1400/Q), Chillies (Rs.7000/Q) which are not covered by GOI.
- To ensure supply of quality plant material to the farmers, about 2932 nurseries have already been registered under 'Andhra Pradesh Registration of Horticulture Nurseries (Regulation) Act, 2010'.
- An amount of Rs.230.72 Crore has been released to the 2,57,479 horticulture farmers towards input subsidy of horticulture crops damaged due to various Natural Calamities through DBT. An amount of Rs.182.60 Crore has

## AGRICULTURE &amp; ALLIED ACTIVITIES

been released recently as additional compensation for 90,789 horticulture farmers for Coconut and Cashew crops damaged due to Titli Cyclone-2018 by the Government of A.P.

- An area of more than 2,89,730 Acres has been brought under remunerative horticulture crops in the last 3 years duly replacing less remunerative crops like upland Paddy, Tobacco, Sugarcane, Casuarina, Eucalyptus etc.,
- Since 2019-20, the Department has spent about Rs.2740.50 Cr, through the schemes being implemented by the department and about 11,10,870 farmers are benefitted in Horticulture Sector.

### Post-Harvest Infrastructure

The existing infrastructure in the state cover 373 Cold Storages with a capacity of 20.60 Lakh MTs, 247 Ripening Chambers with a capacity of 54315 MTs, 4762 Pack houses with a capacity of 1,42,860 MTs, 16 Integrated Pack house with a capacity of 256MTs, 174 Mango Processing Units with a capacity of 66,850 MTs and 416 Cashew Processing Units with a capacity of 46,170 MTs. The state has newly created Post Harvest Infrastructures which include 5 Solar Poly Driers with a capacity of 2.50MTs, 40 Solar Cold Room / Chambers with a capacity of 310 MTs and 17 Coconut pack houses with storage capacity of 35 lakh nuts.

### Programmes implemented for holistic development of Horticulture

Several farmer oriented activities are being taken up to encourage adoption of modern technologies, evolving sustainable farming practices, provision of Post-Harvest infrastructure facilities and dissemination of latest knowledge to the farming community. Further, in an attempt towards developing an organized production system and integrated value chain development, farmers are being organized into Farmer Producer Organization (FPOs) and seven professional agencies engaged to mentor and strengthen the FPOs into sustainable business entities.

#### 1) Pradhana Mantri Krishi Sinchayee Yojana

PMKSY- APMIP is the unique and first comprehensive project being implemented in a big way in Andhra

Pradesh. APMIP was launched with an objective of enhancing the crop productivity by improving the water use efficiency through Micro Irrigation systems for the benefit of the farmers. In view of deficit Rainfall, Rain shadow regions, unpredictable rains and considerable depletion of ground water, farmers have opted for Drip Irrigation. To achieve the concept of 'Per Drop More Crop', Micro irrigation is taken up particularly in the districts of Rayalaseema, apart from other backward areas in Andhra Pradesh.

It is an ongoing project and so far 13.41 lakh hectares has been covered under Micro Irrigation in 26 Districts in the State from 2003-04 to 2021-22, benefiting 11.91 lakh farmers. To encourage farmers for adopting Micro Irrigation the State Government is giving top up subsidy.

### Impact of Micro Irrigation

The component wise impact of Micro Irrigation is shown in Table.5.13

Table 5.13 Impact of Micro Irrigation

| Sl. No | Component   | 1 Lakh Ha                          | 10 Lakh Ha                           |
|--------|---|------------------------------------|--------------------------------------|
| 1      | Water saving  | 15 TMC                             | 150 TMC                              |
| 2      | Power saving<br>1,553 kWh/Ha<br>Worth @ 4/ unit     | 1553 lakh kWh<br>Rs.62 Crore       | 15,530 lakh kWh<br>Rs.620 Crore      |
| 3      | Labour saving<br>52 Mandays / Ha<br>Worth @ 245/day | 52 lakh<br>Mandays<br>Rs.127 Crore | 520 lakh<br>Mandays<br>Rs.1270 Crore |
| 4      | Fertilizer saving<br>50 Kg / Ha                     | 5000 Tons                          | 50,000 Tons                          |
| 5      | Reduction in cost of cultivation<br>Rs.21,500 / Ha  | Rs.215 Crore                       | Rs.2150 Crore                        |
| 6      | Additional Net Income<br>Rs.1,15,000 / Ha           | Rs.1500 Crore                      | Rs.15,000 Crore                      |

Reference Report: 3rd party report by NABCONS.

### Highlights of AP MIP

The annual action plan for 2022-23 of Per Drop More Crop (PDMC) under Rashtriya Krishi Vikas Yojana – Remunerative Approaches for Agriculture and Allied Sectors Rejuvenation (RKVY – RAFTAAR) with a project outlay of Rs.1395 Crore to cover an area of 1.50 lakh Ha has been approved by Government through G.O.Ms.No. 493, dt.02-08-2022 of Agriculture and Cooperation (H&S) Department.

Farmer's Bio-metric registration is through mobile app in Rythu Bharosa Kendras. All registrations are Aadhar based and Bio-Metric enabled. Registrations, preliminary inspections will be done by the concerned in their respective logins. Administrative

sanctions were issued for 54,195 Ha and grounding of MI installations completed in 51,733 Ha during this financial year.

#### Action Plan for 2023-24

Proposed to cover an area of 1.50 Lakh Ha under Micro irrigation with a total outlay of Rs.1395.45 crore with total subsidy of Rs.1171.81Crore shared by GOI and state (GOI Rs.445.67 Crore & state Rs.726.14 crore.) and farmer Share is Rs.223.64 Crore.

## 2) Mission for Integrated Development of Horticulture (MIDH)

The Mission was launched to promote holistic growth of Horticulture sector through an area based regionally differentiated strategies. A Centrally Assisted State Development Scheme – the Mission for Integrated Development of Horticulture (MIDH) is being implemented in the State by the State Horticulture Mission. The focus of the programme is to provide comprehensive development of all the sub-sectors of Horticulture so as to provide additional income to Horticulture growers.

This programme is under implementation in (9) districts of Andhra Pradesh viz., Srikakulam, West Godavari, Guntur, Prakasam, Nellore, Chittoor, Ananthapur, Kadapa & Kurnool and also in 3 ITDA's viz., Paderu, R.C.Varam and Seethampeta. The major components covered under MIDH are (a) Area Expansion (Perennial and Non-Perennial crops) (b) Rejuvenation of senile orchards (c) Protected Cultivation (d) Post Harvest Management (e) Creation of Water Resources (Farm Ponds) (f) Farm Mechanization (g) Capacity Building.

Under the scheme, an amount of Rs.10012.30 Lakh (up to 18.01.2023) has been spent so far under various components during 2022-23. During 2023-24, it is proposed to take up plantation under MIDH in an area of 16460 Ha and establishment of other components with a total financial outlay of Rs.18000.00 Lakh.

### 3) Rashtriya Krishi Vikas Yojana (RKVY)

RKVY is a Centrally Assisted State Plan scheme to implement major activities of Horticulture sector in Non-SHM Districts viz., Parvathipuram Manyam, Alluri Sitharama Raju, Anakapalli, Vizianagaram,

Visakhapatnam, Konaseema, East Godavari, Kakinada, NTR, Krishna and also the projects under integrated vegetable production which are not covered in MIDH are being implemented in all the (26) Districts. The aim of RKVY is to increase public investment in infrastructure facilities and provide flexibility and autonomy in the process of planning and executing schemes in the Horticulture sector.

Under this scheme, components like Horticulture Infrastructure Fund / Post Harvest Infrastructure like Collection Centres & Solar Cold Rooms, Crop Diversification, production of quality plant material, area expansion, permanent pandals, Promotion of Vegetables, IPM - Mango / Cashew / Chilli / Vegetables & Onion, Protected Cultivation (Shadenet houses & Poly houses), etc., are being implemented for sustainable growth in Horticulture sector.

#### Major initiatives under RKVY Schemes

- 40% increase in productivity through Pandals & Trellies system in creeper vegetable crops.
- Quality production and increased productivity in vegetable crops by encouraging the good quality hybrid seeds in Vegetables instead of local varieties.
- Creation of Post-Harvest infrastructure like Collection Centres & Solar Cold Rooms.

#### Achievements under RKVY during 2022-23

- Under the scheme, an amount of Rs.1333.45 Lakh has been spent so far under various components during 2022-23.
- Covered 263 FPOs with financial achievement of Rs.18.65 Crore towards Promotional, Integrated Pack houses, Collection centres, Transport vehicles, other infrastructure facilities and marketing etc.

## 4) National Mission on Edible Oils(NMEO-OP) Oil Palm

Andhra Pradesh stands in first position in Area, Production and Productivity of Oil Palm with an area of 1.92 lakh Ha with 1.41 lakh Farmers in 17 districts (i.e., Srikakulam, Parvathipuram Manyam, Vizianagaram, Visakhapatnam, Alluri Sitharama Raju, Anakapalli,

## AGRICULTURE &amp; ALLIED ACTIVITIES

Kakinada, East Godavari, Konaseema, Eluru, West Godavari, NTR, Krishna, Sri PottiSriramulu Nellore, Ananthapur, Tirupati and Chittoor for Oil Palm Cultivation) of Andhra Pradesh spreading over in 236 mandals.

The average productivity of bearing plantations is 19.81 tons FFB per Ha. Out of 1.92 lakh Ha, the bearing area is 1.12 lakh Ha from which the production is 18.49 lakh MTs of FFBs with 3.20 lakh MTs of CPO during oil year i.e., 2021-22. Eluru district has highest area under Oil Palm i.e., 61,787 Ha.

13 Processing units were established by Oil Palm Companies with a Capacity of 461MT/Hr, working with Government under this programme. These companies have a buy-back arrangement for purchase of Fresh Fruit Bunches (FFB's) from farmers in the factory zones allotted to them at the rate fixed by the Government. During 2022-23, an area of 16918 Ha was identified and 8973Ha (upto 18.01.2023) plantation completed against the target of 20,000Ha. Similarly against the financial outlay of Rs.10,414.91 lakh the achievement was Rs.4,335.56 lakh (upto 18.01.2023).

During 2022-23, it is proposed to take up plantation under NMEO-OP in an area of 24,000 Ha with an amount of Rs.12,916.35 Lakh.

## 5) Externally Aided Projects

### A) Andhra Pradesh Integrated Irrigation and Agriculture Transformation Project

The Andhra Pradesh Integrated Irrigation and Agriculture Transformation Project (APIATP) is being implemented with World Bank funds through Water Resource Department as Nodal Agency with an objective to improve the productivity of Horticulture crops near Ayacut area. The project period is 7 years (from 2017-18 to 2024-25).

The components such as Area Expansion of Banana, Cocoa and Cashew, protected cultivation, INM & IPM of Horticulture crops, Permanent Pandals, fruit covers are being implemented to improve the Productivity and Quality of Horticulture produce. Further, the components such as Formation & Strengthening of FPOs, Regular Transport vehicles, Solar Cold Room, Onion Storage Structures and Minimal Processing Units such as Cashew Processing units are being implemented for

FPOs to improve the Post-Harvest Quality of the produce.

The budget allocated for the total project is Rs.127.70 Crore. An amount of Rs.13.49 Crore expenditure incurred up to 2021-22. During 2022-23, Budget allocated is Rs.57.25 Crore, released Rs.3.71 Crore and expenditure incurred upto 20.12.2022 is Rs.1.31 Crore.

### B) Andhra Pradesh Irrigation and Livelihood Improvement Project – JICA

The APILIP project is being implemented with Japan International Cooperation Agency (JICA) funds through Water Resource Department as Nodal Agency with an objective to develop the food value chain of strategic crops on pilot basis. The project period is 7 years and is being implemented in 6 districts i.e. Dr. BR Ambedkar Konaseema, NTR, Palnadu, Chittoor, Tirupathi and Annamayya of Andhra Pradesh for Value Chain Development of strategic crops such as Coconut, Mango (Fresh & Processing), Chilli and Tomato on pilot basis. The budget allocated for the total project is Rs.40.35 Crore.

The components such as IPM, INM, Fruit covers, Fertigation through Micro Irrigation, Coconut seedling nursery, Shade net houses have been implemented to improve the productivity and quality. The components such as Coconut Pack Houses, Agri Input Centres and Solar dryers are being implemented to improve the value addition of the selected strategic crops as a Pilot programme.

An amount of Rs.3.97 Crore expenditure incurred up to 2021-22. During 2022-23, Budget allocated is Rs.1.79 Crore, amount released is Rs.0.50 Crore and the expenditure incurred (upto 20.12.2022) is Rs.0.02 Crore.

### Dr. YSR Thotabadi

2060 crop specific Thotabadi programmes are started and ongoing covering the 61,800 farmers for productivity and quality enhancement in Horticulture crops during the year 2022-23.

#### Highlights and Initiatives

- Farmers Producers Organization – Public Private Partnership (FPO-PPP) projects have been started with INI Farms Pvt. Ltd & Desai Fruits and Vegetables Pvt. Ltd. (for Banana exports), Sreeni Food Park (for Tomato Value Chain Development), ITC Limited (for



---

 AGRICULTURE & ALLIED ACTIVITIES
 

---

Food Safe Chillies production) and Mondalez (for value chain development of cocoa), Ninja Cart for direct procurement of fruits and vegetables with FPOs/Farmers group, Big Basket, Metro Cash and Carry.

- Value chain development-Under Special intervention, Govt. of A.P is implementing Chilli Value Chain Development which enabled farmers to improve the Agricultural Productivity and to meet Global Quality Standards in an integrated manner. During last three years, under Chilli Value Chain Development an area of 90,000 Acres was brought under quality chilli production benefitting 30,000 farmers. During 2022-23, an area of 75,000 Acres was proposed covering 20,000 farmers.
- To ensure supply of quality plant material to the farmers, about 2932 nurseries have already been registered.
- Promotion of High Density, Block plantation/ boundary plantation in an extent of 2652 Ha., under National Bamboo Mission.
- Government of A.P is focused to establish (945) Collection Centres and (344) Cold Rooms in cluster mode at RBKs to connect all the FPOs with the traders in all (26) districts, out of which (649) Collection Centres and (99) Cold Rooms were sanctioned so far.
- The Government has proposed for Establishment of Centre of Excellence for Vegetables & Spices Gundlapalli (V) of Palnadu (D) and Centre of Excellence for Banana in Pulivendula Constituency of YSR District.
- Department of Horticulture is promoting direct market linkages with companies like Future Group, Big Basket, Ninjacart, Kisan Network, Suma Agro etc., to facilitate farmers to sell their produce directly.
- 14 Integrated Pack Houses were sanctioned and grounded in the state to reduce Post-Harvest Losses and facilitate direct marketing.
- Under Market Intervention Programmes, Direct Marketing Linkages between Corporates and FPOs were organized. Retail Outlets were

sanctioned along with Post-Harvest Infrastructure like Pack Houses, Cold Storages, Ripening Chambers, Onion Graders and Minimal Processing Units.

### Introduction of New Crops

**Crop & Varietal Diversity:** Introduction of new crops like Dragon fruit, Taiwan Guava, Mauritius variety Pine apple, Straw berry, Cinnamon, Nutmeg and vegetables in agency area of Chintapalli, improved Black Pepper variety, improved variety of Turmeric & Ginger, Japanese Mint, multiple cropping in coconut and intercropping in Oil palm and other plantations are the new interventions.

During 2022-23, the Department of Horticulture has identified the potential areas in concerned districts for promotion of Exotic and Niche fruits to an extent of 605 Ha, with a financial outlay of Rs.144 lakh. Promotion of High Density, Block plantation/ boundary plantation in an extent of 2652 Ha., under National Bamboo Mission.

### Critical Gaps Identified in Implementation

The critical gaps identified are Technology infusion, Market Linkage, Improper handling of produce and wastage, Transforming Agriculture into Agri. Business and Value Addition.

### Remedial Measures to fill the Gaps

- Regular Awareness / Training programmes on latest technologies at all levels.
- Effective utilization of print and electronic media in disbursement of technology, programmes / schemes implemented by the department and alert on seasonal conditions.
- Abolishing intermediaries between farmer and consumer. Government has already initiated PPP for transfer of technology & developing direct material linkage as well as value chain development. This has to be done at a greater pace.
- Promotion of processing industries.
- Promotion of storage structures like Cold Storages, (Multi Chambers), Ripening Chambers & Cold Rooms.

## AGRICULTURE &amp; ALLIED ACTIVITIES

**Key Expected Outcomes 2023-24:**

- Bringing Additional area of 1,50,000 Ha., under Microirrigation.
- Bringing Additional area of 65796 Ha., under Fruits & Plantation Crops.
- Production and supply of quality plant material of 8,95,000 in horticulture farms.
- Creation of Post-harvest infrastructure like Ripening Chambers, Cold Storages, Pack houses and Common facility Centres like Collection Centres, Cold Rooms for grading, sorting, packing to reduce Post-Harvest losses.
- Formation and Strengthening of FPOs through professional agencies and linking Horticulture produce to markets & corporates.
- Development of Clusters, introduction of high yielding varieties, improving production, productivity, quality and Promotion of Export of Horticulture produce.

**Animal Husbandry**

Livestock sector plays a key role in the economy where the poor contribute to growth directly. Being a source of livelihood and provider of draught power, manure and energy, livestock forms an essential part of the socio economic structure of rural farmers. The progress in the sector is inclusive in nature as it results in balanced development of the rural economy particularly in reducing poverty amongst the weaker sections and providing stability to family income. The Livestock assures drought proof mechanism by providing recurring and sustainable income to enhance the Socio-economic conditions of the rural farmers.

Through providing nutrient rich food products, draught power, dung as organic manure and domestic fuel, hides and skin, animals as a regular source of cash income are backbone for rural households. Livestock is a natural capital, which can be easily reproduced to act as a living bank with offspring as interest and the best insurance against the vagaries of nature.

**Inclusive Growth through Livestock**

Most of the animal farming activities such as fodder collection, feeding, watering and healthcare, management, milking and household-level processing, value addition and marketing are performed by women. The growth in livestock sector is demand-driven, inclusive and pro-poor. The rate of return on investment from Livestock sector is comparatively very high. Livestock sector apart from contributing to the state economy in general and to agricultural economy in particular, also provides employment generation opportunities, asset creation, coping mechanism against crop failure and social and financial security. Livestock is the main source of animal protein for the population. Demand for animal food products is responsive to income changes, and is expected to increase in future.

**Milk, Meat and Egg – Key Growth drivers**

The Animal Husbandry, from a humble beginning of backyard poultry, has grown into a dynamic industry. Milk and Meat production have also made a quantum leap with the production increasing substantially. Andhra Pradesh has some of the richest livestock resources in the country and is one of the most advanced states in Livestock sector. The State attained a prominent position in the country in Livestock Sector over the years because of its increasing livestock resources, enlightened and hard working nature of farmers and dedicated and sustained efforts of the Government. Milk is the single largest commodity contributing highest economy to the State.

Effective Veterinary and Animal Husbandry services are critical in achieving the significant production levels. Welfare schemes implemented by the Government for dairy, sheep and poultry units in addition to providing forward and backward linkages and organized marketing channels helped the rural masses enormously in bridging income gaps. This, besides conserving domestic biodiversity has become a means of producing food in dry lands without depleting ground water resources. A sizable number of families owning sheep and goat have already been covered with livestock insurance.

During 2021-2022, Andhra Pradesh stood 1st in Egg Production (2645.03 Lakh Nos), 2nd in Meat production (10.25 Lakh MTs) and 5th in Milk production (154.03 Lakh MTs).

Year wise Production estimates of Milk, Egg and Meat from 2008-09 to 2022-23 (up to December,2022) is Annexed in 5.20 and Dist. wise production estimates during 2022-23 is shown in Annexure 5.21

### Livestock Population Status as per latest Livestock Census, 2019

Andhra Pradesh takes pride in having famous and world-renowned Livestock breeds like Ongole and Punganur in cattle, Godavari Buffaloes, Nellore in Sheep and Aseel in Poultry. As per the latest Livestock Census 2019, the Livestock resources in the State consist of 340.60 lakh total Livestock & 1078.63 lakh poultry. The Livestock population as per Latest Livestock Census 2019 as compared to 2012 Census is shown in Table 5.14 below. District wise Livestock population as per 2019 Census is given in the Annexure 5.22

Table 5.14 Livestock population in A.P (No. in lakh)

| Category  | As per 2012 census | As per 2019 census |
|-----------|--------------------|--------------------|
| Cattle    | 47.16              | 46.00              |
| Buffaloes | 64.62              | 62.19              |
| Sheep     | 135.60             | 176.27             |
| Goat      | 44.96              | 55.22              |
| Pigs      | 1.57               | 0.92               |
| Poultry   | 805.83             | 1078.63            |

Source: Directorate of Animal Husbandry

Between the two Census periods, though there is reduction in the total Cattle and Buffalo Population, there has been an increase in the production and availability of nutritious food and supplemental income to farmers due to a perceptible increase in Crossbred Cattle and Graded Murrah Buffalo population especially female/Milch animals as per the Livestock Census, 2019. The production of Milk, Eggs and Meat is shown in the following Table 5.15

Table 5.15 Production of Milk, Meat & Eggs

| Growth Engine | Unit / Year | 2017-18 | 2018-19 | 2019-20 | 2020-21 | 2021-22 |
|---------------|-------------|---------|---------|---------|---------|---------|
| Milk          | Lakh MTs    | 137.25  | 150.44  | 152.63  | 147.14  | 154.03  |
| Growth        | %           | 12.70   | 9.61    | 1.46    | -3.60   | 4.68    |
| Meat          | Lakh MTs    | 7.09    | 7.81    | 8.5     | 9.54    | 10.25   |
| Growth        | %           | 12.01   | 10.16   | 8.83    | 12.24   | 7.44    |
| Egg           | Core Nos    | 1777.76 | 1975.45 | 2170.77 | 2496.39 | 2645.03 |
| Growth        | %           | 12.32   | 11.12   | 9.89    | 15      | 5.95    |

Source: Directorate of Animal Husbandry

### Rythu Bharosa Kendralu (RBKs)

The Government of AP has established 10,606 Rythu Bharosa Kendralu (RBKs) in all Gram Panchayats in the State as a 'One Stop Shop' for knowledge dissemination and supply of quality inputs to the farmers by bringing all the stakeholders of Agriculture & Allied sectors into one single platform offering all the services to farmers by ensuring year round productivity, profitability and sustainability.

The Animal Husbandry Department is rendering the following services at each RBK i) Primary Health care services, ii) Input supplies, iii) Advisory services, iv) Other service activities. About 10606 RBKs were operational in the State permitted to recruit 9844 Animal Husbandry Assistants (AHAs) out of which 4652 AHAs were recruited till date. Apart from AHAs, 1712 Paravets, were mapped with RBKs to provide Animal Husbandry Services.



The AHAs in the RBKs are providing services like First Aid & Treatment to the sick animals and follow up under the guidance of concerned Veterinarian. Conduct Prophylactic Vaccinations, Preventive Animal Health Care including De worming and De-ticking, Artificial Inseminations, Specimens collection, health cards distribution, AI calves verification, Fodder promotion etc. Facilitate for issue of Panchanama report involving committee members in case of Livestock Loss Compensation Scheme and follow up DBT within 72 hours.

Certified and quality tested inputs like fodder seed, TMR, cattle feed, chaff cutters, mineral mixtures, liver tonics etc, are being supplied to the eligible farmers on subsidy / full cost basis through Rythu Bharosa Kendras (RBKs).

## AGRICULTURE &amp; ALLIED ACTIVITIES

### Primary health care services: During the year 2022-23

- 2,81,196 First Aid cases were treated. 2,51,587 Dewormings, 3,96,172 Vaccinations, 25,823 artificial Inseminations, 14,338 Specimens collected, 11,709 A.I Calves verified and 9,699 Animal health cards distributed.

### Input supplies

- Certified and quality tested inputs like fodder seed, TMR, cattle feed, chaff cutters, mineral mixtures, liver tonics etc, are being supplied to the eligible farmers on subsidy / full cost basis through Rythu Bharosa Kendras (RBKs).
- 2000 MTs of certified fodder seed has been distributed to the farmers on 75% subsidy benefitting nearly 80,000 farmers.
- 55,274.60 MTs of quality tested TMR (Total Mixed Ration) has been distributed to farmers on 60% subsidy.
- 3,782 No of Chaff cutters were supplied to farmers on 40% subsidy.

### Advisory services

Pasu Vignana Badi organized to develop skills and knowledge of livestock producers on every week. Nearly 13.88 Lakh farmers were participated so far. RBK Channel provides required information and quality services to the farming community in virtual mode

Other service activities are mainly issue of Health cards, Tagging and retagging of animals, reporting of deaths under LLCS, updation of Livestock census every month, assessment of fodder availability status once in a season and Issue of PasuKissan Credit cards. 2902 PasuKissan Credit cards were issued to the farmers by the bankers.

### Custom Hiring Centers (CHCs):

The Custom Hiring Centre comprises of a set of farm machinery to be utilised by the farmers on hire basis. The approximate unit cost of each CHC is Rs.14,70,000/- The beneficiaries includes JLG/SHG/FPO/Trust/ NGOs and others. 33 CHCs were established in 45 divisions in the State through which Rs.32.07 Lakhs revenue generated so far upto December,2022.

### Feed & Fodder Developmental activities

The Department is supplying Fodder seed, Chaff cutters, TMR, on Subsidy by procuring from rate contract firms and Cattle Feed, Mineral Mixture on full cost basis to the livestock farmers for improving Livestock productivity.

### Feeding Inputs

- As a part of Fodder & Feed development initiatives to increase productivity and for sustain production of animals Mineral Mixture was distributed through RBKs to livestock farmers.
- Total Mixed Ration (TMR) is a worldwide accepted best practice in feeding. The practice of dry fodder and concentrates along with all other nutrients enables a complete ration that increases digestibility and enable utilization of nutrients at optimum level. A Palatable and balanced in the form of complete feed which reduces cost of production as TMR helps in developing low-cost feed using crop residues.
- Fodder seed is supplied in the State for green fodder production in order to meet the fodder requirement of animals and to mitigate fodder deficit. 1500 MT of CSH 24 MF and 488.5 of Maize AT of certified fodder seed was supplied and distributed from National Seeds Corporation Ltd. (Gol undertaking) to the farmers through RBKs on 75% subsidy.
- To reduce the fodder wastage, 2 HP Chaff cutters are supplied to farmers on subsidised rates through RBKs to minimise the cost of feed to ensure increase in profit.
- Farmers were distributed Cattle feed. It is palatable and good source of nutrients for growing, adult, dry, milk producing and pregnant animals.

### Pasu Kisan Credit Cards (PKCC)

The Department has proposed to issue Pasu Kisan Credit Card (PKCC) to YSR Cheyutha/ Aasara beneficiaries who have grounded livestock units to help them to meet their working capital requirements for feeding, breeding health care & fodder conservation activities. Pasu Kisan Credit Card Scheme is being implemented with active support of SLBC. The Maximum Permissible Limit (MPL) of Rs.1.60 lakhs can be treated as the Pasu Kisan Credit Card limit following the interest subvention schemes.

## AGRICULTURE &amp; ALLIED ACTIVITIES

Out of the total 59,709 applications received, Pasu Kisan Credit Cards sanctioned to 42,469 applicants.

### YSR Cheyutha

YSR Cheyutha scheme is one of the flagship programmes of the state wherein, women beneficiaries belonging to SC, ST, BC and Minority communities in the age group of 45-60 years are being sanctioned Rs.75,000/- per beneficiary over a period of 4 years.



### YSR Cheyutha Phase-I (2020-21)

Out of 24.00 lakhs Cheyutha beneficiaries, 1.12 lakhs beneficiaries have opted for Milch Animals and 0.72 lakhs have opted for Sheep and Goat units.

Sanctions under JaganannaPaalaVelluva and Jagananna Jeeva Kranthi were accorded for 1,15,912(103.52 %) and 72,827(100.91 %) units respectively and groundings of all units were completed.

### YSR Cheyutha Phase-II (2021-22)

Out of 23.41 lakhs Cheyutha beneficiaries, 38,505 beneficiaries have opted for Milch Animals and 19,040 beneficiaries have opted for Sheep and Goat units in addition to the already sanctioned livestock units in Phase-I.

Sanctions under Jagananna Paala Velluva and Jagananna Jeeva Kranthi were accorded for 59,160(154.16%) and 29,075(153.03%) units respectively. Grounding of 49,608(129.27%) units under Jagananna Paala Velluva and 24,170(127.30 %) units under Jagananna Jeeva Kranthi were completed.



### YSR Asara (2021-22)

28,628 (93.65%) units under Jagananna Paala Velluva and 6,680 (93.18%) units under Jagananna Jeeva Kranthi were sanctioned of which grounding of units were completed in 27,324 (89.38%) and 6,374(88.91%) respectively.

### Livestock Loss Compensation Scheme (LLCS)

Livestock Loss Compensation Scheme has been under implementation since 14-08-2019 where in, compensation shall be paid to the farmers, in case of death of Cattle / Buffaloes and Sheep / Goat in the State.

In the event of death of Cattle / Buffaloes, the compensation of Rs.30,000/- per head for improved & indigenous breed and Rs.15,000/- per head for Non-Descript breed shall be paid as per the eligibility to the farmers and compensation of Rs. 6,000/-per Sheep/Goat (6 months and above age) shall be payable to the owner of 3 and above Sheep / Goat at a time. An integrated Call Centre has been established with Toll free Number: 155251 for death intimation. Compensation claimed for 1758 deaths during 2022-23 (upto December,22)

### YSR Pasu Bhima Padhakam

The objective of the Livestock Insurance scheme is to settle the livestock death claims within 15 days after submission of documents and to reduce financial burden due to payment of total compensation by the Government by availing the state and centre's share of premium through the insurance option under Operational Guidelines of NLM. The subsidy for insurance under BPL/SC/ST category will be paid as 40% central share, 40% state share and beneficiary share of 20%. For APL category the share is 25% central, 25% state and 50% beneficiary

The Project Cost estimated for 1 year is Rs.109.53 Crores (shared by State Rs.67.63 Crores + Central Rs.20.00 Crores + Beneficiary Rs.21.90 Crores) and for 3 Years - Rs.328.61 Crores (shared by State Rs.202.89 Crores + Central Rs 60.00 Crores + Beneficiary Rs.65.72 Crores).The proposal for an amount of Rs.60.00 Cr for a period of (3) years was submitted to the Gol for Grants-in-Aid to the State under Livestock Insurance of National Livestock Mission for the year 2021-22.

## AGRICULTURE &amp; ALLIED ACTIVITIES

### Andhra Pradesh Animal Feed Act 2020 (Regulation of Manufacture, Quality Control, Sale and Distribution) and Rules, 2021

Government have enacted The Andhra Pradesh Animal Feed Act 2020 and Rules 2021. In order to implement the Andhra Pradesh Animal Feed Act and Rules, trainings were given by the SMILE and VBRI to all the stake holders in different phases for identification of Feed Manufacturers, Distributors, Suppliers and Retailers in their jurisdiction.

Total 1589 animal feed business operators issued licenses under A.P. Animal Feed Act 2020 & Rules 2021 and amount collected towards fees is Rs.5.04 Crs.

### Livestock Health Care Activities

The Scheme 'Livestock Health and Disease Control (LH&DC)' have components: 1) Assistance to States for Control of Animal Diseases (ASCAD); 2) National Animal Disease Control Program (NADCP) for FMD and Brucellosis; and 3) Pestes Des Petits Ruminants Eradication Programme (PPREP).

### Lumpy Skin Disease (LSD)

This disease was reported in 15 districts of A.P. 1291 animals were affected, 272 deaths are reported. 33,84,675 cattle were vaccinated as on 05-01-2023 against LSD as on 05.01.2023 in AP, and now the disease is under control in the state without further incidences.

### Veterinary Biological & Research Institute, AP, Vijayawada

The Veterinary Biological & Research Institute (VBRI) has taken up the disease diagnosis and disease control programmes of various diseases. Timely disease diagnosis helps the farmers in advocating prompt treatment, reducing the case fatalities, thereby reduces the direct & indirect losses to the farmers. The contribution of livestock sector to GSDP is 6.65%. This can be enhanced by providing proper disease diagnosis and disease control programmes for which a laboratory with state-of-art-facilities is required.

Presently 62.45 lakh households are engaged in livestock rearing activities for their livelihood or getting supplementary income from this sector. By establishing

the State Animal Disease Diagnostic Institute all these households get benefitted. VBRI, Vijayawada is looking after disease investigation if there are any outbreaks in the field and assist the field staff to take up appropriate treatment by swift diagnosis and control of the Disease.

Investigation of every reported incidence. Collect epidemiological data for tracking the source of infection. Quantify FMD antibodies before and after vaccination in ten selected villages of each district by LPB ELISA and assessment of Herd Immunity in the livestock population of our state and at random from all the districts once in a year. The Virology section as the referral laboratory for diagnosis of existing & emerging viral diseases, diagnose and interpret the viral diseases of livestock occurring in the field.

The targets & Achievements on various indicators mentioned up to 31.12.2022 is Annexed in 5.23

Diagnosis of viral diseases is done based on Conventional techniques and Advanced diagnostic techniques available for diseases of field importance. Diagnosis of diseases like BVD, PPR, Blue tongue, Classical Swine fever, Infectious Bronchitis & Infectious Bursal Disease has to be carried out by ELISA method

### Dr.YSR CADDLs

Disease Diagnostic Laboratories play a pivotal role to maintain animal health and productivity. Towards this direction, Government sanctioned Constituency Level Animal Disease Diagnostic Labs (CADDL) covering all 175 constituencies - 89 labs co-terminus with Agrilabs, 65 Labs are with AHD and remaining 21 constituencies covered by 14 District Labs. One lab technician and one Lab attendant for each CADDL are recruited to carry out basic disease diagnostic procedures through CADDLs. As on date, 59 CADDLs were already inaugurated; 95 yet to be inaugurated and 46 CADDLs are ready for inauguration. Required Laboratory equipment, kits & reagents were supplied to all CADDL's.

The Objectives are to test the samples collected at RBKs for preliminary tests, help the field veterinarian for taking up immediate line of treatment, and restrict indiscriminate usage of Antibiotics and to minimize residual Antibiotics in food chain which is of greater importance under one health concept.

### Dr YSR Sanchara Pasu Arogya Seva (Mobile Veterinary Ambulatory Clinics)

The Government has proposed to launch the services of "Mobile Ambulatory Veterinary Clinics (MAVCs)" at 340 locations @ 2 for each constituency. In the 1st phase, Government have sanctioned 175 Mobile Ambulatory Veterinary Clinics (MAVC) in the state and were inaugurated on 19th May 2022. by Hon'ble Chief Minister, Andhra Pradesh with an outlay of Rs. 133.13 Cr. In the 2nd phase, Government have sanctioned 165 MAVC in the state with an outlay of Rs. 119.18 Cr which are to be operationalized.

Dr YSR Sanchara Pasu Arogya Seva Objectives are to provide the Veterinary services at the doorstep of the farmers and serve the needy farmers for treatment of their sick animals, availing the services of fertility cases treatment and follow up, Surgical interventions. Sick animal transportation to nearest Veterinary Dispensary and back to the farmer's doorstep.

### Local Breed Conservation Cow Farms (LBCCF's)

The age-old practise of "Organic Desi Cow Farming" has been rejuvenated by the Government through "Local Breed Conservation Cow Farms (LBCCF)" in order to make available "the best but the healthy" Milk and Milk products to the consumers at affordable price. The Government have established (58) Local Breed Conservation Cow Farms to conserve indigenous breeds like Gir, Sahiwal, Ongole, Punganur etc. and for breed multiplication with a project cost of Rs.17.40 Crores.

Supplying of 20 indigenous Cows and 1 Bull with a cost of Rs.30.00 Lakhs to the interested farmers on subsidy i.e Rs.15 Lakhs from RKVY, Rs.9.00 Lakhs by APCOB Loan Component/ Self Finance and Rs.6.00 Lakhs JLG Contribution. In the Second phase, 55 new units were sanctioned for the year 2021-22.

During the year 58 Cow farms operationalized across the state with an outlay of Rs.17.40 Crores and 24 new farms will be established with an outlay of Rs. 7.20 Crores. The Andhra Go-pushti Farmers Producers Company has been formed for collective production and marketing of APEDA-NPOP certified organic A2 milk and by-products with brand name of "Andhra Go-Pushti". Andhra Go-Pushti retail outlet was opened by the FPC in Vijayawada

and will be scaled up to major cities viz., Visakhapatnam, Guntur, Tirupati, Rajahmundry, Kurnool, Nellore etc.

### Andhra Pradesh Bovine Breeding Regulation and Artificial Insemination Services Act, 2021

An act to regulate Bovine Breeding Activities including use of bovine breeding bulls for production of bovine semen, production, processing, storage, sale and distribution of bovine semen and artificial insemination services in bovines for improving the productivity of bovines in the Country and Act which came into force with effect from 14-10-2021.

### Accelerated Female Herd Multiplication through "Sex Sorted Semen"

Sex Sorted Semen is a handy tool to increase milk production in short time (Accelerated Female Herd Multiplication) due the option of choosing the progeny to be all females. As a result, the population of milk producing cows and buffaloes rises in short time enhancing the quantity of milk produced. GOI has released Rs.841.65 lakhs during March-2022 for implementation "Accelerated Breed Improvement Programme" (ABIP). Bovine Breeding Authority will enter into contract with the farmer for getting assured pregnancy using "SSS".

### National Livestock Mission (NLM)

National Livestock Mission (NLM) has been implemented from 2014-15 to 2020-21. The scheme has been revised and realigned and being implemented from 2021-22. NLM aims towards employment generation, entrepreneurship development, increase in per animal productivity. The concept of NLM scheme is to develop the entrepreneur in order to create the forward and backward linkage for the produce available at the unorganized sector and to link with the organized sector. The realigned NLM have the following sub-schemes

- a. Sub-mission on Breed Development of Livestock and Poultry
- b. Sub-mission on Feed and Fodder Development -
- c. Sub-mission on Innovation and Extension

Under Entrepreneurship Development Programme, 900 applications were received from entrepreneurs, 517

## AGRICULTURE &amp; ALLIED ACTIVITIES

approved of which loans were sanctioned to 52 applicants.

### RKVY - RAFTAAR scheme

Under RKVY RAFTAAR scheme, for the year 2021-22 proposals were submitted for release of Rs. 10239.78 Lakhs for the following proposed activities

- i. Implementation of Mobile Ambulatory Veterinary Clinics
- ii. Promotion of Village level Livestock Feed and Fodder Centres (LFCs)
- iii. Renovation of Constituency Level Animal Disease Diagnostic Labs (CADDL's)
- iv. Strengthening of Vaccine production Unit at VBRI, Samalkot
- v. Fertility management Camps

SLSC approved amount of Rs. 10239.78 Lakhs was scale down as per Gol allocation to Rs. 9508.42 Lakhs and an amount of Rs. 4,000.00 Lakhs was adjusted RKVY SNA account of the department.

The following amounts were released :

- a. Constituency Level Animal Disease Diagnostic Labs (CADDL) : Rs. 52,73,000.00
- b. Mobile Ambulatory Veterinary Clinics (MAVCs) : Rs. 27,87,98,860.00
- c. Fertility Management Camps : Rs. 1,21,184.00
- d. Total Mixed Ration (TMR) : Rs. 7,92,30,720.00
- e. Administration Cost : Rs. 13,36,151.00

### Andhra Pradesh Livestock Development Agency.

#### A. Nation wide Artificial Insemination Programme (NAIP):

The objectives are : Providing door step AI delivery system in districts with less than 50% AI coverage, Promoting birth of genetically superior male & female bovine breeds , Increase milk production by more calvings. Adoption of AI Technology by large number of farmers and increase the farmers income through better progeny.

The Nation wide Artificial Insemination Programme (NAIP) I, II and III have been completed starting from 15th September, 2019 to 31st July 2022, during the period Artificial Inseminations have been done to 32.99 Lakh animals and 2.22 Lakh calf births. Under NAIP – IV (during the period from 1st Aug 2022 to 31st May 2023) so far, Artificial Insemination has been done to 7.04 Lakh animals resulting 70453 Calf births.

#### B. Rashtriya Gokul Mission.

The Mission is sanctioned by GOI with an outlay of Rs. 2372.50 lakhs for supply of various inputs required to conduct Artificial Insemination at door step of the farmers, formation of breeders associations, procurement of bull calves, to impart training to Gopal Mitras, strengthening of bull mother farms, to strengthen infrastructure for training, to conduct fertility camps, Replacement of Artificial Insemination kits, to organize various training programmes for publicity and extension on various departmental activities.

#### C. National Kamadhenu Breeding Centre

Keeping in view of the advantages of rearing of Indigenous breeds; Govt. of India has initiated to take up Indigenous Breeds conservation and Development under Rashtriya Gokul Mission. In this context, Govt. of India has sanctioned National Kamadhenu Breeding Centre to the State of Andhra Pradesh for Southern Region with the financial outlay of Rs. 25.00 crore.

48 breed animals like Murrah, Gir, Rathi and jaffar badi were supplied to needy farmers to cater the needs of Natural Breeding Services of their cattle to upgrade the genetic constitution of the local animals and to produce HGM animals.

#### D. Gokul Gram Project

Gokul Gram is established under Rashtriya Gokul Mission with an objective to conservation and development of indigenous bovine breeds in the country. The Project is established at Cattle Breeding Farm, Chadawalada, Prakasam district.

The Objectives of Gokul Gram are:

- Promoting indigenous cattle rearing and conservation in a scientific manner



- Enhance productivity of indigenous breeds and increase economic returns from animal products in a sustainable manner.
- To propagate high genetic merit bulls of indigenous breeds.
- Encouraging appropriate technology for use of Draught Animal Power.
- Providing balanced nutrition and integrated animal health care.

#### E. Strengthening of Semen Stations

Under this component Govt of India released an amount of Rs 12.79 crores to FSB, Nandyal and FSBS ,Visakhapatnam for construction of bull sheds ,purchase of Lab equipment ,farm machinery and others. Civil works were taken up by AP Police Housing Infrastructure Development Corporation and the works are under progress. The administrative sanctions were given for purchase of lab equipment as per the govt norms..

#### F. Accelerated Breed Improvement Programme

(Using Sex Sorted Semen for getting assured pregnancy)  
The objectives of the programme are:

- To promote use of sex sorted semen for production of female calves with 90% accuracy
- To enhance milk production and farmers income through production of female calves
- Increase the availability of female calves of high genetic makeup for farmers and entrepreneurs interested in taking up dairy farming.
- To make sex sorted semen technology affordable to farmers thereby increasing acceptability of artificial insemination with use of sex sorted semen.
- To Create Visible demand of sex sorted semen in the country thereby attracting private entrepreneurs in production of sex sorted semen.

The Budget Released is Rs 8.31 crores. 84600 Sex Sorted Semen Doses Supplied and 4488 AI done as on date (30.12.2022) by using Sex Sorted Semen.

#### Gopala Ratna Awards

Dr.Basavaiah ,VAS of Prakasam Dist. received GopalaRatna Award for the year 2021-22 on 26.11.2022 at Babu Rajendra Prasad International convention centre ( Under Best AI technician category) awarded with cash prize of Rs 2.00 Lakhs.

37.41 Lakh doses of Semen Produced during 2021-22 in the FSBS at Banavasi, Nandyal and Visakhapatnam

#### Andhra Pradesh Sheep and Goat Federation

There are 2735 Primary Sheep Breeders Cooperative Societies functioning at village level with a membership of 110126 in Andhra Pradesh and 13 District Sheep Breeders Co-op. Unions functioning at district level covering 176.27 Lakh Sheep and 55.22 Lakh Goats in the state.

#### NCDC Programme

##### NCDC Project in Prakasam and Chittoor districts

In 2011-12, the NCDC, New Delhi has sanctioned the Integrated Development of Small Ruminants project. The Federation is implementing Integrated Development of Small Ruminants Scheme with an outlay Rs.35.12 crores for Prakasam and Chittoor districts during 3rd Phase. Funding pattern is 60% loan, 20% subsidy and 20% beneficiary contribution. 1310 shepherd families were benefitted with a loan of Rs.2036.31 Lakhs and a subsidy of Rs.708.07 Lakh. During the year 2022-23 (upto Dec, 2022) an amount of Rs 1,12,69,242 has been recovered from Prakasam and Chittoor districts.

##### NCDC Programme in 11 Districts of A.P

The NCDC, New Delhi has sanctioned the project for an amount of Rs.275.00 crores with funding pattern of 60% loan, 20% subsidy and 20% beneficiary contribution to Andhra Pradesh for implementation of NCDC programme in the 11 Districts viz.,(1) Srikakulam (2) Vizianagaram(3) Visakhapatnam (4)East Godavari (5)West Godavari (6) Krishna (7) Guntur (8) Nellore (9) Kadapa (10)Ananthapur (11)Kurnool Districts in Andhra Pradesh. The scheme is phased out into three years.

During the year 2022 (April to December) 120 Shepherd families were benefitted with 50+2 sheep units by utilizing the budget of Rs 480.50 lakhs

---

 AGRICULTURE & ALLIED ACTIVITIES
 

---

An amount of Rs 641.95 lakhs was repaid to Government through Federation

### Federation Activities

Group lending Activity to members of primary Sheep Breeders Cooperative Societies in Prakasam, East Godavari and Nellore Districts with an objective of long-term sustainability of societies and for Creation of funds at the interest rate of 6.9%. 41 members of Primary Sheep Breeders Cooperative Society were benefitted with the financial assistance of Rs 87.50 lakhs in three Districts. An amount of Rs 26.10 lakhs recovered from DSBCU, Prakasam and Guntur.

### Livestock Statistics

The Livestock Census is being conducted across the country periodically since 1919. The 20th Livestock Census was launched in the month of October, 2018 in both rural and urban areas and completed successfully in the month of April' 2019. 20th Livestock Census has been designed to capture Breed-wise number of animals and poultry birds.

For the first time, in 20th Livestock Census, the livestock data was collected on-line through tablet phone by para-veterinarians and veterinarians. The 20th Livestock Census was carried out in 16,392 villages and 2,985 urban wards across AP covering 1.35 Crores of Households and Non-Households.

### Key results

- The total Livestock population is 34.07 million in AP showing an increase of 15.79% over Livestock Census 2012. AP stands in 6th position in country.
- In AP, the total number of cattle is 4.6 million in 2019 showing a decrease of 2.45% over previous Census. AP stands in 14th position in country.
- The total buffalo in AP is 6.2 Million showing a decrease of 3.76% over previous Census. AP stands in 6th position in country.
- The total sheep in AP is 17.63 Million in 2019, increased by 30% over previous Census. AP stands in 2nd position in country.
- The Goat population in AP in 2019 is 5.52 Million showing an increase of 22.84% over the previous census. AP stands in 11th position in country
- The total poultry in AP has increased by 33.85% to 107.90 million during 2019. AP stands in 2nd position in country.
- As per the norms Gol has released the total amount of Rs.1341.78 Lakhs for the activities of Livestock Census in Andhra Pradesh of which Rs.1308.99 Lakhs have been utilized for the committed activities of 20th Livestock Census.
- The next census (21st Livestock census) is proposed to take up in the year 2024.

### Integrated Sample Survey Scheme

The Integrated Sample Survey scheme is being conducted in the Andhra Pradesh state since 1976-77 as a Centrally Sponsored Scheme and study the attendant practices of the livestock on 50:50 central and state share basis. The objective of the scheme is to estimate the season wise production of Major Livestock Products i.e., Milk, Egg, Wool and Meat and study the attendant practices of the livestock, as per the methodology provided by the Government of India and build up State wise Production Estimates of Major Livestock Products by obtaining these estimates from all over the country.

- 624/156 Villages/wards for Sub Sample, 10% of the total villages/wards in concerned district for Large Sample will be surveyed for detailed study of ISSS every year in Andhra Pradesh.
- The Major achievements of Livestock Products during the year 2021-22 in Andhra Pradesh: 154.03 (LMTs) of Milk Production; 2645 (Crore Nos) of Egg Production and 10.26 LMTs of Meat Production.
- Targets of Major Livestock Products for the year 2022-23 are to achieve Milk Production of 155.00 (Lakh MTs), Egg Production of 2740 (Crore Nos), Meat Production of 10.50 (LMTs) in the Andhra Pradesh State. The estimated budget for Rs.298.50 Lakhs (Rs.187.50 Lakhs Central share) submitted to the Gol for the year 2022-23. No budget is released till date.

## Sri Venkateswara Veterinary University, Tirupati

### The Activities are:

- SVVU, Tirupati was accredited by ICAR, New Delhi for 5 years i.e., from 1-4-2022 to 31-3-2027.
- The University has entered into MOU with Pennsylvania State University, U.S.A. and as a result, received Rs 2.07 crores as Research grant for evaluating risk assessment of Anthrax disease and also a research grant Rs 77.0 lakhs was received from DBT, New Delhi for evaluation of Rapid diagnostic kits of Anthrax Disease for early and accurate diagnosis with intention of safeguarding the interests of Farmers of AP.
- The University under an MOU with Tirumala Tirupati Devasthanam, Tirupati received a research grant of Rs 3.80 crores for conservation of indigenous cattle breeds (Gir, Punganur, Ongole) by invitro fertilization, Embryo transfer and Ovum pick-up methods for their genetic improvement for catering to the increased demand for A2 milk and thus intended for doubling the Farmers income.
- The university under an MOU with TTD, Tirupati is establishing a compound feed mixing plant with an estimated cost of Rs 8.0 crores for supply of quality and cost effective feed to TTD dairy farm and farmers through the RBKs.
- Sanctioned Rs. 5.0 crores under RKVY for up gradation of State Level Disease Diagnostic Laboratory, SVVU, Tirupati.
- Total 09 programmes through Doordharshan, 25 programmes through AIR and published 17 articles in vernacular language for the benefit of farmers were achieved.
- Large scale production of complete feeds using crop residues and agro industrial by-products was taken up. Supply of area specific mineral mixture and training farmers on preparation of Mineral Mixture were taken up.
- Total 4 Kisan Mela conducted at different constituent colleges of the University during 2022-2023.
- Conservation of Ongole and Punganur cattle breeds through IVF Technology is continuing at LRS, LAM, Guntur and LRS Palamaner.
- Superior germplasm of cattle, sheep and pigs fodder slips were supplied to farmers at LRS, LAM, Guntur, LRS, Siddiramapuram, LRS, Palamaner and other research stations of the University.
- Sri Venkateswara Veterinary University, Tirupati received ICAR Breed Conservation Award for conserving Punganur Cattle in December, 2022.
- Distributed 600 Vanaraja birds to SC and ST beneficiaries during 2022-2023.

Budget of Rs. 112.81 Corers under capital, Rs. 26.52 corers under revenue (Total outlay of Rs.139.34 corers) has been allocated to SVVU, Tirupati during the financial year 2022-2023 towards contingencies, pay and allowances of staff for procurement of equipments and creation of Infrastructure facilities to various research stations and colleges.

### Andhra Pradesh Veterinary Council (APVC)

The Andhra Pradesh Veterinary Council (APVC) is a statutory body of the A.P. state, to regulate the Veterinary Practice and Education in the state and maintenance of registers of the Veterinary Practitioners. As per the Veterinary Practitioners Register, there are 7518 members with Andhra Pradesh Veterinary Council. Mandate of the APVC is

- To prepare and maintain State Veterinary Practitioners register to regulate Veterinary practice in the State.
- To endeavour for the professional efficiency improvement of registered Veterinary practitioners through continuing Veterinary education programme.

### AP Dairy Development Cooperative Federation (APDDCF)

Andhra Pradesh has 60 lakhs milch animal population of which 58% are buffaloes. The state has got world famous draught breed known as "Ongole" & the poor man's cattle breed known as "Punganur". AP is the 5th largest milk producer in India contributing 32,630 Cr. at constant prices to the state economy (6% of the GDP).

## AGRICULTURE &amp; ALLIED ACTIVITIES

As per the Veterinary Practitioners Register, there are 7741 members registered in Andhra Pradesh State Veterinary Council, Vijayawada. More than 27 lakh women in rural areas are engaged in dairying activity. A.P is a state where majority of the milk procured in the state is in unorganized sector. A strong player in marketing of milk is required to take care of vulnerability. The State Government with the assistance of UNICEF commenced Integrated Milk Project (IMP) in the year 1960, which focused on organizing milk production, to augment the income of dairy farmer and to meet the increasing demand for milk from semi-urban areas.

### Current Status of Milk potential in Andhra Pradesh

The total Milk production in Andhra Pradesh is 424 LLPD of which, the marketable surplus is 143 LLPD. As only 61 LLPD (24%) is in organized sector, there is huge potential for dairying in Andhra Pradesh. The State Government has started farmer centric Rythu Bharosa Kendras in 10,641 villages exclusively to take care of farming related activities where one AHA (Dairy Assistant) is also deployed to work for promotion of dairy related activities.

The State has identified key challenges to address the issues connected to revival of dairy sector to benefit dairy farmers. i.e No focus on local marketing, Exploitation by Private dairies, Un-utilized plant capacity, Defunct of dairy co operatives and Insufficient processing facility.

The State Government has entered strategic partnership with Gujarat Cooperative Milk Marketing Federation (Amul) on 21.07.2020 to handhold dairy activities through dairy cooperatives in the state.

### Jagananna Paala Velluva Programme

The APDDCFL is implementing the entire innovative program called Jagananna Pala Velluva by organizing Mahila Dairy Associations and Mahila Dairy Sahakara Sangam at village level and providing required infrastructure to these newly formed societies to become self-sustainable viz., quality testing machines, milk cans, and support in identification of secretaries, promoters, training them and developing software to monitor the entire program on real-time basis in the entire state.

### Progress of Jagananna Paala Velluva

- Jagananna Paala Velluva Project was launched initially with 24,277 women dairying farmers of 401 villages of erstwhile Chittoor, Prakasam and YSR Kadapa Districts by Hon'ble Chief Minister on 02-12-2020. The initial declared price indicated by Amul was Rs. 71.47 per Ltr., of Buffalo Milk at measured Fat of 11%, SNF of 9.0% and Rs. 34.20 per Ltr., of Cow Milk at measured Fat of 5.4%, SNF of 8.7%.
- Upon comparison of the milk procurement price being paid by private dairies in A.P with that of Amul price, the farmers are able to get better price than what they are getting from private dairies with an extra benefit ranging from Rs:5/- to Rs:20/- per liter based on the type of milk.
- Under JPV, Amul has increased price for five (05) times from 01.09.2021 to 16.12.2022 and now the price paying to farmers is Rs. 87.56 per Ltr., of Buffalo Milk at measured Fat of 11%, SNF of 9.0% and Rs. 42.56 per Ltr., of Cow Milk at measured Fat of 5.4%, SNF of 8.7%. Since inception, there is a resultant increase of Rs. 16.09 per Ltr., of Buffalo Milk and Rs. 8.36 per Ltr., of Cow Milk. The project was expanded to 17 districts of the newly formed districts covering 2,52,193 women dairying farmers of 3,108 villages (YSR RBKs – 1,727, Habitation villages – 1,495) and collecting 1,71,230 Litres of Milk/day.

### Benefits Derived by the Women Dairying Farmers

Testing of milk sample is done for its quality (Fat & SNF %) in the presence of farmers at Milk Collection Centers. Payment to the milk pourers is released directly to their bank accounts online once in 10 days following this tie up arrangement with Amul. The milk pourers are able to get Bonus @ Rs.0:50 per litre of milk as additional price towards loyalty incentive at the end of each year to those pourers who poured milk to the society for 182 days in a year. The milk pourers are able to get inputs such as quality feed, mineral mixture at competitive price and also to get

Working Capital of up to Rs. 30,000/- per head as short-term Loan to meet the finances required for maintenance of animals. The milk pourers are also able to get milch animals if they are willing to purchase milch animals under Cheyutha Scheme.

### Support to the Women Society

The State Government has been allotting 5 cents of Government land for construction of BMCU buildings and 3.50 cents of Government land for construction of AMCU building to support the MDSS at village level.

### Success Stories

In contributing to the economic empowerment of women, the formation of Mahila Dairy Sahakara Sanghalu (Women managed Dairy Co-Operative Societies) in our state through the Jagananna Paala Velluva Project is ushering in a significant change in the milk sector.

National Cooperative Development Corporation (Ministry of Cooperative, Government of India) notified the Regional Awards for the year 2021 and received a cash reward of Rs. 25,000/- for Regional Cooperative Excellence Award and 5 Mahila Dairy Association Centres (MDAC) in the state received Rs. 20,000/- for Merit Award

### Marketing Interventions

APDDCF is also providing 107 lakh litres of Vitamin fortified UHT milk every month to Anganwadi Centres directly through Women & Child welfare Department under YSR Sampoorna Poshana and YSR Sampoorna Poshana Plus schemes using a Web and Mobile based Application developed with end-to-end encryption to monitor milk supplies right from the point of loading of milk to the door steps of AWCs. Supply chain was created and all necessary officials were registered through the App.

### Andhra Pradesh Centre for Advanced Research on Livestock (APCARL), Pulivendula

APCARL was established with a vision to be a world class centre of excellence for advanced research on Livestock. Its mission is to find solutions to the problems of Livestock in the field of Health and Production and transfer the latest technologies to end users and the goal

is to improve animal health and productivity for the benefit of farmers.

The main objectives are to conserve indigenous germ-plasm, study introduction of genes for better production, reproduction, disease resistance and adoption, to develop feed and fodder resources to mitigate drought and cyclones, improve animal reproduction through new technologies, study disease monitoring, surveillance and mapping, develop cost-effective vaccines and disease diagnostic tools and to create adequate trained personnel in the country in the specialized areas of veterinary sciences such as nanobiology.

APCARL is associating with various agencies and partners for improving the livelihood status of the farming community by enhancing the productivity through designing innovative breeding and nutritional practices. Two private partners of the APCARL, Pulivendula (M/s Global Vetmed Concepts India Pvt. Ltd. and Genomics-CARL India Pvt. Ltd.) are working on dairy production systems and diagnostics for improving dairy production and animal health in the state. M/s IgY Immunologix India Pvt. Ltd. executed collaboration and lease agreements and floated joint venture company with APCARL called Excel Immunologix India Pvt. Ltd. to manufacture animal disease vaccines since there is no vaccine manufacturing organization in AP State either in public or private sector.

Government of A.P has issued orders to establish Punganur Cattle Breeding Centre, Murrah Buffalo Breeding Center and also relocated Veterinary Biological Research Institute (VBRI) of AP State to APCARL, Pulivendula to better serve the farmers and livestock health. APCARL executed MoU with an US based company "NuTech Biosciences" to establish feed supplement manufacturing unit so as to supply to the livestock, poultry and aqua industry as well as to the livestock farmers to enhance animal sourced food production.

Budget provided by the A.P. State Government during the financial year 2022-23 in grant form is Rs. 3285 lakh towards salaries, wages, office expenditure and repairs and renovation of the buildings, besides allocating the budget for establishment of Murrah buffalo breeding center.

## AGRICULTURE &amp; ALLIED ACTIVITIES

## Fisheries

Andhra Pradesh has favourable agro-climatic conditions for the growth of fisheries and aquaculture sector. The State is contributing about 30% of National fish production and is a major exporter of Shrimp in India with share of 35% in total value of sea food exports of the country. The main aim of the department is to sustain the fish production through optimum utilization of available water resources for fish production, promoting welfare of fishermen, to address the critical gaps in the infrastructure for value chain and to promote domestic fish consumption in the State.

### Key Achievements

- The production of Fish achieved during 2021-22 was 48.13 lakh metric tonnes (LMT) and for 2022-23, it is 37.18 LMT (as on 31-12-2022) as against annual target of 52.53 LMT.
- The Government is implementing “Y.S.R. Matsyakara Bharosa” for the welfare and development of Fishers. Under this scheme, relief is provided to marine fishermen families during fishing ban period. From 2019-20, Government has enhanced the relief to Rs.10000/- from Rs.4000/-. The relief is extended to fishers of traditional boats as lean period relief. During 2022-23, 103771 coastal fishers are benefitted under this scheme
- HSD oil subsidy to fishing boats enhanced from Rs.6.03 ps to Rs.9.00 per litre to benefit 18110 boats. Such subsidy is transferred at source (front end) through smart cards. All the registered Mechanized and Motorized crafts are made eligible to avail HSD oil subsidy irrespective of registration date. Rs.37.50 crores incurred as expenditure up to 31-12-2022.
- Financial benefit to deceased fishermen (while fishing) family enhanced to Rs.10.00 lakhs from Rs.5.00 Lakhs. 25 claims were reported for payment as on 31.12.2022
- To utilise the long coast line of 974 Kms, the Government has taken up construction of 9 Fishing Harbours (FH) with a total outlay of Rs.3502.57 Crores. In addition, modernisation of FH at Visakhapatnam is sanctioned with an estimated cost of Rs. 151.81 Cr. Up gradation of Kakinada FH is proposed under Sagarmala scheme for Rs.48.95 Cr
- Taken up construction of (4) Fish Landing Centres with total outlay of Rs. 85.32 Cr.
- Power tariff concession is provided to 61,682 aquaculture farmers as front ended subsidy by reducing unit rate from Rs. 6.89 ps to Rs. 1.50 ps (for farms with area up to 10.00 Acres). During 2021-22, Rs. 956.59 Cr of expenditure has been incurred for this component.
- To promote sustainable aquaculture in the state and facilitate the farmers with quality aquaculture inputs, establishing 35 (27 New labs and 8 Departmental labs) Integrated Aqua labs in 9 coastal districts. Aquaculture inputs testing and disease diagnostic facilities are provided to farmers with a total outlay of Rs.50.30 Crores. Out of 35 labs (18) labs are put in operation for catering the lab services to aquaculture farmers in the coastal districts.
- 731 Village Fisheries Assistants were recruited and positioned at Village Secretariats to render better extension services to the fisheries sector.
- The Rythu Bharosa Kendras at Village level will promote innovative and advanced technologies in fisheries sector and also to supply certified and quality inputs through aqua inputs shops to aqua farmers and fishers.
- E-crop (e-fish) booking for aqua farmers to facilitate remunerative prices for their produce, access to insurance, credit support etc.
- To ensure the successful crop. YSR Mastya Sagu Badi, a Farmer's Field School at village level is providing extension services and crop advisories to aqua farmers.
- A dedicated Integrated Call centre “155251” was established with 63 technical officers for agriculture and allied sectors for advisories to farmers and fishers queries by Experts
- Due to lockdown restrictions, the shrimp prices was reduced drastically. Measures were taken by the government to ensure the farmer getting remunerative prices, for their produce.

## Strategies

The important strategies for realizing the goals are

- Development of marine infrastructure through construction of Fish Landing Centres and Fish landing centres.
- Promotion of deep sea fisheries, open sea cage culture, Sea weed culture, supply of nets, boats and other inputs on subsidy basis and promotion of alternative species for brackish water aquaculture.
- Establishment of Aquatic Quarantine Facility for production, supply of SPF brood stock to hatcheries and to supply quality seed.
- Aqua zonation for area expansion.
- Promotion of innovative technologies like nursery management and grow out pond management, innovative technologies like RAS and Bio-floc technologies.
- Stocking advanced fish seed fingerlings in all potential inland water bodies.
- Cage culture in suitable reservoirs.
- Promotion of domestic consumption from present per capita consumption of 8.07 kgs to 24.00 kgs by 2024-25 in the State by utilising 30% of the production of State for nutritional security and also to benefit farmers and fishermen with remunerative price for the fish produce. 26 Aqua hubs and about 4000 spokes of retail outlets to be established by March, 2023.
- To avoid distress sale of aqua produce, Government is providing support to enthusiastic entrepreneurs for establishing (10) Processing units and (23) Pre- Processing units in the state with a project cost of Rs.546.91 crores. Promotion of value added products and cold chain facilities.
- Promotion of better management practices, training, skill upgradation and capacity building activities.

## Fish production

37.18 Lakh Tonnes of fish and prawn is produced in the state in 2022-23 up to December 2022, against the target of 52.53 Lakh tonnes. District wise details of fish and

prawn production for the year 2021-22 & 2022-23 are given in Annexure 5.24

## Registration of Aquaculture

As per Coastal Aquaculture Authority Act and Rules 2005, land within a distance of two kilometres from High Tide Line (HTL) of seas, rivers, creeks and back waters comes under the purview of Coastal Aquaculture Authority (CAA), Gol. The District Level Committee (DLC) recommends applications of farms above 2 Ha water spread area to State Level Committee and further recommends to CAA for consideration of registrations. The fresh water aquaculture and Aqua culture business operations in the state were regulated by APSADA.

## Important Acts Enacted for Promotion of Aquaculture

- A.P State Aquaculture Development Authority (APSADA) is constituted (Act No. 29 of 2020) under the Chairmanship of Hon'ble Chief Minister which aims to promote unorganized aquaculture sector in the state to a well organized aquaculture industry. APSADA also aims to attract investments to promote aquaculture based establishments and industries; create conducive atmosphere for sustainable trade and export of aquaculture produce and sea food products and to monitor, regulate and promote the supply of quality aquaculture inputs like seed, feed, feed supplements, aqua chemicals, aqua products, medicines etc.
- Enacted AP Fish Feed (Quality Control) Act, 2020 to ensure the production and supply of quality Fish & Shrimp feed on par with BIS/FAO standards to facilitate the farmers with supply of quality feeds as farmers are investing about 60% of input cost on the aqua feeds.
- Enacted AP Aquaculture Seed (Quality Control) (Amendment) Act, 2020 to ensure production & supply of quality Aquaculture seed in the state to help the farmers with supply of quality seed and thereby reduce crop losses and yield healthy crops.
- Enacted AP Fisheries University Act, 2020 for the establishment of the Fisheries University in West Godavari district with a main objective of

## AGRICULTURE &amp; ALLIED ACTIVITIES

generating, adequate skilled and qualified in the areas of fisheries and aquaculture sectors as per the demand of the sector in the state.

### Important Schemes and Programmes

a) Diesel Oil Subsidy for Fishermen Boats (Exemption of Sales Tax on HSD oil): This scheme provide supply of HSD oil on subsidy @Rs.9.00 per litre to all the registered and eligible mechanized and motorized fishing vessels for making the marine fishing as sustainable and economically viable to coastal fishers. The ceiling limit for availing subsidy is 3000 liters for mechanized boats and 300 litres for motorized boat in a month and the scheme is applicable for 10 active fishing months (excluding ban period) in a year. The budget allocated in BE -2022-23 is Rs.50 Cr.

b) Relief to Marine Fisher during ban period: Fishing ban on marine fishing for 61 day will be observed from 15th April to 14th June every year with an objective of conserving the fishery wealth and to sustain the fish production from marine waters. From 21-11-2019, the Relief was enhanced to Rs.10000/- from Rs.4000/ towards livelihood compensation to seagoing fishermen during the fishing ban period.

c) Fisheries Development scheme provide Training and Extension, Revolving fund for MMGs, Publications, Stipends ,Materials and Supply, Maintenance and Ex-gratia Payments to the deceased fishermen families for accidental death while fishing. An amount of Rs. 10.57 Cr is allocated in BE-2022-23.

d) Central Assistance to State Development Programmes (CASDP): Under Pradhan Mantri Matsya Sampada Yojana (PMMSY), various activities like Open sea cage culture, Cage culture in Reservoirs, Sea weed culture, providing boats and nets, Motor cycle with Ice box, deep sea fishing vessels, Bio-toilets for mechanised boats, communication and tracking devices and promotion of domestic fish marketing through Hub and Spoke model are implemented for CASDP Rs.100.00 Cr is allocated in BE.

- Under PMMSY-2021-22, the Gol has sanctioned 19 projects under CSS with total project cost of amount of Rs. 503.77 Crores with Gol share of Rs. 168.27 Cr, GoAP share of Rs. 115.94 Cr and

beneficiary contribution of Rs.219.55 Cr. The grounding of schemes is under progress.

- Under PMMSY-2022-23, the Gol has sanctioned 18 projects under CSS with total project cost of amount of Rs. 1346.66 Crores with Gol share of Rs. 300.17 Cr, G o A P share of Rs. 942.23 Cr and beneficiary contribution of Rs.104.25 Cr. The Gol has yet to release the funds.

e) Andhra Pradesh State Aquaculture Development Authority: To meet expenditure on performing of functions under APSADA Act, 2020, an amount of Rs. 5.00 lakhs allocated under BE 2022-23.

### Capital Expenditure

Rural Infrastructure Development Fund (RIDF): Under RIDF, an amount of Rs.12.00 Crs is allocated as BE 2022-23 to be spent for the approved ongoing projects i.e. additional shore based facilities, fish seed farms, approach roads, integrated labs and other fisheries projects sanctioned under various tranches of RIDF. Government has sanctioned Rs.11.80 Cr. for establishment of 46 Integrated Aqua labs in the State under RIDF- XXV, later the labs were reduced to 27 nos. The executive agency is AP Police Housing Corporation.

Fishing Jetties/ Harbours under State Development Schemes:

To provide safe berthing facilities for fishing craft and also to promote hygienic handling of fish harvested at landing centres besides promoting cold chain facilities, the construction of Jetties / Harbours along the sea coast of Andhra Pradesh and maintenance are taken up under the scheme. Rs.10.00 crs is proposed as BE 2022-23.

### Rashtriya Krishi Vikas Yojana:

Under RKVY 2021-22, an amount of Rs. 21.58 Cr was sanctioned for fisheries sector in the state for equipment/instruments for establishing 35 Integrated labs, Referral Aqua lab, FLC Uppalanka, Shore based facilities at Fishing Harbour Kakinada, dry fish markets, fish drying yard, fish markets and Capacity building & Training activities.



## Organization of Fishermen Cooperative Societies

The Fisheries Cooperative Societies (FCS) are formed for the promotion of thrift, self-help and mutual assistance of the members. Government has given great importance to cooperative societies in fisheries sector to empower fishermen to manage aqua resources. Departmental tanks (MI tanks) are given on lease to these cooperative societies for exploitation of fishery wealth for better livelihoods. Assistance is also provided for inputs like fish seed stocking, boats, nets etc on subsidy. So far, 3.08 lakh fishermen have been organized into 2523 societies. There is a need to infuse professionalism and good governance so that these Cooperatives can develop on their intrinsic strength. Details of FCSs in the State are shown in Table 5.16

Table 5.16. Fishermen Co-operative Societies (FCS)

| S. No.       | Types of Society                 | No. of Societies | No. of Members |
|--------------|----------------------------------|------------------|----------------|
| a            | Inland Fishermen Coop. Societies | 1395             | 140413         |
| b            | Marine Fishermen Coop Societies  | 492              | 107908         |
| c            | Fisherwomen Coop. Societies      | 618              | 59435          |
| d            | Others                           | 18               | 978            |
| <b>TOTAL</b> |                                  | <b>2523</b>      | <b>308734</b>  |

Source: Commissioner of Fisheries

## Forest

Andhra Pradesh State is bestowed with two mighty river systems of Krishna and Godavari. The State has wide and varied vegetation types enriched by a variety of flora and fauna. Andhra Pradesh located strategically in the central region of the Indian sub-continent has representatives of the magnificent Indian plant and animal life. Its varied topography ranging from the hills of Eastern Ghats and Nallamala's to the shores of Bay of Bengal supports varied ecotypes, which in turn support a rich diversity of flora & fauna.

The forests in Andhra Pradesh make for highly rejuvenating gateway. Tourists often head to the forests near Andhra Pradesh to experience jungles safaris. The famed wildlife in Andhra Pradesh is mainly scattered across these forests. While the benefits from dense forests are numerous, the tangible benefits like Timber, Bamboo, Fuel wood, Fodder, Non-Timber Forest Products etc., are quantifiable. Intangible benefits like maintenance of ecological balance, conservation of soil and moisture, regulating the water flow, sequestering

carbon-dioxide from the atmosphere etc., are not quantified but are of great significance.

Forest cover has been recognized as critical for a living environment as it influences the quality and quantity of air and water. The role of forests as carbon sinks endows them added recognition as an important environmental factor. With the responsibility of management of forests vested with the State Forest administration, the Central interventions are directed essentially towards reinforcing the capacity of States to undertake the National Policy mandates towards conservation and sustainable use of resources. The core objective of forest sector development strategy is to enhance green cover by integrating it with livelihood opportunities.

As per Indian State Forest Report, 2021, Andhra Pradesh state forest covers an area of 38060.39 Sq. Kms, which amount to 23.35% of the total geographical area. Out of this, Very Dense Forest is 1994.28 Sq. Kms, Moderate Dense Forest is 13928.75 Sq. Kms, Open Forest is 13861.27 Sq.Kms and Scrub Forest is 8276.09Kms. District wise forest area is shown in Annexure 5.25

## State Forest Development Agency

State Forest Development Agency (SFDA) is a society registered as a federation of FDAs in the State. 22 FDAs have been sanctioned by Government of India for implementing National Afforestation Programme (NAP), which is a Centrally Sponsored Scheme (CSS) with a funding pattern of 100% Grant from Gol upto 2014-15 and from 2015-16, the pattern changed to 60:40 share between the Centre and State. Various Plantation activities, SMC works, awareness camps for capacity building are being taken up by FDAs through the Vana Samrakshna Samithies (VSS). Centrally Sponsored Schemes like National Afforestation Programme (NAP), National Mission for a Green India (GIM) and National Medicinal Plants Board (NMPB) Schemes are being implemented through FDAs.

The Gol, with the objective to achieve integration of various afforestation programmes/ schemes of the Ministry has merged the National Afforestation Programme (NAP) and National Mission for a Green India (GIM) into a single scheme from 2021-22 onwards. The state has submitted Annual Plan of Operations (APO) for Rs. 26.47 crore to Gol under National Mission for a Green India (GIM) for 2022-23.

## AGRICULTURE &amp; ALLIED ACTIVITIES

### A. Nagaravanams

The primary objective of the Nagaravanams (City Forests) is to ensure wholesome living environment to the urban citizens besides contributing to development of Smart, Clean, Green and Healthy cities. So far, 23 Nagaravanams have been completed and open to the public.

In addition to the Nagaravanams, 7 Temple Eco-parks are being developed in the state to create awareness on various environmental issues besides contributing to development of aesthetic environment for the pilgrims. Further, different theme parks are also being developed to highlight the historical significance of the temple. For the financial year 2022-23, an amount of Rs.1494.00 lakh is allocated for establishment and maintenance of Nagaravanams and Temple eco-parks across the State.

### Eco-Tourism

Government has started Eco-Tourism initiatives by taking up creation of new community based Eco-Tourism Centers and strengthening the existing Eco-Tourism centers by the Forest Department involving local tribes in implementation and management by CBETs / EDCs duly empowering their economic status

### B. VanaVihari (Eco-Tourism)

The State has started the scheme for creation of new community based Eco-Tourism centres and strengthening the existing eco-tourism centres inside the forest area and also to develop Cottages / Dormitories, nature Camps, nature trails, Boating, Watch towers, interpretation Centers etc., across the State.

### Dr. Y.S. Rajasekhara Reddy SmruthiVanam

Dr.Y.S.Rajasekhara Reddy SmruthiVanam project was developed in an extent of 22.80 Ha in Nallakalva Village of Atmakur Mandal and to maintain the project.

### Forest Produce (Production)

The Departmental Extraction of Timber, Fuel and Pulp Wood, Faggot Wood, Long Bamboo and Bamboo Industrial Cuts (BIC) from natural forests as well as plantations were introduced from the year 1976-77 disbanding contractor system. The major activity comprises harvesting timber and poles from matured plantations of Teak, Eucalyptus, Casuarinas etc. and long

bamboos from bamboo coupes as per prescriptions of the working plan of respective divisions.

### Forest Revenue

The income accrued from forestry sector in the State during 2022-23 (up to December, 2022) is Rs.1339.83 crore. The details of Extraction of Forest Produce of Timber, Fuel, Poles and Bamboos are given in Table-5.17

Table 5.17 Forest Production extraction during 2022-23 (up to December 22)

| Species           | Up to Dec,2022 |             |
|-------------------|----------------|-------------|
|                   | Target         | Achievement |
| Timber (Cmt)      | 7931.80        | 11.00       |
| Fuel (Cmt)        | 612.00         | 0.00        |
| Poles (no.)       | 39928          | 0           |
| Bamboo (Lakh nos) | 39.10          | 6.91        |

### Social Forestry

The State Government has launched a massive people's movement involving public and farmers in a big way to increase tree cover outside reserve forests to improve environment and to provide gainful employment to thousands of unemployed youth. Distribution of seedlings to the public, raising community land plantations/ avenue/shelterbelt plantations and raising institutional plantations etc have been done under Social Forestry programme.

### Vanamahostavam

Massive afforestation programme has been carried during 2022-23, by involving all line departments, people from all walks of life and by converging funds from CAMPA, MGNREGS, State development schemes and Central Sponsored schemes and so far 3.05 crores of seedling with focus on indigenous native species have been planted.

### Afforestation

To improve green cover, APFD has been raising plantations like assisted natural regeneration plantations, block plantations, avenue plantations, Barren hill afforestation, mangroove plantations and

shelter belt plantations under CAMPA, Centrally Sponsored Schemes and State Development schemes.

The Government envisages to improve Green cover outside Reserve Forest by planting "One Plant by One Citizen" and by involving Grama Volunteers to distribute and plant seedlings. The main species raised for public distribution and planting in public lands are Teak, Red Sandal, Bamboo, Amla, Seethaphal, Casuarina, Eucalyptus, Tamarind, Jamun etc. During the year 3.05 crore seedlings have been planted (up to December - 2022) by all line Departments and public.

### (09)-Mixed plantation Scheme

Under 09-Mixed plantation scheme to improve Green Cover during 2022-23 it is proposed to raise 115 km of avenue, 19.85 lakh seedlings and celebrate Vanamahotsavam at district, mandal level in befitting manner beside maintaining avenue plantations raised during previous years with a financial outlay of Rs.550 lakh.

### Soil and Moisture Conservation works

Soil and Moisture conservation works are being taken up i.e. Staggered Contour Trenches (10mx0.5mx0.5m), Mini Percolation Tanks (10mx0.5mx0.5m), Mini Percolation Tanks (10mx10mx1m), Check Dams, Rock Fill Dams, Desilting Percolation Tanks etc., to assist natural regeneration, increase the ground water as well as to arrest soil erosion.

### Wild Life

The State of Andhra Pradesh is located in East Central Peninsular India. It represents the extensive Deccan Bio-Geographic Zone. It has three important geographical zones i.e., the Coastal Plains, the Eastern Ghats and the Deccan Plateau. It has three important rivers Godavari, Krishna and Pennar which drain into the Bay of Bengal. The Notified Forest area of A.P. is 37,221.11 sq.km, which is 22.84% of geographical area. Forest under Protected Area Network is 8139.88 sq.km which is 21.87% of notified forest area.

Andhra Pradesh has one Tiger Reserve (FDPT Srisailam Circle), one Elephant Reserve (Koundinya Sanctuary and Rayala Elephant Reserve, Anapapuramu Circle), one Biosphere Reserve (Seshachalam - Spread in Tirupathi

and Kurnool Circles), Three National Parks and Thirteen Wildlife Sanctuaries in the state. The details of protected area Wildlife Sanctuaries and National Parks in the state are shown in Annexure 5.26

The State is endowed with varied Eco-systems, habitats and rich heritage of Biodiversity and is a store house of unique flora and fauna. It harbours some of the rare and endangered flora like *Petrocarpus santalinus* (Red Sanders), *Cycas beddomei*, *Shorea tambaggia*, *Syzium alternifolium*, *Terminalia pallida* etc. It has fauna like Tiger, Gaur (Indian Bison), Great Indian Bustard, Lesser Florican, Jerdon's Courser, Golden Gecko, other avifauna like Flamingo, Pelican etc. It has the Second Largest Mangrove eco-system in the country (Godavari and Krishna Estuaries.)

### Zoological Parks in Andhra Pradesh

The two Zoological parks in the state namely Indira Gandhi Zoological Park at Visakhapatnam and Sri Venkateswara Zoological Park at Tirupati are rated among the best Zoos of the country with excellent facility for display of animals, conservation breeding, visitor amenities, conservation education etc. A Society called Zoo Authority of Andhra Pradesh (ZAAP) has been formed and registered for effective monitoring of the management of the zoos. The revenue obtained from the Zoo Parks is ploughed back for the management of zoos under the supervision of the society.

**Deer Park:** There is One deer park in the state i.e., Kandaleru Deer Park at Kandaleru Dam, Nellore district with an area of 25 Ha.

### Nagarjunasagar Srisailam Tiger Reserve (NSTR)

Nagarjunasagar Srisailam Tiger Reserve with an area of 3727.50 sq.kms. is one of the largest conservation landscapes in the country. This is one of the country's rich biodiversity hot spots having a contiguous landscape of a good forest eco-system of un-fragmented Nallamalais of the Eastern Ghats. The primitive tribal group 'Chenchus' have been involved in the management of NSTR and at present nearly 600 of them are engaged as protection watchers, animal trackers and nature guides. Scientific management and monitoring of wildlife is being taken up including the use of camera traps.

---

 AGRICULTURE & ALLIED ACTIVITIES
 

---

National Tiger Conservation Authority (NTCA), Gol has awarded excellence award for effective human resource management for involving Chenchus (600) in protection and the management of Tiger Reserve. Good habitat management practices were taken up resulting in increase of the Tigers, Co-predators and their prey species. The population of tigers in Srisailem is showing an upward trend as per the estimation conducted by National Tiger Conservation Authority, Gol and Wildlife Institute of India. The present tiger population is estimated to be in the range of 48-58 tigers excluding cubs.

### Seshachalam Biosphere

The Seshachalam Biosphere Reserve (SBR), with an area of 4755.997 Sq. km. is located in Seshachalam Hill-ranges of Eastern Ghats in Southern Andhra Pradesh. The reserve intends to enhance the efforts to conserve in-situ all form of life, along with its support system. The reserve is a home for nearly 1756 species of flowering plants belonging to 879 genera and 176 families. More than 220 species of Birds were reported from the reserve.

### Conservation of Sea Turtle along the Coasts

Olive Ridley Turtles started coming to Andhra Pradesh for the past (10) years along the coasts of Srikakulam, Vizianagaram, Visakhapatnam, East Godavari, Krishna, Guntur, Prakasam, Nellore. Start nesting during the month of December up to May for a period of 5-6 months. To protect the nests, eggs and hatchlings, special camps arranged involving local communities and NGOs. From 2010-11 to 2022-23 (up to December, 22) hatchlings were successfully released into sea.

### Man – Animal Conflict -Strategies to tackle Man - Animal Conflict

In Andhra Pradesh State, a herd around 32 elephants are wandering in Forest areas in and around Ramakuppam mandal of Chittoor District. These Elephants are very frequently coming out of forest in search of fodder and water sometimes causing damage to the agriculture crops adjoining the forest areas. In addition to elephants, other wild animals like sloth bear, black Buck and wild bear are also causing damage to the crops and Sloth bear attacks on humans. Government has taken all possible measures in mitigating Man-Animal (Elephant) Conflict,

such as payment of compensation for Crop damage, Human Death, Human injury etc.

In addition to regular precautionary steps and post mitigate measures, compensation is enhanced from time to time. During 2022-23 (upto December,22) an amount of Rs.34.20 Lakhs has been paid as compensation to the affected people.

Wildlife Protection and rescue parties are formed in all the forest divisions of the State for protection and rescue of wild animals. A state level Committee is formed which meets regularly to find solutions to Man -Animal Conflicts in the State.

### Vigilance

Forest Fire Prevention & Management Scheme (CSS) erstwhile called as Intensification of Forest Management Scheme

The main objectives of the scheme are:

1. To minimize forest fire incidences and assist in restoring productivity of forests.
2. To institutionalize the partnership with forest fringe communities for forest protection.
3. To contribute to the larger goal of maintaining environmental stability.
4. To prepare fire danger rating system and devise forest fire forecasting system.
5. To encourage the optimal use of modern technology (such as Remote sensing, GPS and GIS) in planning, developing and operationalizing Fire Prevention and Management System.
6. To develop knowledge on impacts and dynamics of forest fire.

Annual plan of operations for the year 2022-23 were submitted to the Gol through State Government with a financial outlay of Rs.1013.00 lakh (to the extent of B.E. 2022-23 approved by the State Government) i.e., amount requested for revalidation during the year is Rs.255.59 lakh (Central share: Rs.116.02 lakh + State share: Rs.139.57 lakh) and balance to be sanctioned during 2022-23 is Rs.757.41 lakh (Central share: Rs.454.446 lakh + State share: Rs.302.964 lakh). An amount of Rs.116.02 lakh revalidation of Central Share was credited into SNA account.

### Red sanders Protection Scheme

The scheme is meant for protection of Red sander trees in Seshachalam, Veligonda, Lankamala and Talakona Hill Ranges of Andhra Pradesh distributed in the districts of Kadapa, Chittoor, Nellore, Prakasam and Kurnool over an area of 5300.97 Sq.Km.

During the year 2021-22 the Government allotted an amount of Rs.1,500.00 lakh. The Scheme is implemented as per approved activities and the expenditure incurred is Rs.671.833 lakh for the year 2021-22 towards Red Sanders Protection activities.

For the year 2022-23, budget proposals for Red Sander Protection Scheme submitted to Government with a financial outlay of Rs.5250.00 lakh. The Government allotted an amount of Rs.1,500.00 lakh. The scheme is implemented in the year 2022-23 and the expenditure incurred till December, 2022 is Rs.342.8449 lakh towards Red Sanders protection activities.

### Forest Conservation Act, 1980 - Compensatory Afforestation

Forests whether Government, village or private subserve the entire community and represent a community resource that meets the need of millions of rural people especially the Tribals.

Forest Conservation Act, 1980 deals with such diversion of forest lands for non-forest purposes so that only minimum and essential projects are taken up on forest lands. Details of progress on Compensatory Afforestation under Forest (Conservation) Act, 1980 in the state for the years 2017-18 to 2022-2023 (1.04.2021 to 31.12.2022) are shown in Table 5.18

Table No. 5.18 Details of progress on Compensatory Afforestation under Forest (Conservation) Act, 1980 in the state for the years 2017-18 to 2022- 23 (upto 31.12.2022)

| Sl. no | Item                | Upto 2017-18 | Upto 2018-19 | Upto 2019-20 | Upto 2020-21 | Upto 2021-22 | Upto 31.12.2022 |
|--------|---------------------|--------------|--------------|--------------|--------------|--------------|-----------------|
| 1.     | Area Diverted in ha | 26924.34     | 26948.57     | 27147.47     | 27152.39     | 27303.18     | 27315.93        |

### Compensatory Afforestation Fund Management & Planning Authority (CAMPA)

Government of India, Ministry of Environment, Forest

and Climate Change has constituted an authority known as Compensatory Afforestation Fund Management and Planning Authority (CAMPA) for conservation, protection, regeneration and management of existing natural forests and wildlife its habitat including environmental services, research, training and capacity building.

The Annual Plan of Operation (APO) is being prepared every year under CAMPA for protection of forests and wildlife. The two main components taken up under A.P. State CAMPA.

Compensatory Afforestation (CA) Plantation works are taken up in CA lands taken in lieu of forest areas diverted. It also envisages proper demarcation of the Compensatory Afforestation areas by erecting boundary pillars, implementation of soil and moisture conservation works as per site requirements, raising required planning stock, maintenance of previously raised CA plantations etc.

The activities under this head i.e., CA / Addl.CA / Penal CA / Safety Zone/ Catchment Area Treatment / IWMP / Others are taken up as per the approved project communicated by Gol as stipulations while granting the Stage – I & II clearances of CA proposals.

Net Present Value (NPV): This component includes activities pertaining to protection and improvement of the forest through natural forest management, forest protection, prevention & control of forest fire, conservation of biodiversity, production of quality seedlings and clonal material, application of GIS technology for better management of forests and enhancing the skills of the cutting edge staff through training and capacity building for effective protection and management of forests etc. The year-wise details of plantations raised and expenditure incurred under CAMPA are as follows in Table 5.19.

## AGRICULTURE &amp; ALLIED ACTIVITIES

Table 5.19. Plantations raised and expenditure incurred under CAMPA

| Sl. No. | Year     | Approved APO (Rs in Crore) | Releases Adoc in CAMPA (Rs. In) Crore | Total Expenditure (Rs. In Crore) | Plantations raised during the year in ha. |
|---------|----------|----------------------------|---------------------------------------|----------------------------------|---|
| 1       | 2        | 3                          | 4                                     | 5                                | 6   |
| 1.      | 2014-15  | 110.22                     | 109.08                                | 91.79                            | 5547                                      |
| 2.      | 2015-16  | 100.00                     | 85.00                                 | 89.58                            | 4672                                      |
| 3.      | 2016-17  | 94.00                      | 89.00                                 | 73.08                            | 4936                                      |
| 4.      | 2017-18  | 97.00                      | 97.00                                 | 71.09                            | 3093                                      |
| 5.      | 2018-19  | 113.29                     | 104.47                                | 109.50                           | 4033                                      |
| 6.      | 2019- 20 | 322.97                     | 72.39                                 | 98.48                            | 15829                                     |
| 7.      | 2020-21  | 330.81                     | (BE) 155.76                           | 60.96                            | 5645                                      |
| 8.      | 2021-22  | 323.24                     | (BE) 380.00                           | 121.10                           | 5777                                      |
| 9.      | 2022-23  | 224.09                     | (BE) 300.00                           | 38.77*                           | 3495                                      |

\* Bills credited up to 31.12.2022

## Andhra Pradesh State Biodiversity Board

Biodiversity includes the variability among living organisms from all sources and the ecological complexes of which they are part and includes diversity within species or between species and of ecosystem. The A.P. state represents one of the richest repositories of biodiversity in the whole of south and south East Asia due to varied topography from the hilly ranges of Eastern Ghats, the Nallamala is to the shores of Bay of Bengal. Endowed with varied ecosystem, habitats and rich heritage of Biodiversity the state becomes the store house of rich flora and fauna. It has the Second largest Mangrove eco-system in the East coast of India. Besides, A.P. is rich in Agriculture Biodiversity and is home to several varieties of crop plants - Landraces, Food crops, Cultivars, Horticulture crops, Livestock, Fisheries etc.

The State Biodiversity Board (APSBB) is mandated towards conserving and restoring biodiversity and ecosystem to deliver benefits essential for all sectors of the society in a sustainable manner also aims to achieve zero loss of biodiversity and ecosystems services by the year 2030.

The main objectives of the A.P. State Biodiversity Board are 1).Conservation of Biological Diversity, 2).Sustainable utilization of the Biological resources and 3) Fair and equitable sharing of biological resources among all stake holders.

## Activities

- Constitution of Biodiversity Management Committees (BMCs),
- 71Preparation of People's Biodiversity Registers (PBRs) and Establishment Of Local Biodiversity Fund (LBF)
- Identification of Biological Heritage Sites (BHS) and Identification Of Endangered & Threatened Species
- Preparation of A.P. State biodiversity strategies and action plan , Documentation of Tradable Bio-Resources (TBRs) and Documentation and publications
- Processing of ABS applications & agreements with users
- Awareness and Capacity Building Programmes.

## Achievements

1. Conducted two workshops "Experts on the matic planning for aquatic Biodiversity and conservation of RET species in A.P at Vijayawada on 02-03-2022 and Experts thematic Action planning for Forest, Agro, Aquatic Biodiversities & Biodiversity Heritage Sites etc on 19.03.2022 at S.V.V. University, Tirupati.
2. Produced and released an English translated version of about 17 minutes duration on A.P. Biodiversity Awardees for wide publicity of conservation initiatives by APSBB for non Telugu people

## AGRICULTURE &amp; ALLIED ACTIVITIES

3. Conducted State level orientation training programme on implementation of Intensive CAAP for APSBB-NGO Partners on 07.04.2022.
4. Conducted virtual review meeting on Implementation of intensive core activities Action Plan in selected mandals of the state with MPDOs, NGOs and Regional Coordinators on 20.04.2022.
5. The NBA team visited to Uppalapadu Bird sanctuary and the NBA team visited the LAM, Guntur observed the Ongole and Punganur breeds. The NBA Secretary has very much impressed about the conservation activities taken up by APSBB viz., 15 CAAP implementation programme, Development of Biodiversity Parks, and appreciated the APSBB Officials and staff members.
6. Conducted virtual training programme to all the BMC members, volunteers, Academic institutions etc., for participation in Asian water bird census at their local areas as per the NBA instructions.
7. Conducted the International Day for Biological Diversity-2022 programme at Yogi Vemana University (YVU), Kadapa, YSR district based on the theme of this year "Building a shared future for all life".
8. Conducted World Environment Day-2022 on 05.06.2022 in all districts through partner NGOs.
9. Conducted awareness programme to the stakeholders on Biodiversity Conservation at Eluru district on 15.06.2022. Workshop on Creation of livelihoods and value addition through Bio resources" was conducted on 16.06.2022 to stakeholders, BMC members, NGOs, TK holders and others.
10. Conducted massive tree plantation programme through partner NGOs, Academic institutions, line departments etc., in all districts of A.P.
11. Under Peer to peer learning exchange, APSBB team and BMC members visited Palakkad district, Kerala state.
12. Plantation programme was conducted by APSBB team.
13. Created massive publicity and awareness on Biodiversity through developing videos on various aspects of Biodiversity of Andhra Pradesh and also publications, posters, Knowledge materials, books etc., were distributed up to the Grama Panchayati level.
14. Massive plantation programmes have been conducted on special days.
15. APSBB have been conducting various awareness programmes.

### Action Plan

APSBB has been preparing the strategies and action Plan across all sectors connected to the Biodiversity Conservation key sectors with main strategy on Mainstreaming of the Biodiversity concerns and sustainability in all streams of development sectors, Forests & Wildlife, Agriculture, Fisheries, Horticulture, Animal Husbandry, Industries, Port & Shipping, Oil & Natural Gas and other development Agencies for achieving the vision set forth. For effective implementation of the BD Act, there is need for establishment of Regional / offices to A.P. State Biodiversity Board

### Innovative approaches taken by the APSBB:

The APSBB has taken the following Innovative approaches:

1. Formation of Mandal Biodiversity Coordinators (MBCs) at intermediate level for assisting the APSBB in implementation of Core activities
2. Establishment of Biodiversity parks and Digital Museums in seven locations of A.P. state.
3. Development of Core Activities Action Plan (CAAP) and Intensive Core Activities Action Plan (ICAAP) Programmes for operationalization of Biodiversity Management Committees for conservation of Biodiversity in a systematic manner.
4. Initiated the HHG programme Home Herbal Gardens (HHG) and Nurseries development programmes in the state to spread awareness on Biodiversity Conservation and medicinal plants.

## AGRICULTURE &amp; ALLIED ACTIVITIES

5. Bio-survey of Eastern Ghats and Red sanders in A.P. through sanction of projects to Scientific / Academic organizations.
6. Internship programmes to the Post Graduate students
7. Created awareness through series of Short films on Biodiversity of Andhra Pradesh, created the Biodiversity panels and established in the Parks and museums.
8. Development of A.P. Biodiversity Web Application on partnership basis with A.P. Govt's ITES organization "e-Pragathi" for online data base creation and capture of PBRs and updations, Core activities action plans, sanction orders, LBF accounts etc., which is the major initiative of APSBB.

### Andhra Pradesh Forest Development Corporation

The objectives of the Corporation are 1) To raise large scale plantations to meet the demands of forest-based industries with species such as Eucalyptus, Bamboo, Tropical pines, Coffee, Cashew, Casuarina etc, 2) Generate gainful employment to the landless poor, particularly in remote and agency areas and 3) Undertake consultancy services to the industries to raise and maintain plantations in their vicinity.

Details of plantations raised by APFDC up to December, 2022 are shown in Table 5.20 and achievements are shown in Table 5.21

Table 5.20 Plantations raised by APFDC up to December, 2022

| Sl.no | Species                                  | Area (ha.)   |
|-------|--|--------------|
| 1     | Eucalyptus (Seed origin)                 | 2610         |
| 2     | Eucalyptus (Clonal)                      | 33560        |
| 3     | Bamboo                                   | 2384         |
| 4     | Cashew                                   | 5664         |
| 5     | Coffee                                   | 4010         |
| 6     | Teak                                     | 956          |
| 7     | Medicinal plants                         | 327          |
| 8     | Casuarina, Pines and other Misc. species | 225          |
|       | <b>Total</b>                             | <b>49736</b> |

Table 5.21 Achievements under APFDC

| Sl no. | Activity                                  | Target    | Achievements |
|--------|---|-----------|--------------|
| 1      | Raising plantations-ha                    | 210       | 211.95       |
| 2      | Harvesting of Eucalyptus pulpwood –mt.    | 2,32,840  | 1,74,235*    |
| 3      | Harvesting of Long Bamboo – no.           | 11,88,200 | 7,33,467*    |
| 4      | Harvesting of Bamboo Industrial Cuts –mt. | 280.00    | 235.63*      |
| 5      | Harvesting of Raw Coffee – mt.            | 230.00    | 182.30 *     |
| 6      | Harvesting of Pepper- mt.                 | 30.00     | 33.97        |

### Plantation Activities

**Eucalyptus Plantations:** The APFDC has been raising Eucalyptus Clonal plantations. With 33560 Ha, it is the single largest grower among PSUs in India. There are proposals to raise another 1000-2000 Ha. in the next 3 to 4 years. Due to improved site preparation, use of quality planting material and management practices, optimum yields are obtained from the plantations.

**Bamboo Plantations:** Bamboo plantations are raised in an area of 2384 Ha. The Corporation is intending to expand the Bamboo plantations over an area of 100 Ha in the next 3 to 4 years to ensure more supply of raw material per annum to the Paper Industries besides raw material to the artisans.

**Coffee Plantations:** The Corporation is maintaining about 4,010 Ha of existing Coffee plantations in the agency areas of Visakhapatnam and East Godavari Districts with intensive cultivation practices, by following scientific methods. These plantations are generating about 3.50 lakh man days of employment to the tribals all-round the year

**Pepper Cultivation:** APFDC has 1.80 lakh Pepper standards in its Coffee Estates in the agency areas of Visakhapatnam and East Godavari Districts comprising of high yielding varieties like Panniyur-I, Purnima, Sreekara, Subhakara, Panchami, Panniyur-5. It is proposed to plant another 1.15 lakh standards with pepper in the next 5 years.

**Cashew Plantations:** The Corporation has got cashew plantations over an area of 5664 ha. along the coastal belt in Guntur, Prakasam and Nellore districts and in the inlands of East Godavari, West Godavari and Chittoor districts. Presently, the older plantations are being replanted with high yielding Cashew varieties using scion banks.



**Eco-Tourism:** APFDC has developed Rajeev Eco Park at Idupulapaya of YSR Kadapa district. Eco Tourism Centers at Muthayapalem near Suryalanka Beach and Ananthagiri near Araku are established with nature Education camps and other amenities.

**Other Activities:** The Corporation has diversified its activities with several schemes such as providing consultancy services in afforestation to the industries such as NTPC, HPCL etc., and supplying high quality Eucalyptus clones to the public and institutions. Acting as agent to the Govt, in carrying out the export of Red Sanders wood and also on Beedi leaf Trade.

**Employment Generation:** The Corporation is providing employment to the Tribals and to Srilanka repatriates almost round the year. The employment is provided to the land less and poor during regeneration and harvesting activities. About 9 lakh man-days of employment per annum are provided to the poor, Tribals and Sri Lanka repatriates/refugees.

### Andhra Pradesh National Green Corps

The National Green Corps are conducting environmental awareness programmes to the rural people through eco club schools students organising Environmental Education Awareness & Training (EEAT) programme. During 2022-23 (Upto December, 22), National Corps conducted celebrated important Days various awareness programmes relating to environment etc in the schools in all district's in the state. 66,720 Students/teachers from 2,520 schools participated.

## Sericulture

Sericulture is an agro-based activity. The major activities of Sericulture comprise cultivation of Mulberry as food plant to feed the silkworms which spin silk cocoons. These cocoons are reeled for unwinding the silk filament by processing and weaving to value added products such as Silk fabric and Silk garments. Sericulture provides livelihood opportunity to millions, owing to its high employment potential, low capital requirement and remunerative income at frequent intervals.

The very nature of this activity with its rural On-Farm sector involves raising of Mulberry garden, rearing of silkworms and production of cocoons and marketing in

the Government Cocoon Markets. The Non-Farm sector involves Silk Reeling, twisting activities a Weaving of Silk yarn into Silk Fabric and with enormous potential for employment generation has attracted the attention of the planners and policy makers to recognize the Sericulture activity is among one of the most appropriate avenue for socio-economic development of largely Agrarian economy of India. Sericulture assures an average income of Rs.1,35,000/- per acre /annum.



### Status of Sericulture in Andhra Pradesh

In the state, Mulberry plantation is raised in an extent of 1,34,605 acres by 75005 farmers and 2000 hectares of Tasar Silk plantation in tribal areas by 1660 tribal farmers.

Andhra Pradesh is the Second largest producer of Silk in India next to Karnataka. The State produces Mulberry and Tasar Silks. Mulberry is grown in all most all the districts in the state specifically in Sri Satya sai, Anantapuram, Chittoor, Annamayya, Prakasam, Kadapa and Kakinada districts. Mulberry Silk is most popular variety and derived from Multivoltine and Bivoltine varieties of silkworms. The farmers in the State are rearing both Multivoltine and Bivoltine varieties of Silkworms based on the climatic conditions prevailing around the year. The Sericulture Department is working with the following goals and to strengthen the Farming community through Sericulture activities.

### Strategy:

The important strategy is encouraging Sericulture in the State which includes:

- Area expansion in Sericulture Potential (1250) RBKs through VSAs/VAs/VHAs.
- Intensive Training to the farmers through RBKs.
- Dovetailing with MG-NREGS and APMIP.

## AGRICULTURE &amp; ALLIED ACTIVITIES

- Creating demand for the Cocoons through establishment of Multi-End Reeling Units (MERUs)
- Establishment of Automatic Reeling Machines (ARMs) under Private sector.
- Integration of Reeling and twisting activities to increase profit margin to the entrepreneurs in production of Raw Silk to meet indigenous demand.
- Implementation of e-marketing in cocoon transactions at Government Cocoon Markets.

The Current Status of Sericulture in Andhra Pradesh during the year 2022-23 is shown in Table 5.22

**Table 5.22 Present Status of Sericulture in Andhra Pradesh during the year 2022-23 up to December-2022**

| Sl. No. | Item   | Unit              | Present Status up to December - 2022 |
|---------|--|-------------------|--------------------------------------|
| 1       | 2  | 3                 | 4                                    |
| 1       | Mulberry Plantation                          | Acres             | 1,34,605                             |
| 2       | Sericulture farmers                          | Nos.              | 75,005                               |
| 3       | Mulberry Cocoon Production                   | MTs               | 50,332                               |
| 4       | Raw Silk Production                          | MTs               | 6,901                                |
| 5       | Productivity                                 | Kgs/100 Dfls      | 76                                   |
| 6       | Tasar Cocoon Production                      | In Lakh Nos       | 15.18                                |
| 7       | Automatic Reeling Machines Established (ARM) | No. of ends/units | 5400 ends - (9) units                |
| 8       | GVA Realized                                 | Rs. in Crores     | 897.669                              |

- Mulberry Plantation: An area of 7775 Acres has been newly brought under Mulberry cultivation during the year 2022-23. The total Mulberry extent in the State is 1,34,605 Acres.
- Bivoltine Cocoon Production: 9281.24 MTs International Quality Bivoltine cocoons produced during the year 2022-23.
- Bivoltine Raw Silk Production: 1427.88 MTs of 2A & above Grade Raw Silk produced in the State during the year 2022-23.
- 50,332 M.Ts of Reeling Cocoons (BV +CB) were produced by the Sericulture farmers in the State upto December, 2022.
- 450 new Silkworm Rearing Sheds have been grounded during 2022-23 extending Sericulture activity in the State.

- Under State Development Schemes, sanctions were obtained for Rs.12.40 Crores for 2022-23.
- Sericulture activity is providing employment to 13,73,785 persons in rural areas in A.P.
- Mahatma Gandhi National Rural Employment Guarantee Scheme (MGNREGS) is implemented under convergence activities for 1500 acres Mulberry plantations and 500 new silk worm rearing sheds with NREGS share of Rs. 2445 Lakh is under process for the year 2022-23.
- Tasar Cocoon Production : 15.18 Lakh Tasar reeling Cocoons were produced by the Tribal farmers in the sub- plan areas of erstwhile East Godavari, (Alluri Sitaramaraju) district and earned income of Rs.53.13 lakh during the year 2022-23.

The District wise achievements under Sericulture are given in Annexure 5.27

### Schemes being implemented

Different schemes including State Development Schemes (SDS), Centrally Sponsored Schemes like SILK SAMAGRA, Rastriya Krishi Vikas Yojana (RKVY) and Convergence schemes like Mahatma Gandhi National Rural Employment Guarantee (MG-NREG) programme are being implemented. The Pattern of Assistance shown in Table 5.23

**Table 5.23 The Pattern of Assistance**

| Category | Govt. Assistance | Beneficiary Contribution |
|----------|------------------|--------------------------|
| General  | 75%              | 25%                      |
| SCSP     | 90%              | 10%                      |
| TSP      | 90%              | 10%                      |

### Innovates of Sericulture Practices

- Supply of 100% Chawkie worms to farmers: Through Chawkie Rearing technology farmer can get good, uniformly grown, healthy silkworms and the duration of the silkworm crop with the farmer's level is 17 to 18 days only which impacts the qualitative and quantitative cocoon yield.
- Installation of Turbo Ventilators & Cooling systems in the Rearing Sheds for maintenance of required temperature and humidity during Silkworm Rearing

for production of Cocoons in qualitative and quantitative.

- c) Adopting shoot rearing system, a farmer can save time and reduce 40% labour requirement during late age silkworm rearing. Mulberry leaf is also saved up to 15-20% in shoot rearing method. This technology is widely adopted by the farmers.
- d) Tree Mulberry Plantation to overcome drought / less irrigated conditions

### E-Governance Initiatives

- Benefits to farmers / silk reelers are being transferred on DBT mode through the CFMS / PFMS systems.
- e-marketing for transactions of cocoons.

### Implementation of e-marketing system in Cocoon Markets

- E-marketing system is a Global platform for the Cocoon transactions. Andhra Pradesh is the 2nd State next to Karnataka in introducing e-marketing.
- For supporting the farmers / benefitting the farmers, e-marketing for transactions of cocoons is being implemented (8) Government Cocoon Markets which function throughout the year.
- Auction procedures transparent. Competitive and higher price assured to farmers with equal opportunity to all Silk Reelers (Buyers).

**Sericulture Development through R.B.KS:** All VSAs of R.B.Ks are involved in expansion of Mulberry area. RBK is the Platform for Technology dissemination to Farmers.

Dr.YSR Pattubadi programmes are being organized by the Department Officers with progressive Sericulture farmers at RBKs. Technical Service Centre (TSC) Staff are organizing Demonstrations and Farmers Meets on innovative technologies.



### Non Farm Activities

**Private Sector:** Silk Reeling Units of different types of are functioning for producing the Raw Silk in Andhra Pradesh. 239 Charka units, 362 multi-End Reeling Units 9 automatic Reeling Units, 281 Twisting Units, 128 Tasar silk reeling units (Buniyad machines) and 105 Tasar Silk Spinning units.

Silk Fabric producing clusters in Andhra Pradesh is Dharmavaram, Mudireddipalli (Anantapuramu dist.), Uppada, Peddapuram (E.Godavari dist.), and Neerugattuvuripalli (Chittoor dist.) Silk Sarees are Traditional Heritage of Andhra Pradesh.

### Tasar Culture in Andhra Pradesh

Tasar culture is Forest based industry reared in the Forest where the Nalla Maddi and Thella Maddi trees (Terminalia arjuna & Terminalia tomentosa) in erstwhile East Godavari District and ASR district. Reared in 2,000 Ha of Forest area by 1,660 tribal farmers in (45) villages of Chinturu, Kunavaram Mandals in erstwhile East Godavari district, and in ASR district. In a year three Crops can be reared and get 40.00 lakh nos of Tasar Cocoons with an annual income of Rs.30,000/- to Rs.40,000/- per Tribal family. Tasar cocoons are converted into Tasar silk through "Buniyad reeling machines" & Spinning machines. 128 Buniyad and 105 of spinning units are functioning in Chinturu and Kunavaram Mandals of East Godavari district.

### Action Plan for the year - 2023-24

- Proposed to cover 15,000 acres of Mulberry plantations, to produce 77,950 M.Ts of Cocoon (CB+BV), 10,685 M.Ts of Raw Silk (CB+BV) and 45.00 Lakh Nos of Tasar Cocoon during the year 2023-24.

### Research and Development: Coordination with Research Institute (APSSRDI), Hindupur

Andhra Pradesh State Sericulture Research and Development Institute (APSSRDI), Hindupur in Ananthapuramu district has focused at a significant mandate of developing silkworm breeds / hybrids suitable to varied abiotic and biotic stresses in Andhra Pradesh with the primary objective of evolving new races, suitable for prevailing climatic conditions of the

## AGRICULTURE &amp; ALLIED ACTIVITIES

state and capable of producing International Grade Cocoons/Silk.

- Seed farmers are educated on the quality of feed (Mulberry leaf) and its influence on the breed (Cocoon Races) which in turn leads to healthy seed (Eggs).
- Joint Seed Crop Supervision with Scientist in Seed Areas.
- Disease Monitoring by testing seed crop at Regular intervals with Scientists of APSSRDI.
- Awareness meetings are organized in seed areas of Madanapalli & Madakasira for quality seed cocoon production.
- Training programmes are conducted to the private CRC Entrepreneurs, Farmers, practical training to the Students from Educational Institutions with Sericulture Vocational course and Departmental Staff at APSSRDI.

### Critical Gaps Identified in Implementation of Schemes

- High initial investment for establishment of Mulberry garden and silkworm Rearing sheds.
- Health hazards in reeling Sector.
- Unit Costs are very low when compared to the actual expenditure incurred by the farmer.
- Exemption of GST on silk machinery.

### Sericulture handicrafts made with COCOONS:

- The Department has also encourage rural women by training for preparation of HandiCrafts such as Garlands, Bouquet's , Flower pots etc., through Sri Padmavathi Mahila University, Tirupathi under IOT project.



## Agricultural Marketing

Marketing is a key link in the supply chain. Markets functioning effectively are essential for driving up the growth in the agriculture sector and for generating employment and economic prosperity in rural areas. Agricultural marketing infrastructure plays a pivotal role in fostering and sustaining the tempo of rural economic development and is critical for better performance of the agriculture sector as a whole. Effective marketing infrastructure is essential for cost effective marketing to minimize post-harvest losses.

It is envisaged that large investments are required for development of post-harvest and cold chain infrastructure nearer to the farmers' field. With rapidly changing production- consumption trends, the requirement of cold storages in markets has increased manifold more so in case of perishable commodities. Successful marketing requires learning new skills, new techniques and new ways for obtaining market price information.

There are 1052 godowns with capacity to store 9,65,492 MTs are existing in the state, of which 612 godowns with a storage capacity of 5,39,425 MTs are under utilization. The District wise godowns in Agriculture Marketing Committees is shown in the Annexure 5.28

The Agricultural Marketing department under takes various activities such as regulation of trade in market yards, management of markets, facilitation for procurement operations under Minimum Support Price (MSP), providing loans to the farmers under Rythu Bandhu Pathakam, Market Intervention, Management of Rythu Bazars etc..

The Market Committees have collected Market Fee of Rs.391.69 crores during 2022-23 (upto Dec, 2022). The district wise Market Fee collected are given the Annexure. 5.29

### e-National Agriculture Market

National Agriculture Market (e-NAM) is an electronic common platform promoted by Government of India to integrate all primary markets across the country for online participation in agricultural trade for assuring true price to the produce of the farmers.

The objective is to link local farmer to National trade, free the farmer from the clutches of middlemen & offer the best price. e-NAM is implemented in 33 Markets in the State. Major traded commodities in e-NAM markets are Dry Chillies, Cotton, Turmeric, Lemon, Onion, Tomato, Ground nut, Castor seed, Ajwain and Fruits & Vegetables.

### Achievements

- During 2022-23 upto December under e-NAM, 5,237 farmers registered, 68 unified Licenses Issued, 87 Traders & Commission agents and 33 FPOs registered in the state.
- 7.89 Lakh MT quantity with a trade value of Rs.6202.9 Crores traded in e-NAM.
- Assaying labs established in 16 Market Yards in Model Market Yards/ e-NAM markets in the State. 1,72,651 lots were assayed.
- Total online payment done is Rs.16.13 Crore for 28,255 Qtls. of the commodity.
- 10 mandis have participated in Inter-Mandi trade; a total volume of 1282.5 MT of commodity worth Rs 9.58 Cr has been added on e-NAM platform.

### Initiatives taken under eNAM

- **Unified Licence System:** To encourage the inter-mandi and inter-state trade on e- NAM, the Government of Andhra Pradesh have made provision to issue Unified Single Trading license system.
- **Assaying Labs :** Assaying labs have been set up assaying labs in all e-NAM AMCs. and empanelled reputed organization Staragri for authenticity of assaying results. Assaying equipment's are being integrated with e-NAM portal whereby assaying results are automatically displayed on e-NAM portal. Assaying equipment's of Guntur, Kurnool & Piduguralla (AP) have been integrated to e-NAM.
- **Integrated Weighing Machines:** eNAM integrated weighing machines are installed in the markets, which will transfer weighing data directly to the eNAM platform, removing possibility of manual error or manipulation.

- **Incentives to traders:** Exemption of Market Fee @ Rs 0.25 % and collecting only Rs.0.75%, if trader undertake market transactions from end to end trading process under e-NAM.
- **Manpower and Internet facility :** Deployed sufficient manpower, computers and internet connection in all APMCs to handle day to day e-NAM operations.
- **Price Display Boards :** Price Display Boards, CCTV Cameras, Announcement systems are installed in all markets for information dissemination. Commodity wise Min, Modal and Maximum information is displayed in boards to aware farmers about latest price .
- **Farmer Training Centers (FTC) :** Dedicated FTC set ups, with audio-video equipment is placed in all eNAM markets
- **Direct Purchase Platform ( DPP ) :** Enabled Direct Purchase Platforms in the market yards . Department established DPPs in the market yards to free the farmer from the clutches of Commission Agents from the market yard , where he can sell their Agri Produce directly to the purchaser through e-NAM.
- **Bio-Digesters:** Bio-Digesters are set-up and functioning and in all e-NAM, to convert the waste into useful compost under Cleaning, grading and packing facility provided by GOI
- e-NAM Training and Awareness programs in Villages: To motivate the farmers and make them understand in a simple way, department came up with an innovative idea by conducting kalajatha ( Folk artists ) program conducted in 545 villages. This has created a great impact amongst the farmers.

### Rythu Bazars

Rythu Bazars were established in the year 1999 with an objective of direct sale of vegetables by the farmers without intermediaries and to provide quality / farm fresh vegetables to the consumers at reasonable prices.

100 Rythu Bazars are functioning in the state. 51 Rythu Bazars construction is under progress with a worth of Rs.49.60 Crores. 3 Rythu Bazars in Vijayawada were

## AGRICULTURE &amp; ALLIED ACTIVITIES

completed for opening. 42 Rythu Bazars are face lifted with a value of Rs.401.42 lakhs in the state for the year 2022.

### Procurement operations

The Marketing Department have intervened in procurement operations when the prices of the perishable goods are too hike or too low through CEO, Rythu Bazars for stabilization of prices in open market in the interest of the farmers and consumers. During 2022-23, Procured 5317.40 MTs of Tamato worth Rs.2.59 crores from farmers.

### e-Farmarket

AP is the first state in the country to establish an e marketing platform called 'e Farmarket' to connect the farmers of AP to the traders in the country. e Farmarket platform will provide the end-to-end solutions for Buyers and Sellers of agriculture and horticulture produce traded in the state of Andhra Pradesh.

APFEVCL (Andhra Pradesh Farmers E-Vikraya Corporation Limited) is registered as SPV for the purpose of implementing efarmarket project in the month June 2021. e Farmarket Mobile application is customized with business process.

Total trade progress through e Farmarket application with number of 2932 traders and 3471 farmers are benefited for the financial year 2022-23 i.e., upto December-2022. The total transaction is worth of Rs. 45.93 crores.

### Multi Purpose Facilitation Centres (MPFCs)

Multi Purpose Facilitation Centres (MPFCs) are established for development of Agriculture Infrastructure Facility at each RBK centre. In phase-I, 1134 number of godowns, drying platforms and other infrastructure are under constructions for an amount of Rs.736.03 crores.

### Implementation of Schemes

The Government of Andhra Pradesh has taken a historical decision of establishment of Price Stabilization Fund (PSF) of Rs.3000 Crores, aimed to provide market

intervention to those farmers for the crops which are sold below the MSP and to provide market intervention to those crops which do not have MSP but are selling much below the normal price.

For the first time in the country, the Government of Andhra Pradesh has announced MSP for crops significantly grown in Andhra Pradesh and for which GOI has not announced. The Department has intervened in two phases.

During the 2022-23, the Government provide minimum support price to the farmers for crops significantly grown in Andhra Pradesh and for which GOI has not announced ; Chillies- Rs.7000 per quintal, Turmeric- Rs.6850 per quintal, Onion- Rs.770 per quintal, Minor Millets- Rs.2500 per quintal, Banana- Rs.800 per quintal, Sweet Orange -Rs.1400 per quintal.

AP is the only state in the country which collects farm prices from each RBK on a daily basis through App (CM APP). It stands for Continuous Monitoring of Agricultural Price and Procurement. This app is developed for providing end to end solutions, from taking daily price alerts from each RBK to undertaking procurement wherever necessary.

The Government has sanctioned an amount of Rs.300 crores under price stabilization fund in three quarters and the Department has released the same amount to the AP Markfed towards procurement of agricultural produce for the year 2022-23.

### Action Plan for the Year 2023-24

- **e-Farmarket:** Plan Year 1: It is planned to achieve revised GTV of 500 Crs in the first year after launch by on-boarding 10,200 traders and 50,000 + farmers in our platform.
- **Multi Purpose Facilitation Centres (MPFCs):** In Phase-II, 1238 number of godowns, drying platforms and other infrastructure to be constructed for an amount of Rs.852.44 crores.