



स्टेट फोकस पेपर 2024 - 25

State Focus Paper 2024 - 25

राज्य - आंध्र प्रदेश

State - Andhra Pradesh

राष्ट्रीय कृषि और ग्रामीण विकास बैंक

National Bank for Agriculture and Rural Development

आंध्र प्रदेश क्षेत्रीय कार्यालय

Andhra Pradesh Regional Office



दृष्टि

ग्रामीण समृद्धि के लिए राष्ट्रीय विकास बैंक

ध्येय

सहभागिता, संधारणीयता और समानता पर आधारित वित्तीय और गैर-वित्तीय सहयोगों, नवोन्मेषों, प्रौद्योगिकी और संस्थागत विकास के माध्यम से समृद्धि लाने के लिए कृषि और ग्रामीण विकास का संवर्धन

Vision

Development Bank of the Nation for fostering rural prosperity

Mission

Promote sustainable and equitable agriculture and rural development through participative financial and non-financial interventions, innovations, technology and institutional development for securing prosperity

स्टेट फोकस पेपर 2024-25
State Focus Paper 2024-25

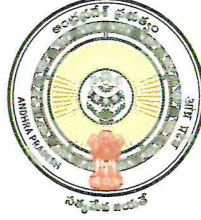
आंध्र प्रदेश
Andhra Pradesh



राष्ट्रीय कृषि और ग्रामीण विकास बैंक
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MESSAGE

Agriculture and the allied sector, which contributed 29% to the total GVA of the state at current prices in 2022-23 (AE), is the significant driver of the economy of Andhra Pradesh. The sector is not only crucial for income security, especially for the small and marginal farmers, but also to provide food & nutritional security to the people. Andhra Pradesh has firmly positioned itself as a key player in India's agribusiness sector, making substantial contributions in aquaculture, horticulture, dairy, and poultry. This underscores the state's pivotal role in shaping and advancing these crucial segments of the country's agricultural industry.

I am confident that NABARD, equipped with its substantial knowledge capital and supported by dynamic District Development Managers (DDMs) at the grassroots level, will persistently tap into the vast resources of the state. This collaboration is poised to propel both business and developmental agenda, fostering sustained progress in Andhra Pradesh. In this context, I am pleased to note that NABARD has meticulously crafted Potential Linked Credit Plans for all 26 districts of Andhra Pradesh for the upcoming year 2024-25. The culmination of these efforts is reflected in the comprehensive State Focus Paper 2024-25, highlighting the strategic vision for the state's credit landscape. The total credit potential assessed under Priority Sectors Lending for the State for FY 2024-25 is ₹3,55,281 crore, including ₹2,04,444 crore projected for the agriculture sector. It is also heartening to note that the total credit potential assessed for the FY 2024-25 have shown growth of over 24% compared to the assessment of the FY 2023-24 (₹ 2,86,292 crore). The State Focus Paper will help the member banks of SLBC and other financial institutions to draw up a realistic annual credit plan for the FY 2024-25. It will also help the stakeholders in both the centre and state to formulate suitable strategies for the overall development of the state.

The GoAP has taken multitudes of initiatives like YSR Rythu Bharosa scheme, YSR Free Crop Insurance and establishment of YSR Rythu Bharosa Kendralu, for the welfare of farmers. These programmes are aimed at comprehensive and sustainable development of the agriculture sector by providing quality inputs, disseminating necessary information, developing farm gate infrastructure at the local level, and aiding capital formation in the sector for enhanced productivity, thus augmenting farmers' income and livelihood.

Ensuring timely and hassle-free access to credit is imperative for inclusive development, and NABARD, as the apex development bank, plays a pivotal role in agriculture and rural finance. The assessment of the credit potential in the Priority Sector for 2024-25 is anticipated to serve as a guiding beacon for bankers and financial institutions. This strategic insight is poised to facilitate efficient credit allocation, addressing the diverse needs of various economic sectors and contributing to overall inclusive growth.

I also take this opportunity to congratulate NABARD for its exemplary support to the Government of Andhra Pradesh in the development of the State.



(KAKANI GOVARDHAN REDDY)

प्राक्कथन

चार दशक की अपनी गौरवमयी यात्रा में नाबार्ड ने ग्रामीण ऋण आयोजना में एक महत्वपूर्ण भूमिका निभाते हुए ग्रामीण भारत की समृद्धि में उल्लेखनीय योगदान दिया है। अपने ऋण संबंधी, संवर्धनात्मक और विकासात्मक हस्तक्षेपों के माध्यम से नाबार्ड ने आंध्र प्रदेश की ग्रामीण आबादी की आजीविकाओं में प्रभावी रूप से सुधार किया है। इसके साथ-साथ इसने ग्रामीण क्षेत्रों में ऋण वितरण तंत्र की प्रभावोत्पादकता को भी बढ़ाया है।

समावेशी विकास के माध्यम से सतत विकास को बढ़ावा देने के उद्देश्य से आंध्र प्रदेश सरकार द्वारा किए गए विभिन्न हस्तक्षेपों के फलस्वरूप आंध्र प्रदेश एक शानदार आर्थिक विकास दर्ज करने की ओर अग्रसर है। आंध्र प्रदेश प्रमुख रूप से कृषि आधारित अर्थव्यवस्था है, जिसके आर्थिक उत्पादन का लगभग एक तिहाई हिस्सा कृषि और संबद्ध क्षेत्र से आता है। राज्य अनेक फसलों के उत्पादन में शीर्षस्थ स्थान रखता है, जिनमें तेल ताड़ (*ऑइल पाम*), पपीता, नींबू, कोको, टमाटर, नारियल, मिर्च और मछली/ समुद्री उत्पाद शामिल हैं। आंध्र प्रदेश का यह विविधीकृत कृषि परिदृश्य भारत के कृषि उत्पादन और व्यापार में आंध्र प्रदेश के महत्वपूर्ण योगदान को रेखांकित करता है। राज्य में एक मजबूत बैंक जगत और बैंक तंत्र विद्यमान है, जिसमें 7881 बैंक शाखाएं हैं तो आर्थिक विकास को बढ़ावा देने और सामाजिक विकास को उत्प्रेरित करने में महत्वपूर्ण भूमिका निभाती हैं।

अग्रणी बैंक योजना पर भारतीय रिज़र्व बैंक के मास्टर परिपत्र के अनुसार, ऋण आयोजना प्रक्रिया के एक प्रमुख भागीदार के रूप में नाबार्ड राज्यों में सभी जिलों के पीएलपी अनुमानों को समेकित करते हुए प्रत्येक वर्ष एक राज्य फोकस पेपर (एसएफपी) तैयार करता है जिसे कृषि और ग्रामीण ऋण के क्षेत्र के सभी हितधारकों को शामिल करते हुए परामर्शी और सहभागी दृष्टिकोण अपनाते हुए तैयार किया जाता है। यह एक व्यापक दस्तावेज़ है जिसमें राज्य की संसाधन संपन्नता, भारत सरकार, राज्य सरकार, भारतीय रिज़र्व बैंक और नाबार्ड के नीतिगत निर्देशों को ध्यान में रखते हुए राज्य की सभी प्राथमिकता-प्राप्त क्षेत्र गतिविधियों के लिए ऋण अनुमान शामिल किए गए हैं ताकि आंध्र प्रदेश के समावेशी विकास संबंधी चिंताओं को दूर किया जा सके। नाबार्ड का यह व्यवस्थित दृष्टिकोण, संधारणीय और समावेशी विकास को बढ़ावा देने वाले इस राज्य की अनूठी जरूरतों के साथ ऋण-रणनीतियों को संरेखित करता है। राज्य फोकस पेपर में संभावित हस्तक्षेपों को ध्यान में रखा गया है और आगामी वित्तीय वर्ष के दौरान ऋण आयोजना तैयार करने हेतु बैंकों के लिए एक रोड मैप प्रदान करता है। हम वास्तव में यह आशा करते हैं कि यह दस्तावेज़ राज्य के विकास में सभी हितधारकों के लिए फायदेमंद साबित होगा।

वर्ष 2024-25 का राज्य फोकस पेपर (एसएफपी) प्रस्तुत करते हुए मुझे बेहद खुशी हो रही है, जिसमें राज्य के लिए पिछले वर्ष की तुलना में 24% की वृद्धि के साथ ₹3,55,161 करोड़ के संभावित क्रेडिट प्रवाह का अनुमान लगाया गया है। कृषि के लिए कुल ऋण संभाव्यता ₹2,04,324 करोड़ आंकी गई है जिसमें ₹1,36,102 करोड़ का फसली ऋण, कृषि और संबद्ध गतिविधियों के लिए ₹47,874 करोड़ का सावधि ऋण और कृषि आधारभूत संरचनाओं और अनुषंगी गतिविधियों के लिए ₹20,348 करोड़ का ऋण अनुमान शामिल है। एमएसएमई और अन्य प्राथमिकता-प्राप्त क्षेत्रों के लिए क्रमशः ₹88,482 करोड़ और ₹62,355 करोड़ की ऋण संभाव्यता का आकलन किया गया है।

मैं, राज्य सरकार के विभागों, भारतीय रिज़र्व बैंक, राज्य स्तरीय बैंकर समिति, बैंकों, जिला विकास प्रबंधकों और सभी हितधारकों के प्रति उनके बहुमूल्य योगदानों, सुझावों और इस संस्करण की तैयारी में सहायता प्रदान करने के लिए हृदय से आभार व्यक्त करता हूँ।

एम आर गोपाल

मुख्य महाप्रबंधक

नाबार्ड, आंध्र प्रदेश क्षेत्रीय कार्यालय

Foreword

Over its glorious four-decade journey, NABARD has played a pivotal role in rural credit planning, contributing significantly to the prosperity of rural India. Through its credit, promotional and developmental interventions, NABARD has effectively improved the livelihoods of the rural populace in Andhra Pradesh. Additionally, it has enhanced the efficacy of the credit delivery mechanism in rural areas.

Andhra Pradesh is poised to register splendid economic growth on account of various interventions undertaken by the government which aim at sustainable development through inclusive growth. Andhra Pradesh stands as a predominantly agrarian economy, with agriculture and allied sectors contributing nearly one-third to its economic output. The state has emerged in the top spot in the productivity of several crops, including Oil palm, Papaya, Lime, Cocoa, Tomato, Coconut, Chillies and Fish/Marine products. This diversified agricultural landscape underscores Andhra Pradesh's significant contributions to India's agricultural output and trade. The State has a robust Banking Profile and banking network with 7881 bank branches playing a critical role in promoting economic growth and catalysing social development.

As per RBI's Master Circular on Lead Bank Scheme, NABARD as a key player in Credit Planning Process prepares the State Focus Paper (SFP) annually aggregating the PLP projections of all districts in the states which is prepared adopting consultative and participatory approach involving all stakeholders in the field of Agriculture and Rural Credit. It is a comprehensive document containing credit projections for all Priority Sector activities in the State, taking into consideration resource endowments, policy prescriptions of Government of India, State Government, RBI and NABARD to address the concerns of inclusive growth of Andhra Pradesh. . NABARD's systematic approach aligns credit strategies with the unique needs of the State fostering sustainable and inclusive development. The SFP has factored in possible interventions and portrays a road map for the banks for credit planning during the ensuing financial year. We genuinely anticipate that this document will prove beneficial to all stakeholders in the development of the State.

It gives me immense pleasure in presenting the State Focus Paper (SFP) for the year 2024-25 projecting a potential credit flow of ₹.3,55,161 crore a growth of 24% over the previous year. The total credit potential for agriculture is ₹ 2,04,324 crore comprising crop loan of ₹1,36,102 crore, term loan for agriculture and allied activities at ₹47,874 crore and for agricultural infrastructure and ancillaries at ₹20348 crore. The assessment of credit potential for MSME and other priority sectors are ₹88,482 crore and ₹62355 crore, respectively.

I express my heartfelt gratitude to the State Government Departments, Reserve Bank of India, State Level Bankers Committee, Banks, District Development Managers, and all stakeholders for their valuable inputs, suggestions, and support in the preparation of this edition.

M R Gopal
Chief General Manager
NABARD
Andhra Pradesh Regional office

SFP document prepared and finalized by
Andhra Pradesh Regional Office, NABARD

Disclaimer: The document has been prepared on the basis of information collected from publicly available sources and discussions with various stakeholders. While preparing the projections, every effort has been taken to estimate credit potential realistically. NABARD shall not be responsible for any material or other losses occurring to any individual/organization owing to use of data or other contents of this document.

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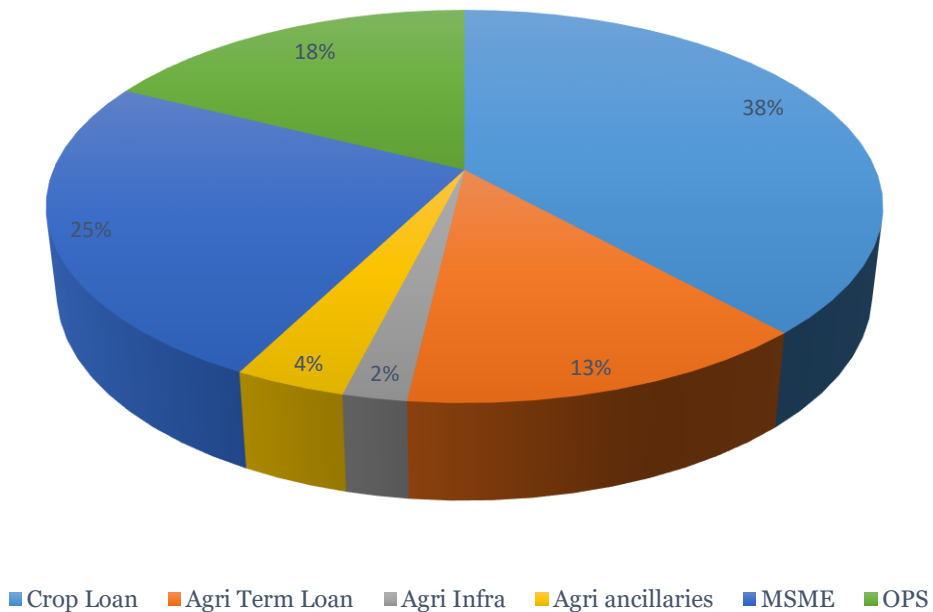
Appendix A

Broad sector wise assessment of credit potential for 2024-25

(₹ crore)

Sr.No.	Sector/Activity	Projections
I	Credit Potential for Agriculture	
A	Farm Credit	
i.	Crop Production, Maintenance and Marketing	136102.62
ii.	Term Loan for Agriculture and Allied Activities	47993.38
	Sub Total	184096.00
B	Agricultural Infrastructure	7435.36
C	Ancillary Activities	12912.79
I	Credit Potential for Agriculture (A+B+C)	204444.20
II	Micro, Small and Medium Enterprises (MSME)	88481.62
III	Export Credit	3609.57
IV	Education	3559.08
V	Housing	20901.81
VI	Social Infrastructure Involving Bank Credit	1066.18
VII	Renewable Energy	1054.32
VIII	Informal Credit Delivery System	32164.37
	Total Priority Sector (I to VIII)	355281.10

Projections for 2024-25



Appendix B
Sector wise assessment of credit potential for 2024-25

(₹ crore)

Sr. No.	Sector	Projections
I	Credit Potential for Agriculture	
A	Farm Credit	
i.	Crop Production, Maintenance and Marketing	136102.62
ii.	Water Resources	2862.80
iii	Farm Mechanisation	5574.06
iv	Plantation and Horticulture including Sericulture	6638.85
v	Forestry & Wasteland Development	622.42
vi	Animal Husbandry - Dairy	13575.20
vii	Animal Husbandry - Poultry	3041.27
viii	Animal Husbandry - Sheep, Goat & Piggery, etc.	3183.32
ix	Fisheries	9537.43
x	Farm Credit-Others (Bullock, Bullock Carts, Two-Wheelers, etc.)	2566.05
xi	Sustainable Agriculture Practices	391.98
	Sub-Total	184096.00
B	Agricultural Infrastructure	
i	Construction of storage facilities (Warehouses/Godowns, Market Yards, Silos, Cold Storage Units/Cold Chains)	4040.29
ii	Land development, Soil Conservation and Watershed Development	2145.36
iii	Agricultural Infrastructure - Others (e-NAM, Tissue Culture, Agri Bio-technology, Seed Production, Bio-Pesticides/Fertilisers, Vermi-Composting)	1249.71
	Sub-Total	7435.36
C	Ancillary Activities	
i	Food and Agro Processing	7301.13
ii	Agriculture Ancillary Activities - Others (Agri-Clinic/Agri-Business Centres (ACABC), Loans to PACS/FSS/LAMPS, Loans to MFIs for On-lending, Loans to Distressed Persons to Prepay Non-institutional Lenders, PMJDY, Loans to State Sponsored Organizations for SC/ST)	5611.66
	Sub-Total	12912.79
	Total Agriculture (A+B+C)	204444.20
II	Micro, Small and Medium Enterprises (MSME)	
i	MSME - Investment Credit	55577.47
ii	MSME - Working Capital	32904.15
	Total MSME	88481.62
III	Export Credit	3609.57
IV	Education	3559.08
V	Housing	20901.81
VI	Social Infrastructure Involving Bank Credit	1066.18
VII	Renewable Energy	1054.32
VIII	Informal Credit Delivery System	32164.37
	Total Priority Sector (I to VIII)	355281.10

Executive Summary

1. Introduction

NABARD is an apex development financial institution in India with mandate of fostering rural prosperity. One of the major functions of NABARD is to assess the credit potentials of various sectors through detailed and consultative credit planning process. The process involves the preparation of district-level Potential Linked Credit Plans (PLPs) which helps to identify infrastructure and linkage support requirements in the districts. The PLPs form the basis of the Annual Credit Plan prepared by Banks in the respective districts. At the State level, the State Focus Paper (SFP) is essentially an aggregation of the district level PLPs and base document for the State Level Bankers Committee (SLBC) for its annual credit planning and budgeting. The basic objective of such a planning exercise is to assess the credit potential, keeping in view the sector-specific potential, infrastructure support, forward and backward linkages, local skills, natural resources and credit absorption capacity. The credit projection is also fine-tuned by factoring in the priorities and policies of the Government of India, State Government and RBI.

2. State Profile

Andhra Pradesh is endowed with plenty of natural and human resources with competitive socio-economic advantages. Its geographical spread of 1,62,970 sq. km makes it the 8th largest State in the country. Situated in a tropical region, the State has the second-longest coastline in the country with a length of 974 km, indicating a rich potential for marine fisheries. Andhra Pradesh is the tenth largest populated state in the country accounting for 4.09% of the total population, as per 2011 census. The density of population as per 2011 census is 304 persons per sq.km.

The GSDP of Andhra Pradesh at Current Prices for the year 2022-23 (Advance Estimates) is estimated at ₹13,17,728 crore as against ₹11,33,837 crore for the year 2021-22 (FRE), showing a growth rate of 16.22% during 2022-23. As per the Advance Estimates, the GSDP at constant (2011-12) prices for the year 2022-23 is estimated at ₹7,54,338 crore as against ₹7,04,889 crore for 2021-22 (FRE), indicating estimated growth rate of 7.02%. The share of agriculture and allied sector to Andhra Pradesh's gross value added (GVA) is 36.19 per cent, almost double of the national level of 19.27 per cent and highest after the bifurcation of the state. Andhra Pradesh 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 during 2022-23. Andhra Pradesh holds the top rank in India for the productivity of various crops, including chilli, cocoa, lime, oil palm, papaya, and tomato. It secures the second position for the productivity of mango, sweet orange, cashew, and turmeric. Notably, Andhra Pradesh takes the lead as the largest producer of fruits in the country, contributing 15.6% to the total national fruit production. (Source: Socio Economic Survey of Andhra Pradesh 2022-23)

3. Banking Profile

As on 31 March 2023, the state had 39 Commercial Banks (12 Public Sector Banks, 21 Private Sector Banks, 03 Payment Banks and 03 Small Finance Banks), 04 Regional Rural Banks (RRBs), 01 State Cooperative Bank (APStCB), 13 District Cooperative Central Banks (DCCBs) and AP State Financial Corporation. The cooperative structure permeates the social fabric of the state through a sizeable network of 2046 Primary Agricultural Credit Societies (PACS). The PACS, with their historical presence among rural households, are an important medium for financial inclusion. As on 31 March 2023, a total of 7881 bank branches were evenly spread across the state, with 2695 branches in rural, 2412 branches in semi-urban, 2027 branches in

urban and 747 branches in metro areas. Besides, the state had 10,248 on-site ATMs as on 31 March 2023.

As against the target of Priority Sector Advances of ₹2,35,680.00 crore under the Annual Credit Plan of the state for 2022-23, an amount of ₹3,05,328.20 crore was disbursed for various sectors. The ACP under priority sector for 2023-24 has been fixed at ₹3,23,000 crore, with ₹1,99,266 crore achievement (61.69%) as on 30 September 2023.

The Credit Deposit Ratio (CD Ratio) of all banks put together was 149.79% as on 31 March 2023, which is one of the highest in the country. The aggregate deposits of banks in the state as on 31 March 2023 was ₹4,56,961 crore, registering a growth of 10.22% over the previous year. The aggregate loans outstanding increased by 17.61% over the previous year and was at ₹6,84,466 crore as on 31 March 2023.

4. Potential Credit Outlay

For the fiscal year 2024-25, the State Focus Paper estimates a total credit potential of ₹3,55,281.1 crore under Priority Sector. This estimate takes into account the revised Priority Sector Lending (PSL) norms issued by the RBI and the emphasis given by the Government of India (GoI) to increase credit flow to the agriculture sector and key sectors identified as growth drivers for agriculture and rural development by the State Government. The credit potential assessed for Agriculture and Allied Sectors is pegged at ₹2,04,444.20 crore, constituting 57.54% of the total credit potential. Detailed district and sector-wise information is presented in Annexure I, with major sectoral highlights outlined in Chapter 4, covering various sectors, their corresponding credit potentials, and issues along with suggested interventions.

4.1. Agriculture - Farm Credit:

In the agricultural landscape of Andhra Pradesh, the gross irrigated area witnessed a decline from 39.85 lakh hectares in 2020-21 to 38.44 lakh hectares in 2021-22. The net irrigated area stands at 29.52 lakh hectares in 2021-22. Notably, the cropping intensity for the year 2021-22 is reported at 1.25. The cultivated area dedicated to food grains in 2022-23 is recorded at 39.59 lakh hectares, reflecting a 4.2% decrease from the 41.34 lakh hectares observed in the previous year.

Major food grains such as Paddy, Maize, Jowar, Black Gram, Bengal Gram, and Red Gram contribute significantly to the agricultural produce of Andhra Pradesh. Additionally, crops like chillies, cotton, sugarcane, tobacco, and groundnut play crucial roles in the state's agricultural output.

To support farmers in availing crop loans, the Government of India has extended the Interest Subvention Scheme on Crop Loans for the financial years 2022-23 to 2024-25. This scheme ensures the availability of short-term agricultural loans up to ₹3.00 lakh to farmers engaged in various allied activities, including Animal Husbandry, Dairying, Poultry, and Fisheries, at a concessional interest rate of 7% p.a. Furthermore, an additional 3% subvention, known as the Prompt Repayment Incentive (PRI), is provided to farmers who repay their loans promptly and timely.

The State Government has implemented several policy initiatives to support farmers, including the YSR Rythu Bharosa scheme, YSR Free Crop Insurance Scheme, Vaddi Leni Runalu interest subvention, establishment of Rythu Bharosa Kendras, creation of a price stabilization fund, enactment of a new act for crop cultivators and issuance of crop cultivators' rights cards (CCRC) to tenant farmers, among others. These initiatives collectively aim to enhance the agricultural sector, provide financial support to farmers, and ensure the well-

being of the agricultural community in Andhra Pradesh. Keeping in mind the potential available in the State, the projections for 2024-25 under crop loans is estimated at ₹1,36,102 crore.

4.2. Agricultural Term Loan

Water Resources: The potential for bank financing is significant in supporting the establishment of new groundwater extraction structures, pump sets, micro-irrigation systems, well deepening, well recharge, pipelines for water conveyance, and small lift schemes. Within the growth strategy of the Government of Andhra Pradesh (GoAP), a focal point has been the emphasis on irrigation. To realize this strategy, the government has actively undertaken major and medium irrigation projects, alongside initiatives for the modernization of delta systems and flood banks. These endeavors are aimed at creating new irrigation potential and ensuring the stabilization of the ayacut in the irrigation sector. The total credit outlay assessed in the State under water resources is ₹2,862.8 crore for 2024-25.

Farm Mechanization: There is considerable potential for financing various agricultural equipment such as tractors, power tillers, rotavators, paddy transplanters, threshers, and harvesters. Recognizing the challenge posed by small and dispersed farm holdings, the establishment of Custom Hiring Centres has become imperative and can be facilitated through the involvement of entities such as Farmer Producer Organizations (FPOs), Self-Help Group Federations (SHG Federations), and Primary Agricultural Credit Societies (PACS). The concept of Uberization holds promise in agricultural mechanization, where individual owners can be networked through a common platform. This approach allows for real-time, cost-effective responses to demand. To expedite the scale-up of such services across the state, the promotion of a franchise model, particularly through encouraging agricultural start-ups, can be instrumental. The credit potential assessed under farm mechanization for the State in 2024-25 is ₹5574 crore.

Plantation & Horticulture and Sericulture: The area under Horticulture crops is 18.08 lakh ha with a production of 369.07 lakh MTs (Department of Horticulture, GoAP: III Estimates of 2021-22). Andhra Pradesh ranks first in area and production of fruits and spices and second in Micro Irrigation area coverage. The GoAP is actively prioritizing this sector and has formulated a comprehensive perspective plan. This plan encompasses various strategic aspects, including area expansion, implementation of micro-irrigation systems, promotion of protected cultivation, establishment of polyhouses, mechanization, development of cold storage and ripening chambers, as well as initiatives in fruit and vegetable processing and value addition.

Considering the scope available for the sector, the credit potential in 2024-25 is assessed at ₹6,638.85 crore.

Forestry: Agroforestry emerges as a potential solution to mitigate the effects of climate change by offering microclimate moderation, conserving natural resources, and establishing supplementary sources of livelihood and income. The agroforestry system, with its multifaceted approach, not only contributes to climate resilience but also enables additional income generation. Through Integrated Farming practices, elements such as poultry, mushroom cultivation, fish farming, beekeeping, sericulture, and other diverse activities can be seamlessly integrated, fostering a holistic and sustainable approach to agriculture.

The credit potential assessed under forestry and wasteland development in 2024-25 is ₹ 622.42 crore.

Livestock and Fisheries: The livestock sector is a pivotal contributor to the economy, with direct contributions from the poor to overall growth. In the national landscape, the state holds a significant position, ranking first in total fish and shrimp production, as well as total egg production. Additionally, it secures the second position in meat production and the fifth position in milk production. Recognizing the importance of this sector, the Government of India (GoI) has directed its focus towards ensuring a consistent flow of credit to support Animal Husbandry, Dairy, and Fisheries. The combined potential estimated under livestock and fisheries sectors in 2024-25 is ₹29337.22 crore.

4.3. Agriculture Infrastructure

Agricultural infrastructure stands as a pivotal input, significantly contributing to the growth rate of agriculture. The rate of agricultural output growth is closely tied to the development of essential infrastructures, including roads, irrigation systems, markets, post-harvest facilities, and robust credit facilities.

Land Development

Land Resources, soil, water and forests are considered as integral part of the natural capital which forms the foundation for the wealth of our society and economies. Out of the net sown area of 60.38 lakh ha of the state, 30.86 lakh ha is rainfed. NABARD through its participative watershed approach has implemented 213 watershed projects and treated 2.00 lakh ha of degraded land with soil and water conservation measures. The activities identified for land development are soil and water conservation measures, command area development, land levelling, etc. The credit potential available for the Land development, Soil Conservation and Watershed development sector for 2024-25 has been estimated at ₹2145.36 cr

4.4. Ancillary Activities – Food processing sector

Agriculture, being a major occupation in the state, necessitates a focused approach in enterprise development, particularly in the realm of food and agro processing. This sector serves as a crucial link connecting agriculture with the industrial segments of the economy. Strengthening this link is imperative to minimize wastage of agricultural raw materials, enhance the value of agricultural produce by extending shelf-life, fortify the nutritional capacity of food products, and ensure both remunerative prices for farmers and affordable prices for consumers.

The state with 06 Agro climatic zones favouring cultivation of multitude of crops and favourable for fish production, provides a fertile bed for food processing industries to grow and flourish. The Government of Andhra Pradesh has initiated various measures such as approving MoFPI approved 27 Mega Food Parks and Agro Processing cluster in the state, etc.

In Andhra Pradesh, the Agricultural and agro-based industry engages approximately 65% of the total population. Notably, it stands as the first state in the country to have implemented the Industrial Single Window Clearance. The State Government has committed to transforming the primary sector into an equitable, scientific, prosperous, and climate-smart sector. GoAP has strategically identified Visakhapatnam, East Godavari, and West Godavari districts in the cluster for the future expansion of cold chain facilities, secondary and tertiary processing units, along the proposed Vizag – Chennai Industrial Corridor (VCIC) (AP Vision 2029).

The credit potential assessed for Food Processing in 2024-25 is ₹ 7301.13 crore.

4.5 Ancillary Activities – Others

Loans for setting up of Agri clinic and Agri Business Centres (ACABC), lending to mFIs for on-lending to Priority sector, financing FPOs are included in this section. To encourage setting up Agri Clinic and Agri-Business Centres (ACABCs) by agriculture/Science/Veterinary Science graduates, a subsidy scheme is made available by GoI. In order that farmers get better remuneration for their produce, grant support is being provided by NABARD for formation and capacity building of FPOs. A total of 431 FPOs have been promoted and nurtured by NABARD in the state. A credit projection of ₹5611.66 crore has been made for the sector for the year 2024-25.

4.6. Micro, Small and Medium Enterprises (MSME)

Andhra Pradesh holds 7th position in the country with a significant presence of 33.87 lakh Micro, Small, and Medium Enterprises (MSMEs), contributing to 5% of the total MSMEs in the nation. Recognized as a pivotal catalyst for job creation and fostering balanced regional development, the MSME sector in Andhra Pradesh is characterized by a diverse range of product manufacturing. Notably, there is a pronounced concentration of Micro and Small units within sectors such as food, mineral and building materials, drugs and pharmaceuticals, fabricated materials, as well as the trading and service sectors.

The potential for credit support assessed for MSME (Investment credit plus Working Capital) during 2024-25 is ₹88481.62 crore.

4.6. Export Credit

Andhra Pradesh, endowed with abundant resources and strategic access to seaports, holds immense potential for promoting exports from the state. Andhra Pradesh ranks 8th in Export Index 2022 of NITI Aayog. Contributing 5.8% to the national exports, Andhra Pradesh aspires to double its export figures by 2030, aiming for a heightened state share of 10%. To achieve this ambitious goal, the strategic roadmap should align with the clarion call made by the Hon'ble Prime Minister of India for 'Aatma Nirbhar Bharat,' presenting a significant opportunity to bolster the state's export stature. Emphasizing the core principle of 'value addition' to raw materials becomes imperative as the state endeavours to attain self-reliance and strengthen its position in the global export arena.

The potential assessed for Export Credit for the year 2024-25 is ₹ 3609.57 crore.

4.7. Education

The education sector in the state has witnessed a notable increase in budgetary allocation for the fiscal year 2023-24. The State government has allocated ₹29,690.71 crore for the sector.. This financial commitment reflects the government's dedication to enhancing the educational infrastructure and opportunities within the state.

Furthermore, the State is actively implementing various welfare schemes aimed at benefiting children. These include initiatives such as Jagananna Amma Vodi, Jagananna Vidya Kanuka scheme, Jagananna Gorumudda scheme (PM Poshan), Mana Badi Nadu-Nedu, Samagra Shiksha, Kasturba Gandhi Balika Vidyalayas, among others. These schemes are strategically designed to ensure comprehensive education coverage for all deserving children, underscoring the government's commitment to fostering educational development and inclusivity in the state. The credit potential assessed for Education sector is ₹3559 crore for 2024-25.

4.8. Housing

Housing in India is considered the most vibrant and dynamic sector for the country's economy. The Pradhan Mantri Awas Yojana - Gramin (PMAY-G), a social welfare scheme, aims to offer financial assistance to individuals belonging to economically marginalized sections, enabling them to access housing infrastructure. This program ensures that beneficiaries not only receive permanent housing but also additional amenities such as electricity, LPG, and road connectivity. Under the ambit of this ambitious 'Housing for All' initiative, a 25-square meters pucca (permanent) house is constructed for each beneficiary, accompanied by essential comforts.

GoAP is also steadfast in its commitment to providing permanent houses to all eligible households in the state by 2024, employing a saturation mode that includes house sites and housing under the banner of "Pedalandariki illu." This initiative is an integral part of the government's flagship program, "Navaratnalu."

The Andhra Pradesh State Housing Corporation (APHCL) has played a pioneering role in the effective implementation of the Weaker Section Housing Programme, ensuring the provision of adequate amenities for beneficiaries.

The potential assessed for the Housing sector is ₹20901.81 crore in 2024-25.

4.9. Social Infrastructure Involving Bank Credit

Social infrastructure development, traditionally the realm of public investments, has seen increased private investments in response to the growing population and demand for improved education, healthcare, and drinking water facilities. This shift has resulted in the establishment of numerous private institutions and facilities. However, with a concentration of these developments in urban centers, the facilities are still not accessible in remote areas, highlighting the need for broader accessibility and equitable distribution of social infrastructure.

The potential for credit support assessed for Social Infrastructure sector is ₹1066 crore in 2024-25.

4.10. Renewable Energy

Andhra Pradesh, being a solar-rich state with a substantial potential of 120 GW in renewable energy and reverse pumped hydropower, has made significant strides in renewable energy development. As per the AP State Socio-Economic Survey 2022-23, the cumulative installed Renewable Energy capacity in the state stands at 8826.363 MW. This includes 4132.385 MW from Solar Power Projects, 4083.57 MW from Wind Power Projects, 105.598 MW from Small Hydro Power Projects, and 504.81 MW from Biomass, Bagasse, Municipal & Industrial Waste.

The state has actively pursued the Solar Pump Sets program with financial assistance from MNRE, Gol, resulting in the installation of 32,000 solar pump sets for irrigation purposes. Additionally, grid-connected solar rooftop systems with a capacity of 120 MW have been successfully implemented.

Looking ahead, Andhra Pradesh has set ambitious targets, aiming to establish 20 GW of renewable energy capacity by 2030. This includes 10 GW from solar power, 5 GW from wind power, and 5 GW from other renewable sources like biomass and hydropower. Furthering these goals, the state government has entered into a Memorandum of Understanding (MoU) with Adani Green Energy for the development of 10 GW of solar power projects, with a target

for commissioning by 2025. The initiation of the 'Green Energy Corridor' in Andhra Pradesh is another noteworthy step, focusing on efficiently connecting renewable energy projects across the state and facilitating the transmission of clean energy from solar and wind farms to load centers.

The credit potential assessed for Renewable Energy sector is ₹1054 crore in 2024-25.

5. Rural Infrastructure

Rural infrastructure encompasses essential facilities and services required for the well-being of rural communities, including both physical and social elements. Key components of rural infrastructure include irrigation structures for agriculture, rural roads, bridges, water supply, sanitation, rural energy, education, health, and communication systems. In the state, NABARD has played a significant role in supporting rural infrastructure projects for development, as elaborated in Chapter 5. Notably, the state has been a leader in implementing micro-irrigation projects, drinking water initiatives, and the establishment of academic institutions to support agriculture, horticulture, and animal husbandry sectors. Despite these achievements, critical infrastructure gaps persist in specific sectors or areas within districts. These gaps have been thoroughly examined and outlined as an action plan for the state in Annexure III and Annexure IV of the State Focus Paper (SFP), providing an option to access funds under the Rural Infrastructure Development Fund (RIDF).

6. Microfinance

Andhra Pradesh has been a trailblazer in the Self-Help Group – Bank Linkage Program (SHG-BLP). In the fiscal year 2022-23, a commendable total of 526,732 SHGs have been credit-linked, securing a substantial loan amount of ₹40,230 crore, with an outstanding loan balance of ₹58,757 crore. The average per SHG bank loan has witnessed a remarkable increase from ₹0.45 lakh in 2004-05 to ₹11.15 lakhs in 2022-23, demonstrating the programme's significant impact. Furthermore, the Non-Performing Assets (NPA) as a percentage of SHG bank loan outstanding has seen a notable decline, reaching a minimal 0.42% as of 31 March 2023. However, the sector faces challenges such as a decline in internal lending by groups and limited awareness about group objectives beyond thrift and credit at the member level. Hence, guiding the groups to transit to the Micro Enterprise Level is deemed of utmost importance for sustained progress.

NABARD has been playing the role of facilitator and mentor of microfinance initiatives in the country. The tremendous growth of microfinance sector in India was achieved through initiatives like SHG – Bank Linkage programme, JLG Financing, supporting MEDPs and LEDPs. In 2022-23, NABARD sanctioned a grant of ₹46.00 lakhs for the promotion and credit linkage of 1,150 Joint Liability Groups (JLGs) in Andhra Pradesh.

7. Financial Inclusion

NABARD provides grant support to banks through the Financial Inclusion Fund (FIF) for various schemes aimed at promoting financial inclusion. This grant support is available for initiatives such as conduct of Financial and Digital Literacy Camps, Demonstration of Banking Technologies through Mobile Vans, onboarding on various Banking Technologies like BHIM UPI platform and the Public Financial Management System (PFMS) portal.

Since the fiscal year 2019-20, FIF has adopted a differentiated approach, placing more emphasis on backward districts facing constraints due to various physical, economic, and sociological characteristics. These districts are termed as Special Focus Districts (SFDs) and include Aspirational districts, districts affected by Left Wing Extremism (LWE) districts. In

Andhra Pradesh, under the Financial Inclusion Fund, a total grant assistance of ₹99.36 crore has been disbursed till date.

8. Climate Change

Andhra Pradesh has adopted a comprehensive approach to sustainability, incorporating initiatives in green energy, sustainable agriculture, urban development, sustainable forests, green industries, and other strategies for sustainable development. The state has intensified its focus on social infrastructure to align with the objectives of the Sustainable Development Goals (SDGs) and address the challenges posed by climate change.

NABARD plays a pivotal role as the National Implementing Entity (NIE) for two crucial funding arrangements: the Adaptation Fund (AF), National Adaptation Fund for Climate Change (NAFCC), and Direct Access Entity to Green Climate Fund (GCF). In Andhra Pradesh, NABARD has executed a climate change adaptation project focusing on the development and restoration of mangrove plantations in coastal areas and livelihood enhancement for fishermen in three villages of Krishna District—Sorlagondi, Nali, and Basavanipalem. This project, supported under the Adaptation Fund, had a total outlay of ₹4.14 crore, and its implementation was carried out by the M S Swaminathan Research Foundation.

Additionally, another project titled "Climate Resilient Interventions in Dairy Sector in Coastal and Arid Areas in Andhra Pradesh" is underway in three districts—Anantapur, Nellore, and Vizianagaram—with a project outlay of ₹19.83 crore under the National Adaptation Fund for Climate Change (NAFCC). These initiatives underscore Andhra Pradesh's commitment to building resilience against climate change and fostering sustainable practices across various sectors.

9. Central Sector Scheme (CSS) for Formation and Promotion of 10000 new FPOS

In February 2020, the Government of India launched a Central Sector Scheme titled "Formation and Promotion of 10,000 Farmer Produce Organizations (FPOs)" with the aim of aggregating marginal, small, and landless farmers into Farmer Produce Organizations. The scheme outlines a clear strategy and allocates committed resources to establish and promote 10,000 new FPOs across the country. Implementing Agencies for the scheme include NABARD, NCDC, SFAC, NAFED, and others.

The scheme prioritizes Market and Credit linkages, along with the establishment of Pre-harvest and Post-harvest infrastructure. To provide support to FPOs in identified product clusters, Cluster-Based Business Organizations (CBBOs) will play a key role by offering handholding and capacity-building assistance. The overall objective is to strengthen the agricultural ecosystem and enhance the socio-economic status of farmers through the formation and promotion of FPOs. A total of 130 FPOs have been promoted by NABARD under CSS in Andhra Pradesh.

10. Andhra Pradesh & Sustainable Development Goals

Andhra Pradesh has retained 4th rank in the SDG India Index Report 2020-21 and emerged as one of the top 5 performing states in the country achieving the Sustainable Development Goals (SDG) for 2019, 2020 & 2021. As per the SDG India Index 2020-21, Andhra Pradesh has stood in first position in SDG 7 – Affordable and Clean Energy, second position in SDG 14 – Life

below water, fourth position in SDG 6 – Clean Water and Sanitation and fifth position in SDG 1 & 5 – No poverty and gender equality.

11. Way Forward

The State Government has created a conducive policy environment for development of agriculture and rural development. The State has the advantage of good banking network and robust support from the line departments with people friendly schemes. The State has the geographical advantage with varied agro-climatic conditions ideal for cultivation of variety of cereals, horticulture crops, dairy development and fish and Marine production.

Improving the infrastructure for irrigation, rural connectivity, postharvest and marketing facilities will increase capital formation in agriculture, improve credit absorption capacity, reduce regional imbalance in credit flow, reduce post-harvest losses and better price realisation for farmers.

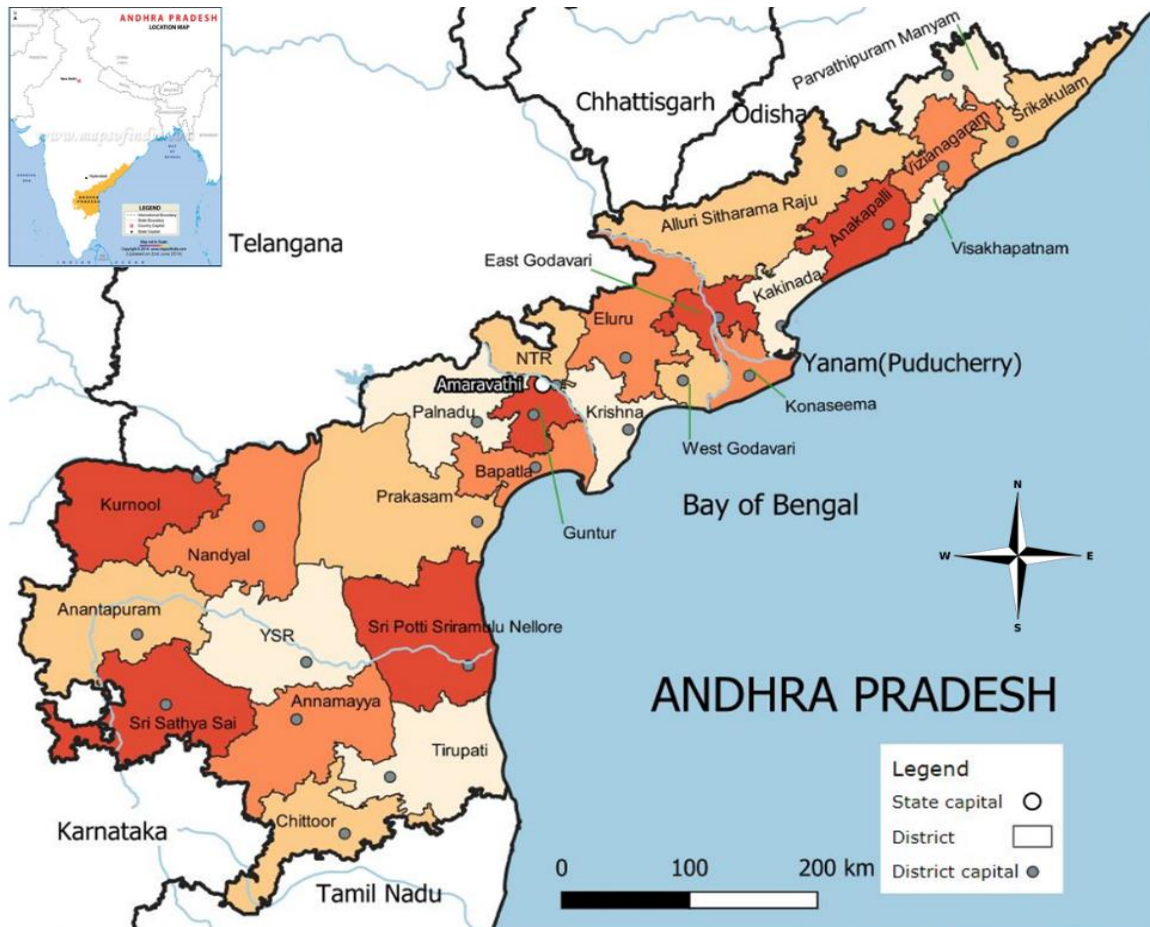
Strengthening of the rural cooperative credit institutions, PACS computerisation, providing banking network in uncovered and remote areas, digitization of agriculture credit delivery system, improving tenant farmer financing will improve financial inclusion, faster and hassle free delivery of credit and also ensure linking of production and marketing system.

NABARD with its mandate aimed at sustainable and equitable rural prosperity has taken several steps to deploy national and international climate funds apart from funding many of the projects and programmes through its own funds. The scenario is slowly but surely changing towards sustainable agriculture with special focus in harnessing the renewable energy potential in the State.

Close coordination between the State Government, banks and financial institutions, community based organisations, agricultural institutions, and all stakeholders will ensure flow of credit to the desired sector of the economy with special focus on aspirational districts in the state. We look forward to continued support from all esteemed partners in our endeavour in implementing innovative, path-breaking and result oriented development initiatives.

Hon'ble Governor:
Shri Justice S.Abdul Nazeer

Hon'ble Chief Minister:
Shri Y S Jagan Mohan Reddy



State Profile

Andhra Pradesh

1. PHYSICAL & ADMINISTRATIVE FEATURES

Total Geographical Area ('000 Sq.km)	162.97
No. of Districts	26
No. of Blocks/Mandal	686
No. of Villages (Inhabited)	17464
No. of Panchayats	13382

3. LAND UTILISATION 2018-19 [Lakh ha]

Total Area Reported	162.97
Forest Land	36.88
Area not available for cultivation	20.80
Land under Miscellaneous Tree crops	13.35
Cultivable Wasteland	4.05
Current Fallow	14.60
Other Fallow	8.85
Net Sown Area	60.88
Gross Cropped Area	2.03
Area cultivated more than once	1.53
Cropping Intensity [GCA/NSA]	1.25

6. WORKERS PROFILE AS PER CENSUS 2011 [in '000]

Cultivators	3340
Of the above, Small/Marginal Farmers	247
Agricultural Labourers	11053
Workers engaged in Household Industries	663
Workers engaged in Allied Agro-activities	n/a
Other workers	8026

8. HOUSEHOLDS AS PER CENSUS 2011 [in lakh]

Total Households	127.19
Rural Households	90.65
BPL Households	n/a

10. VILLAGE-LEVEL INFRASTRUCTURE [Nos]

Villages Electrified	16452
Villages having Agriculture Power Supply	14159
Villages having Post Offices	2230
Villages having Banking Facilities	1742
Villages having Primary Schools	15128
Villages having Primary Health Centres	1142
Villages having Potable Water Supply	8716
Villages connected with Paved Approach Roads	11530

13. IRRIGATION COVERAGE 2021-22 [Lakh ha]

Total Area Available for Irrigation (NIA + Fallow)	52.97
Irrigation Potential Created (up to December 2022)	42.98
Net Irrigated Area (Total area irrigated at least once)	29.52
Area irrigated by Canals/Channels	17.54
Area irrigated by Wells	16.15
Area irrigated by Tanks	3.46
Area irrigated by Other Sources	1.29
Irrigation Potential Utilized (Gross Irrigated Area)	38.44

15. AGRO-PROCESSING UNITS

Type of Processing Activity	No of units	Cap. [MT]
Food (Rice/Flour/Dal/Oil/Tea/Coffee)	n/a	n/a
Sugarcane (Gur/Khandsari/Sugar)	n/a	n/a
Fruit (Pulp/Juice/Fruit drink)	n/a	n/a
Spices (Masala Powders/Pastes)	n/a	n/a
Dry-fruit (Cashew/Almond/Raisins)	n/a	n/a
Cotton (Ginning/Spinning/Weaving)	n/a	n/a
Milk (Chilling/Cooling/Processing)	205	n/a
Meat (Chicken/Mutton/Pork/Dry fish)	n/a	n/a
Animal Feed (Cattle/Poultry/Fishmeal)	n/a	n/a

17. ANIMAL POPULATION AS PER LIVESTOCK CENSUS 2019 [in '000]

Category of Animal	Total	Male	Female
Cattle - Exotic/Crossbred	2176.69	179.73	1996.96
Cattle - Indigenous	2283.88	910.93	1372.95
Buffaloes	5937.10	443.45	5493.64
Sheep - Exotic/Crossbred	1144.34	192.08	952.26
Sheep - Indigenous	16142.64	2781.90	13360.74
Goat	5522.13	1209.91	4312.23
Pig	91.96	27.73	64.23
Dog	391.82	267.78	124.04
Rabbit	14.07	5.92	8.15
Total Livestock	34045.27	n/a	n/a
Poultry	107863.15	n/a	n/a

2. SOIL & CLIMATE

Agro-climatic Zone	6 Zones
Climate	Hot and Humid Tropical Climate, Semi-arid to Sub-humid
Soil Type	Red (65%), Black (25%), Alluvial (5%), Sandy (3%), Laterite (2%)

4. RAINFALL & GROUND WATER SCENARIO

Rainfall [in mm]		Normal	Actual	2020-21	2021-22	2022-23
		975.60		1191	1105.10	893.60
Ground Water Scenario	Avg. depth to GW level (mbgl)	No. of Blocks				
	8.08 (Dec 2023)	Safe	Critical	Semi Critical	Over Exploited	Total
		640	5	19	6	670

5. DISTRIBUTION OF LAND HOLDING AS PER AGRICULTURE CENSUS 2015-16

Classification of Holding	Holding		Area	
	Nos.	% to Total	ha.	% to Total
<= 1 ha	5904039	69.26%	2336410	29.19%
>1 to <=2 ha	1646246	19.31%	2334052	29.16%
>2 to <=4 ha	769843	9.03%	2019757	25.23%
>4 to <=10 ha	189034	2.22%	1038254	12.97%
>10 ha	14748	0.17%	276000	3.45%
Total	8523910	100.00%	8004472	100.00%

7. DEMOGRAPHIC PROFILE AS PER CENSUS 2011 [in lakh]

Category	Total	Male	Female	Rural	Urban
Population	495.77	248.30	247.47	349.67	146.10
Scheduled Caste	84.69	42.20	42.49	67.74	16.95
Scheduled Tribe	27.40	13.62	13.78	24.02	3.38
Literate	298.60	165.50	133.10	194.49	104.11
BPL (united AP)	78.78	n/a	n/a	61.80	16.98

9. HOUSEHOLD AMENITIES [Nos. in lakh households]

Having brick/stone/concrete houses	n/a	Household electrification	100%
Having source of piped drinking water	69.44	Having independent toilets	75.61

11. INFRASTRUCTURE RELATING TO HEALTH & SANITATION [Nos]

Anganwadis	55607	Community Health centers	181
Primary Health Centres	1689	Area and District Hospitals	68
Primary Health Sub-Centres	11480	Teaching hospitals	12

12. INFRASTRUCTURE & SUPPORT SERVICES FOR AGRICULTURE

Total Fertilizer Consumption [Lakh MT]	36	Agriculture Pumpsets [Lakh Nos]	19.38
Total N/P/K Consumption [Lakh MT]	19.05	Pumpsets Energised [Lakh Nos]	19.31
Certified Seeds Produced ['000 MT]	24.80	Food Quality Testing Labs	5
Pesticides Consumed [MT]	1808.30	Soil Testing Centres [Nos]	60
Agriculture Tractors [Nos]	270016	Ripening chambers	247
Power Tillers [Nos]	150120	Pack Houses	4587
Threshers/Cutters [Nos]	n/a	Krishi Vigyan Kendras [Nos]	24

14. INFRASTRUCTURE FOR STORAGE, TRANSPORT & MARKETING

Rythu Bazaar [Nos]	100	Market Yards [Nos]	400
Length of Rural road [Km]	80217	Godown [Nos]	1052
Length of Railway Line [Km]	7714	Godown Capacity [Lakh MT]	9.65
Cold Storage [Nos]	373	Godown occupied [Nos]	612
ColdStore Capacity [Lakh MT]	20.60	Godowns occupancy [Lakh MT]	539.42

16. Area, Production and Productivity of Major Crops during Last 02 Years

Crop	2021-22		2022-23*		Avg. Yield [kg/ha]
	Area ('000 ha)	Prod. (MT)	Area ('000 ha)	Prod. (MT)	
Paddy	2412	12176	2250	13365	5940
Maize	342	1897	326	2056	6307
Jowar	76	259	118	257	2178
Pulses	1228	1054	1119	1148	1026
Groundnut	825	516	590	569	964
Total Food grains	4134	15485	3959	16930	4276
Total Oil seeds	1002	2770	786	2456	3125

* As per 2nd Advance estimates

18. INFRASTRUCTURE FOR DEVELOPMENT OF ALLIED ACTIVITIES

Rural Livestock Units [Nos]	1219	Animal Markets [Nos]	35
Veterinary Hospitals (including mobile)	1973	Milk Collection Centres [Nos]	n/a
Artificial Insemination Centres [Nos]	7783	Fishermen Societies [Nos]	2810
Animal Breeding Farms [Nos]	10	Fish seed farms [Nos]	167
Livestock & Poultry Societies [Nos]	1627	Fish Markets [Nos]	n/a
Dairy Cooperative Societies [Nos]	812	Poultry hatcheries [Nos]	8
Fishery Cooperative Societies [Nos]	2135	Slaughter houses [Nos]	96

19. MILK, FISH, EGG PRODUCTION & THEIR PER CAPITA AVAILABILITY

Fish	Production [Lakh MT]	48.13	Per cap avail. [gm/day]	22.10
Egg	Production [Lakh Nos]	264503.00	Per cap avail. [nos/p.a.]	526
Milk	Production [Lakh MT]	154.03	Per cap avail. [gm/day]	799
Meat	Production [Lakh MT]	10.25	Per cap avail. [gm/day]	20.66

AP Socio Economic Survey 2022-23; AP Statistical Abstract 2021; Directorate of Economics & Statistics, GoAP; Department of Agriculture, GoAP; AP Source: Economy in Brief 2021; Census, 2011; 20th Livestock Census, 2019; ICAR, GoI; Basic Animal Husbandry Statistics 2023; FISHCOPFED, GoI; Department of Fisheries, GoAP

n/a : Data not available

State Profile

Geography

Andhra Pradesh is situated in the south-eastern part of India. It is the eighth largest state in the country with a geographical area of 1,62,970 sq. km and the tenth most populous state with population of 495.77 lakh. The state has 2nd longest coastline of 974 km running along the eastern coast of India. The state has three main physiographic regions: the coastal plains to the east; the Eastern Ghats; and, Rayalaseema plateau in the southwest. On 02 June 2014, the north-western portion of the state was bifurcated to form the new state of Telangana. The re-organised Andhra Pradesh lies between 12°37' and 19°15'N latitude and 76°47' and 84°50'E longitude. The state shares its borders with Telangana to the northwest, Odisha to the northeast, Tamil Nadu to the south, Karnataka to the west, and the Bay of Bengal to the east.

The topography of Andhra Pradesh is drained by important peninsular rivers like Godavari, Krishna and Penna. The deltas formed by these rivers-the Godavari and the Krishna make up the central part of the coastal plains, which is an area of fertile alluvial soil. Eastern Ghats are discontinuous and older mountains intersected by river valleys. The Rayalaseema plateau is a region of graded valleys, with red sandy soil and isolated hills. Black soil is also found in certain parts of the area.

Table 1.1 Andhra Pradesh Profile

Geography		Population	
Total Area	162,970 Sq. km	Total	495.77 lakh
Coastline	974 Kms	Rural	349.67 lakh
Districts	26	Urban	146.10 lakh
Area Rank	8 th	Population Rank	10 th
Revenue Divisions	77	Density	304 per Sq. km
Mandals	686	Literacy rate	67.35%
Gram Panchayats	13382	Female	59%
Revenue Villages	17464	Male	75%

(Sources: AP Socio Economic Survey 2022-23
<https://censusindia.gov.in/census.website/>
<https://www.ap.gov.in/#/>
<https://des.ap.gov.in/MainPage.do>)

Demographic Profile

As per 2011 Census of India, Andhra Pradesh is the 10th most populous state with 495.77 lakh population and a population density of 304 persons per sq. km, as against 382 persons per sq. km at all India level. The rural population of the state is 349.67 lakhs (71%). The total population of the state includes 17.1% Scheduled Castes and 5.5% Scheduled Tribes. With 248.30 lakh male and 247.47 lakh female population, the state's sex ratio of 997 females per 1000 males is significantly higher than the national average of 943. The state has literacy rate of 67%, with female literacy of 59% and male literacy rate of 75%.

Macro-Economic Scenario

The GSDP of Andhra Pradesh at Current Prices for the year 2022-23 (Advance Estimates) is estimated at ₹13,17,728 crore as against ₹11,33,837 crore for the year 2021-22 (FRE), showing a growth rate of 16.22% during 2022-23.

As per the Advance Estimates, the GSDP at constant (2011-12) prices for the year 2022-23 is estimated at ₹7,54,338 crore as against ₹7,04,889 crore for 2021-22 (FRE), indicating estimated growth rate of 7.02%.

The Per Capita income of Andhra Pradesh during 2022-23 at current prices is estimated at ₹2,19,518 as against ₹1,92,587 in 2021-22 (FRE), increased by ₹26,931 with a growth rate of 13.98%.

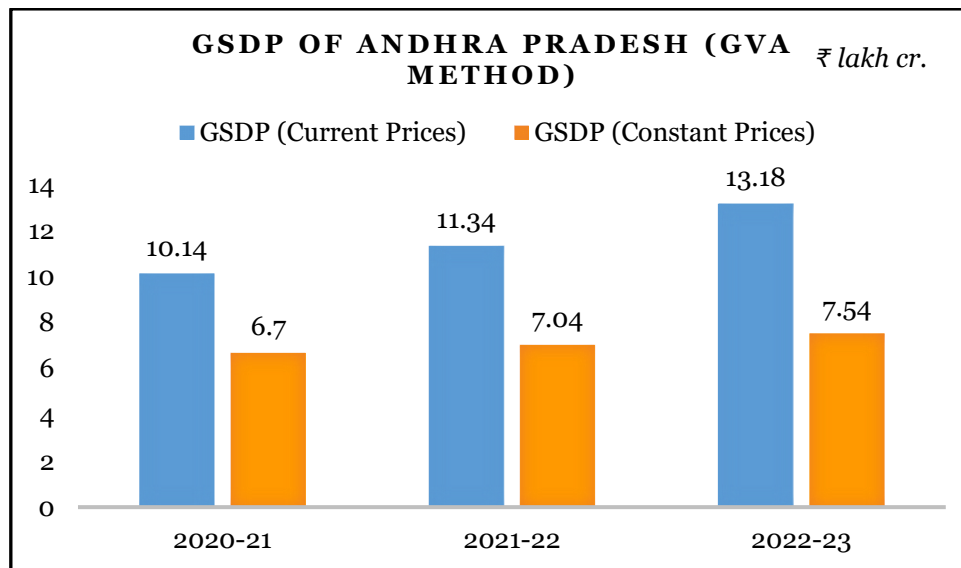


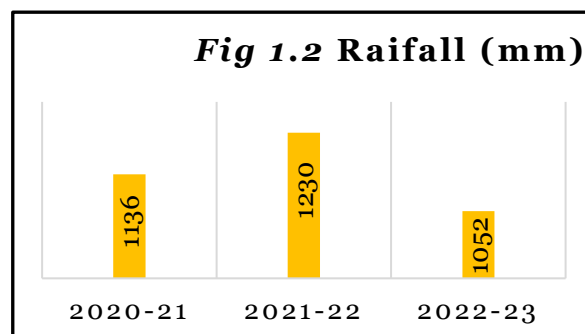
Fig 1.1 GSDP of Andhra Pradesh (GVA method)

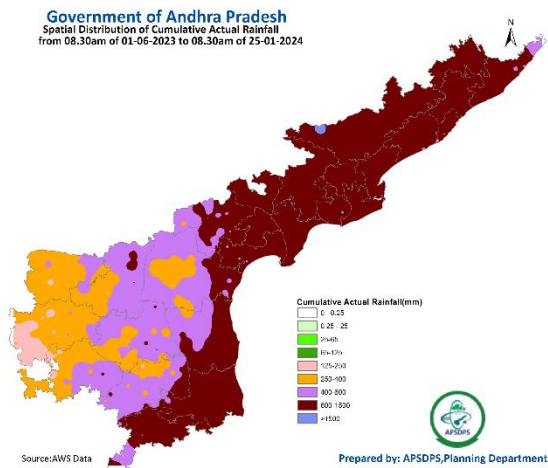
Soil

The diverse climatic regime, rock types and topography of the state has led to formation of variety of soils ranging from less fertile coastal sands to highly fertile deltaic alluviums of Godavari, Krishna and Pennar rivers, and the red and black soils developed from different parent materials. The state broadly has five different soil types. The state is dominated by red soils covering about 65% of the area, followed by black soils covering 25% of the area and alluvial soils in 5% area. The alluvial loamy clay soils found in Krishna and Godavari deltas cover 5% of the cultivated area. The coastal sands occupy only 3%, while the remaining 2% is covered by laterite soils in certain pockets of the state.

Rainfall and Agro-Climatic Regions

Majority of the net sown area of Andhra Pradesh (57%) is rainfed. Therefore, South West Monsoon and North East Monsoon, both play a crucial role in Agro-economy of the state. Majority of the rainfall is received from South-West Monsoon (59%) in the months of June to September. North-East Monsoon contributes remaining rainfall (28%) during October to December period and remaining 13% of the rainfall is received during the winter and summer months. Rainfall received by Andhra Pradesh in previous three years is given in the graph.

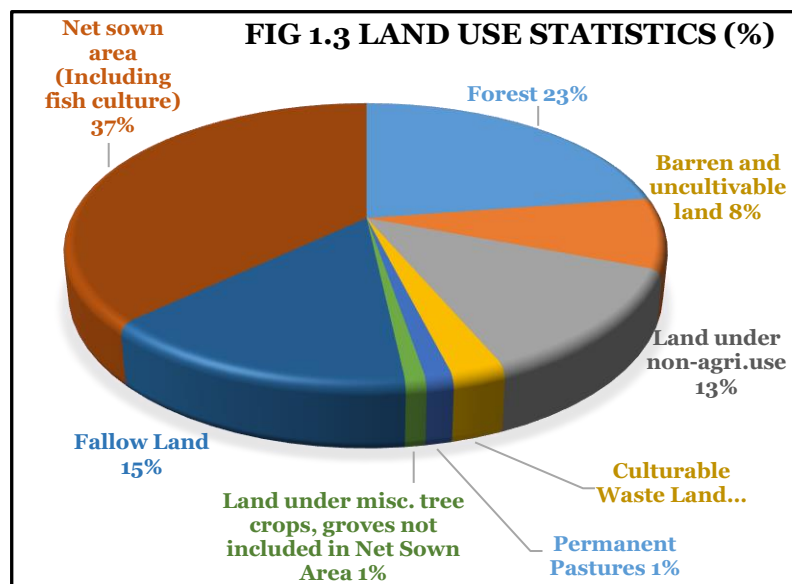




Based on the annual rainfall and temperature patterns, the state is divided into Six Agro-Climatic Zones – North coastal zone, Godavari zone, Krishna zone, Southern zone, scarce rainfall zone, High altitude & tribal areas zone. The diverse agro climatic regions of the state have gave rise to diversity in cropping pattern and agri-allied activities.

Land Utilisation

The land utilization in Andhra Pradesh is embedded in the socio-economic matrix and geography of the state. Land utilization reveals that 37.05% of the state's geographical area is under net sown area (60.38 lakh ha), 22.63% under forest and tree cover (36.88 lakh ha), 8.19% under barren and uncultivable lands (13.35 lakh ha), 12.78% under land put to non-agricultural uses (20.82 lakh ha), 8.19% under barren and uncultivable land (13.35 lakh ha) and remaining 11.16% area is under other fallow lands, cultivable wastelands, permanent pastures and other grazing lands, and land under miscellaneous tree crops and groves which are not included under the net sown area.



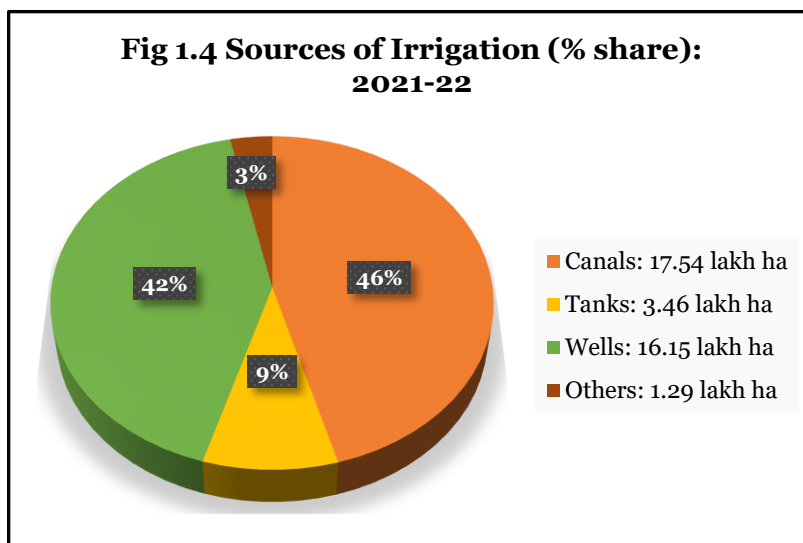
Land Holding

The land holding pattern primarily decides the production and productivity of the agriculture. As per Census of Land Holdings 2015-16 (Provisional), the average size of land holdings in the state has declined to 0.94 ha from 1.06 ha in 2010-11. Small and marginal farmers have 88.60% of total land holdings, who operates on 58.40% of the area. Medium and large farmers account for 11.40% of land holdings, who operates on 41.60% of the area of the state. The number of holdings has increased from 76.21 lakh in 2010-11 to 85.24 lakh in 2015-16.

Irrigation

Andhra Pradesh has about 54% of gross sown area under at least one source of irrigation. The gross irrigated area in the state decreased to 38.44 lakh ha in 2021-22 from 39.85 lakh ha in 2020-21. The share of various sources in gross irrigated area is given in the pie chart. The net irrigated area of the state in 2021-22 stands at 29.52 lakh ha.

Creation of Irrigation Potential continued to be a prioritized area, with 106.64 lakh ha of irrigation potential created up to December 2022 under major anicuts on Godavari, Krishna, and Pennar rivers and projects like Nagarjuna Sagar, Telugu Ganga, Somasila, SRBC, Vamsadhara, Medium irrigation projects and Minor irrigation schemes.



Cropping Pattern

Cropping pattern implies the proportion of geographical area under different crops at given period of time. In Andhra Pradesh, the gross cropped area under all crops is to 73.28 lakh hectares during 2021-22 as against 74.07 lakh hectares in 2020-21, showing a decrease of 1.07 percent. Paddy, wheat, Millets, Pulses, Condiments & spices, Sugarcane, Vegetables and Fruits constitute food crops in Andhra Pradesh. Paddy is the major staple crop. Out of 73.28 lakh hectares of total cropped area, 53.47 lakh hectares or 72.97 percent was under food crops. The area under food crops in the State during 2021-22 is 53.47 lakh hectares as against 53.15 lakh hectares in 2020-21 showing an increase of 0.60 percent.

Paddy, Jowar, Bajra, Maize and Ragi together accounted for 40.44 % of the total cropped area and 69.62 % of total food grain crops area in the State during 2021-22. The area under food-grains is 42.57 lakh hectares during 2021-22 as against 43.01 lakh hectares in 2020-21 showing a decrease of 1.02 percent.

Non-food crops constitute Fibres, Oilseeds, Pulp& timber, Drugs and narcotics including Tobacco, Fodder crops, Green manure crops, Aromatic plants, Flowers and others. The area under Non-food crops during 2021-22 is 19.81 lakh hectares constituting 27.03 % of the total cropped area. The area under Non-Food crops in the State during 2021-22 is 19.81 lakh hectares as against 20.92 lakh hectares in 2020-21, showing a decrease of 5.31 percent.

(Source: Season and Crop Report, 2021-22, GoAP)

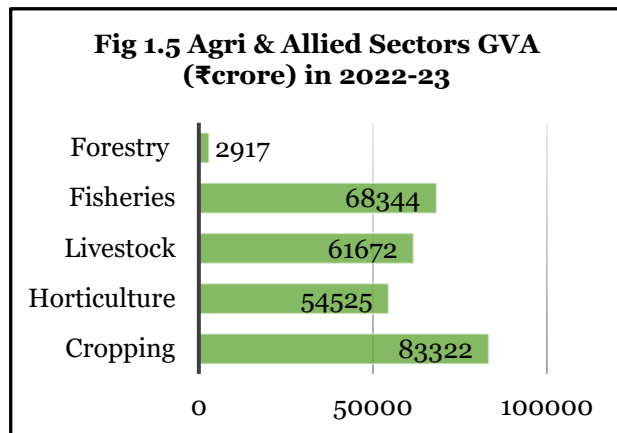
Agriculture and Allied Sectors

The performance of the agriculture and allied sector has been buoyant over the past several years, much of which is on account of the measures taken by the government to augment crop and livestock productivity, ensure certainty of returns to the farmers through price support, promote crop diversification, improve market infrastructure. Agriculture and allied sector contribute about 35% in the state GDP and is a primary source of employment for more than 60% of the population of the state.

In 2022-23 (AE) Gross Value Added (GVA) of agriculture and allied sectors in the GSDP of AP is ₹2,16,255 crore and reported the growth rate of 13.18% at current prices and 4.54% at constant prices.

Agriculture

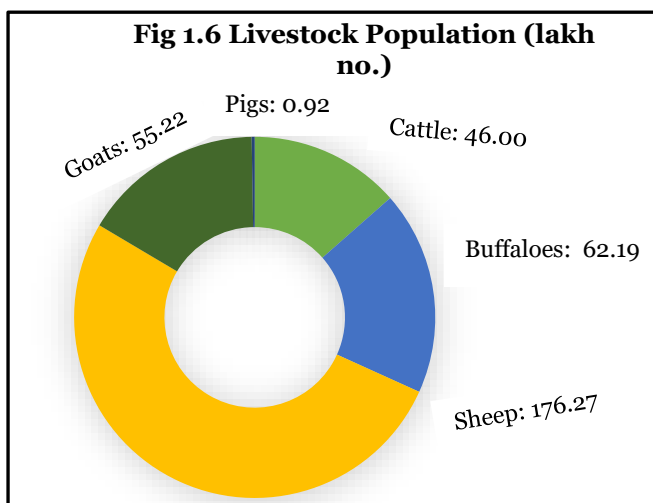
Andhra Pradesh is “the bejewelled rice bowl of India” due to deltas of Krishna and Godavari, fertile alluvial soil, irrigation and favourable agro-climatic factors. Agriculture plays an important role in the livelihood of people as more than 70 % of the population lives in rural areas and depends on agriculture and related livelihood opportunities. The area under food grains is 39.59 lakh ha in 2022-23 as against 41.34 lakh ha in 2021-22, showing decrease of 4.2%. However, food grain production in 2022-23 is 169.30 lakh tonnes against 154.85 lakh tonnes in 2021-22, i.e. increase of 9.3% which shows improved production and productivity in spite of decrease in area under food grain cultivation. (Source: Socio-economic survey 2022-23, Govt of AP)



Horticulture

Horticulture sector has potential to enable the shift of “High Volume to High Value” crops, so as to improve the income of farmers and give stimulus to the food processing sector of the state. Andhra Pradesh has made significant contributions to India’s traditional Horticulture crops cultivation. Given that area and production of fruits and vegetables have been increasing steadily since recent few years, Andhra Pradesh has the potential to increase its contribution towards the economy by way of exports. There is a voluntary shift in the cropping pattern, as returns from Horticulture per unit of land are higher in comparison to Agriculture.

In Andhra Pradesh area under Horticulture crops is 18.08 lakh Hectares with a production of 369.07 lakh MTs (Department of Horticulture, GoAP: III Estimates of 2021-22). Andhra Pradesh ranks first in area and production of fruits and spices and second in Micro Irrigation area coverage. The state stands first in production in Chillies, Cocoa, Lime, Oil Palm, Papaya and Tomato, second in Cashew, Mango and Sweet Orange in India. The Horticulture sector GVA for 2022-23 (AE) estimated at ₹54,525 crore as against ₹52,923 crore (2021-22 FRE) with growth rate of 3.03%.



Livestock sector

Andhra Pradesh has some of the richest livestock resources in the Country and is one of the most advanced States in Animal Husbandry. The Livestock play a vital role in Socio-economic and cultural life of the state. The Livestock sector provides not only the “Risk Proofing” during agrarian distress, but also a credible source of remunerative income to the farmers. The growth rate of 3.76% was recorded in the livestock sector. The State has the world-famous breed of Ongole Cattle, Godavari Buffaloes, Aseel breed of poultry, which is the principal source for the development of

broiler breeds in the world. Andhra Pradesh is also famous for Nellore breed of sheep, which

is well known for quality meat. As per the Livestock Census 2019, the state has 340.60 lakh of Livestock population and 1078.63 Poultry population. During 2021-22, the state stood 1st in Egg Production (2645.03 lakh no.), 2nd in Meat production (10.25 Lakh MTs) and 5th in Milk production (154.03 Lakh MTs) in the country.

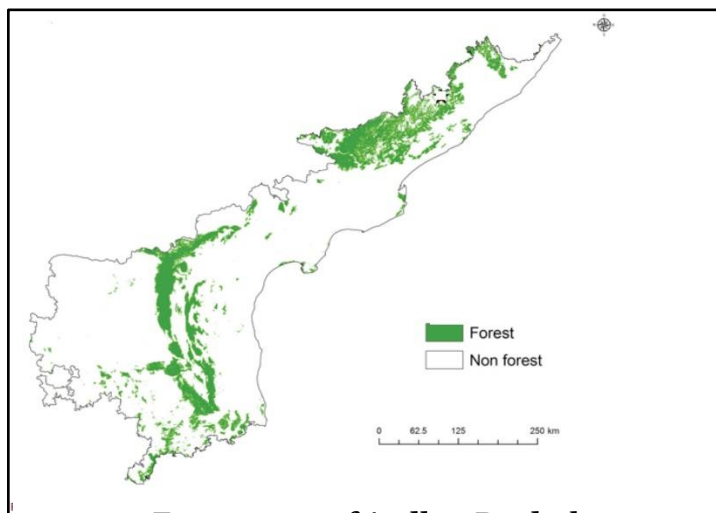
(Source: Socio-economic survey 2022-23, Govt of AP)

Fisheries

Andhra Pradesh is endowed with water resources like rivers, lakes and coastline of 974 kms along the Bay of Bengal. These resources have created favorable conditions for the growth of fisheries and aquaculture in the state. The state is contributing about 30% of national fish production and is major exporter of shrimps with share of 35% in total value of sea food exports of the country during 2022-23. The sector is providing direct as well as indirect employment to nearly 16.5 lakh people of the state. The GVA of the sector for 2022-23 (AE) is estimated at ₹68,344 crore as against ₹35,169 crore in 2021-22 (FRE), with a growth rate of 4.87%.

Forests

Andhra Pradesh has forest cover of 38060.39 Sq. Kms, which amount to 23.35% of geographical area of the state. The state has 3 National Parks and 13 Wildlife sanctuaries. Andhra Pradesh is one of the Pioneer states of India to adopt Joint Forest management, which ensures participation of local people for conservation of flora and fauna. Most of the forest cover of the state is dry deciduous forest with few patches of moist deciduous forest.



Forest cover of Andhra Pradesh

Infrastructure

Infrastructure is the backbone of economic, social and human development. Physical, Social and Digital infrastructure being the important components of overall infrastructure development, can have a multiplier effect on the developmental paradigm of the state. Under PM Gati Shakti, a master plan for multimodal development of infrastructure, Andhra Pradesh has been allocated ₹202 crore for augmentation of roads, railways, ports, airports and other infrastructure in the state.

Roads: Andhra Pradesh has a total road network of 1,32,415 km including National Highways, State Highways, District and Rural Roads. The total R&B road network (excluding National Highways) in the state is 45321 Km (as of December 2022). The state has 55 National Highways with total length of 8163.72 Km. The density of National Highways is 16.53 km per lakh population (2011) as against all India average of 10.89 Km. The state has road coverage with a length of 41.46 Km for every 1,000 sq. km as against all India average of 40 Km/1,000 Sq. Km.

Railways: Andhra Pradesh comes under the South-Central Zone of the India Railways. The state has a total rail network of 3965 km with 460 railway stations and has rail density of 16.59 km of rail route per 1000 sq. km as compared to the national average of 20. (Source: Indian Railways Yearbook 2019-20). For augmentation of **Infrastructural & Safety Projects, Ministry of Railways, Govt of India has allocated ₹8,406 crore for Andhra Pradesh in 2023-24. To improve the connectivity, two Vande Bharat Express**

trains (Visakhapatnam – Secunderabad and Tirupati – Secunderabad) have been started in the state.

Ports: Andhra Pradesh has the second-longest coastline in India, covering a length of 974 Km. The state has 12 coastal districts stretching between Srikakulam and Nellore with deep draft coastal water. The state has a major Port at Visakhapatnam under Government of India control and 15 notified ports under the control of State Government, of which 5 are functional ports. The state has the advantage of having 3 deep water ports viz. Kakinada, Krishnapatnam and Gangavaram. Andhra Pradesh is the second-largest handler of cargo in the country. Visakhapatnam Port handled 73.75 million MT cargo in 2022-23 (*Source: vizagport.com*), making it the third-largest port in the country in terms of cargo handling.

Airports: Andhra Pradesh has 3 international and 4 domestic operational Airports at present. Domestic Airports at Rajahmundry, Kadapa, Orvakallu at Kurnool and Puttaparthi (Pvt) and International Airports at Vishakhapatnam, Vijayawada and Tirupati. The Orvakallu Airport got both DGCA license and BCAS approval for public use and the APADCL working towards bring the commercial Airlines to start the operations. Passenger movement at AP Airports enhanced to 5.44 MPPA (million passengers per annum) in FY 18-19 at a CAGR of 37% in the past 5 years, in comparison to the national growth rate of 12% in the same period. The State Government has planned four new Greenfield airports at Bhogapuram (international airport) in Vizianagaram district, Dagadarthi in Nellore district, Orvakallu in Kurnool district and Kuppam in Chittoor district, apart from developing the existing airstrip into the low-cost airport at Donakonda in Prakasam district. Orvakal no-frills Greenfield airport has already commenced commercial operations.

Highlights of State Budget

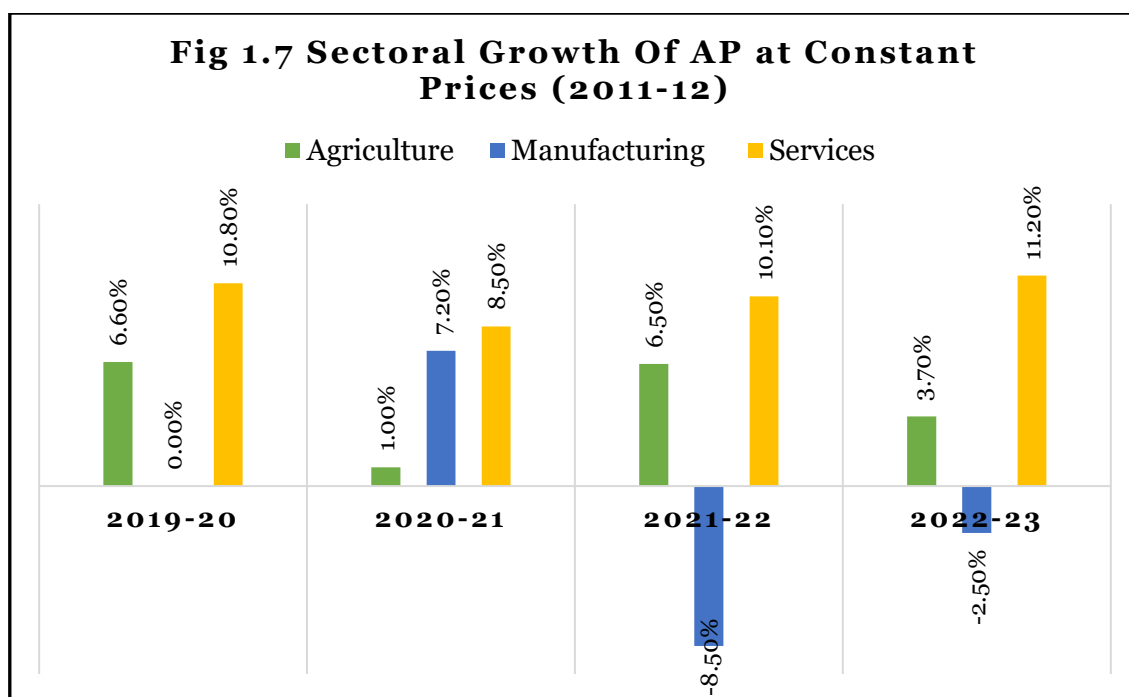
The Finance Minister of Andhra Pradesh, Mr. Buggana Rajendranath, presented the Budget for the state for the financial year 2023-24 on March 16, 2023.

The Gross State Domestic Product (GSDP) of Andhra Pradesh for 2023-24 (at current prices) is projected to be ₹14,49,501 crore, amounting to growth of 10% over 2022-23. Expenditure (excluding debt repayment) in 2023-24 is estimated to be ₹2,60,868 crore, an increase of 16% over the revised estimates of 2022-23. In addition, debt of ₹18,411 crore will be repaid by the state. Receipts (excluding borrowings) for 2023-24 are estimated to be ₹2,06,280 crore, an increase of 17% as compared to the revised estimate of 2022-23. In 2022-23, receipts (excluding borrowings) are estimated to decrease by 7.7% at the revised stage.

Revenue deficit in 2023-24 is estimated to be 1.5% of GSDP (₹22,317 crore), lower than the revised estimates for 2022-23 (2.2% of GSDP). In 2022-23, the revenue deficit is expected to be higher than the budget estimate (1.3% of GSDP). Fiscal deficit for 2023-24 is targeted at 3.8% of GSDP (₹54,588 crore). In 2022-23, as per the revised estimates, fiscal deficit is expected to be 3.6% of GSDP, same as the budget estimates for the year. (*Source: Budget 2023-24; Speech by Sri Buggana Rajendranath, Hon'ble Minister for Finance, GoAP, Socio Economic Survey 2022-23, Planning Department, GoAP*)

Andhra Pradesh's Economy:

GSDP: In 2022-23, Andhra Pradesh's GSDP (at constant prices) is estimated to grow at 7%, same as the national GDP in 2022-23. ▪ **Sectors:** In 2022-23, services sector grew at 10% over a low base. Manufacturing and agriculture sector grew at 5% each. In 2022-23, agriculture, manufacturing and services sectors are estimated to contribute 39%, 21%, and 40% to the economy, respectively (at current prices). ▪ **Per capita GSDP:** The per capita GSDP of Andhra Pradesh in 2021-22 (at current prices) is estimated at ₹2,19,518.



Note: These figures are at constant prices (2011-12) which means the growth rate has been adjusted for inflation. Sources: Economic Survey of Andhra Pradesh 2022-23; PRS

The Government made important announcements in respect of agriculture, farmers' welfare, social welfare and rural development in the Budget, which are described in brief as under:

- **Agriculture**

- **YSR Rythu Bharosa – PM Kisan**

Farm Investment Support of ₹13,500 per farmer family (including tenant & RoFR farmers) per year (including ₹6,000 under PM-KISAN) is provided under YSR Rythu Bharosa. In 2022-23, 50.92 lakh farmer households including 1.97 lakh tenant/ ROFR families and ROFR cultivators were covered under YSR Rythu Bharosa- PM Kisan.

- **Dr. YSR Free Crop Insurance Scheme**

Andhra Pradesh is the first state to achieve universal coverage of farmers and state is implementing Dr. YSR Free Crop Insurance jointly with the PMFBY during 2022-23. Under the scheme, the State Government has been settling the claims of farmers' crop insurance directly from the State Budget. All the notified crops which were captured through e-crop, will automatically be provided insurance protection. This will mark the quickest settlement of Insurance claims in the history of the State Government and for the very first time the amount will be settled directly from Government to the bank account of farmers. From 2022-23, Dr YSR Free Crop insurance was jointly implemented with Pradhan Mantri Fasal Bima Yojana (PMFBY) for the crops notified under yield-based scheme. During 2022-23 Weather Based scheme is implemented by the State Govt. with the existing modalities of Dr YSR Free Crop Insurance – Weather Based and from 2023-24 it is jointly implementing with GOI (RWBCIS). An amount of ₹7802.05 Cr was paid for the past 4 years which includes the recent release of Kharif 2022 ₹1117.21 Cr released in July 2023.

- **Dr. YSR Rythu Bharosa Kendra (RBK)**

The RBKs are established to augment the income of farmers by ensuring availability of certified quality inputs and dissemination of latest technology and crop specific MSP. The GoAP has established 10,544 rural and 234 urban Dr. YSR RBKs which are functioning as integrated agriculture input shops and farmer knowledge centres. The concept of RBKs

have garnered significant clout to the extent that Government of India had recommended the World Bank to replicate this concept in Ethiopia to enhance farmers income and to provide them a safety net.

▪ **Dr. YSR Agri Testing Labs**

The GoAP launched Dr. YSR Agri Testing labs on 08 July 2021 for quality testing of agricultural inputs. An amount of ₹36.39 crore has been allocated for Dr. YSR Agri Testing labs for the year 2023-24. Government is establishing 147 labs at constituency level, 11 labs at district level and 4 labs at Regional Coding Centres. The labs will improve input quality and ultimately increase the productivity.

• **Animal Husbandry & Fisheries**

Inspired from the White Resolution through AMUL, the GoAP has initiated the GoAP-AMUL project by entering into an MoU with Gujarat Cooperative Milk Marketing Federation for revival of milk cooperatives and to strengthen the dairy sector in the State of Andhra Pradesh. The objective of this project is the socio- economic upliftment of milk producers in Andhra Pradesh with special focus on economic empowerment of women, providing remunerative price to milk producers, availability of quality milk and milk products at value for money to the consumers. The target is to cover 27 lakh women producers/ farmers and procure 2 crore litres of milk per day. The women farmers will be organised to 9899 Mahila Dairy Sahakara Sanghalu and will be provided with infrastructure to ensure quality and transparency leading to remunerative price and economic growth. The revolution has already commenced in 700 villages.

▪ **Jagananna Jeeva Kranthi**

The GoAP has launched the scheme for distribution of 2,49,151 sheep/goat units across the state with an expenditure of about ₹ 1,869 crore. The beneficiaries under the scheme will be provided financial assistance of ₹75,000/- towards procurement, transport and insurance premium of livestock under YSR Cheyutha.

The government has approved the YSR Pasu Bhima Padhakam to provide livestock insurance to the farmers covering improved & indigenous as well as non-descript breeds of animals.

▪ **Fisheries**

The AP Govt. has identified the Fisheries sector as one of the Growth Engines for achieving double digit inclusive growth of the Sun rise State of Andhra Pradesh. Andhra Pradesh is the largest producer of fish in the country, having produced a total of 48.13 lakh MT in FY 2021-22. AP constitutes to almost 30% share in the production of fish in the country. The sea food exports from Andhra Pradesh has reached ₹ 18,073 crore. The sector is providing employment opportunities to nearly 16.5 lakh people directly and indirectly in the state.

- These measures will help to achieve the measure to “Conserve and sustainably use the oceans, seas and marine resources for sustainable development”.

• **Micro, Small & Medium Enterprises (MSME)**

Micro, Small & Medium Enterprises (MSMEs) Sector has emerged as a highly vibrant and dynamic sector of the Indian economy over the last five decades. MSMEs contribute to approximately 8% of the Country's GDP, 45% of the manufacturing output and 40% of exports. MSMEs provide the largest share of employment after agriculture and hence, the development of MSME sector can contribute enormously to the socio-economic development of the country.

The MSME sector in Andhra Pradesh, identified as a catalyst for job creation and balanced regional development, manufactures a variety of products with a high concentration of

Micro and Small units belonging to the Sectors of food, mineral and building materials, drugs and pharmaceuticals, fabricated materials, trading and service sector.

The MSME Policy, 2020-23 provides a holistic framework for sustainable development of MSMEs in the State and make them globally competitive. The policy offers incentives, infrastructure development, technology up-gradation, skill development and marketing support, simplification, administrative reforms and rehabilitation of sick industries in the State.

During the year 2022-23 (upto 9th Jan 2023), 55761 MSME were established with an investment of ₹13360.15 crores and provided employment to 2,27,027 persons.

- **Women Empowerment**

- **DISHA One Stop Centres:** One Stop Centres are operational 24x7 in all 13 districts to provide mental, social, economic and psychological support to women in distress. Exclusive Women SI has been posted in each DISHA One Stop Centre. 2,630 women assisted during 2022-23.
- **Working Women's Hostels:** 23 working women's Hostels are providing security to the middle class working women who are residing far away from their families for employment purposes. 462 Women benefitted during 2022-23.
- **Ujjawala Homes:** 5 Ujjawala homes have been established for the women rescued from trafficking. 213 beneficiaries covered during 2022-23.
- **SwadharGreh:** 21 SwadharGreh for Women in Distress have been established for rehabilitation of women in Distress. During 2022-23, services provided to 576 women.

- **Education**

- **JaganannaVidhya Deevena:** Under this scheme, Government provide complete fee reimbursement to every eligible student on saturation mode. 3008 Differently Abled Students were benefitted with an amount of Rs. 3.73 Crores in 2021-22 towards reimbursement of Tuition fee.
- **Constructions of buildings for Homes/Hostels/Schools** Government allocated an amount of Rs.3.00 crores for the year 2022-23 for construction of buildings for Hostels, Homes and Residential Schools.

- **Institutions**

There are (4) Homes functioning in the State of which 3 for Blind at Kakinada, Ananthapuram, Tirupathi and one Home for Aged and Disabled at Machilipatnam with a sanctioned strength of 335 inmates.

- **Health**

- **Tribal Medical College:** The Government of Andhra Pradesh have sanctioned YSR Tribal Medical College at Paderu with an amount of ₹500.00 Crores (60:40 ratio between Gol and State Govt.) At present civil works are in progress.
- **Multi-Speciality Hospitals:** The Government have sanctioned 5 Multi Speciality Hospitals in ITDAs under Tribal Sub Plan at Seethampeta & Parvathipuram of Parvathipuram Manyam District, R.C. Varam of Alluri Sitharamaraju District, Buttaigudem of West Godavari District and Dornala of Prakasam District for an amount of ₹482.00 Cr and was foundation laid by Hon'ble Chief Minister on October 2, 2020. Work started at Seethampeta and remaining works orders issued.
- **Day Care Centers:** An amount of ₹4.30 crores was released for establishment and maintenance of 4 Day Care Centers of ITDAs at Seethampeta, Parvathipuram, Paderu and Rampachodavaram.
- **YSR Sampoorana Poshana Plus:** The Tribal Welfare Department is implementing Nutrition food to pregnant women, lactating mothers and children aged 6 months to 72 months,

children aged below 5 years in 77 mandals of 7 ITDAs through Anganwadis. YSR Sampooma Poshana plus (+) in 77 Tribal and sub plan mandals covering 8 ITDAs, 52 ICDS projects and 8320 Anganwadi Centres.

- Birth Waiting Homes: 40 Birth Waiting Homes (BWH) exist in the tribal areas of state. 36 Birth Waiting Homes are approved by the NHM, Gol. The ITDAs release ₹5200/- p.m towards maintenance of each Birth Waiting Home. ₹300/- per pregnant women per day for 7 days towards food, glass of milk and safe drinking water to the pregnant woman and patient attendant. 40 BWH are functioning at ITDAs of Seethampeta (5), Parvathipuram (5), Paderu (9), RC Varam (5), Chittoor (7), KR Puram (5) and Srisailam (4).
- Tribal Early Intervention Centers /DEIC: Under NHM, 4 District Early Intervention Centres (DEICs) were sanctioned to welfare of the tribal community and building is sanctioned to each DEIC @ ₹1.06 Crs. ₹4.24 Crores to construct Tribal Early Intervention Centers at ITDAs of Seethampeta, Parvathipuram, Paderu & Srisailam. More than 25.16 Lakh mosquito nets were distributed to Tribals. DEIC is not hospital but it is a unit of referral management from birth to 19 years.

- **Welfare of Differently Abled, Transgender & Senior Citizens**

The Department is working towards implementation of Rights of Persons with Disabilities Act, 2016 and National Trust Act, 1999 that ensures multi sectoral coordination with various government departments for prevention, early identification and detection, education, employment, rehabilitation, mainstreaming of Differently Abled Persons, networking and monitoring of Government of India grant-in-aid projects of NGOs.

As per the Census 2011, the total number of people with disabilities in the State of Andhra Pradesh is 11.04 Lakhs. Out of them 2.03 Lakhs are visually handicapped, 2.90 Lakhs hearing handicapped, 3.13 Lakhs orthopedically handicapped, 1.02 Lakhs mentally handicapped and multiple Differently Abled are 1.96 Lakhs. As per the census 2011, the population of Senior Citizens in the State of Andhra Pradesh is 50 lakhs and the population of Transgenders is 3812. So far 1728 Certificates have been issued to the Transgender persons in the state through the National Portal for the Transgender.

Various schemes are being implemented for the empowerment and rehabilitation of persons with disabilities. These schemes aim to promote physical, psychological, social, educational, economic rehabilitation and development of persons with disabilities to enhance their quality of life and enable them to lead their lives with dignity.

- **Housing**

Govt. of AP is committed to provide permanent houses to all the eligible households in the State by 2024 in saturation mode duly providing house sites and Housing in the name of "Pedalandariki Illu" which is included in the Govt. flagship programme of "Navaratnalu". 30.20 Lakh house site pattas were distributed at free of cost with an extent of 1.50 cents in Rural areas and 1.00 cent in Urban areas to women beneficiaries to the extent of around 71,811 Acres with a market value of ₹56,102 Crores.

House sites were distributed in 17,005 Layouts and named as YSR Jagananna Colonies. The government have decided to construct 30.20 Lakh houses in (3) Phases out of which 15.60 Lakh Houses in Phase-I and 3.03 Lakh Houses in Phase-II (1.24 Lakh Houses under PMAY YSR Urban BLC (Visakhapatnam), 1.79 Lakh Houses under PMAY YSR Gramin) put together a total of 18.63 lakh Houses with a Unit cost of Rs.1.80 lakh per each House amounting to a Project cost of ₹33,534 Crores have been taken up so far.

- **Rural Development**

An allocation of ₹15,873.83 crore has been made to Panchayat Raj and Rural Development for 2023-24.

- **Environment and Forests**

The government envisions a green Andhra Pradesh with abundant forest cover acting as a huge carbon sink & thriving biodiversity creating a sustainable living space for the citizens. An allocation of ₹685.00 crore has been allocated for Environment, Forest, Science and Technology department.

- **Infrastructure**

Road Connectivity: Government is providing connectivity to unconnected habitations by forming all weather roads to tribal habitations for giving access to services like health, education and daily needs etc. During 2022-23, an amount of ₹797.66 Crores sanctioned for road connectivity of 2901 Km, out of which 387 Km was completed with an expenditure of ₹75.42 Crores by which 258 habitations (25636 people) were benefited.

The Department is providing infrastructure facilities to educational institutions like hostels, classrooms, water supply and sanitation, staff quarters in hilly, remote and agency areas on par with developed areas. Constructing youth training centres for imparting skill development, Girijan Bhawans to celebrate community functions, ceremonies for tribal population and taking up construction of Anganwadi centres, GP buildings, health centres. Infrastructure facilities like link roads, godowns, DR depots etc are developed for better marketing facilities.

During 2022-23, budget of ₹92 Crores allotted for the sanctioned 1022 works with Spill over commitment of ₹429.44 cr of which 117 works were completed with an incurred expenditure of ₹89.32 cr.

- **Energy**

Energy security is a pre-requisite for modern living & socio-economic development. SDG 7 is aimed at ensuring universal access to affordable, reliable and efficient energy services by 2030. To achieve this objective, the government is providing 9 hours of free agriculture power supply during the day to 18.74 lakh agriculture pump sets, 200 units of free power per month to every household in SC/ST colonies, power at concessional tariff to Dhobi Ghats, BPL Rajaka community, Most Backward Caste communities, handloom weavers, saloons, etc.

AP Government has announced power tariff concession of ₹2 per unit to Small Scale Granite units. The government will bear the cost of meters for agricultural pump sets. There will be no burden on farmers. An amount of ₹6,546 Crore has been allocated for the Energy Department for the year 2023-24.

BANKING PROFILE

ANDHRA PRADESH

1. NETWORK & OUTREACH (As on 31/03/2023)

Agency	No. of Banks/Soc.	No. of Branches				No. of non-formal agencies associated			Per Branch Outreach	
		Total	Rural	Semi-urban	Urban	mFIs/mFOs	SHGs	BCs/BFs	Villages	Households
Commercial Banks	33	5992	1688	1927	2377	n/a	596531	36783	n/a	n/a
Regional Rural Banks	4	1313	818	315	180	n/a	314245	2468	n/a	n/a
APStCB & DCCBs	14	442	184	128	130	n/a	13216	-	n/a	n/a
Primary Agr. Coop. Society	2046	-	-	-	-	n/a	n/a	-	n/a	n/a
Others (Payment Banks, SFBs & APSFC)	7	-	-	-	-	n/a	n/a	-	n/a	n/a
All Agencies		7747	2690	2370	2687		923992	39251	n/a	n/a

2. DEPOSITS OUTSTANDING

Agency	No. of accounts					Amount of Deposit [₹ Crore]				
	31 Mar 21	31 Mar 22	31 Mar 23	Growth(%)	Share(%)	31 Mar 21	31 Mar 22	31 Mar 23	Growth(%)	Share(%)
Commercial Banks	n/a	n/a	n/a	n/a	n/a	328537.05	349250.23	384946.17	10.22	84.24
Regional Rural Bank	n/a	n/a	n/a	n/a	n/a	40737.72	43217.27	48315.25	11.80	10.57
Cooperative Banks	n/a	n/a	n/a	n/a	n/a	16654.22	20805.44	22219.89	6.80	4.86
Others	-	-	-	-	-	-	1321.07	1479.94	12.03	0.32
All Agencies			n/a	n/a	n/a	385928.99	414594.01	456961.25	10.22	100.00

3. LOANS & ADVANCES OUTSTANDING

Agency	No. of accounts					Amount of Loan [₹ Crore]				
	31 Mar 21	31 Mar 22	31 Mar 23	Growth(%)	Share(%)	31 Mar 21	31 Mar 22	31 Mar 23	Growth(%)	Share(%)
Commercial Banks	n/a	n/a	n/a	n/a	-	441585.30	507912.76	596815.26	17.50	87.19
Regional Rural Bank	n/a	n/a	n/a	n/a	-	37645.32	42913.83	49112.35	14.44	7.18
Cooperative Banks	n/a	n/a	n/a	n/a	-	23213.76	29275.50	35636.76	21.73	5.21
Others	n/a	n/a	n/a	n/a	-	630.74	1865.71	2901.63	55.52	0.42
All Agencies	n/a	n/a	n/a	n/a	-	503075.12	581967.80	684466	17.61	100.00

4. CD-RATIO

Agency	CD Ratio		
	31 Mar 21	31 Mar 22	31 Mar 23
Commercial Banks	134.76	145.43	155.04
Regional Rural Bank	92.41	99.30	101.65
Cooperative Banks	139.39	140.71	160.38
Others	-	-	200
All Agencies	130.35	140.37	149.79

5. PERFORMANCE UNDER FINANCIAL INCLUSION (No. of A/cs)

Agency	Cumulative upto 31 March 2023			
	PMJDY	PMSBY	PMJJBY	APY
Commercial Banks	14859287	19638906	8390212	2505665
Regional Rural Bank	n/a	n/a	n/a	n/a
Cooperative Banks	n/a	n/a	n/a	n/a
Others	n/a	n/a	n/a	n/a
All Agencies	-	-	-	-

6. PERFORMANCE TO FULFILL NATIONAL GOALS (As on 31/03/2023)

Agency	Priority Sector Loans		Loans to Agr. Sector		Loans to Weaker Sections		Loans under DRI Scheme		Loans to Women	
	Amount [₹ Crore]	% of Total Credit Plan	Amount [₹ Crore]	% of Total Credit Plan	Amount [₹ Crore]	% of Total Credit Plan	Amount [₹ Crore]	% of Total Credit Plan	Amount [₹ Crore]	% of Total Credit Plan
Commercial Banks	239548	54.92	173364.62	39.74	123777.51	28.38	n/a	n/a	n/a	-
Regional Rural Bank	41222	88.13	35800.41	76.54	21997.44	47.03	n/a	n/a	n/a	-
Cooperative Banks	21579	63.46	18558.54	54.58	804.35	2.37	n/a	n/a	n/a	-
Others	2979	148.70	484	24.16	220	10.99	n/a	n/a	n/a	-
All Agencies	305328	58.83	228207.67	43.97	146799.52	28.29	n/a	n/a	n/a	-

7. AGENCY-WISE PERFORMANCE UNDER ANNUAL CREDIT PLANS

Agency	2020-21			2021-22			2022-23			Average Ach[%] in last 3 years
	Target [₹ Crore]	Ach'ment [₹ Crore]	Ach'ment [%]	Target [₹ Crore]	Ach'ment [₹ Crore]	Ach'ment [%]	Target [₹ Crore]	Ach'ment [₹ Crore]	Ach'ment [%]	
Commercial Banks	146577.00	148024.26	100.99	167382.00	172940.81	103.32	183727.00	239548.00	130.38	111.56
Regional Rural Bank	25413.00	32237.12	126.85	28673.43	34865.81	121.60	31670.04	41222.00	130.16	126.20
Cooperative Banks	14486.00	16561.99	114.33	16127.07	23732.00	147.16	17854.18	21579.00	120.86	127.45
Others	1075.00	158.15	14.71	1378.04	334.58	24.28	6133.00	2979.00	48.57	29.19
All Agencies	187551.00	196981.52	105.03	213560.54	231873.20	108.57	239384.22	305328.00	127.55	113.72

8. SECTOR-WISE PERFORMANCE UNDER ANNUAL CREDIT PLANS

Broad Sector	2020-21			2021-22			2022-23			Average Ach[%] in last 3 years
	Target [₹ Crore]	Ach'ment [₹ Crore]	Ach'ment [%]	Target [₹ Crore]	Ach'ment [₹ Crore]	Ach'ment [%]	Target [₹ Crore]	Ach'ment [₹ Crore]	Ach'ment [%]	
Crop Loan	94629	109210	115.41	110422.45	115459.30	104.56	121580.00	141032.17	116.00	111.99
Term Loan (Agr)	34031	37669	110.69	38077.59	61494.30	161.50	43160.00	83965.25	194.54	155.58
Total Agri. Credit	128660	146879	114.16	148500.03	176953.60	119.16	164482.13	224997.42	136.79	123.37
Non-Farm Sector	39600	40311	101.80	44500.00	44815.48	100.71	50100.00	67821.92	135.37	112.63
Other Priority Sector	19291	9791	50.75	20560.51	10104.13	49.14	24802.09	12509	50.43	50.11
Total Priority Sector	187551	196981	105.03	213560.54	231873.21	108.57	239384.22	305328.00	127.55	113.72

9. NPA Position (Outstanding)

Agency	2020-21			2021-22			2022-23			Avg NPA (%) in last 3 years
	Total O/S [₹ Crore]	NPA Amount [₹ Crore]	% NPA	Total O/S [₹ Crore]	NPA Amount [₹ Crore]	% NPA	Total O/S [₹ Crore]	NPA Amount [₹ Crore]	% NPA	
Commercial Banks	441585.30	12938.92	2.93	507913	16553.83	3.26	596815.26	16982.32	2.85	3.01
Regional Rural Bank	37645.32	463.95	1.23	42914	607.43	1.42	49112.35	552.23	1.12	1.26
Cooperative Banks	23213.76	792.03	3.41	29276	1175.37	4.01	35637	1252.05	3.51	3.65
Others	630.74	230.35	36.52	1866	190.00	10.18	2902	130.00	4.48	17.06
All Agencies	503075.12	14425	2.87	581968	18526.63	3.18	684466	18916.60	2.76	2.94

Sources: Lead Bank & SLBC ; n/a : not available

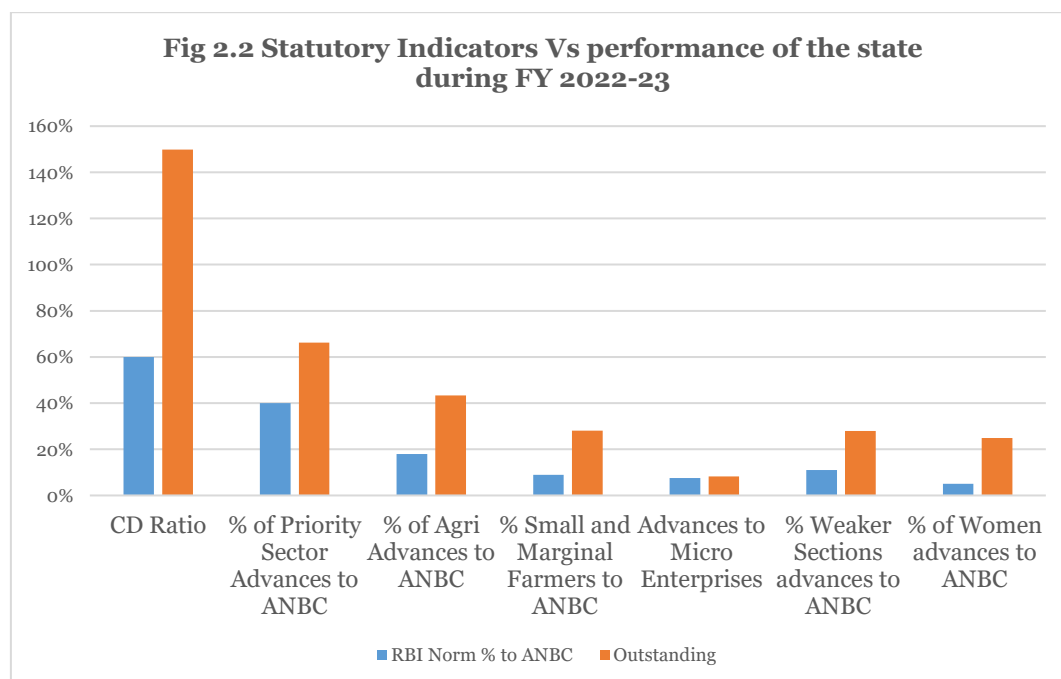
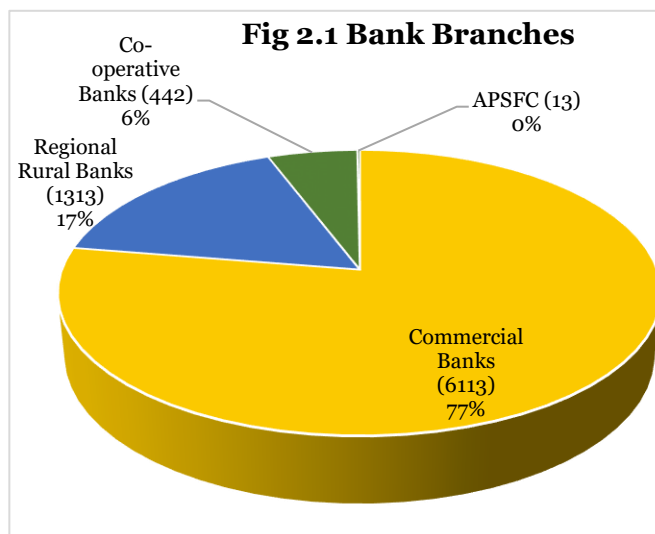
Banking Profile

2.1 Introduction

Banking and financial sector are the foundations of economic growth, human development and financial inclusion. Andhra Pradesh has an extensive banking network of 7881 bank branches (as on 31 March 2023) catering to the population of 495.77 lakh of the state.

As on 31 March 2023, the state had 39 Commercial Banks (12 Public Sector Banks and 21 Private Sector Banks, 03 Payment Banks and 03 Small Finance Banks), 04 Regional Rural Banks (RRBs), 01 State Cooperative Bank (APStCB), 13 District Cooperative Central Banks (DCCBs) and AP State Financial Corporation. Union Bank of India serves as the State Level Bankers' Committee (SLBC) to the state. The cooperative structure permeates the social fabric of the state through a sizeable network of 2,046 Primary Agricultural Credit Societies (PACS). The PACS, with their historical presence among rural households, are getting thrust from the government for furthering the objective of financial inclusion. As on 31 March 2023, a total of 7881 bank branches were evenly spread across the state, with 2695 branches in rural, 2412 branches in semi-urban, 2027 branches in urban and 747 branches in metro areas. Besides, the state has 10248 on-site ATMs which are catering the demand of people in various regions through ATMs.

To improve the effectiveness of banking services, doorstep delivery of banking services is being provided through Business Correspondents (BC). Banking institutions have strong network of 39251 active BCs in Andhra Pradesh as on 31 March 2023.



The Credit Deposit Ratio (CD Ratio) of all banks put together was 149.79% as on 31 March 2023, which is one of the highest in the country. The aggregate deposits of banks in the state as on 31 March 2023 was ₹4,56,961 crore, registering a growth of 10.22% over the previous year. The aggregate loans outstanding increased by 17.61% over the previous year and was at ₹6,84,466 crore as on 31 March 2023.

2.2 Performance of the State under Annual Credit Plan (ACP) 2022-23

As against the target of Priority Sector Advances of ₹2,35,680 crore under the Annual Credit Plan for the state for FY 2022-23, an amount of ₹3,05,328 crore was disbursed for various sectors. The ACP under priority sector for FY 2023-24 has been fixed at ₹3,23,000 crore, (129.50%) with ₹1,99,266 crore achievement (61.69%) as on 30 September 2023.

Fig 2.3 Total Agriculture Credit Flow
(₹ lakh crore)

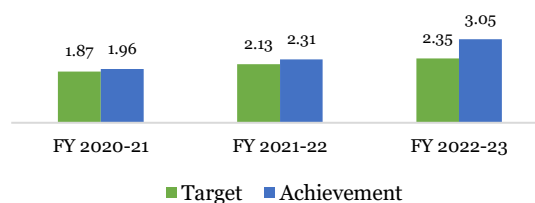


Table 2.1 Achievement of Annual Credit Plan during Last Three Financial Years (₹ crore)

Broad Sector	2020-21		2021-22		2022-23		2023-24#	
	Target	Ach.	Target	Ach.	Target	Ach.	Target	Ach.
Crop Loan	94629	109210	110422	115459	121580	141032	148000	82329
Agri Term Loan	34031	37669	38078	61494	43160	83965	83000	58603
Total Agri. Credit	128660	146879	148500	176954	164740	224997	231000	140932
MSME	39600	40312	44500	44815	50100	67822	69000	53208
Other Priority Sector	20202	9791	20560	10104	20840	12509	23000	5126
Total Priority Sector	187551	196982	213560	231873	235680	305328	323000	199266

Achievement for 2023-24 as on 30 September 2023

2.3 Status of RRBs

During 2022-23, all RRBs in the state were in profit. The growth rate of deposits of RRBs was 31.08% (SGB) -0.74% (APGB) and 24.17% (CGGB) during 2022-23. Growth in advances was 21.26% (SGB) 15.17% (APGB) and 21.34% (CGGB). The CRAR of all the RRBs was more than 9% as on 31 March 2023 and thus all of them complied with RBI stipulation. All RRBs in Andhra Pradesh are on CBS platform with RTGS/NEFT facilities. They are moving further towards technology up-gradation and have initiated necessary measures.

2.3.1. Suggestions to improve performance of RRBs

- RRBs to explore various business opportunities available for banks for portfolio diversification. RRBs are required to focus more on Retail & MSME lending.
- RRBs have made significant progress under the Business Correspondents (BCs) programme. However, attrition/dormancy of the BCs is high due to poor viability and sustainability of their operations. It has to be ensured that transactions take place in all the accounts opened by BCs, particularly in the accounts opened under PMJDY.
- RRBs to put in place a system in adhering to the guidelines on Fair Practices Code for lenders on the lines of guidelines issued by RBI.
- The entry of differentiated banks backed by technology will be influencing the banking space. To retain existing clientele, enlist new clients and to improve the business levels, the RRBs need to upgrade the facilities offered to their clients.
- RRBs need to adopt technology more aggressively and achieve the targets set under viability plan.

2.4 Status of Cooperative Banks in the State

Since 1987, Andhra Pradesh had an integrated three-tier cooperative credit structure, with short-term and long-term credit functions under one umbrella. The structure is helmed by The Andhra Pradesh State Cooperative Bank (APStCB) at the apex level and 13 District Cooperative Central Banks (DCCBs) operating at district level through 421 branches, with 2,046 PACS functioning at the village level. Eleven of the Thirteen DCCBs are complying with the CRAR requirement of a minimum of 9.00% as on 31 March 2023. Twelve of the thirteen DCCBs posted a profit during the year financial year 2022-23. One DCCB reported accumulated losses as on 31.03.23.

2.4.1 Financial position of APStCB

The total deposits of APStCB as on 31 March 2023 were ₹9041.79 crore, while the total borrowings were ₹22658.81 crore. The total loans and advances extended by APStCB were ₹27690.64 crore and total investments stood at 1992.83 crore. The CRAR of the APStCB stood at 9.86% and the Gross NPA was at 0.62%. The CD ratio of APStCB was 160.38%

2.4.2 Suggestions to improve performance of cooperative Banks

- The cooperative banks need to put in place a system of identifying the constraints in augmenting the flow of ground-level credit, particularly to agricultural and allied sectors and initiate measures to improve the position.
- 02 banks viz., Eluru and Kakinada DCCBs, were classified as weak as on 31 March 2023. These banks were advised to prepare Monitorable Action Plan (MAP) which is being monitored by a Sub-Committee of the High-Level Committee (HLC). Senior officers of NABARD are also monitoring the implementation of the plans to enable these DCCBs to come out of weak status.
- The implementation of Development Action Plans for 2023-24 prepared by all DCCBs are to be monitored by the District Level Monitoring and Review Committees (DLMRCs) at quarterly intervals to take timely remedial measures for achieving the targets.
- The StCB and the DCCBs have to extend the banking services through alternate delivery channels like internet banking. Mobile banking etc. With the entry of differentiated banks backed by technology, especially mobile technology, will be influencing the banking system to a large extent. To retain existing clientele, enlist new clients and to improve the business levels, the DCCBs need to upgrade the facilities offered to their clients.
- Timely audit of PACS and issue of audit reports to be ensured by the banks.

2.4.3 Status of CBS in Cooperative Banks

APStCB and all the DCCBs have migrated to the Core Banking Solution (CBS) platform. The APStCB is providing other services like RTGS/NEFT, ATM facility and the issue of RuPay debit cards to its customers. The DCCBs are also providing RTGS and NEFT under sub-route through StCB. ATMs are also installed in DCCBs and RuPay debit cards are issued on a small scale. SMS facility is also extended by all the banks. GST, APY, CKYC and Inventory (Fixed Assets) modules have not been undertaken by DCCBs yet.

2.4.4 Strengthening of PACS in the State

The viability of PACS depends on their capability to transform themselves into one-stop shops, providing all the services that are required by their members. This will also induce more members to borrow from the PACS. Under PACS as MSC, various projects have been approved i.e. Warehouses (Scientific Godowns) of different capacities, cold rooms,

procurement centres, assaying units, collection centres, drying yards and processing equipment like threshers, dryers, boilers and cleaners. These projects are being implemented in 1293 PACS. NABARD has issued revised approval with total Financial Outlay of ₹778.93 crore and refinance assistance of ₹701.04 crore, out of which a refinance of ₹159.25 crore has been disbursed to APStCB. Further, ₹27.52 crore refinance has so far been sanctioned for 62 PACS under PACS as MSC – SRF, against which ₹11.77 crore has been released to APStCB.

2.4.5 Centrally Sponsored Project on Computerisation of PACS: The computerization of PACS is expected to enhance the quality of lending, promote, good accounting practices, and strengthen governance and financial discipline. Government of India is also focussing on the overall development of PACS through various initiatives, such as establishing new Multipurpose Cooperative Societies and promoting projects under PACS as Multi Service Centres, introduce model bylaws, promote FPOs through PACS, promoting PACS as Common Service Centre etc.

NABARD has setup a State Project Monitoring Unit at Andhra Pradesh Regional Office. In Andhra Pradesh, a total of 2037 PACS are identified for computerization, with hardware procurement and data migration in progress. It has now become the anchor programme pertinent for business diversification.

2.5 Performance under various Social Security schemes

Pradhan Mantri Jan Dhan Yojana (PMJDY)

The scheme intended to include the marginalised section of the society in the formal banking fold. The Plan envisages universal access of banking facilities with at least one Basic Savings Bank Deposit Account for every household, financial literacy, access to credit, insurance and pension facility. Total no. of enrolments under PMJDY as on 31 March 2023 is 148.59 lakh in the State.

Pradhan Mantri Suraksha Bima Yojana (PMSBY)

The scheme is available to people in the age group 18 to 70 years with a bank account who give their consent to join / enable auto-debit on or before 31 May for the coverage period 1st June to 31 May on an annual renewal basis. Aadhaar would be the primary KYC for the bank account. The risk coverage under the scheme is ₹2 lakh for accidental death and full disability and ₹1 lakh for partial disability. The premium of ₹20 per annum is to be deducted from the account holder's bank account through 'auto-debit' facility in one installment. Total no. of enrolments under PMSBY as on 31 March 2023 is 196.38 lakh in the State.

Pradhan Mantri Jeevan Jyoti Bima Yojana (PMJJBY)

The PMJJBY is available to people in the age group of 18 to 50 years having a bank account who give their consent to join / enable auto-debit. Aadhaar would be the primary KYC for the bank account. The life cover of ₹2 lakhs shall be for the one-year period stretching from 1 June to 31 May and will be renewable. Risk coverage under this scheme is for ₹2 Lakh in case of death of the insured, due to any reason. The premium is ₹436 per annum, which is to be auto-debited in one instalment from the subscriber's bank account as per the option given by him on or before 31 May of each annual coverage period under the scheme. Total number of enrolments under PMJJBY as on 31 March 2023 is 83.90 lakh in the State.

Atal Pension Yojana (APY)

APY offers choice of minimum monthly pension guaranteed by GoI of ₹1000, ₹2000, ₹3000, ₹4000 and ₹5000 per month after 60 years of age. The subscriber should be a citizen of India. The Subscriber's age should be between 18 -40 years for joining APY. The subscriber can join APY through a bank branch/post-office (through Online/ Offline

modes). It is mandatory to provide nomination and spouse details in APY account. Contributions can be made on Monthly, Quarterly, or Half-yearly basis through auto debit facility from savings Bank account. Total no. of enrolments under APY as on 31 March 2023 25.05 lakh

Table 2.2 Enrolments in PMJDY, PMSBY, PMJJBY and APY in Andhra Pradesh

Schemes	No. of Enrolments (As on 31 March 2023)
PMJDY	1,48,59,287
PMSBY	1,96,38,906
PMJJBY	83,90,212
APY	25,05,665

Source: SLBC

The penetration of social security schemes and Financial Literacy has led to the significant progress in Banking the Unbanked and Securing the Unsecured.

2.6 Financial Literacy

Achieving meaningful and widespread financial inclusion for the vast segment of the population living in poverty necessitates a harmonious relationship between the supply and demand of financial products and services. The key to unlocking this lies in fostering financial literacy across various stakeholders. Recognizing this, a differentiated strategy has been formulated under the Financial Inclusion Fund (FIF) schemes. This strategy places heightened emphasis on addressing the needs of economically disadvantaged districts and technologically weaker banks. The objective is to intensify efforts towards financial inclusion, catering to the previously marginalized population and aligning with regional aspirations.

A total of 65 Financial Literacy Centres have been established and operated by DCCBs and RRBs in Andhra Pradesh with support from NABARD. Similarly, 05 Centres for Financial Literacy (CFLs) have been sanctioned to Canara Bank as a pilot project in 05 blocks of Nellore District.

NABARD has also sanctioned 13,800 Financial Literacy Programmes to be conducted by the FLCs and Rural Branches of Commercial banks, Payments banks, RRBs and DCCBs during the year 2022-23. In addition to these measures, every year NABARD propagates “Financial Literacy Messages” through All India Radio network across Andhra Pradesh on various themes.

RBI through Centres for Financial Literacy (CFL) is providing further fillip towards increasing financial literacy in the state. FLCs and CFLs are playing crucial role in imparting the Financial Literacy and widening the reach of Digital Transactions in Rural Andhra Pradesh.

2.7 Rural Self Employment Training Institutes (RSETI) / Rural Development and Self Employment Training Institute (RUDSETI)

In Andhra Pradesh, there are a total of 14 Rural Self Employment Training Institutes (RSETIs) supported by different banks, including 9 by UBI, 2 by SBI, 2 by Canara Bank, and 1 by Indian Bank. Additionally, there are 2 Rural Development & Self Employment Training Institutes (RUDSETIs) operating in the state. These institutes play a crucial role in organizing training programs aimed at fostering sustainable micro-enterprises for rural youth.

RSETIs have tailored their programs to meet the specific needs of each district/block in Andhra Pradesh. This customization is based on a comprehensive skill mapping and an understanding of the region's potential for skill training and upgradation of rural youth. The institutes are actively engaged in enhancing the skill set of individuals in alignment with the demands and opportunities in their respective districts.

To ensure effective implementation and supervision of their activities, these institutes are closely monitored within the framework of the Lead Bank Scheme (LBS). The District Consultative Committee (DCC) serves as a pivotal forum for overseeing and coordinating the initiatives undertaken by the RSETIs. This approach facilitates a targeted and responsive strategy, ensuring that the training and skill development efforts align with the unique needs and potential of each district in Andhra Pradesh.

RSETIs in Andhra Pradesh state are conducting various skill development training programmes for unemployed rural youth free of cost and supporting the trained candidates in getting a settlement. RSETIs in the State of Andhra Pradesh play a vital role in imparting training to the unemployed youth and promoting self-reliance among the people. The performance of these institutes is as under:

Table 2.3 Performance of RSETIs in Andhra Pradesh					
S. No.	FY	No. of Training Programmes conducted	No. of candidates trained	No. of Candidates Settled	No. of Candidates covered under Bank Finance
1	2021-22	290	7817	6048	2973
2	2022-23	393	10790	7929	4247

Table 2.4 Outreach of Banking sector
Commercial Banks including SFBs and Payment Banks

Sr. No.	Particulars	As on 31 March 2021	As on 31 March 2022	As on 31 March 2023
1	No. of Branches	5791	5877	6113
2	CD Ratio	134.41	145.22	155.04
3	Deposits (₹ crore)	328537.05	350571.3	386426.11
4	Advances (₹ crore)	441585.30	509127.8	599136.14

Regional Rural Banks

Sr. No.	Particulars	As on 31 March 2021	As on 31 March 2022	As on 31 March 2023
1	No. of Branches	1280	1289	1313
2	CD Ratio	92.41	99.30	101.65
3	Deposits (₹ crore)	40737.72	43217.27	48315.25
4	Advances (₹ crore)	37645.32	42913.83	49112.35

Rural Cooperative Banks

Sr. No.	Particulars	As on 31 March 2021	As on 31 March 2022	As on 31 March 2023
1	No. of Branches	431	438	442
2	CD Ratio	139.39	140.71	160.38
3	Deposits (₹ crore)	16654.22	20805.44	22219.89
4	Advances (₹ crore)	23213.76	29275.50	35636.76

Source: SLBC

NABARD's Perception of Development for the State

Andhra Pradesh is embarking on a transformative path towards inclusive development and sustainable economic growth. The state stands ready to leverage its business-friendly environment, marked by ease of doing business policies and boasts robust social and physical infrastructure. Positioned with the potential to become one of the fastest-growing states in the country, Andhra Pradesh is primed for substantial progress.

The figures depicted below present the Gross State Domestic Product (GSDP) growth rate in comparison to the All India Gross Domestic Product (GDP) and the sector-wise Gross Value Added (GVA) at constant prices illustrate the state's dynamic economic landscape. These indicators underscore Andhra Pradesh's commitment to achieving balanced and accelerated development across diverse sectors, paving the way for a prosperous and sustainable future.

Figure 3.1 - Broad Sector-wise GSDP Growth Rate (%) of Andhra Pradesh at Constant Prices (2011-12)

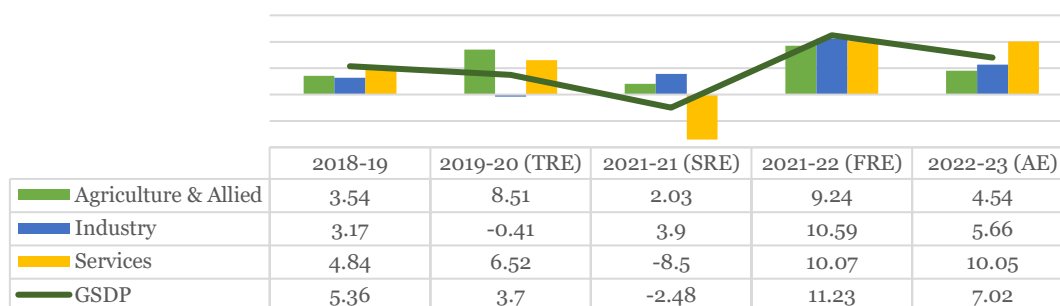
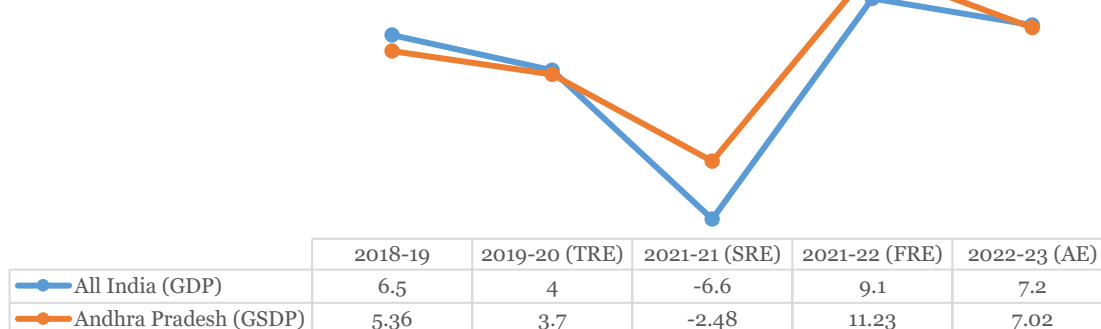
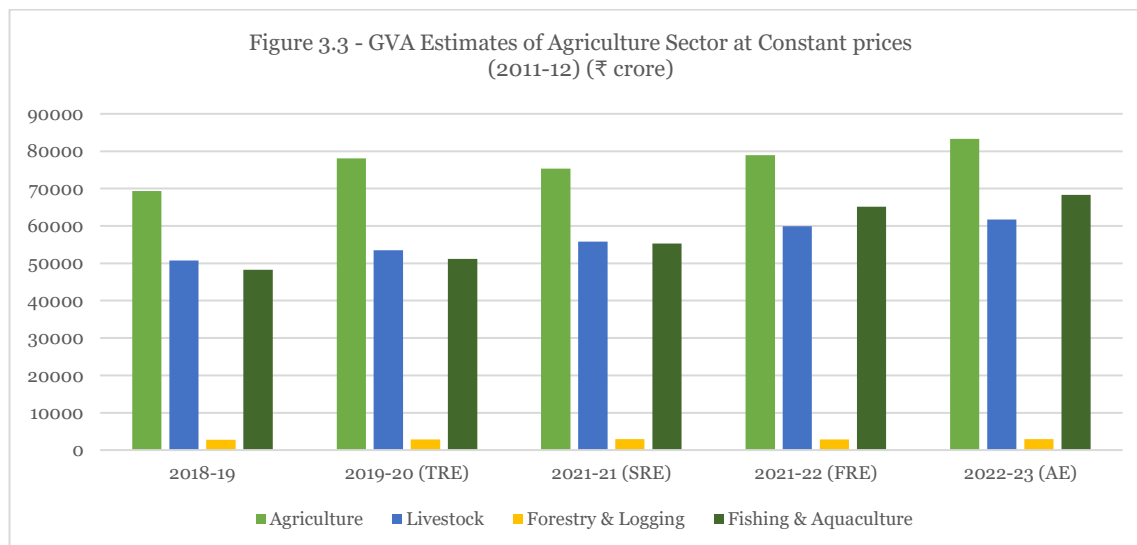


Figure 3.2 - Growth Rate (%) of AP GSDP vis-à-vis All India GDP





Source: Annual Report of NABARD 2022-23; Socio-Economic Survey of AP 2022-23

3.1 In discharging its role as a facilitator for rural prosperity, NABARD provides refinance to lending institutions in rural areas, promotes institutional development by evaluating, monitoring and inspecting the client banks. NABARD has effectively brought in a number of path breaking innovations in the rural credit domain, like formation and linkage of SHGs, Farmers Club, introduction of KCC/Rupay Kisan Smart Cards, promotion and credit linking of JLGs, taking initiatives on developing financial literacy etc. NABARD's support to state governments for creation of rural infrastructure through RIDF has made a visible and lasting impact on the rural economy. Besides, the social and livelihood interventions through Tribal Development Fund (TDF), Watershed Development Fund (WDF) and Umbrella Programme on Natural Resource Management (UPNRM) projects, piloting integrated farming systems etc. have brought a visible impact on the sustainable development of the target groups/areas. Thus, NABARD has been acting as a change agent for bringing rural transformation by partnering with all stake holders.

3.2 Capital Formation in Agriculture and Increase in Production and Productivity

Capital formation is a significant catalyst for driving productivity and growth in agriculture. By facilitating the acquisition of crucial resources, technology, and infrastructure, strategic investment in capital assets enhances efficiency and overall sectoral development which further helps in augmenting farmers' income. Irrigation accounts for almost 90 per cent of the gross public capital formation in agriculture. Private sector investment includes investments by (a) farm households and (b) private corporates. Investments made by farm households on farm equipment, machinery, irrigation, land reclamation and land improvement constitute around 90 per cent share in private investment. Higher government spending on infrastructure and other capital investments has a crowding-in effect on private investments by raising the marginal

productivity of capital. Hence, public investment in agriculture needs to be increased to encourage private investments.

The factors governing capital formation in agriculture are institutional credit, public as well as private investment in irrigation, rural roads, electricity, agri-marketing and research and development on agriculture.

NABARD has always laid special emphasis on investment credit that leads to capital formation through asset creation and thereby sustainable development of rural areas. NABARD has been playing a catalytic role in augmenting capital formation in agriculture in the State through the following programmes:

- a) Long Term Refinance: NABARD's long-term (LT) refinance provides credit to a wide gamut of activities ranging from basic land development and irrigation structures to high-end, technologically developed farm and non-farm activities with tenure ranging from 18 months to 5 years. LT refinance of ₹6,878.10 crore has been released during 2022-23. The cumulative amount of refinance under LT from 2018-19 till 2022-23 is ₹30,643 crore.
- b) Investment credit is a critical component in facilitating capital formation in agriculture. With a view to boost investment credit under agriculture and allied sector in the State and to ensure adequate financing, NABARD continued to convene the State Level Unit Cost Committee (SLUCC) meeting to fix the indicative Unit Costs for major activities through a consultative process.
- c) Channelling the subsidy schemes of Central Government like Agri-Clinic and Agri-Business Centres (ACABC) and New Agri Marketing Infrastructure (AMI) Sub-Scheme of ISAM.

The various initiatives announced under Atmanirbhar Bharat package including Agriculture Infrastructure Fund for ₹1 lac crore from 2020-21 to 2029-30 are expected to create Post Harvest Management Infrastructure and reduce post-harvest losses, and it is also expected to give Agri Term Loans a boost. This would give impetus for development of farm gate infrastructure & aggregation points, affordable and financially viable Post Harvest Management infrastructure and doubling of Farmers Income.

- The GoAP can boost capital formation in agriculture and thus increase production and productivity through the following measures:
- Sectors like horticulture, livestock, fisheries and aquaculture to be given priority under public investment.
- Shift from production approach to value addition platform, orienting towards processing and thereby reduce post-harvest losses.
- Introduce reforms in the management and operational efficiency of existing irrigation projects for optimum water management.
- Promotion of solar and wind energy to tide over costly conventional sources, uncertainties in their supply and growing scarcity.
- Sensitise farmers about resource use efficiency, dynamic cropping patterns, climate-resilient agricultural practices, use of Drones, natural farming, integrated farming,

agro-forestry, off farm practices and intensive use of Information and Communication Technology (ICT) for enhancing the productivity of smallholder farming and thus make agriculture a viable enterprise.

3.3 Financing of Small & Marginal Farmer, Oral Lessees/ Tenant Farmers/ Sharecroppers, etc.

The land holding pattern primarily decides the production and productivity of the agriculture. Agriculture in India has progressively become predominantly smallholder driven. As per Agricultural Census 2015-16, at All India Level, 86.12% farmers possess less than 2 ha of land and average size of land holding has declined from 1.15 ha (2010-11) to 1.08 ha.

As per Census of Land Holdings 2015-16 (Provisional), the average size of land holdings in the state has declined to 0.94 ha from 1.06 ha in 2010-11. Small and marginal farmers have 88.60% of total land holdings, who operates on 58.40% of the area. Medium and large farmers account for 11.40% of land holdings, who operates on 41.60% of the area of the state. The number of holdings has increased from 76.21 lakh in 2010-11 to 85.24 lakh in 2015-16.

The Commission on Inclusive and Sustainable Agricultural Development of Andhra Pradesh, chaired by Prof. R.Radhakrishna, estimated on the basis of the NSSO 70th Round survey of Land and Livestock Holdings that there are 24.25 lakh tenant farmers, out of whom 6.29 lakh are landless tenants and 18.03 lakh are mixed tenants who own some land. It was estimated that out of 60.73 lakh hectares of operational area, 27.15 lakh hectares, i.e. 44% was being cultivated by tenants.

To safe guard the tenant farmers, the GoAP has brought the “Andhra Pradesh Crop Cultivators Rights Act, 2019” to provide all facilities including banking, insurance and other Government benefits to the tenant farmers through the Crop Cultivators Rights Card (CCRC) without effecting the rights of the owner of the land. This Act (Andhra Pradesh Act 30 of 2019) came into force from 17 August 2019. This Act replaced the Loan Eligibility Card (LEC) that did not mandate the written consent of the landowner as per the AP Land Licensed Cultivators Act, 2011.

The CCRC holders are made eligible to get benefits of government schemes like Sunna Vaddi Panta Runalu (Interest free crop loans), YSR Free Crop Insurance, Input subsidy, Seed and farm machinery on subsidy, guaranteed support price to the produce, 9 hours free power and also an amount of ₹7 lakh to the suicide victim farmer family as ex-gratia in addition to YSR Rythu Bharosa (SC, ST, BC, Minority category landless tenant farmers only).

Other initiatives taken to improve tenant farmer financing include:

- Loan charge creation of tenant farmers is enabled in loan charge module for Bankers.
- Provision of Loan account of tenant farmers is being linked with e-Crop portal.
- Procurement amount will be credited by procurement agencies to bank account of tenant farmers directly

Kisan Credit Card & RuPay Kisan Credit Card

The Kisan Credit Card (KCC) scheme, introduced in 1998, aimed at providing adequate and timely hassle free crop loan to the farmers under a single window to meet all their overall working capital credit requirements – the cultivation of crops, post-harvest expenses, marketing, maintenance of farm assets and also for consumption expenses.

The GoI also launched Ghar Ghar KCC Abhiyan (GGKA) on 19.09.2023 to saturate the remaining PM KISAN Beneficiaries with Short Term Agriculture Loans through KCC. The Abhiyan began from 1st October 2023 and continued till 31st December 2023. The overall execution and monitoring responsibility for the Abhiyan has been given to NABARD. More than 1.37 lakh farmers in the state of Andhra Pradesh have been issued with KCC during the Abhiyan. As per PMFBY Portal data, there is a gap of 25.88% in KCC saturation with 1,15,353 PM Kisan beneficiaries pending for KCC saturation.

Total number of operative KCC Accounts in the State as on 31 March 2023 are 45.52 lakh with total outstanding amount of ₹60,879 crores (source: <https://www.rbi.org.in/Scripts/PublicationsView.aspx?id=22360>).

Working capital for Animal Husbandry and Fisheries: The facility under KCC is also extended for activities like Animal Husbandry and Fisheries for meeting working capital requirements. The scheme is being attached high priority by the Government of India to meet the short term credit requirements of farmers involved in these activities. GoI launched the Nationwide AHDF KCC Campaign from **01-05-2023 to 31-03- 2024** for providing Kisan Credit Card (KCC) facility to all eligible farmers engaged in Animal Husbandry & Fisheries . The objective is to cover 2.5 crore new farmers under the KCC Scheme, of which 1.5 crore were expected to be dairy farmers and the rest fishers. NABARD is promoting the product among farmers and bankers and other stakeholders in the State. KCC facility for working capital with Interest Subvention at 1.5% and Prompt Repayment Incentive (PRI) at 3% is extended to fisheries and animal husbandry farmers besides crop production.

To cover all the farmers with RuPay KCCs and for full coverage of KCC accounts and their activation, RRBs and RCBs were supported through 54 mobile ATM demonstration vans and 5442 micro-ATMs in the state as on 31 March 2023.

3.3.1 Land Records – Digitisation and Creation of Charge

Digitisation of land records has the potential to address various issues relating to agricultural credit, provided banks are given access to view land records online and/or they are given the facility to create charge online over land. This will help in reducing the instances of double or multiple financing on the same piece of land.

The GoAP had computerized the land records in a centralized web based portal viz., Webland portal. The portal is a web-based centralized land records management system to store and manage land holdings information. In Andhra Pradesh, banks have been provided with the facility of online viewing the digitised land records from their branches. Further, the loan charge creation module website was made operational to enable the banks to create a charge on the land. The State Government has recently launched a state-wide land resurvey programme called '*YSR Jagananna Saswata Bhu Hakku-Bhu Raksha*' using

hybrid technology to determine the boundaries and measurements of all land parcels. Each land parcel will be allotted a unique number on the lines of Aadhaar number, and the owners will be issued a certificate with clear details of their land properties. The comprehensive land survey would be taken up at the village secretariat level in three phases and the data would be digitised to keep the record clean and transparent, besides avoiding duplication.

Jan Samarth Portal

Jan Samarth Portal (<https://www.jansamarth.in/home>) is a digital portal linking twelve Credit Linked Government schemes (covering loans for education, KCC, Agri infrastructure, business activity and livelihood activities). Beneficiaries can digitally check their eligibility in a few simple steps, apply online under eligible scheme and receive digital approval.

3.3.2 Agriculture and Allied Activities – Prospects and Performance

Sustainable growth in agriculture sector is the major emphasis both for the state of Andhra Pradesh and for country as a whole. Agricultural yield, which is regarded as the most important element, is found to be lower in most of the crops. The state is prioritizing productivity enhancement and doubling farmers' income. Andhra Pradesh endeavours to provide agricultural extension services to farmers and to transfer the latest technical knowledge to the farming community.

The area under food grains is 39.59 lakh hectares in 2022-23 as 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 160.93 lakh tonnes in 2022-23 showing an increase of 9.3%.

Horticulture sector: The State Government of Andhra Pradesh has identified Horticulture Sector as one of the growth engines with a focus to increase the production, productivity, and quality of various Horticulture Crops coupled with value chain development and marketing linkages for better price realization which help in increasing net returns.

Andhra Pradesh stands top in the country with a strong foundation in Horticulture. The State ranks first in productivity of Oil Palm, Papaya, Lime, Cocoa, Tomato, Coconut and Chillies. The total area under Horticulture crops is 18.08 Lakh Hectares with a production of 369.07 Lakh MTs (Source: Department of Horticulture, GoAP).

Sericulture: Andhra Pradesh is the second largest producer of Silk in India next to Karnataka. Mulberry is grown in Sri Satya Sai, Anantapur, Chittoor, Annamayya, Prakasam, Kadapa and Kakinada districts.

Livestock sector: AP has 60 lakh milch animal populations of which 58% are buffaloes. The state is the native of world-famous draught breed known as "Ongole" and the poorman's cattle breed known as 'Punganur'. During 2021-2022, Andhra Pradesh stood 1st in Egg Production (2645.03 Corers), 2nd in Meat production (10.25 Lakh MTs) and 5th in Milk production (154.03 Lakh MTs).

Fisheries sector: The Fisheries sector occupies an important place in the socio-economic development of the State. As per the 2022-23 advance estimates of GVA at constant prices, the fisheries sector contributed 9% to GVA and 23.80% to agricultural GVA of the state.

1 st in total aquaculture area and production in the country	70% of country's cultured shrimp produced in the state	30.00% of the national fish production	36.21% of total value of seafood exports	Direct/indirect employment to 16.50 lakh persons
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The State is endowed with bountiful and diverse water resources under inland, marine, and brackish water sectors for development of fisheries and aquaculture.

The fish production in the State has grown from 34.49 lakh MT in 2017-18 to 48.13 lakh MT in 2021-22. The inland fisheries sector contributed lion's share of 88% of the total fish production of the State during 2021-22.

For inclusive and sustainable development in agriculture and allied sectors, the following measures are required:

- Integrated Post-harvest management infrastructure including cold chain infrastructure and processing units.
- Promoting value chain & brand building for natural farming/organic farm produce of the district
- Improvement of local breeds through Artificial Insemination and other breeding activities
- Sensitization of Bankers on issuance of KCC to AH Sector
- Take R&D benefits to the farmers and fish farmers.
- Setting up of crop specific value chain and banks may channelize credit to value chain financing.
- Creation of organized marketing facilities for fish and shrimp

3.4 Climate Change – Adaptation and Mitigation

While climate change is a global challenge, effective solutions necessitate localized actions. Broadly, addressing climate change involves two strategies: mitigating future warming through measures to reduce emissions, and adapting to the changed scenario by implementing strategies to manage its impacts.

Climate Change and Vulnerability in Andhra Pradesh

Andhra Pradesh is predominantly an agrarian state where substantial area is under rain-fed farming. Major climate change issues for the state arise in agriculture, forestry and fisheries sectors and the factors contributing to vulnerability primarily include:

- Periodic occurrence of drought / erratic monsoon – Anantapur, Chittoor, Kadapa, Kurnool and Prakasam (high vulnerability)
- Coastal Disasters like rising sea-levels, floods and cyclones – Visakhapatnam, Bapatla, East and West Godavari, Krishna and Nellore (high vulnerability)

NABARD's Initiatives under Climate Change

NABARD has been making concerted efforts for accessing resources through national and international funding mechanisms for financing climate change initiatives. NABARD is the National Implementing Entity (NIE) for three important funding arrangements viz., Adaptation Fund (AF), National Adaptation Fund for Climate Change (NAFCC) and Direct Access Entity to Green Climate Fund (GCF). 40 projects involving the assistance of ₹1,821 crore are at different stages of implementation. Further, to promote and support activities aimed towards addressing climate change impacts, adaptation and mitigation measures, the "Climate Change Fund" (CCF) was created out of the profit of NABARD during 2016-17 for facilitating attempts to address impacts of climate change especially towards fostering sustainable development.

In Andhra Pradesh, NABARD has implemented a climate change adaptation project for development/restoration of mangrove plantation in coastal areas and livelihood for fishermen in 3 villages of Krishna District, with a project outlay of ₹4.14 crore supported under Adaptation Fund. M S Swaminathan Research Foundation has executed the project. Another project titled "Climate Resilient Interventions in Dairy Sector in Coastal and Arid Areas in Andhra Pradesh" is being executed in 3 districts with a project outlay of ₹19.83 crore under NAFCC.

Two studies titled "Adoption of Climate Resilient Technologies in scarce rainfall zone of Andhra Pradesh" and "Vulnerability assessment and sea level rise impact for East Godavari district" by KVK, Yagantipalle and MSSRF respectively and seven district level Climate Change workshops were supported under the CCF during 2022-23.

Strategy and Way forward: The risks associated with climate change have a direct bearing on-farm and farmers' income. Agriculture needs to move away from a production-centric approach to an ecosystem-centric approach and work towards introducing a resilient farming system. In this scenario, Zero Budget Natural Farming (ZBNF) and concept of climate smart villages need prioritisation and support of the agricultural extension agencies.

Table 3.1 Adaptation Story in Numbers

35,000 ha of agriculture land in coastal villages at high risk to become saline due to sea-level rise	50 ha developed into integrated mangrove fish farms with 600 mangroves per ha
200 community members trained in mangrove restoration and 50 farmers (40% women) trained in fish farming	At least 60% of people (nearly 50% women) living in project villages directly benefiting from reduced vulnerability to climate change
3,50,000 mangrove saplings planted across 200 ha area to restore the degraded mangroves	10 cages established for culturing sea bass in the backwaters of river Krishna for livelihood enhancement

Box 1: Conserving Mangroves: Nature's climate guardians



In Nagayalanka and Koduru Mandals, Krishna District, a vital project backed by the Adaptation Fund has transformed vulnerable coastal communities. Facing threats from cyclones, erosion, and soil salinization, the initiative planted 4 lakh mangrove saplings and established an Integrated Mangrove Fishery Farming System (IMFFS) over 50 hectares.

Results were impactful – heightened climate change awareness, restoration of 200 hectares of degraded mangroves, and the introduction of Fin-fish culture earning farmers ₹50,000 annually without external inputs. This sustainable approach not only mitigated unsustainable fishing but fortified the region against climate change impacts. The mangroves now stand as guardians, ensuring resilience and prosperity for Krishna District's coastal communities.

3.5 Farmers' Producer Organizations

Small and marginal farmers face numerous challenges in the form of lack of access to quality inputs, modern technologies and affordable credit, low size of the marketable surplus, poor access to markets. Besides, subsistence agriculture has gradually become unviable for the rising cost of cultivation, limited access of farmers to public resources, increasing risks due to climate change and frequent crop failures. Collectivisation of farmers into Farmer Producers Organization (FPOs) has been considered as one of the ways to address the above mentioned challenges.

Considering the above, NABARD has been forming, nurturing FPOs and enabling the farmers' aggregates to transform as sustainable business entities, taking care of the diverse needs of the farmers. Over a period of 8-10 years around 10196 FPOs (as on 31 March 2023) have been promoted in the country by various agencies like NABARD, SFAC, State Government departments and Civil Society Organizations. Out of these, NABARD has

promoted around 7101 FPOs under its various promotional initiatives and more than 1500 FPOs have been credit linked.

In addition to nurturing the new producers' organisations in terms of capacity building/handholding, credit facilitation and market linkages, NABARD is committed to provide an appropriate ecosystem for sustainable growth of FPOs resolving various issues in consultation with the Government, banks, development institutions and other stakeholders.

FPOs promoted under the PRODUCE, PODF-ID Fund of NABARD

NABARD's FPO journey commenced with the establishment of Producers Organization Development Fund (PODF) in 2011-12 to provide financial assistance to Producer Organizations (POs), enabling them to collectively manage primary produce, enhance value, and increase income for small producers. In the 2014-15 Union Budget, the Indian Government created the "PRODUCE Fund" within NABARD, contributing ₹200 crore for the promotion and establishment of 2000 Farmer Producer Organizations (FPOs) nationwide.

Further, in the Union Budget for 2019-20, Govt. of India has announced formation of 10,000 FPOs over the period of next 5 years to enhance the income of small and marginal farmers. NABARD, NCDC, SFAC, and NAFED among others have been identified as the Implementing Agencies for the scheme. Cluster-Based Business Organisations (CBBOs) will extend handholding and capacity-building support to the FPOs in the identified product clusters.

NABKISAN Finance Ltd, a subsidiary of NABARD, has introduced a number of innovative loan and grant products for directly supporting FPOs besides creating a digital platform for on-line submission of loan applications.

To further provide lending comforts to its subsidiaries, NABARD has introduced a Credit Guarantee Scheme on a pilot basis to provide guarantee cover to its lending subsidiaries. The NABSanrakshan Trustee Private Limited, a wholly owned subsidiary of NABARD, has been established to manage the Credit Guarantee Scheme of GoI. Two of such schemes are: Credit Guarantee Scheme for Farmers Producer Organization (FPO) under the Central Sector Scheme for Formation and Promotion of 10,000 FPOs and Credit Guarantee Scheme for Animal Husbandry and Dairying under the Animal Husbandry Infrastructure Development Fund (AHIDF) of GoI. These schemes intend to encourage the Lending Institutions to extend credit to the FPOs and borrowers of Animal Husbandry and Dairying Infrastructure activities and also by providing Credit Guarantee coverage.

Status of promotion of FPOs in Andhra Pradesh

As on 21 November 2023, 431 FPOs have been promoted in the State by engaging the services of 94 implementing agencies involving a grant assistance of ₹80.91 crore. These FPOs cover farmers producing diverse agriculture produce including cereals, millets, pulses & horticulture produce, practicing ZBNF, organic, integrated farming among other good agricultural practices.

Many of the FPOs have achieved reasonable progress during the last four years and have emerged as viable farmers' aggregates, undertaking a host of activities including commercial and good agriculture practices. The achievements of the FPO intervention in critical areas including membership, mobilization of equity, credit and market linkages are provided in Table 3.2.

The FPOs have contributed substantially in terms of reduction in the cost of production by bulk procurement of quality inputs at wholesale price and increased production through adoption of modern agricultural practices, crop diversification and cultivation of high-value commercial agriculture crops and creating common infrastructure. FPOs are increasingly taking up the aggregation of produce and bulk transport to reduce marketing cost with improved bargaining power, processing/value addition, better quality control and participating in value chain/ supply chain. Contract-based production and marketing have been increasingly observed among the FPOs in the last few years. The assured market and committed benchmark prices have benefitted the farmers of the FPOs, encouraging FPOs for investments in grading, primary processing, and other value addition activities.

Table 3.2 FPOs in Andhra Pradesh Key Statistics	
Particulars	No./Amt. (₹ lakh)
Total No. of FPOs sanctioned	431
Total No. of FPOs Registered	423
Aggregate Grant Sanctioned	8091.50
Aggregate Grant Released	3978.71
No. of Shareholding Members	173192
Women Members	49451
Equity Mobilized	₹1768
No. of FPOs credit-linked	97
No. of FPOs market linked	278

Convergence of FPOs with GoI/State Government Schemes

NABARD has undertaken various initiatives for sensitizing banks for credit linkage of FPOs. NABARD has entered an MoU with few banks aiming mutual collaboration to enhance institutional lending to FPOs and related developmental initiatives. APEDA has also signed MoU with NABARD for promotion of export through FPOs in the potential clusters in coordination with their registered exporters. APEDA would also facilitate certification of organic produce by the cooperatives / FPOs assisted by NABARD.

The Agriculture Infrastructure Fund (AIF) of ₹1 lakh crore has been created by GoI to bridge the critical marketing Infrastructure gap. AIF would attract investments and build an ecosystem for farmers to get the best price for their products. Interest subvention of 3% on term loans up to ₹2 crores for post-harvest infrastructure, warehouses, sorting and grading units, ripening chambers, cold chain warehouses, e-marketing platforms, etc. would be helpful to build a viable environment for farmers.

PMFME scheme is a centrally sponsored scheme under Atamanirbhar Bharat Abhiyan that is designed to address the challenges faced by the micro enterprises and to tap the potential

of individuals and groups entrepreneurs in supporting the upgradation, setting up of new units and formalization of these enterprises. In this scheme, FPOs would be provided credit-linked capital subsidy @35% of the eligible project cost with a maximum ceiling of ₹3.00 crore to establish common infrastructure.

Government of Andhra Pradesh has set up more than 10,641 Rythu Bharosa Kendras (RBK) as one-stop shops, for supplying the quality inputs like seeds, fertilizer & pesticides to farmers. These would also be developed as primary and secondary processing centres at Panchayat level to cater to the infrastructure needs of FPOs such as small godowns, cold storages etc.

3.6 Micro, Small and Medium Enterprises (MSME)

The Micro Small and Medium enterprises (MSMEs) have been accepted as the engine of economic growth and for promoting equitable development. The labour intensity of the MSME sector is much higher than that of the large enterprises. The MSMEs play a vital role in the overall growth of industrial economy of the country.

The scope and coverage of MSME sector was broadened significantly under Micro, Small and Medium Enterprises (MSME) Act, 2006 which recognized the concept of enterprise to include both manufacturing and services sectors. MSME sector is considered important because of its significant contribution to employment generation, GDP of the country (38%) and export basket. The sector has the potential to market “Made in India” vision brand globally. Bank loans to MSME are eligible to be classified under priority sector.

As per the NSS 73rd round survey (2015-16), Andhra Pradesh occupies 7th position, with 33.87 Lakh MSMEs and it is 5% of total MSMEs in the country. The MSME sector in Andhra Pradesh, identified as a catalyst for job creation and balanced regional development, manufactures a variety of products with a high concentration of Micro and Small units belonging to the Section of food, mineral and building materials, drugs and pharmaceuticals fabricated materials, trading, and service sector.

The MSME Policy 2020-23 provides a holistic framework for sustainable development of MSMEs in the State and make them globally competitive. The policy offers incentives, infrastructure development, technology up gradation, skill development and marketing support, simplification, administrative reforms, and rehabilitation of sick industries in the State. As on 17 January 2024, a total of 7,15,526 MSME are registered on Udyam portal.

As regards the Ground Level Credit flow to MSME sector, an amount of ₹67822 crore was disbursed during the year 2022-23 as against the target of ₹50,100 crore under MSME sector. A target of ₹69000 crore has been fixed for the year 2023-24 under ACP, against which the achievement stands at ₹53208 (77.11%) as on 30 September 2023.

3.7 Micro Credit

3.7.1 SHG Bank Linkage Programme

The SHG Bank Linkage Programme has completed more than 30 years towards empowering the rural poor women and has emerged as a powerful intervention for poverty alleviation and financial inclusion in the state. Group mode of financing through SHGs and JLGs has been established as a cost effective and viable means to link this financially excluded segment to formal credit system and provide them capital for livelihood planning.

Further, the launching of Deendayal Antyodaya Yojana National Rural Livelihood Mission (DAY NRLM) has put women at the epicentre of the development chain.

Andhra Pradesh has been a trailblazer in the Self-Help Group – Bank Linkage Program (SHG-BLP). In the fiscal year 2022-23, a commendable total of 526,732 SHGs have been credit-linked, securing a substantial loan amount of ₹40,230 crore, with an outstanding loan balance of ₹58,757 crore. Notably, the average per SHG bank loan has witnessed a remarkable increase from ₹0.45 lakh in 2004-05 to ₹11.15 lakhs in 2022-23, demonstrating the program's significant impact. Furthermore, the Non-Performing Assets (NPA) as a percentage of SHG bank loan outstanding has seen a notable decline, reaching a minimal 0.42% as of March 31, 2023.

The GoAP's initiatives such as YSR Sunna Vaddi (interest subvention programme) and YSR Aasara (reimbursement of outstanding SHG loans) will help the SHG members to take up income-generating activities and set up small scale home-based units, further improving the economic status of the rural women.

In the State, the loan is also extended to SHG women for various livelihood interventions through Sreenidhi Credit Cooperative Federation Limited. The establishment of Small Finance Banks (SFBs) and the Payment Banks has given a further fillip to the microfinance sector. The convergence of SHG BLP with other government programmes, financial inclusion initiatives of GoI, group insurance products and enhanced quantum of loans will promote the entrepreneurial talents of the rural poor women. Further, the potential SHGs may be encouraged to graduate as members of Producers' Organisations of farm and non-farm sector activities.

Joint liability Groups: JLG scheme was initiated by NABARD in 2006 with the expectation of enhancing credit flow to sharecroppers/ tenant farmers who do not have land rights. NABARD provides 100% refinance support to banks for JLG financing and extends financial assistance for awareness creation and capacity building of all stakeholders of the programme. Banks and JLG promoting institutions are also given incentives for promotion and nurturing of JLGs.

During 2022-23, a total of 52757 JLGs were financed in Andhra Pradesh and an amount of ₹308.55 crore was disbursed towards the same. During the FY 2022-23, NABARD had sanctioned the grant of ₹46.00 lakhs for promotion and credit linkage of 1150 JLGs in Andhra Pradesh.

The constraints in graduating the SHG members into entrepreneurs are lack of marketable skills, mentoring services, limited technology adoption necessary for increasing productivity and poor access to markets.

3.7.2 Enterprise Development Programmes

To facilitate matured SHG members to graduate into rural micro-enterprises, NABARD initiated the MEDP from 2005 onwards. Buoyed by the impact of MEDP an advanced Enterprise Development Programme viz. LEDP was conceptualised and launched by NABARD in 2015 for a holistic intervention in livelihood promotion and sustainable development of rural women.

In the state of Andhra Pradesh, NABARD has conducted several MEDPs and LEDPs on farm sector as well as non-farm sector activities viz., tailoring, fashion designing, beautician

course, handicraft items, Maggam work, manufacturing of low-cost sanitary napkins, millets processing and value addition, jute bag making, leaf plate making, manufacturing of organic inputs, training on zero-based natural farming, etc. Under LEDP, trainees are extended handholding support for credit and marketing linkage.

The settlement rate of the trainees is on an average 70% and average monthly incremental income post-MEDP/LEDP training is ₹3000 to ₹7000 on an average, depending on the activity. During 2021-23, Andhra Pradesh had sanctioned 56 LEDPs and 101 MEDPs to develop entrepreneurial skills among these workers.

3.7 Credit support for Infrastructure development

NABARD is providing support to GoAP under various schemes like Rural Infrastructure Development Fund(RIDF), Long Term Irrigation Fund(LTIF), Micro Irrigation Fund(MIF), NABARD Infrastructure Development Fund(NIDA) and Warehouse Infrastructure Fund(WIF) towards the development of rural infrastructure viz, Augmentation of Infrastructure in schools and colleges, Anganwadi Centres, Multi-Specialty Hospital in ITDA area, veterinary clinics, lift irrigation systems, roads and bridges, agriculture and aquaculture labs, etc. These infrastructure supports are in line with the vision of the State towards the sustainable development and providing linkages support to the rural population. NABARD has also been promoting integrated rural development by providing credit to agriculture, small-scale industries, village industries, and cottage, handicrafts. Further, the GoI has also set up a special fund of ₹2,000 crore in NABARD to make available affordable credit for establishing mega-food parks and for setting up individual food processing units in the designated food parks

3.9 Financial Inclusion

Financial Inclusion is the process of ensuring access to financial services and timely and adequate credit to vulnerable groups such as weaker sections and low-income groups at an affordable cost. NABARD is facilitating financial inclusion both on-demand and supply side by creating demand for financial products and services through financial literacy & awareness programmes and at the same time supporting the digital infrastructure for supplying these financial products and services through Rural Co-operative Banks and Regional Rural Banks. Under the Financial Inclusion Fund, total grant assistance of ₹99.36 crore has been disbursed in Andhra Pradesh till date.

19288 Financial Digital Literacy Camps were sanctioned during last 02 years to Commercial Banks, RRBs and RCBs. The objective of these camps is to provide hands-on experience on the adoption of digital payment methods such as micro-ATMs, Mobile Banking, UPI, etc. to the rural community, apart from imparting financial literacy. The broad activities for which support was extended include for distribution of RuPay Kisan Cards (25.27 lakh), purchase of Micro ATMs (823 nos.), establishment of VSATs (36 nos.), Solar Power UPS Deployment (154 units), RSETI for purchase of training equipment's and maintenance thereof etc. and on boarding BHIM UPI platform etc.

Support is also extended to comply with the regulatory requirement by banks such as on boarding on Public Financial Management System (PFMS) portal, Positive Payment Systems, the establishment of Central KYC Registry, the acquisition of AUA/KUA license

from UIDAI, operationalization of Aadhaar Enrolments and Update Centres in the bank branches etc. which will help in spreading the benefits of DBT to the far-off locations. Concerted efforts of all stakeholders have brought notable progress in both spheres – creating financial awareness and delivery of financial services. However, there still exist regions which are financially excluded and banks where technology adoption is inadequate, thus preventing the equitable spread of financial services. To address these disparities, a differentiated strategy has been put in place for support from the FIF from the financial year 2019-20 onwards.

3.9.1 Financial Inclusion Fund (FIF) – A Differentiated Approach

The strategy involves more thrust on backward districts that are constrained by various physical, economic and sociological characteristics, now termed as the Special Focus Districts (SFDs). Srikakulam, Vizianagaram, Visakhapatnam, West Godavari, East Godavari, Guntur and Kadapa are the SFDs in Andhra Pradesh. The SFDs are eligible for grant support up to 90% of the eligible expenditure incurred by implementing bank.

The grant support for projects in other districts would be limited to 60%, 80% and 90% of eligible expenditure for Scheduled Commercial Banks (SCBs) (including scheduled Small Finance Banks (SFBs) and Payment Banks (PBs)), Regional Rural Banks (RRBs) and Rural Cooperative Banks (RCBs) respectively.

3.10 Credit Planning

Credit has always been considered as a critical input for development of agriculture and allied sectors and NABARD has been making concerted efforts to enhance credit flow to the Priority Sector in general and Agriculture Sector in particular. NABARD's role in credit planning under Priority Sector is enumerated hereunder.

- Preparation of Potential Linked Credit Plans (PLPs) for each district and State Focus Paper for the State as a whole.
- Liaising with stakeholders on policy matters, resolution of operational problems to facilitate smooth flow of agricultural credit and initiatives required to step up agricultural credit.
- Monitoring and collation of data on ground level credit disbursed by various financial institutions, particularly Rural Financial Institutions (RFIs).
- Coordinating the functioning of various agencies at district level.

NABARD has been undertaking the exercise of assessing potential for absorption of credit in respect of agriculture, allied sectors, MSME, Housing, Export Credit, Education, Renewable Energy and others in each district. The credit potential for 2024-25 has been assessed at ₹3,55,161 crore for the State recording a growth of 24% over the previous year 2023-24 (assessed at ₹2,86,292 crore)

3.11 Past Trends in Credit Flow

Performance under Annual Credit Plan (ACP) during last 3 years is tabulated below
(Table 3.3):

(Amt in crores)

Particulars	2020-21		2021-22		2022-23	
	Target	Ach.	Target	Ach.	Target	Ach.
Priority sector	187550	196982 (105%)	213560	231873 (109%)	235680	305328(130%)
Non-priority sector	64050	90652 (142%)	69820	145563 (208%)	83800	214992(257%)
Total Credit plan	251600	287634 (114%)	283380	377436 (133%)	319480	520320(163%)

Source: State Level Bankers Committee (SLBC)

Table 3.4 Priority Sector advances

Segment	2020-21		2021-22		2022-23	
	Target	Ach.	Target	Ach.	Target	Ach.
Short term production loans	94629	109210	110422	115459	121580	141032
Agri Term loans including allied activities	34031	37669	38078	61494 (161.35%)	43160	83965 (194.51%)
Total Agriculture	128660	146879	148500	176954	164740	224997
MSME	39600	40312	44500	44815	50100	67822
Others under priority sector incl. export credit	19291	9791	20560	10104	20840	12509
Total Priority sector	187551	196982	213560	231873	235680	305328

Ground Level Credit under Priority Sector have surpassed the targets consecutively for the last three years. The trends in ground-level credit (GLC) flow in total agriculture lending has shown substantial increase over the years. The agriculture credit has registered a growth of 72% over last year and there was a growth of 82% in the credit flow towards MSME sector during 2022-23. The share of ATL in total agriculture loan was only 37.31% during FY 2022-23. Hence, there is a need to further step-up Agriculture Term Lending which would boost capital formation in agricultural and allied sectors leveraging on government initiatives, including the Agriculture Infrastructure Fund (AIF) & AMI schemes. Banks have to step up their efforts to finance identified investment projects and

area-based investment activities, viz., dairy, poultry, Agro Processing, fisheries, Horticulture etc. as outlined in PLPs for 2024-25 for various districts.

3.12 Doubling of Farmers' Income

The Hon'ble Union Finance Minister, while presenting the budget for 2020-21 announced the 'One- District One Product' initiative 'for better marketing and export of horticulture crops' and to foster coordinated development for enhancement of income of farmers. In order to enhance mobility and access to market, special rail and flight services for transportation of farm produce will also be initiated. These initiatives are expected to contribute towards doubling of farmers' income. Adoption of situation specific integrated farming system covering an assortment of activities like crop production, horticulture, dairy, poultry, sheep, fishery and agro forestry, will lead to reduction in cost, doubling of farmer's income and capital formation in Agriculture.

Some of the institutional reforms taken by GoI in order to improve the farmers income status are Pradhan Mantri Krishi Sinchai Yojana, Soil Health card, Paramparagat Krishi Vikas Yojana, Pradhan Mantri Fasal Bhima Yojana, Operation greens, PM Kisan Sampada Yojana. Similarly technological reforms include e-NAM, technology mission on Cotton, Technology mission on Oilseeds, Pulses and Maize, Mission on Integrated Development of Horticulture, National Mission on Sustainable Agriculture etc. and Adoption of new technologies and practices, expansion of area under irrigation, comprehensive reforms, improvement in livestock management, promotion of small farm business etc. will help in doubling farmers' income.

3.13 Sustainable Agriculture Practices

Sustainable agriculture refers to the set of practices that aims to meet the present needs of farmers and consumers without compromising the ability of future generations to meet their own needs. Andhra Pradesh is a predominantly agrarian economy, with agriculture being a significant contributor to its GDP and employment. However, traditional agricultural practices have often led to environmental degradation, resource depletion, and socio-economic inequalities. By promoting environmentally friendly methods, maximizing resource efficiency, and ensuring economic viability, the state has embraced sustainable agriculture to improve food security, conserve natural resources, and support rural livelihoods.

Sustainable agriculture offers a much-needed alternative to conventional input-intensive agriculture, the long-term impacts of which include degrading top soil, declining groundwater levels and reduced biodiversity. It is vital to ensure India's nutrition security in a climate-constrained world.

Some of the major practices under Sustainable Agriculture Practices are as below:

1. Integrated Pest Management
2. Hydroponics and aquaponics
3. Polyculture farming
4. Permaculture
5. Crop rotation
6. Agroforestry
7. Organic farming & natural farming
8. Rainwater harvesting
9. Integrated Farming System

3.14 Agro Forestry

Agroforestry is a traditional practice where trees are grown on farms to benefit the farm family. It's a sustainable land-use system that boosts overall yields by combining annual food crops with perennial tree crops and/or livestock on the same land. This integration, whether in alternating cycles or simultaneously, is guided by practices tailored to the local community and the economic and ecological conditions of the area.

As per Indian State Forest Report, 2021, Andhra Pradesh state forest covers an area of 38060 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 8276.09 kms.

3.15 Watershed Development Initiatives the State – Banking Plan and Increase in Credit Flow

NABARD is implementing watershed development projects since the inception of the Indo-German Watershed Development Programme (IGWDP) in India during the 1990s. The participatory watershed development concept and methodology have proved to be a successful initiative in enhancing the productivity, production, and improving livelihood security of the rural community. In the watershed approach, the problems of rain-fed agriculture are scientifically addressed with a major focus on the conservation of natural resources, i.e., soil and water. Watershed development refers to the conservation, regeneration, and the judicious use of human and natural resources within a particular watershed.

In the State of Andhra Pradesh, NABARD is implementing watershed projects in ten districts. Cumulatively, 226 watershed projects has been sanctioned with total grant support of Rs.22,924 Lakhs and 1.39 lakh Ha area treated so far.

NABARD sanctioned three new watershed projects and one Non-watershed basis project in the Rayalaseema region and one JIVA pilot phase project in Prakasam district of Andhra Pradesh in 2022-23. Four projects are upgraded to Full Implementation Phase (FIP) from Capacity Building Phase (CBP) during the year 2022-23. NABARD is providing support for intensive soil and water conservation measures, promotion of dry-land horticulture, climate-proofing measures, and awareness generation among the farmers. These measures are expected to rejuvenate groundwater level, reduce soil erosion and runoff, and promote climate-resilient agriculture.

Box 2: A Star in the Milky Way



In Kakarlapalem village, Nellore district, Smt. K Ramanjamma's life transformed with a ₹30,000 soft loan from the NABARD-ITC Watershed programme. Purchasing a buffalo for ₹56,000, she now earns ₹7,950 monthly from milk sales, significantly improving her family's livelihood. The buffalo also contributes to sustainable farming, generating an additional income from farmyard manure. This success has not only allowed her to provide quality education to her children but has also positively impacted around 10 other landless families in the community.

3.16 Tribal Development

To provide sustainable livelihood to the tribal families in interior/ remote habitations, NABARD has been implementing tribal development projects popularly known as Maa Thota projects supported under Tribal Development Fund (TDF).

NABARD sanctioned 60 TDF projects in Andhra Pradesh, which spread over 38,112 acres benefitting around 40,349 tribal families. These projects will not only benefit tribal families by creating sustainable livelihood opportunities but also provide ecological benefits to the nearby regions by transforming barren lands into cultivable lands/ lush green fruit orchards. At present, there are 11 ongoing projects with a sanctioned grant of ₹3138.41 lakh

Box 3: NABARD's TDF Project: Farmer's Journey to Prosperity



Bharothu Nagaraju, a struggling farmer from Krishanaraopalem village, A.Konduru mandal, NTR District found hope in NABARD's TDF project. He planted mango and guava in his one-acre plot with proper irrigation and transformed his barren land into a high-yielding farm. Nagaraju is now a proud owner of mango/guava orchard generating ₹1 Lakh net income per year. His children are attending school in Vissannapeta. He dreams of clearing past debts, and envisions a bright future for his family, showcasing the impactful success of NABARD's intervention.



3.16 JIVA

JIVA – a program based on agro-ecology to address problems like Land degradation, Climate change, Loss of biodiversity, Poor productivity in Wadi project areas, Food and nutrition security concerns, Economic distress of farmers due to input intensive mono-cropping pattern and Declining net returns and to ensure long-term sustainability of watershed & TDF projects. JIVA envisions transforming about 200 ha arable area per watershed and 200-500 acre per Wadi project and envisages to create multiplier effect to cover the balance cultivated area in the project areas.

Currently 04 JIVA projects in pilot phase are being implemented in the state. An amount of ₹120 lakh is sanctioned for 4 JIVA projects, against which ₹59.86 lakh are already disbursed.

Box 4

"JIVA: Cultivating Joy and Prosperity in 'Maa Thota' – A Transformative Tale of Sustainable Farming."

Mrs. Puvvala Savitri, from Rayagada Jammu village, Gummalakshmiapuram Mandal, Vizianagaram district revitalized her 8-acre land with the NABARD-JIVA project. Previously cultivating paddy and millets using Natural Farming methods, she transformed "Maa Thota" into a 7-layer model. Embracing Natural farming practices, the family reaped the rewards of crop rotation, bio-pesticides, and jivamrutham, yielding a combined income of ₹93,060 per acre. The once ordinary orchard now stands as a thriving source of joy and prosperity.



3.17 Special Refinance Scheme for PACS as Multi-Service Centres

NABARD has formulated a Special Refinance Scheme for transformation of PACS as Multi-Service Centres at a concessional rate of interest. NABARD sanctioned a refinance of ₹701.04 crore in respect of 1293 PACS for establishing various agri-infrastructure facilities in convergence with Rythu Bharosa Kendra (RBK) scheme of GoAP.

The major activity sanctioned under the scheme is construction of Rural Godowns for creation of additional storage capacity of 7.66 Lakh MT at PACS level. Other activities sanctioned include drying yards, cold rooms, procurement centres, assaying units, horticulture collection centres, cleaners & de-stoners, paddy driers and threshers.

The Department of Agriculture Marketing, GoAP is the Nodal Agency for implementation of all the projects. While DCCBs would provide finance for the activities, the land is being identified and allocated by GoAP. A Tripartite MoU has been executed between Commissioner for Cooperation & Registrar of Cooperative Societies, Commissioner & Director of Agri., Marketing and Andhra Pradesh State Cooperative Bank Limited (APStCB). GoAP has provided guarantee and approved margin money.

While more than 1001 out of 1262 godowns sanctioned have been grounded and the construction work is in progress, identification and allocation of sites for remaining godowns is being done by the Agri. Marketing Dept.

Refinance of ₹159.25 crore has been released to APStCB in respect of 758 PACS.

Apart from the sanction in convergence with RBK Scheme of GoAP, NABARD has sanctioned refinance assistance of ₹27.52 crore to APStCB in respect of 62 PACS for various activities like Petrol Bunk, RO Water Plant, Goodowns, consumer stores, farmers,

community hall, weigh bridge, shopping complex, cold storage, fertilizer sale point, etc. Against this sanction, refinance of ₹11.77 crore has been released to APStCB.

Out of the projects sanctioned by NABARD under the Scheme, the post harvest management projects are eligible for 3% p.a. interest subvention for max. 7 years on loan amount up to ₹2.00 crore under Agri Infrastructure Fund (AIF) of GoI. Under AIF, Credit guarantee coverage will also be available for eligible borrowers under Credit Guarantee Fund Trust for Micro and Small Enterprises (CGTMSE) scheme for a loan up to ₹2 crore. These projects will also be eligible for availing benefits of other Schemes like subsidy under New AMI subject to fulfillment of the eligibility criterion of the Schemes.

3.18 Off Farm Development Department

NABARD has been working on development of the rural Off-Farm Sector and making constant efforts to broaden and refine them in response to field level needs. The focus has been on greater institutional credit flow to the unreached sections, provision of market linkages for small, cottage and village industries including handloom, handicrafts and other rural crafts and services, developing entrepreneurial culture among rural populace and promotion of rural innovations.

NABARD has been supporting the formation and nurturing of Off Farm Producer Organisations (OFPOs) since 2016. Most of the OFPOs have come-up in the traditional MSME clusters. They help in preserving the rich heritage of the country through their crafts. The OFPOs proved to be an important tool to aggregate the artisans, weavers and other rural producers living in small clusters for coming together for improving their produce, expand their market reach and improve their income levels. OFPOs can play a major role in providing gainful, productive, sustainable, and inclusive employment opportunities to large rural populace. In Andhra Pradesh, NABARD is promoting 03 OFPOs, out of which 02 OFPOs are in handloom clusters and 01 OFPO in wood carving cluster. A grant support of ₹73.95 lakh has been sanctioned to these OFPOs, against which an amount of ₹57.09 lakh has been disbursed so far.

Skill India Scheme

Development of skills as per industrial requirement is required to provide employment to local people in industries. Central and State Governments are implementing programmes to identify skill requirement and train people in required skills. The State Government proposed to establish Skill University & 25 World class multi-skill centres in 25 Parliamentary constituencies as YSR Multi Skill Development Centres (MSDC) in two phases. The aim of the University and centres is to design courses as per demand and ensure 75% placements. The Skill University gives technical input, certification and prepare curriculum. MSDCs impart training and show employment to trained candidates. The department is conducting Industry Skill Gap analysis to identify skills: required by Industries, availability of manpower as required by industries and procedures for imparting training in required skills which is useful in providing employment to local people.

3.18.1 NABARD Skill Development Programmes

NABARD supports Skill Development Programmes (SDPs) for facilitating the generation of wage employment and self-employment opportunities for the rural women and youth. To take forward the skill initiatives in a structured way, NABARD has partnered with

corporates under their CSR activity, NGOs, NSDC affiliated training institutes, government agencies in addition to Rural Development and Self-Employment Training Institutes (RUDSETIs/RSETIs). Skill initiatives of NABARD are gender agnostic but are sensitive to address the unique skilling needs of the economically disadvantaged and socially backward sections of society. Reskilling, upskilling and multi-skilling are focus areas for skill development.

During FY 2022-23, Andhra Pradesh RO had sanctioned 14 SDPs to various agencies for imparting the skills like MS Office, AC Technicians, Handlooms, Mechanics, etc. for rural youth, women, and vulnerable sections. The grant support extended towards these projects amounted to ₹82.60 lakh and a settlement rate of more than 60% was achieved for all the sanctioned projects.

Marketing support:

Producers in rural India face numerous multifaceted problems of which marketing is perhaps the most important and difficult to address. Realizing the importance of effective marketing infrastructure for both farm and non-farm sector, NABARD has been extending support for setting up Rural Haats, Rural Marts and enabling artisans and craftsmen to reach the customers through participation in exhibitions and melas.

NABARD is also extending support to the SHGs, JLGs, Producer Organisations, Micro-enterprises in the state to enable them on boarding their products on ONDC and other e-commerce sites. Similarly, for physical marketing of their products, NABARD is providing assistance to SHGs and JLGs to hold exhibitions and sales outlet at various platforms. NABARD is supporting artisans to attract prospective customers and popularise and market their product in big Malls through “Stall in Mall” initiative. Artisans/ FPOs/ SHGs from almost all the districts of the State participated in the Stall in Mall initiative on rotational basis, covering more than 136 artisans/SHG members. The exhibitions have been conducted in CMR Central-Visakhapatnam, CMR Central- Gajuwaka, Visakhapatnam and PVP Mall Vijayawada. This initiative facilitated members of SHGs, OFPOs, FPOs, artisans, etc. and recorded a sale of more than ₹152.00 lakhs.

3.19 Potential for Cultivation of Millets in the State

Millets, renowned for their high nutritional value and minimal resource requirements, are rich in protein, fiber, minerals, iron, and calcium, boasting a low glycemic index. India, a major millet producer, contributes 80% to Asia's and 20% to global production. NABARD recognizes the developmental potential in embracing millets, aligning with sustainable agriculture, food security, and climate resilience goals.

Table 3.5 Area and production of millet crops in Andhra Pradesh

S No	Crops	Total area covered in 2022-23 (ha)	Production in lakhs (MTs)
1	Jowar (Sorghum)	66725	2.33
2	Bajra (Pearl millet)	23908	0.59
3	Ragi (Finger millet)	26253	0.31

S No	Crops	Total area covered in 2022-23 (ha)	Production in lakhs (MTs)
4	Korra (Foftail millet)	7461	0.08
5	Sama (Little millet)	2745	0.02
6	Variga (Proso millet)	282	0.002
7	Other Millets	37	0.0003
	Total	1,27,411	3.33
(Source: Department of Agriculture, Government of Andhra Pradesh)			

"Celebrating Millets: NABARD's Sustained Efforts for Awareness, Collaboration, and Empowerment in Andhra Pradesh."

NABARD has promoted 22 Millet-based FPOs, facilitated exposure visits for 275 farmers, supported IIMR in sorghum cultivation, and provided skills development training to 1440 SHG women beneficiaries, all contributing to the promotion of millets in Andhra Pradesh.

NABARD's Andhra Pradesh Regional Office took proactive steps to raise awareness about millets and showcase collaborative efforts in promoting the millet ecosystem. Organized Walkathon creating Millet Awareness, millet-based product exhibition, and a Millet Value Chain RAG meeting in Hyderabad,

3.20 Scope for Promotion of Organic Farming

The Government of Andhra Pradesh (GoAP) has embraced farming practices aligned with nature, rooted in ecological science rather than input economics. This shift focuses on enhancing ecological conditions at every site, demonstrating that Natural Farming diminishes reliance on synthetic inputs. Natural Farming's positive influence extends to farmers' livelihoods, fostering the careers of young individuals in agriculture, bolstering citizens' food and nutrition security, contributing to environmental restoration, and mitigating the impacts of climate change, among other benefits.

3.20.1 Bhartiya Prakritik Krishi Paddhati (BPKP): Introduced during the 2020-21 period as a subsidiary initiative of the Paramparagat Krishi Vikas Yojana (PKVY), the Bhartiya Prakritik Krishi Paddhati (BPKP) aims to foster traditional indigenous agricultural practices, particularly Natural Farming. This program offers financial aid amounting to ₹12,200 per hectare over a three-year duration. The funds are allocated for activities such as cluster formation, capacity building, and sustained guidance by trained personnel, certification processes, and residue analysis. By supporting these components, BPKP endeavours to promote and strengthen environmentally friendly and sustainable farming practices across the agricultural landscape.

3.20.2 AP Community managed Natural Farming (APCNF)

The Government of Andhra Pradesh's rural development department initiated a program named AP Community-Managed Sustainable Agriculture, which was implemented from 2004 to 2014. This state wide initiative was carried out through women Self-Help Groups (SHGs). The APCNF programme has been recognized as the world's largest agroecology programme in terms of the number of farmers enrolled. This initiative has led to scaling up of Natural Farming in the State. The number of farmers who practice Natural Farming has

gone up from 40,000 in 2016 to around 7,50,000 farmers and farm workers in 2020-21—an increase of 17 times in the last 4 years

3.21 Promotion of Digital Technological Innovations in Agriculture in the State

GoI has taken the following initiatives /steps to enable the digitalisation of the agricultural sector in the country:

- a) IDEA (India Digital Ecosystem of Agriculture): It is a framework, which would lay down the architecture for the federated farmers' database being built by taking the publicly available data as existing in various schemes and linking them with the digitized land records. The IDEA would serve as a foundation to build innovative agri-focused solutions leveraging emerging technologies to contribute effectively to create a better Ecosystem for Agriculture in India.
- b) National e-Governance Plan in Agriculture (NeGP-A): Funds are released to the State(s)/UT(s) for a project involving the use of modern technologies viz., Artificial Intelligence (AI), Machine Learning (ML), Robotics, Drones, Data Analytics, Block Chain etc.
- c) National Agriculture Market (e-NAM): It creates an online transparent competitive bidding system to facilitate farmers with remunerative prices for their produce. As of January 18, 2023, 1389 Mandis from 23 states and 04 UTs have been integrated on e-NAM. A total of 57 Mandis from Andhra Pradesh have been integrated on eNAM. 216 FPOs and 14,51,940 farmers from Andhra Pradesh have been registered on eNAM.
- d) To make provisions of subsidy for farm machinery more transparent, the Government has developed Centralized Farm Machinery Performance Testing Portal and FARMS Mobile App.

3.22 Fintech Companies and NBFCs/MFIs in the State

The microfinance sector has shown remarkable resilience, overcoming challenges and sustaining growth. Despite the disruptions caused by the unprecedented Covid-19 pandemic, the sector rebounded, with credit to poor households reaching ₹1,35,099 crore, marking a 19% growth. As of March 31, 2022, the combined micro-credit portfolio of 272 lenders stands at ₹2,63,760 crore, serving 11 crore active loans. The sector's potential for further expansion, including diverse providers like Banks, SFBs, NBFCs, remains evident.

03 Small Finance Banks - Equitas Small Finance Bank Ltd, Fincare Small Finance Bank and ESAF bank and 10 MFIs - Asirvad, Avanti, Belstar, IIFL Samasta, Magalir, NABFINS, RASS, Satya, SIF, Spandana are operating in the state.

3.23 Initiatives of the Government of Andhra Pradesh

- a) RBKs: The GoAP has established 10778 Dr. YSR RBKs which are functioning as integrated agriculture input shops and farmer knowledge centres. They act as one stop centres, right from the supply of pretested quality agriculture inputs to the procurement of farm produce at village level. About 7 lakh quintals of certified and subsidised crop seeds worth of ₹187 crore were distributed to about 12 lakh farmers during 2022-23. The beneficial impact of RBKs has been praised by the Food and Agriculture Organisation of the United Nations, NITI Aayog as well as the RBI. An amount of ₹40.46 crore has been allocated for construction of 7,578 RBKs during the year 2023-24.

- b) The following facilities are available at the RBKs:
- Agri-Input Shop: Supply certified inputs like seeds, fertilizers, pesticides, implements, feed, and feed additives for livestock. Farmers can order the inputs through a kiosk made available at RBKs.
 - Farmer Knowledge Centre: Knowledge dissemination to facilitate crucial decisions by the farmers.
 - Custom Hiring Centre: GoAP is in the process of making the RBKs hub for agriculture machinery, drones, and machine add-ons to cater to the dual goal of bringing in affordability of services and improving productivity by utilising technology for the large section of farmers who are small and marginal.
 - Banking Services: The GoAP has partnered with the banking fraternity to provide banking facilities in the RBKs by allowing them to establish ATMs and engage the services of Banking Correspondents at the RBKs. It is also planning to include insurance services under PMFBY.
- c) Webland: The Webland system serves as a backbone of the government's Mee Bhoomi mission for accessing land records through an online portal. The Webland system enables the Revenue Department to verify details pertaining to the original property documents submitted during property registrations, to curtail forgeries or fake transactions. Banks in the state now have access to online revenue records. They can verify the accuracy of the land records before sanctioning loans to the farmers.
- d) e-Crop booking: GoAP has introduced e-crop booking (Real Time booking of all crops) during 2021-22 for creation of digital register for agriculture/ horticulture/ sericulture.
- e) Continuous Monitoring of Agriculture Price and Procurement (CM APP): An end-to-end software solution covering the entire procurement process, with an online dashboard and MIS monitoring system with real-time data.
- f) MarkRay: Markfed's e-Auction Platform for liquidation of the produce.
- g) Dr. YSR Polambadi – Farmer Field schools: They were set up for empowering the farmers in Integrated Crop Management techniques to achieve reduction in cost of cultivation, increase in crop yields and adoption of eco-friendly organic farming. In 2021-22, about 16,123 Polambadi sessions were organised. As per budget 2023-24, 17,000 Polambadi sessions will be organized during current FY.
- h) Agriculture Marketing & Price Stabilisation Fund: The government had established the 'e Farmarket', a digital marketing platform to connect the farmers of AP with traders in the country. More than 4,000 farmers and 2,000 traders have benefitted through this application so far. Similarly, Price Stabilisation Fund of ₹3,000 crore was established for protecting the farmers from selling their crops below the MSP.
- i) Dr. YSR Agri Testing Labs: The GoAP launched Dr. YSR Agri Testing labs on 08 July 2021 for quality testing of agricultural inputs. An amount of ₹36.39 crore has been allocated for Dr. YSR Agri Testing labs for the year 2023-24.

3.24 State specific relevant Issue / sector

1 Banks to take up SHG and JLG financing as a corporate agenda and closely monitor its implementation at various levels.

2. Much needed focus to be given on converting the SHGs/ JLGs into agripreneurs/ entrepreneurs thereby increasing their income level. In districts where MEDP/ LEDP projects are being implemented, banks may consider credit deepening for up scaling the existing interventions.

3. The large number of tenant/ landless farmers or oral lessees and inadequate institutional credit availability hampers productivity levels. Banks need to explore the Joint Liability Group (JLGs) mode of financing to tenant farmers. The state can frame a policy to allow the tenant/landless farmers or oral lessees to become eligible for institutional finance by covering all tenants under CCRC cards and improve access to Institutional Finance.

4. The quantum of post-harvest losses due to inefficient storage or supply chain management in the State is a concern. Such huge losses are attributed to lack of scientific storage facilities and improper transportation, poor front-end infrastructure, like inadequate warehousing facilities, redundant food processing technology, and inaccessibility to value-added services.

5. Mechanization of most of the agricultural operations through custom hiring of high capacity equipment is required so that marginal, small and medium categories of farmers can also take the advantage of mechanization.

6. Promote investments in green hydrogen/ammonia production facilities and green hydrogen-based products manufacturing units.

7. As per the operational guidelines of Animal Husbandry Infrastructure Development Fund (AHIDF) scheme the scheduled banks may provide financial assistance to individuals/ FPOs for establishment of infrastructure for dairy processing and value addition infrastructure and establishment of animal feed plant in the private sector.

Crop Production, Maintenance and Marketing

4.1.1.1 Introduction

Agriculture is the foundation of India's livelihood, civilization, culture and heritage. Indian agriculture, one of the world's oldest systems, is diverse, heterogeneous, unorganized and frequently subject to vagaries at various stages “from seed to market”. It is a critical sector of the economy for the country's long-term and inclusive economic growth. The sector employs 45.76% of the workforce (*source: Periodic Labour Force Survey (PLFS) conducted by the National Sample Survey Office (NSSO)*), which is often seasonal, under-employed and underpaid, and accounts for GVA of 18.3% of India's economy with a growth rate of 3.3% (*source: Second Advance Estimates of National Income, 2022-23 released by Ministry of Statistics & Programme Implementation (MoSPI)*).

Andhra Pradesh State, popularly known as the “rice bowl of India” has huge potential to develop agriculture and allied sectors. Plays an important role in the livelihood of people as 70.53% of the population in Andhra Pradesh (*source: 2011 Census*) live in rural areas and depend on agriculture and related livelihood opportunities. Contributing 36.19% share in state GVA at current prices with a growth rate of 13.18% at current prices and of 4.54% at constant prices (*source: Socio-Economic Survey of Andhra Pradesh 2022-23*), agriculture and allied sector plays an important role not only in the economy but also for achieving the food security.

However, over the years, new challenges have emerged before the sector, viz., fragmentation of agricultural holdings, excessive use of chemical inputs, depletion of water resources and decline in productivity, making farming non-viable. Adoption of a resource-efficient, ICT based climate-smart agriculture, integrated farming system and usage of advanced farm mechanization technologies like usage of drones can enhance agricultural productivity and sustainability. Further, greater emphasis should be given to allied sectors with focus on dairy, poultry, fisheries and rearing of small ruminants to transform the rural economy.

Rice is the major food crop and staple food of people in the state. Other important crops grown are Cotton, Groundnut, Maize, Sugarcane, Pulses, Sunflower, Tobacco, etc. Agriculture sector was the least impacted by the pandemic related disruptions. It has registered a growth rate of 4.54% in 2022-23 (AE) at Constant (2011-12) prices.

Table 4.1: Area Irrigated, Gross Cropped Area and Cropping Intensity for Last 3 Years

Particulars	2019-20	2020-21	2021-22
Gross irrigated area (in lakh ha)	38.13	39.85	38.44
Net irrigated area (in lakh ha)	28.78	29.36	29.52
Net Sown area (in lakh ha)	60.49	60.88	60.38
Cropping intensity	124%	125%	125%

(Source: SECC 2022-23, GoAP)

Table 4.2: Area, Production and Productivity of Major Crops during Last 02 Years

Crop	2021-22		2022-23*		Avg. Yield [kg/ha]
	Area ('000 ha)	Prod. (MT)	Area ('000 ha)	Prod. (MT)	
Paddy	2412	12176	2250	13365	5940
Maize	342	1897	326	2056	6307
Jowar	76	259	118	257	2178
Pulses	1228	1054	1119	1148	1026
Groundnut	825	516	590	569	964
Total Food grains	4134	15485	3959	16930	4276
Total Oil seeds	1002	2770	786	2456	3125

(Source: Socio Economic Survey of Andhra Pradesh 2022-23

* 2nd advance estimates)

4.1.1.2. Major Government Schemes/ Interventions

- **‘Ghar Ghar KCC Abhiyan’- KCC Saturation Drive**

The Department of Agriculture and Farmer Welfare (DA&FW), MoA&FW, Gol implemented ‘Ghar Ghar KCC Abhiyan’ between 01.10.2023 to 31.12.2023 to cover all left-over PM Kisan Beneficiary farmers (1.35 crore approximately) with Short Term Agriculture Loans through KCC.

A total of 6090 awareness camps were conducted by the banks in Andhra Pradesh. More than 1.37 lakh farmers in the state of Andhra Pradesh have been issued with KCC during the Abhiyan (source: SLBC).

- **PM-JANMAN**

Hon’ble Prime Minister launched PM-JANMAN Yojana focusing on 11 critical interventions through 9 line Ministries to improve the socio economic conditions of 75 identified Particularly Vulnerable Tribal Groups (PVTG) to whom the benefits of various schemes have not yet reached out.

The scheme aims to saturate Particularly Vulnerable Tribal Groups (PVTG) households and habitations with basic facilities such as safe housing, clean drinking water and sanitation, improved access to education, health and nutrition, road and telecom connectivity, and sustainable Livelihood opportunities. It also aims to saturate them with other schemes including the Kisan Credit Card.

Around 22,000 PVTGs majority tribal habitations and PVTG families in 200 districts across the country are being covered in the campaign. The campaign initially started in 100 districts (8 districts from Andhra Pradesh viz. ASR, Eluru, Kurnool, Manyam, Nandyal, Prakasam, Srikakulam, Vizianagaram) covering approximately 500 blocks and 15,000 PVTG habitations across 18 states and the UT of Andaman and Nicobar Islands.

The remaining districts will be covered in Phase II.

A total of 3656 PVTG habitations exist with a population of about 4.6 lakh in the identified 8 districts of Andhra Pradesh.

- **GoI Scheme of Subvention of Interest on Crop Loans:** Government of India has announced continuation Modified Interest subvention scheme of 1.5% Interest Subvention on Crop Loans during FY 2023-24. Farmers also will continue to get 3.0% interest incentive for prompt repayment of crop loans during FY 2023-24.
- **GoI Interest Subvention for First Year on Crop Loans converted due to Natural Calamities:** To provide relief to farmers affected by natural calamities, the interest subvention of 1.5% will continue to be available to Banks till FY 2023-24 for the first year on the restructured amount. Such restructured loans may attract normal rate of interest from the second year onwards as per the policy laid down by the RBI.
- **Financing under Negotiable Warehouse Receipts (NWRs):** In order to discourage distress sale and to facilitate better price realization, Government of India is continuing to provide 1.5% interest subvention to all public sector Commercial Banks, Regional Rural Banks and Cooperative Banks till FY2023-24 for financing post-harvest loans against NWRs to small and marginal farmers (having KCC) at 7% p.a. rate of interest. Such loans are available up to ₹3.00 lakh for a period of six months. Refinance from NABARD is available to Cooperative Banks and Regional Rural Banks at interest rate of 4.5% p.a.
- **ST Refinance Scheme for financing working capital for allied activities & NFS:** As a part of achieving doubling of farmer's income, adequate institutional credit flow for meeting working capital needs for allied activities like dairy, poultry, bee-keeping and fisheries, and also for MSME in manufacturing & service sector, bonafide commercial trade transactions and social infrastructure projects is being emphasized by GoI and State Government. To ensure adequate credit support for these activities, 90% refinance support from NABARD is available for Cooperative Banks and Regional Rural Banks.
- **GoAP is implementing National Missions such as:**
 - National Mission for Sustainable Agriculture including Micro Irrigation (NMSA)
 - National Food Security Mission (NFSM)
 - National Mission on Agriculture Extension Technology (NMAET)
 - National e-Governance Plan in Agriculture (NeGP-A)
 - National Mission on Oilseeds and Oil Palm (NMOOP)
 - Mission for Integrated Development of Horticulture (MIDH)
- **Refinance support from NABARD for Seasonal Agricultural Operation**
- NABARD is continuing its normal short-term refinance support @ 4.5% rate of interest per annum to Cooperative Banks and Regional Rural Banks during 2023-24 to enable them to finance crop loans @ 7% rate of interest per annum to farmers. NABARD is also providing refinance support @ 4.5% to Public Sector Commercial Banks for financing crop loans through Primary Agricultural Societies (PACS) ceded to them.

- Taking into account the financial crunch being faced by some of the RRBs and Cooperative Banks, NABARD has launched a separate line of refinance called “Additional Short Term (SAO) Refinance” for financing crop loans by them, effective from 2016-17. The line of refinance is being continued in 2023-24 also. Under this line of credit, additional refinance support to the extent of 60% of ground level credit (GLC) will be provided to Cooperative Banks in addition to 40% of GLC support under normal ST-SAO. For RRBs, 50% of crop loans will be available as additional refinance support under this line of credit in addition to 20% of GLC support under ST-SAO. The amount of refinance support availed under this Additional ST (SAO) will be reckoned towards own funds of bank for the purpose of claiming interest subvention from GoI.
- **Agriculture Marketing**
 - Agriculture 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. Effective marketing infrastructure is essential for cost effective marketing to minimize post-harvest losses.
 - The State has 191 Agricultural Market Committees managing 324 market yards including sub-yards, which consists of 19 members viz., 12 members from growers, 3 from traders and the other four from representatives of local bodies and Government departments.
 - National Agriculture Market (e-NAM): It creates an online transparent competitive bidding system to facilitate farmers with remunerative prices for their produce. As of January 18, 2023, 1389 Mandis from 23 states and 04 UTs have been integrated on e-NAM. A total of 57 Mandis from Andhra Pradesh have been integrated on eNAM. 216 FPOs and 14,51,940 farmers from Andhra Pradesh have been registered on eNAM. Major traded commodities in e-NAM markets are Dry Chillies, Cotton, Turmeric, Lemon, Tomato, Jaggery, Castor seed, Ajwain and Fruits & Vegetables.
- **Agriculture Storage**
 - Scientific storage can provide farmers with an opportunity to stagger the sale of their produce and avoid distress sales to realise better prices. Farmers can also obtain post production credit pending sale of their produce against negotiable warehouse receipts. There are 1052 godowns with capacity to store 9,65,492 MTs in the state, of which 612 godowns with a storage capacity of 539425 MTs are being utilized.
 - The AMI scheme, a sub-scheme of ISAM is extended up to 31 March 2026 by Government of India. Under the Scheme, subsidy @25%/33.33% of the TFO is available for construction of agriculture marketing infrastructure including rural godowns and cold rooms. In order to improve agriculture infrastructure, financing facility for investment in viable projects for post-harvest management infrastructure and community farming assets through incentives and financial support is available under Agriculture Infrastructure Fund. The AIF scheme is operational from 2020-21 to 2032-33. Under the Scheme, Interest Subvention of 3% for Loans up to limit of ₹2 crore is available for a period of 7 years. Further, Credit Guarantee coverage will be available for eligible borrowers under Credit Guarantee Fund Trust for Micro and Small Enterprises (CGTMSE) Scheme for loan up to ₹2 crore.
 - NABARD sanctioned a refinance of ₹701.04 crore in respect of 1293 PACS for establishing various Agri-infrastructure facilities in convergence with Rythu Bharosa Kendra (RBK) scheme of GoAP.

- The major activity sanctioned under the scheme is construction of Rural Godowns for creation of additional storage capacity of 7.66 Lakh MT at PACS level. Other activities sanctioned include drying yards, cold rooms, procurement centers, assaying units, horticulture collection centers, cleaners & de-stoners, paddy driers and threshers.

Suggested Action Points

Banks:

- Increasing Individual Maximum Borrowing Power (IMBP) by Cooperative banks to ensure adequate credit support to the farmers with due regard to the Scale of Finance.
- Financing Post-Harvest Loans by banks to SF/MF.
- Banks to disburse at least 10% of their total crop loans to tenant farmers/sharecroppers/oral lessees.

Government:

- To treat agriculture as a 'Business' and come out with policies in this regard.
- Mitigating the impact of drought through completion of planned irrigation projects, micro irrigation, water conservation and rejuvenation of existing irrigation structures - desilting of tanks, etc.
- Adequate arrangements for making available the certified seeds of recommended crops and other extension services.
- Promotion of inter cropping, poly cropping and mixed cropping.
- Encouraging Organic farming / Zero budget natural farming.
- Contingency crop planning for mitigating the risk on account of natural calamity.
- Quickening the process of issue/renewal of Crop Cultivators Right Cards (CCRC) to tenant farmers.
- Ensuring coverage of all farmers under PMFBY and reducing time lag in settlement of crop insurance claims.
- Usage of ICT in agriculture (Identification of pest and disease Attack through Drones) and adoption of climate resilient agriculture.

The potential for credit support for Crop Production, Maintenance and Marketing for the year 2024-25 has been assessed at ₹136102.62 crore. The potential has been estimated for major crops viz. Paddy, Maize, Jowar, Ragi, Pulses, oilseeds like Groundnut, and vegetables among other crop produce.

4.1.2. Water Resources

4.1.2.1 Introduction:

Water is the 'elixir of life'. Water availability is a key and also a limiting factor influencing the production and productivity in agriculture sector. It is essential to provide timely irrigation for effective utilisation of agriculture land. Judicious utilisation of water resources through appropriate conservation and management measures ensures critical importance in sustaining agriculture.

There are major, medium and minor rivers in Andhra Pradesh of which Godavari, Krishna, Pennar, Vamsadhara and Nagavali are prominent rivers in peninsular India.

4.1.2.2. Important physical characteristics of Andhra Pradesh

The climate of Andhra Pradesh is typical of India's semi-arid tropics, characterized by a rainy Southwest monsoon during June to October and a short spell of winter and the Northeast monsoon characterized by intense spells of rainfall due to cyclones. The cyclonic spells that generally occur during NE monsoons bring heavy downpours and often leave a trail of destruction. State average rainfall, as on 17th November 2023 is 544.9 mm against a normal rainfall of 821.7mm i.e., with a deviation of -33.7%. (Source: <http://www.apsdps.ap.gov.in/Reports/Rainfallbuliten.jsp>)

Table 4.3 District wise rainfall status of Andhra Pradesh

S No.	Status	Districts
1	Normal	Vizianagaram, Parvathipuram Manyam, Alluri Sitharama Raju, Krishna, Guntur, Chittoor
2	Deficient	Srikakulam, Visakhapatnam, Anakapalli, Kakinada, Konaseema, East Godavari, West Godavari, Eluru, NTR, Bapatla, Palnadu, Prakasam, Kurnool, Nandyal, Ananthapuramu, Sri Satya Sai, YSR, Annamayya, Tirupati
3	Large deficient	Nellore

Surface Water Resources of Andhra Pradesh

Andhra Pradesh is a riverine state with 40 major, medium and minor rivers, of which 15 of them are inter-state rivers. Andhra Pradesh is blessed with major rivers such as Godavari, Krishna, Vamsadhara, Pennar and Tungabhadra. However, it is the lowest riparian state even for these major rivers. Roughly 6 percent of the land area in the state is occupied by water bodies. In terms of hydrology, the state is divided into the 40 river basins. (Courtesy: <http://www.aphrdi.ap.gov.in.pdf>)

The total surface water availability at 75 percent dependability for all river basins is 56.37 BCM (1991 TMC), including flood waters, out of which the major contributors are 24.35 BCM (860 TMC) from Godavari, 15.06 BCM (532 TMC) + 4.26 BCM (150.5TMC) (flood/surplus water) from Krishna and 2.76 BCM (97.6 TMC) from Pennar; accounting for 82 percent of the total surface water availability. A robust infrastructure and sustainable measures can counter the impacts of unreliable and inequitable rainfall distribution and mitigate the effect of natural calamities such as droughts and floods.

Groundwater Status of Development in Andhra Pradesh:

There are 736 groundwater basins in Andhra Pradesh, of which 614 basins across 576 mandals fall under the "safe" category. The remaining basins are categorized as Over Exploited (groundwater development is >100 of recharge), Critical (GW development is 90 to 100 of recharge) and Semi-Critical (GW development is 70% to 90% of recharge). (Source: <https://irrigationap.cgg.gov.in/wrd/groundwater>)

Table 4.4 Category wise Mandals and Watersheds

Category	Watersheds (No.)	Mandals (No.)
Over Exploited	11	06
Critical	05	05
Semi-critical	30	19
Safe	702	640
Total	748	670
Overexploited villages notified under APWALTA; 146 villages (as per GEC 2021-22) Source: Ground Water Department		

Minor Irrigation Projects in the State

Minor Irrigation deals with investigation and execution of Minor Irrigation Sources of ayacut up to 5000 Ac. Minor Irrigation is providing irrigation facilities to increase the agriculture production by means of creating new ayacut, stabilizing the existing ayacut of 25.60 lakh acres beside maintenance of these sources and also provides drinking water to villages during summer season.

In Minor Irrigation wing of Irrigation Department of Andhra Pradesh, there are nearly 6361 Nos of M.I tanks (ayacut > 40 Ha) including other sources such as anicuts and open head channels to serve the registered ayacut of 17.59 Lakh Acres. In addition to this the erstwhile Panchayath Raj tanks 35,376 Nos (Ayacut < 40 Ha) having registered ayacut 8.01 Lakh Acres were transferred to Irrigation Department from Panchayath Raj Department in 2005. As such the Minor Irrigation Department has to maintain all the above tanks of 41,737 Nos with a total registered ayacut of 25.60 Lakh Acres. Thus, Minor Irrigation happens to be a major source of Irrigation in significant areas of the State.

(<https://irrigationap.cgg.gov.in/wrd/minorirrigation>)

Lift Irrigation:

Andhra Pradesh State Irrigation Development Corporation (APSIDC) was established in 1974 as a State Government undertaking for implementation of Lift Irrigation Schemes to provide irrigation facility to upland areas of small and marginal farmers and other weaker sections of the society with the funds provided by Government under various programmes either directly or through District administration and handing over the same to beneficiaries/agencies for operation and maintenance.

- All Lift Irrigation Schemes up to 2,500 ha to be with APSIDC
- Free power supply to all L I Schemes
- 16 hours HT supply to L I Schemes with dedicated power lines
- Revival of defunct L I Schemes
- Social Engineering implementation for improved participation of farmers.

4.1.2.3 Policy Initiatives of Govt. of India

Pradhan Mantri Krishi Sinchai Yojana (PMKSY)

With view to address the water scarcity situations and ensuring more equitable use of water, the Govt. of India launched Pradhan Mantri Krishi Sinchayee Yojana (PMKSY) during 2015-16, which envisage the concept of “water for every farm” and “more crop per drop” to

which, NABARD is a key stakeholder. The main objectives of the scheme are to achieve convergence of investments in irrigation at the field level, enhance the physical access of water on the farm and expand cultivable area under assured irrigation for providing 'Har Khet Ko Pani'. Under this initiative, it is targeted to enhance irrigation efficiency by about 20% and creating 28.5 million ha additional area under irrigation in the country. The total budget allocated for implementing various components under PMKSY is Rs. 50,000 crore over four year's period (2015-16 to 2019-20). The major components include fast tracking completion of 99 incomplete major and medium irrigation projects, greater use of micro irrigation systems, ensuring water in every farm and improving soil & water management practices on watershed approach for enhancing livelihood security. The funds are being utilized in the State of Andhra Pradesh also for various envisaged purposes, including for watershed management and micro irrigation projects.

Department of Agriculture Cooperation & Farmers' Welfare is implementing 'Per Drop More Crop' component of Pradhan Mantri Krishi Sinchayee Yojana (PMKSY- PDMC). The PMKSY- PDMC focuses on enhancing water use efficiency at farm level through Micro Irrigation technologies viz. Drip and Sprinkler irrigation systems. Micro Irrigation Fund corpus of Rs. 5000 crore has been created with NABARD. The objective of the fund is to facilitate the states in mobilizing the resources for expanding coverage of Micro Irrigation by taking up special and innovative projects and also for incentivising micro irrigation beyond the provisions available under PMKSY-PDMC to encourage farmers to install micro irrigation systems. So far, Micro Irrigation Funds of ₹616.14 crore have been released to the state through NABARD. During the last five years (2015-16 to 2019-20), an area of 46.96 lakh ha has been covered under Micro Irrigation through PMKSY-PDMC in the country.

National Water Mission

Under the National Action Plan for Climate Change (NAPCC), the Govt. of India envisaged National Water Mission with the core objective of "conservation of water, minimizing wastages and ensuring its more equitable distribution both across and within states through integrated water resources development and management". The Mission outlines the following five goals across which major initiatives have been envisioned as well as aligned from ongoing schemes pertaining to development and management of water resources in the country.

- Comprehensive water data base in public domain and assessment of impact of climate change on water resources
- Promotion of citizen and state action for water conservation, augmentation and preservation
- Focused attention to vulnerable areas including overexploited areas
- Increasing water use efficiency by 20%
- Promotion of basin level integrated water resources management

The above serve as guiding principles for the planning of water resources in the State.

4.1.2.4 Initiatives of the Govt. of AP

Government of AP is implementing a large number of irrigation projects under state funding as well as through other funding supports viz PMKSY, NABARD, World Bank, JICA, MGNREGS, RKVY, etc. Focusing on irrigation has been one of the key components of the growth strategy of the Govt. Top priority is being given for the completion of prioritized irrigation projects and bridging of gap ayacut. The Government has taken up Major and medium irrigation projects besides modernization of delta systems and flood banks to create new irrigation potential and stabilization of the ayacut in Irrigation sector. The Govt. has also undertaken Bridging the gap ayacut in Minor Irrigation systems through RRR and NREGS funds as well as Creation of new ayacut and stabilization of ayacut under

APSIDC. The District Irrigation Plans (DIP) and State Irrigation Plan (SIP) under the PMKSY are providing a comprehensive convergence framework for irrigation projects in the districts. The Govt. is committed to completing the mega Polavaram project on the Godavari in a fixed time frame.

Schemes & Strategies for Water Resources Development in the State:

1 Jala Siri-II Project (implementation of Conjunctive use)

In the state of Andhra Pradesh, implementing conjunctive use of groundwater and surface water in true spirit in a big way. The objective of the Jalasiri II programme is to utilize the dynamically rechargeable groundwater resources in command areas, non-command areas of North Coastal districts [high rainfall areas] where the groundwater development is under “SAFE” category and to create an additional ayacut of about 6.0 lakh acres in the State through 1.24 lakh bore wells. So far, the department has conducted feasibility surveys for the selection of bore well sites in 73,208 sites and recommended 18,320 sites for construction of bore wells. The Rural Development Department is executing the drilling of bore wells and energisation etc.

This project is covered under Andhra Pradesh state Panchayat raj and rural development department <http://apsird.gov.in>

2. PMKSY Schemes in Andhra Pradesh:

- The schemes under PMKSY are Accelerated Irrigation Benefits Programme (AIBP), Repair, Renovation & Restoration (RRR) and Commans Area Development & Water Management (CADWM)
- Under AIBP, multipurpose irrigation projects like Gundlakamma, Tadipudi LIS, Thotapalli Barriage, Theertha sagaram, Musurumilli, Puskhara LIS, Yerrakalva, Maddigedda with a total ayacut area of 271084 ha are being taken up.

4.1.2.5 NABARD’ Initiatives in Water Resources Sector

1. Credit Planning and Refinance for Irrigation Development

- Institutional credit under private sector mainly flows for the development of minor irrigation facilities through groundwater resources, including micro irrigation systems and solar pump sets. Even though there is substantial credit potential for minor irrigation sector, the ground level credit flow has been slow mainly for want of adequate credit absorption capacity at farm level and inadequate public investments for infrastructure expansion. District level resource-based planning is done in PLPs prepared by NABARD. Refinance is available from NABARD for minor irrigation activities as a priority area. With a view to provide credit to farmers on a realistic basis, the unit costs of various investments under Minor Irrigation in the State are revised regularly under the aegis of NABARD and the details are circulated to all the banks. Initiatives were also taken to put in place unit costs for emerging needs viz. artificial recharge and financing of rain guns for providing life saving irrigation.

2. Watershed development

- NABARD has been implementing watershed development projects since 1992 with an aim to improve agricultural development by capturing scarce water resources and managing the soil and vegetation both in rain-fed and semi-arid regions.

Though these projects have helped in augmentation of surface and ground water resources, enhanced cropping intensity/ crop productivity and also promoted better water governance through participatory irrigation management & water budgeting, lack of understanding of hydrological conditions and poor infrastructure management have been the limiting factors in harnessing full potential. The interventions have, however, sustainably reduced the farmers' distress in rain-fed areas, stabilised crop yield and improved the farmers' income levels. The projects have completed Full Implementation Phase and already additional areas brought under cultivation. These watershed areas offer scope for more credit for agriculture and allied agriculture activities as well as for financing of new groundwater structures wherever water tables have gone up substantially, after doing water budgeting and with appropriate cropping patterns. The involvement of corporates in watershed development under Corporate Social Responsibility (CSR) programmes also continues.

3. Financing to State Govt./Agencies for Creation of Irrigation Infrastructure

- NABARD has been financing to the State Govt. for creating irrigation infrastructure out of Rural Infrastructure Development Fund (RIDF) created during 1995-96. The same has contributed substantially for creation of tangible benefits in terms of creation/ stabilization of irrigation potential leading to improved productivity and income of the farmers in the command areas. NABARD has also created a new window beyond RIDF, called the NABARD Infrastructure Development Assistance (NIDA), for lending to public sector agencies for infrastructure projects including in the irrigation sector. The Fund may be used for bridging gaps in critical infrastructure identified at district level.

4. Micro Irrigation Fund

- The current coverage under micro irrigation in the country is about 8 million ha. The Taskforce on micro irrigation (2004) estimated a potential of 27 mh for drip irrigation and 42.5 mh for sprinkler irrigation with total potential of 69.5 mn hectares. This estimate is based on the area under crops that are suitable for micro irrigation. Thus, there is a huge gap of 61.5 million ha to be covered under micro irrigation. Overall, the area under micro-irrigation has grown at a CAGR of 7.97 percent. With the current rate of growth of micro irrigation, it would be very difficult to achieve the target of improving 20% irrigation efficiency, including 10% area coverage under surface irrigation projects as envisaged in PMKSY. One of the constraints in expanding the area under micro irrigation is the limited funding available at the farmers levels as also institutional mechanism to provide crop specific and area based technical extension services.
- In the above context, during 2017-18, the setting up of the Micro Irrigation Fund in NABARD was announced and the Union cabinet approved an initial corpus of Rs.5,000 crore. It is envisaged to extend loans to State Governments for financing of sprinkler/drip irrigation systems, piped water supply and other such measures.

4.1.2.6 Critical Issues and Challenges in Irrigation Sector

1. Gap in Potential Created and Utilized

There is large gap between the potential created and utilized due to several factors. Some of the reasons for increasing gap in irrigation potential created and potential utilized include incomplete coverage of command area works, poor operation and maintenance of irrigation structures due to fund constraint, non-availability of adequate water at outlets resulting in lower supply at the tail ends, large scale deviations from designed cropping pattern to water intensive crops, deteriorating conveyance systems, non-enforcement of warabandi (water rotation system), etc. This suggests that operation and maintenance are extremely important and need a high priority. Also, appropriate pricing of water on volumetric basis can incentivize farmers to select socially desirable and sustainable cropping patterns. In this context, the community participation in planning and management of irrigation structures assumes significance.

PIM/ WUAs may be promoted and made active in all command areas as per Farmers Management of Irrigation Systems Act, 1997. The water cess collection by the Revenue Dept. is irregular and low and hence WUAs are not receiving enough funds for O&M works. The collection system may be spruced up preferably by making WUAs responsible for the same. Water rates may also be rationalized further. WUAs may also be encouraged to collect additional fees from members for specific O& M works. Enhanced revenue collection is necessary for effective plough-back of the same. Budgetary support for O&M may also be increased. Improper O&M of projects is significantly responsible for the gap in potential created and utilized and ultimately all the deferred maintenance leads to a need for costly renovation projects. Further, the CAD Dept. may plan and ensure command area development for the full benefit of any irrigation scheme to be realized. Advocacy campaigns may be undertaken to make the farming community realize the economic value of water and the need for increasing water use efficiency. DWMAAs may be strengthened for undertaking comprehensive district level management of water resources.

2. Declining Water Table

Public investments in irrigation has been largely focused on surface water irrigation making groundwater a common pool resource for utilization by private players, including farmers. It is estimated that over the last four decades, more than 84% of the total addition to net irrigated area in the country has come from groundwater. This points towards deleterious nature of over dependency and utilization of ground water for irrigation purposes as also for meeting the growing urban needs. Such a scenario coupled with reducing rainfall-recharge and deforestation has led to faster decline in water table in many parts of the country.

The well levels go below 100m in some places in the State. Therefore, unless appropriate policy regulations are put in place with regard to pricing of water and power, sustainable usage of ground water, recharging aquifers and promoting conjunctive use of surface and groundwater, the long term sustainability of ground water for different uses cannot be ensured. Besides, lower well levels lead to higher requirements of pumping energy also which is another precious resource.

The Water, Land and Tree Act (WALTA) may be more strictly adhered to specially in the ground water stressed areas to prevent indiscriminate digging of wells. The Act also has a provision of insurance for failure of wells which may be made use of. State ground water dept. needs to be strengthened for future ground water development planning, including advice to reduce incidence of well failures and ground water quality for better well sitting.

3. Energy Demand for Irrigation (Water Energy Nexus)

The challenge of providing enough water and energy to grow enough food for the growing population becomes very important. The issues and challenges in the food, water and energy sectors are interwoven in many complex ways and cannot be managed effectively without cross-sectoral integration. There is also a high degree of dependency of downstream communities on upstream ecosystem services for dry-season water for irrigation and hydropower, drinking water and soil fertility and nutrients. Inadequate and erratic power supply in some places and large number of inefficient pump sets have caused not only fast decline in water table in many areas but also high energy usage. It is estimated that the agriculture sector consumes around 26% of the total energy consumption in the State. Therefore, promoting energy efficient water pumping devices, replacing low energy efficient pumps with high efficiency pumping system, greater use of solar pumping systems particularly in off-grid areas and optimizing agricultural water demand through appropriate crop planning, efficient use of water, ground water recharging and rainwater harvesting, etc. are some of the measures which need to be adopted by way of policy interventions. Reliability of electric power supply for irrigation pumpsets, specially with respect to duration of power supply and quality of power also needs to be improved, by grid separation, among other methods.

4. Deteriorating Water Quality

India's huge and growing population is putting a severe strain on the natural resources particularly on land and water. Increasing ground water over-exploitation, large scale use of chemical fertilisers/ pesticides in agriculture and unsafe disposal of industrial wastes into fresh water, poses severe water quality problems. The water sources are contaminated mainly by sewage and agricultural runoff. It is estimated that almost 70% of surface water and growing percentage of ground water are contaminated. Contamination of ground water with fluoride, nitrates, iron, and salinity is noticed affecting its potability in some parts of the State. The problem is set to worsen with climate change which will further reduce water availability as also water quality. Therefore, the management of water quality both, surface and groundwater becomes extremely important in the context of meeting the emerging water demand for economic development and providing safe and affordable drinking water to the underserved communities. Effluent treatment plants (ETPs) and recycle and reuse need to be promoted wherever feasible. Increased ground water recharge also may help in ameliorating the problems.

5. Climate Change Impact on Water Resources and Related Interventions

Climate change can affect significantly in the quantum of flow as snow and glacial melt is the major contributor of the rivers' flow in India. The serious challenge which may emerge due to climate change is related to frequency and magnitude of extreme weather events like rainfall which may lead to flash floods, landslides, etc. There will be both short- and long-term implications due to climate change in this region.

NABARD has been accredited as National Implementation Entity (NIE) for Adaptation Fund (AF) and Green Climate Fund (GCF) mechanisms under UNFCCC. Moreover, NABARD is acting as NIE under National Adaptation Fund for Climate Change (NAFCC). Many projects sanctioned under NAFCC and AF are aimed at development of water sector resilience. Two projects are currently underway in the State of AP under the AF and NAFCC. Financing under these Funds may be further explored in the State.

The National Action Plan for Climate Change (NAPCC) has laid significant emphasis on the water sector by including National Water Mission as one of the 8 missions under the Plan. National Bureau of Water Use Efficiency (NBWUE) is also proposed for promotion, regulation and control of efficient use of water. The State Action Plan for Climate Change

(SAPCC) for Andhra Pradesh lists agriculture as one of the 11 identified sectors seriously impacted by climate change and increasing water use efficiency is one of the key adaptation interventions proposed under the sector. The major areas of prioritization and concern under the irrigation and water supply summarized in the document are as below:

- Water conservation and proper drainage facilities
- Promoting rainwater harvesting and ground water recharge
- Check on industrial discharge into municipal drainage system
- Measures to prevent ground water pollution and contamination
- Promoting better irrigation techniques like drip irrigation and sprinklers etc
- Regular de-silting of canals and other water retaining bodies like dams, check dams etc.

The SAPCC contains district wise adaptive capacities and vulnerability maps which may form the basis of climate resilient planning. The CRIDA district contingency documents also list measures to be adopted in times of water stress/dry spells which may become more frequent as climate change effects deepen.

Promotion of micro irrigation in command areas as well as on paddy needs to be undertaken through demonstrative pilots (e.g. drip on paddy in Chittoor), analysis of the results and upscaling, to bring about the next stage in climate adaptation interventions related to water resources.

Adoption of solar pump sets as well as replacement of inefficient pumpsets with BEE 5 star rated smart pump sets are important mitigation strategies in the irrigation sector where required credit support may be planned as per need.

4.1.2.7 Suggested Action Points

- There is a large gap between the potential created and utilized due to incomplete coverage of command area works, poor operation and maintenance of irrigation structures due to fund constraint, non-availability of adequate water, etc. There is a need for community participation in planning and management of these irrigation structures for successful utilization.
- Intensive rainwater harvesting measures and efficient use of water is suggested for over exploited and critical i.e., water stressed mandals.
- Desilting of minor irrigation tanks and maintenance of supply channels.

A credit potential of ₹2862.80 crore has been projected for the year 2024-25 under water resources. The district-wise estimates have been indicated in the Annexure-I.

4.1.3. Farm Mechanization

4.1.3.1 Introduction

The word mechanization means use of machines, either wholly or in part, to replace human or animal labour. Mechanization requires human participation to provide information or instruction, unlike automation. Mechanized agriculture or agricultural mechanization is the use of machinery and equipment, ranging from simple and basic hand tools to more sophisticated, motorized equipment and machinery, to perform agricultural operations.

Current mechanized agriculture includes the use of tractors, trucks, combine harvesters, many types of farm implements, helicopters and drones (for aerial application), and other vehicles. Precision agriculture even uses computers in conjunction with satellite imagery and satellite navigation (GPS guidance) to increase yields. New digital equipment is increasingly complementing, or even superseding, motorized machines to make diagnosis and decision-making automatic.

The main objectives of farm mechanization are increase in efficiency and timeliness of farm operations, reduction in cost of cultivation, improvement in the quality of produce for better marketability, efficient utilization of inputs etc.

Besides improving production efficiency, mechanisation encourages large scale production and can improve the quality of farm produce. Mechanization will help in increasing productivity and enable the farmers to complete farming operations in time.

Both the global and domestic market of agricultural produce demands proper technology and precision in farming which ensures quality of the farm produce. The farmers in Andhra Pradesh have been using various farm equipment and machineries in their field, however, the mechanisation of agriculture activities to be upgraded to next generation like Precision Technologies, Nanotechnology Inventions, Internet of Things (IoT) and Artificial Intelligence based Farm Automation and drone technology.

4.1.3.2 Current Status of Mechanization in Andhra Pradesh

Farm mechanization in Andhra Pradesh is improving steadily despite several hurdles such as small and scattered size of farm holdings, financially challenged farmers and increase in fuel prices, etc. The average supply of farm power in Andhra Pradesh (2.14 kW/ha) is more than the national average (2.03 kW/ ha) and it has to be increased to 4kW/ha in order to achieve the desired crop production and productivity levels. Districts like Kurnool and Vizianagaram has available farm power less than 1 kW/ ha and Anantapur, Guntur & Prakasam have available farm power less than 2 kW/ ha. The farmers in the State have to adopt the mechanisation of entire farming activities to achieve the target of 4kW/ha.

Farming activities like planting, crop management, harvesting, post-harvest management, etc. are to be carried out to achieve the desired level of farm mechanisation in the State. This additional power has to be supplied mostly by tractors, power tillers, self-propelled multi-crop threshers, power weeders and sprayers and other self-propelled machines. The farmers may also upgrade to Smart Agriculture Mechanization such as Precision Agriculture and Digital Agriculture based on technologies such as Big-Data, Internet of Things (IoT) and Artificial Intelligence (AI) to overcome the future challenges like climate change, depleting natural resources, etc.

Depending on the types of crops grown, soil conditions, local situations and requirements in the Districts, the Agriculture Department of Andhra Pradesh is promoting farm mechanization with the support of financing banks and with provision of subsidy.

4.1.3.3. Major schemes implemented by GoAP

The government is providing subsidy for farm mechanization under Rashtriya Krishi Vikas Yojana (RKVY) and Sub-Mission on Agricultural Mechanization (SMAM). GoAP has established 10778 Rythu Bharosa Kendras (RBK) as one stop shop for farmers. Farmers can order farming equipment & machinery through RBKs, which are networked in a hub-and-spoke model with major towns connected for all the supplies required by farmers in small villages. GoAP is also providing financial assistance to groups of small & marginal farmers for establishing Farm Machinery Banks (FMBs) where RBKs are located.

Due to increased labour cost and scarcity of labour during peak period of farming (sowing, weeding and harvesting, etc.), farm mechanization is getting importance in the districts. Because of timeliness of farm operations and reduction in drudgery, farmers are showing keen interest towards farm mechanization. A lot of potential exists for financing of Tractors (large, medium and small/ mini horsepower), Power Tillers, Rotavators, Paddy Transplanters, Threshers, Combine Harvesters, Sugarcane Harvesters, Seed Drills and other equipment like MB Ploughs, Disc Ploughs, Cultivators, Harrows, Post-harvest Equipment and Horticulture tools, crop based custom hiring service centres, etc.

As the capital investment is high, subsidy is available under Rashtriya Krushi Vikas Yojana (RKVY), Sub-Mission on Agricultural Mechanization, etc. Further, under Agri Clinic & Agri Business Centre (AC&ABC) Scheme, custom hiring centres can also be set up by the eligible agri-preneurs. The AC&ABC scheme is operational in FY 2023- 24.

The credit potential assessed under Farm Mechanization for 2024-25 for Andhra Pradesh is ₹5574.06 crore.

4.1.3.4. Suggested Action points

- Catering to the farm machinery services through Custom Hiring Centers at RBKs, PACS, FPOs etc.
- Creation of awareness about latest technology /machinery and its usage among farmers through demonstrations and trainings.
- Use of drones would help in optimal use of fertilisers/pesticides, reduction in labour cost, reduction in drudgery and reduction in health hazard to farmer, thereby improves productivity.

4.1.4. Plantation & Horticulture Sector including Sericulture in Andhra Pradesh

4.1.4.1 Introduction

Andhra Pradesh stands top in the country with a strong foundation in Horticulture. The State ranks first in productivity of Oil Palm, Papaya, Lime, Cocoa, Tomato, Coconut and Chillies. The total area under Horticulture crops is 18.08 Lakh Hectares with a production of 369.07 Lakh MTs (Department of Horticulture, GoAP: III Estimates of 2021-22).

Important horticulture crops grown in Andhra Pradesh are. Mango, Banana, Grapes, Citrus, Pomegranate, Sapota, Papaya, Guava, Tomato, Okra, Brinjal, Onion, Peas, Tapioca, Sweet Potato, Spices- Chillies, Turmeric, Tamarind, Coriander, Cashew, Oil palm, Cocoa, Coconut, Flowers etc.

(Source: III estimate 2021-22- Dept. of Horticulture, Go.AP)

The Horticulture sector GVA for 2022-23 (AE) estimated at ₹54,525 crore as against

Sl. No.	Horticulture Crops	Area (Lakh Ha)	Production (Lakh MT)
1	Fruits	7.91	207.42
2	Vegetables	2.24	94.63
3	Flowers	0.16	2.98
4	Plantation	5.07	52.83
5	Spices	2.66	11.12
6	Medicinal & aromatic plants	0.04	0.14
	Total	18.08	369.07

₹52,923 crore (2021-22 FRE) with growth rate of 3.03%.

The total area under protected cultivation (Poly House and Shade Net Cultivation) is 442.42 ha from 2014-15 to 2021-22. Banana and Chilli are the major crops being exported from the State.

Table 4.6 Export status of important Horticulture crops in Andhra Pradesh

S.No	Crop	Exports (MTs)			
		2018-19	2019-20	2020-21	2021-22
1	Chillies	234250	248000	300750	278584
2	Banana	24800	21436	42935	48000
3	Mango	835	591	100	363
4	Turmeric	26720	27530	36600	30631
5	Vegetables	2766	1185	1451	1500

Organic farming of horticulture crops in AP: Under Rashtriya Krishi Vikas Yojana (RKVY), the Department of Horticulture has implemented Organic Farming in an extent of 22500 acres, the produce is at third level ICS certification for organic production of different fruits and vegetables in the State of Andhra Pradesh, and the crops covered are Mango, Cashew, Vegetables and Chilli. In addition to this, the farmers on their own are practicing Organic Farming in an area of 6763 acres and the Govt. of A.P. is developing the State Policy for Organic Farming. (Source: Department of Horticulture, GoAP)

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 54,315 MTs, 4762 Pack houses with a capacity of 1,42,860 MTs, 16 Integrated Packhouses with a capacity of 256 MTs, 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 2.50 MTs, 40 Solar Cold Room/Chambers with a capacity of 310 MTs, 17 Coconut pack houses with a storage capacity of 35 lakh nuts.

Andhra Pradesh is the second largest producer of Silk in India next to Karnataka. Mulberry is grown in Sri Satya Sai, Anantapur, Chittoor, Annamayya, Prakasam, Kadapa and Kakinada districts. The farmers in the state are rearing both Multivoltine and Bivoltine varieties of silkworm.

Table 4.7 Status of Sericulture in AP during 2022-23

Sl.No	Item	Unit	Status of sericulture during the year 2022-23
1	Mulberry Plantations	Acres	1,34,605
2	Sericulture farmers	Nos	75,005
3	Mulberry cocoon Production	MTs	50,332
4	Raw silk production	MTs	6,901

Sl.No	Item	Unit	Status of sericulture during the year 2022-23
5	Productivity	Kgs/100Dfls	76
6	Tasar cocoon production	In Lakh Nos	15,18
7	Automatic reeling machines established	No of ends/units	5400 ends-(9) units
8	GVA realised	Rs.in crores	897.669
(Source: AP socio economic survey 2022-23)			

4.1.4.2 Potential for development of Horticulture Sector in AP.

- AP stands in first position in area, production and productivity of Oilpalm with an area of 1.92 lakh ha which is 53% (1.41 lakh farmers) area in the country. 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 on a year. During current year, an additional area of 22,433 acres was brought under Oilpalm plantation from other traditional crops as part of crop diversification.
- 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.
- GoAP is focused to establish (945) collection centres, and (345) cold rooms in cluster mode at RBKs to connect all the FPOs with the traders in all districts.
- 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 Govt has proposed for establishment of Centre of Excellence for Vegetables and spices in Gundlapalli (V) of Palnadu (D) and Centre for Excellence for Banana in Pulivendula constituency of YSR district.

4.1.4.3 Potential for development of Sericulture

The sector has immense potential in the state. There is ample scope in on-farm and off-farm activities. On-farm activity includes Increase in area under Mulberry plantation and Establishment of new rearing units at farmer level for Cocoon production. The non-farm activity includes Reeling of Cocoons for production of Raw Silk by Reelers, Twisting of Silk yarn and dyeing by entrepreneur and Weaving of Silk yarn into Silk Fabric by Silk Weavers. The state has favourable climatic conditions to take up the activity and has dedicated State Government department to handle the extension services to farmers. The Agriculture University and KVKs are developing new technologies for reducing the mortality and improving the quality and yield of silk.

Mulberry plantation: An area of 7775 acres has been newly brought under Mulberry cultivation during the year 2022-23.

- Biovoltine cocoon production: 9281.24 MTs International quality Biovoltine cocoons produced during the year 2022-23.

- Biovoiltine raw silk production:1427.88MTs of 2A and above grade raw silk produced during the year 2022-23
- 450 new silkworm rearing sheds have been grounded during the year 2022-23
- Different schemes such as Silk Samagra, RKVY and MGNREGA programme are being implemented.

4.1.4.4. Schemes/ Interventions for promotion of Horticulture

Table 4.8

S N	Government Schemes	Particulars		
1	Mission for Integrated Development of Horticulture: A centrally assisted state development scheme is being implemented in the state by the State Horticulture Mission. This programme is under implementation in 9 districts of AP i.e, Srikakulam, West Godavari, Guntur, Prakasam, Nellore, Chittoor, Anantapur, Kadapa and Kurnool. Funding pattern 60% GoI share and 40% state share. Pattern of assistance of few horticulture crops:			
	S N	Component/Crop	Unit cost (Rs. in lakhs)	Pattern of assistance (Rs. in lakhs)
	Establishment of New Gardens (Perennials)			
	1	Mango (7.5 X 7.5)	0.33250	0.13300
	2	Guava (3X3)	0.73330	0.29331
	3	Sweet Orange	0.41888	0.16004
	4	Acid lime	0.192	0.09602
	5	Cashew (6X6)	0.48000	0.24000
	6	Cocoa(3X3) (Intercrop)	0.50000	0.20000
2	Rashtriya Krishi Vikas Yojana Pattern of assistance for horticulture under RKVY:			
	S N	Component/crop	Unit cost (Rs. in lakhs)	Pattern of assistance (Rs. in lakhs)
	Plantation & Infrastructure Development (by credit limited backend subsidy)			
	1	Public Sector	15.00	100% to public sector maximum ₹15.00 Lakhs per unit and in case of private sector credit linked back ended subsidy @ 50% of the cost. Subject to a maximum of ₹ 7.50 Lakhs per unit, as project-based activity.
	2	Private Sector		
	3	Permanent Pandals	5.00	50% of the total cost or ₹2.50 lakh per Ha whichever is less upto 2 Ha per beneficiary.
	4	Trellies for tomato	0.375	50% of the total cost or ₹0.1875 lakh per Ha whichever is less upto 1 Ha per beneficiary.

	Protected cultivation (Poly houses):							
	1	1000 sqmt	935 per sqmt	Rs. 467.50 per sqmt				
	2	2000 sqmt	890 per sqmt	Rs. 445.00 per sqmt				
	3	4000 sqmt	844 per sqmt	Rs. 422.00 per sqmt				
4	NMEO-OP Pattern of Assistance for Area Expansion, Inputs & Other Components Under NMEO – OP (Oilpalm)							
	Sl. N o.	Name of the compon ent	Un it	Total Unit cost (Rs.)	Financi al Assista nce (%)	Financi al Assista nce (Rs.)	Maxim um Subsidy limit (Rs.)	Remark s
	1	Area Expansio n (Plant Material subsidy)	Ha	20000 Indigeno us &29000 Importe d per Ha	100	20000 Indigeno us & 29000 Imported per Ha	entire landhold ing	
	2	Maintena nce Cost	Ha	42000.00	50	21000	21000	@Rs.5,250/- per Ha for 4 years
	3	Pump sets/ Diesel engine	No	45000.00	50	22500	22500	
	4	Bore well	No	100000.00	50	50000	50000	
	5	Inputs for inter crop	Ha	42000.00	50	21000	21000	Rs.5,250/-for 4 years
	6	Vermi Compost units	No	30000.00	50	15000	15000	
	7	Machiner y & Tools						
		a) Oil palm cutter.	No	5000.00	50	2500	2500	
		b) Oil palm protective wire mesh	No	40000.00	50	20000	20000	
		c)Motoriz ed chisel	No	30000.00	50	15000	15000	
		d)Alumin um Portable ladder	No	10000.00	50	5000	5000	
		e) Chaff Cutter	No	100000.00	50	50000	50000	

		f) Small tractor	No	400000.00	50	200000	200000	
	8	Farmers Training	No			30000		for a batch of 30 farmers for 2 days
	9	Training of extension officers	No			40000		for a batch of 20 officers for 2 days

(Source: Department of Horticulture, Government of AP)

4.1.4.5 Schemes/ Interventions for promotion of Sericulture:

1. Silk Samagra: The Scheme “Silk Samagra” is an Integrated Scheme for Development of Silk Industry has been able to sustain and strengthen the Sericulture activities in the country with the following components:

1. Research & Development, Training, Transfer of Technology and I.T. Initiatives,
2. Seed Organizations.
3. Coordination and Market Development and
4. Quality Certification Systems (QCS) / Export Brand Promotion and Technology up-gradation.

2. State Development Schemes:

- a. Production Incentive to Reeling Cocoons of the Farmers: To encourage sericulture farmers to continue the rearings for production of quality Bivoltine / Improved Cross Breed reeling cocoons, an incentive of Rs.50/- per kg for BV reeling cocoons and Rs.10/- per kg (for Anantapuramu and Chittor dists) and Rs.20/- per kg (for rest of the districts in the State) for Improved Cross breed Cocoons is provided under the scheme with 100% assistance. Further, in order to assist Tasar farmers in Tribal areas an amount of ₹1000/- per 1000 nos cocoons is provided as cocoons incentive on production of Tasar cocoons with 100% assistance.
- b. Construction of rearing sheds: to assist the SC and ST farmers for taking up Sericulture activity, the scheme is provided to continue under SCC and STC with 90% financial assistance.

4.1.4.6. Strategies for development of the sector

- Bringing more area under Horticulture with new crops & new varieties. Encouraging additional area under Area Expansion programme in convergence with MGNREGS, Watershed Programmes and Dryland Horticulture.
- Saturation of potential area under Micro Irrigation by supply of Micro Irrigation equipment on subsidy to save water, power and labour. Encouraging efficient and effective utilization of water and fertilizers through Micro Irrigation.
- Under National Mission on Edible Oils – Oil Palm (NMEO-OP) it is proposed to cover an additional area of 1.12 lakh hectares under Oil Palm by the year 2025-26 in Andhra Pradesh.
- Increasing production, productivity & quality of Horticulture produce by adoption of Good Agriculture Practices, intercropping and two-three-tier cropping systems etc.

- Focus on Post-Harvest Infrastructure like Collection Centres, Pre-Cooling units, Solar Cold Rooms, Cold Storages, Ripening Chambers, Refer Vans, Farm Fresh Vegetables, Vending Vans etc.,
- Encouraging Primary Processing, Value Addition and Marketing to improve export of Horticulture produce.
- Mobilization of farmers into Farmers Producers Organizations (FPOs) for creating forward and backward linkages for better returns and doubling farmer's income.
- Encouraging Horticulture crops in new areas like Tribal areas
- Shifting of cropping pattern from Agriculture to Horticulture crops on a promising and remunerative mode by creating awareness, Training programmes and exposure visits through RBKs.
- Bringing Micro Irrigation as a mandatory under the Ayacut area wherever major and medium irrigation projects were taken up.
- By taking up Micro Irrigation on saturation mode in Rayalaseema region and also by considering Aspirational districts on priority.
- Encouraging farmers in taking up Fertigation practices to Horticulture crops and conducting periodic on-field training programmes regarding Maintenance of the units.
- Encouraging farmers in construction of Individual and Community Farm Pond and creating water resources there by bringing additional area under Drip Irrigation.
- Adopting modern technologies such as Protected Cultivation (poly houses & shadenet houses) for cultivation of high value flowers and vegetables for higher returns.
- To develop sea protocols for exportable Horticulture crops.
- More focus on export of fresh and processed Horticulture produce.
- Sericulture: GoAP 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 Tassar cocoon during the year 2023-24

4.1.4.7 Assessment of Credit potential

The credit potential available for the plantation and horticulture including sericulture is assessed as ₹6638.85 crores for the year 2024-25.

4.1.5 Forestry and Waste Land Development

4.1.5.1 Introduction

As per Biennial Indian State Forest Report 2021 (latest), Andhra Pradesh state has a forest cover area of 38,060 sq.km, which amounts to 23.35% of the total geographical area (improved from 22.94% in 2019). Out of this, Very Dense Forest is 1,994 sq.km, Moderate Dense Forest is 13,929 sq.km, Open Forest is 13,861 sq.km and Scrub Forest is 8,276 sq.km. (Source: Indian State Forest Report 2021)

The protected areas in the state are covered under 3 National Parks and 13 Wildlife sanctuaries. A total of 8139.88 sq.km, which is 21.87% of the total notified forest area in the state falls under category of protected forests (Reserved + Protected forests) where no production (exploitation) operations are taken up.

4.1.5.2. Policy initiatives/ schemes of the government

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

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 of the mission is to identify cluster areas in rain-fed areas to promote Agriculture based, Horticulture Based, Livestock based and Agroforestry based Farming systems and value addition and developmental activities. The financial pattern for implementation of RAD program is shared at 60:40 between Central and State Government.

Seed Ball Plantation: Taken up as an initiative to promote afforestation & improve green cover in barren hillocks. During 2020-21, 3 Lakh seed balls are planted in the barren hillocks located in Chittoor, YSR Kadapa, Ananthapuramu, Kurnool, Prakasam and Visakhapatnam Districts.

Avenue Plantation is taken up with an objective to improve green cover to 33% of the geographical area. Plantation is done along PMGSY/Internal roads @ 400 Pl/Km on both sides and plant material is supplied by the Forest Dept. Nurseries are raised with the MGNREGS funds.

For maintenance of Avenue Plantation, Watcher from SHG/ vulnerable poor are tagged for 200 plants and 100 days of wage employment is provided along with maintenance charges like Manures & Watering, for 3 years to ensure survival. During 2020-21, 57.04 lakh plants are planted along roadside of 14259 Kms and 18.60 Lakh plants are planted in 11936 housing layouts with an expenditure of ₹75.43 Cr.

Institutional Plantation is taken up in available vacant lands in schools, colleges and other Government institutions to develop tree planting consciousness among children, increase the greenery and to generate income to the institutions. Duration of the project is 5 years. The Cost of Pitting, Planting, Manures & watering charges are paid from MGNREGS funds. During FY 2020- 21, 34,797 Plants were planted in 389 Institutions under Institution Plantation with an expenditure of ₹0.75 Cr.

Bund Plantation is taken up through Timber Tree Plantation like Teak, Red Sanders, Malabar neem to create permanent tree assets on the bunds of land holding of SF/MF category beneficiary farmers without disturbing the regular agricultural crops to provide supplementary income to the farmers raised as boundary crop for horticulture plantation & also on field bunds.

The cost of pitting, planting, maintenance charges for 2 years are paid from MGNREGS funds and plant material is procured from nurseries of Forest dept. During 2020-21, 2.05 Lakh plants were planted for 1327 farmers with an expenditure of ₹0.16 Cr.

Block Plantation in Community Lands: Planting of shade, ornamental and fruit plants in vacant govt. /community lands like burial grounds, Tank foreshore areas endowment lands to improve green cover and productive utilization of fallow lands. The cost of pitting, planting, maintenance charges are paid from MGNREGS funds and plant material is procured from Forest department Nurseries. Project duration is 3 Years including

maintenance. During 2020-21, 4.78 lakh plants were planted in 2707 locations with an expenditure of ₹6.20 Cr.

Jagananna Pachhathoranam Scheme of Government of Andhra Pradesh

This scheme was launched in 2021 by the Government of Andhra Pradesh which envisions to green the State with abundant forest and tree cover with a thriving wildlife and biodiversity, which would act as a huge natural carbon sink. The objective is to contribute to the creation of sustainable living space for the citizens of the State, thereby creating a safer, sustainable, lively and livable planet for the posterity. The target is to increase the green cover in the State to 33% of the Geographical area of the state in conformity with the National Forest Policy, 1988 by involving all the stake holders including line departments, Industries, NGOs, Public etc., The services of Village/Ward secretariats and Village/Ward volunteers are utilized for distribution, planting and protection of planted seedlings.

In order to achieve the vision, a massive afforestation programme of planting nearly 20 crore seedlings is carried under the name JAGANANNA PACHHATHORANAM every year. The programme commences with the inauguration of Vanamahostavam by the Hon'ble Chief Minister at state capital every year in the month of June/July with the onset of monsoon. It is celebrated in a befitting manner to create large extents of Green cover in the State duly involving all Departments of the Government, Vana Samarakshana Samithi members, Self-help groups, Industries, students, public etc. The same day, simultaneously at district level also Vanamahotsavam is inaugurated by the respective District-in-charge Ministers by involving all public representatives of the district.

Other Afforestation Programme in Andhra Pradesh

MGNREGS

Forest department as part of convergence with MGNREGS is taking up raising & maintenance of nurseries, plantations and SMC works since 2009. Every year 6 to 7 crore seedlings of fodder, timber, shade giving plants are raised for distribution to the public.

National Afforestation Programme (NAP)

NAP supports and accelerates the on-going process of devolving forest conservation, protection, management and development functions to the Joint Forest Management committees (JFMCs) at the village level, which are registered societies.

National Green India Mission

This scheme responds to climate change by a combination of adaptation and mitigation measures, which would help:

- Enhance carbon sink
- Adaptation of vulnerable species/ecosystems to the changing climate
- Adaptation of forest-dependent communities.

National Medicinal Plants board

The afforestation under this schemes is carried out with the following objectives:

- a) Optimum utilization of degraded forest lands thereby increasing the vegetation cover and augmenting the resource base of medicinal plants and restoring the ecosystem.

- b) Providing wage employment to the people below the poverty line in the forest fringe areas thereby improving the income resources of FDAs and village development

Nagaravan- Udyan Yojana (Ek Kadam Hariyaliki) / Nagarvanam:

The aim of the scheme is to provide wholesome living environment to urban areas and thereby contributing to create smart, clean, green and healthy cities. During 2016-17 Ministry of Environment, Forest & Climate Change, Government of India, New Delhi have conceptualized the programme for climate smart green cities by name Nagarvan – Udyan Yojana (Ek Kadam Hariyaliki) to develop/create at least one city Forest in each city over an extent of 25 HA – 100 HA within the adjacent Forest areas.

In continuation of the Nagarvan Udyan Yojana Scheme, State Govt. of Andhra Pradesh has taken initiative for further development of Nagaravanams across the state as urban lung spaces and started a new scheme called “Nagaravanam” as state development programme. There are twenty three (23) Nagaravanams in the state.

Mixed plantations:

Mixed plantation is instrumental in achieving the goal of increasing the green cover in the state, with special focus on taking up plantations outside the notified forest area. Under Mixed plantations activities like raising of Nurseries, Village woodlots, shelter belt plantations, Mangrove plantation, Seed dibbling and Awareness programmes have been taken up.

g) Sub-Mission on Agro Forestry:

Under the scheme cash assistance is provided to the farmers for raising trees in their farm lands.

h) Miscellaneous schemes:

Raising of plantations with funds provided by other agencies like National High way Authority of India, Indian Railways, Urban local bodies, VUDA, NTPC, Special development packages under district administration funds etc have been taken up in the state.

Wasteland Development, Dry land Farming & Agro Forestry have been included under thrust areas for refinance with 100% refinance facility.

NABARD has prepared and circulated model bankable projects on Neem, Casuarina, Teak, Kadam, Jatropha, Pongamia, Forest Nursery, Eucalyptus & Subabul etc. in order to help the entrepreneurs, farmers & bankers.

NABARD has sanctioned a RIDF loan of ₹30.52 crore (RIDF X), Rs 37.91 crore (RIDF XII) and Rs 21.50 cr (RIDF-XIII) for raising Bio-diesel (*Pongamia*) plantation in 15000 Ha, 15806 Ha and 8420 Ha of degraded lands respectively covering almost all districts of the state. The project was implemented by the Forest Department of GOAP by involving the VSS members.

4.1.5.3. Suggested Action points.

- Setting up of Commercial Nurseries: Establishment of small but viable nurseries with special emphasis on development of wastelands is required and is a major area requiring credit from banking sector.
- Promotion of FPOs based on Forestry Products such as Bamboo.

- There is a huge potential for collection and marketing of minor forest produce especially wild honey. Infrastructure such as beehive boxes can be provided to wild honey collectors through bank credit, which can be placed at the foothills of the forest laded hills.
- The bankers need to be sensitized about forestry schemes so as to create awareness for financing the activity. Banks may extend financial assistance for cultivation of commercially important tree species like Bamboo, Teak, Subabul, Clonal Eucalyptus and Casuarina under Agro Forestry.

NABARD has estimated a potential of ₹622.42 crore under Forestry and wasteland Development sector for the FY 2024-25. The district-wise estimates have been indicated in the Annexure-I

4.1.6 Animal Husbandry – Dairy, Poultry, Sheep, Goat, Piggery, etc.

4.1.6.1 Introduction

Andhra Pradesh has some of the richest livestock resources in the country and is one of the most advanced states in Livestock sector. AP is first in egg production, 02nd in meat production and 5th in milk production.

4.1.6.2 Animal Husbandry sector status in the State of Andhra Pradesh

- AP has 60 lakh milch animal population of which 58% are buffaloes. The state is the native of world-famous draught breed known as “Ongole” and the poorman’s cattle breed known as ‘Punganur’.
- Presently 62.45 Lakh households are engaged in livestock rearing activities for their livelihood or getting supplementary income from this sector.
- The total milk production in Andhra Pradesh is 42.4 LLPD of which the marketable surplus is 14.3 LLPD and only 6.1 LLPD (24%) is procured by organized sector.
- GoAP has entered strategic partnership with Gujarat Co-operative Milk Marketing Federation (AMUL) on 21.07.2020 to handhold dairy activities through dairy cooperatives in the state.
- During 2021-2022, Andhra Pradesh stood 1st in Egg Production (2645.03 Corers), 2nd in Meat production (10.25 Lakh MTs) and 5th in Milk production (154.03 Lakh MTs).
- Targets of Major Livestock Products for the year 2022-23 were to achieve Milk production of 155.00 LMTs, Egg Production of 2740 Crore Nos, Meat production of 10.50 LMTs.
- Andhra Pradesh is first in sheep population and 7th in goat population and has a population of around 4 lakh shepherd families rearing 176.27 lakh sheep and 55.2 lakh of goats. Anantapur and Sri Satya Sai are the topmost districts in small ruminant, followed by Prakasam, Kurnool and Nellore. The popular sheep breeds preferred by the farmers are Nellore and Macherla brown.

Table 4.9 District wise Production estimates of Milk, Meat and Eggs during 2022-23 (up to December 2022)				
SN	District	Milk ('000 MTs)	Meat ('000 MTs)	Eggs (Lakh Nos)
1	Srikakulam	506.62	15.706	799.553
2	Vizianagaram	596.17	25.110	8085.958
3	Parvathipuram Manyam	166.84	8.761	244.831
4	Alluri Sitarama Raju	150.82	15.589	435.060
5	Visakhapatnam	98.81	7.111	3447.270
6	Anakapalli	585.46	21.069	5998.797
7	Kakinada	472.42	36.497	6466.176
8	Dr B R Ambedkar Konaseema	304.86	21.954	14140.716
9	East Godavari	371.73	74.349	57384.087
10	West Godavari	297.60	23.382	13034.227
11	Eluru	733.85	50.099	17293.361
12	Krishna	432.35	28.841	10899.156
13	NTR	312.21	23.016	3817.265
14	Guntur	249.67	17.530	10996.519
15	Bapatla	476.07	13.094	402.570
18	Palnadu	513.63	29.876	4290.819
17	Prakasam	669.11	41.648	352.158
18	SPSR Nellore	766.37	33.627	1562.245
19	Kurnool	172.88	27.725	645.410
20	Nandayal	298.70	28.932	420.786
21	Ananthapuram	305.52	33.423	731.712
22	Sri Satyasai	404.05	36.784	742.466
23	YSR Kadapa	336.37	22.340	510.500
24	Annamayya	462.88	29.376	1649.016
25	Chittoor	798.61	42.002	10893.349
26	Tirupati	450.05	26.316	3183.765
	TOTAL	10933.65	734.157	178427.772

Source- AP Socio Economic Outlook 22-23- Pg 386

- The GVA contribution of AH sector has been ₹61,672 crore in 2022-23 (AE) (at Constant Prices 2011-2012) contributing 28.52% of Agriculture and Allied Sector and registering a growth rate of 2.89%.

Infrastructure

- Andhra Pradesh has a total of 323 Area Veterinary Hospitals, 12 Veterinary Poly clinics, 1577 Veterinary Dispensaries, 1393 Veterinary Aid Centers/ Mobile dispensaries, YSR constituency level animal disease diagnostic labs covering all 175 constituencies and 10606 RBKs providing veterinary care and subsidised inputs for animal rearing. State also has 13 Animal Disease Diagnostic Laboratories. There are 04 State Animal Husbandry Training Centres and 05 Regional Animal Husbandry Training Centres. State also has 02 Sheep breeding centers under Animal Husbandry Department and 13 number of Intensive Sheep Development Projects.

4.1.6.3. Schemes of Government: Animal Husbandry activities are encouraged through schemes like.

- Rythu Bharosa Kendralu (RBKs): About 10606 RBK were operational in the state permitted to recruit 9844 Animal Husbandry Assistants, out of which 4652AHAs were recruited till date. The services provided in RBKs are:
 - Primary Health Care Services
 - Input Supplies
 - Advisory Services
 - Other Service activities like issue of Health Cards, Tagging. Reporting of deaths etc.
- Custom Hiring Centers (CHCs)
- Feed and Fodder Developmental Activities
- Pasu Kisan Credit Card (PKCC): Out of the total 59709 applications received, PKCC sanctioned to 42,469 applicants (*AP Socio Economic Outlook 2022-23*)
- YSR Cheyutha -Distribution of Milch Animals
 - YSR Cheyutha Jaganna Paala Velluva
 - YSR Cheyutha Jaganna Jeeva Kranthi
- YSR Aasara
- Livestock Loss Compensation Scheme (LLCS): In the event of death of Cattle/ Buffaloes, the compensation of ₹30000/- per head for improved and indigenous breed of cattle/buffalo and ₹15000/- per head for Non- descript cattle/buffalo breed shall be paid as per the eligibility to the farmers. Similarly, compensation of ₹6000/- per Sheep/ Goat (06 months and above age) shall be payable to the owner of 03 and above Sheep/Goat at a time.
- Livestock Health and Disease Control (LH & DC) Scheme:
 - Assistance to States for Control of Animal Diseases (ASCAD)
 - National Animal Disease Control Program (NADCP) for FMD and Brucellosis
 - PPR Eradication Program (PPREP)
- Dr. YSR CADDLs (Constituency level Animal Disease Diagnostic Labs)
 - Covers all 175 constituencies: 89 Labs co-terminus with Agrilabs, 65 Labs are with AH Dept., remaining 21 constituencies are covered by 14 District Labs.
 - One lab technician and one Lab attendant for each CADDL are recruited.
 - The objectives are to test the sample collected at RBKs for preliminary tests,

help the field veterinarian for taking up immediate line of treatment etc.

- Dr YSR Sanchara Pasu Arogya Seva (Mobile Veterinary Ambulatory Clinics)
- Local Breed Conservation Cow Farms(LBCCF)
 - Government has established 58 LBCCFs to conserve indigenous breeds like Gir, Sahiwal, Ongole, Punagur etc. and for breed multiplication with project cost of ₹ 17.40 Cr.
 - It involves supplying of 20 indigenous cows and 01 bull with a cost of ₹ 30.00 lakh to the interested farmers on subsidy i.e. ₹15.00 Lakh from RKVY, ₹9.00 Lakh by APStCB loan component/ Self finance and ₹6.00 Lakh JLG contribution.
 - Andhra Go-pushti FPC has been formed for collective production and marketing of APEDA- NPOP certified organic A2 milk and by-products. *(retail outlet was opened in Vijayawada)*
- National Livestock Mission (NLM)
 - Revised from 2021-22. It has 03 sub-schemes: Breed Development of Livestock and Poultry; Feed and Fodder Development and Innovation & Extension.

Sri Venkateshwara Veterinary University and other Institutions:

A separate Sri Venkateswara Veterinary University is functioning for the state of AP with its headquarters at Tirupati and it has 4 veterinary colleges, one each at Tirupati, Gannavaram, Proddutur and Garividi to impart education in veterinary sciences. One All India Coordinated Research Project (AICRP) on pigs is under implementation at Tirupati. Indira Gandhi Centre for Advance Research on Livestock (IGCARI) is also functioning at Pulivendula in Kadapa district.

Sri Venkateswara Veterinary University was accredited by ICAR, New Delhi for 05 years i.e. from 01-04-22 to 31-03-2027.

Veterinary Biological & Research Institute, Vijayawada

VBRI, Vijayawada has taken up disease diagnosis and disease control program of various diseases. It is also looking after disease investigation if there are any outbreaks in the field and assists the field staffs by swift diagnosis and control of disease.

Activities taken up by AP Livestock Development Agency (APLDA)

- National Artificial Insemination Program (NAIP)
- Rashtriya Gokul Mission
- Gokul Gram Project- *The project is established at Cattle Breeding Farm, Chadawalawada, Prakasam district.*
- National Kamadhenu Breeding Centre: 48 animals of Murrah, Gir, Rathi and Jaffrabadi were supplied to needy farmers to cater the needs of Natural Breeding

Services to upgrade the genetic constitution of local animals.

- Strengthening of Semen Stations: *Under this component GoI released an amount of ₹12.79 Cr to FSB, Nandyal and FSBS, Visakhapatnam for construction of bull sheds, purchase of Lab equipment, farm machinery etc.*
- Accelerated Breed Improvement Programme (to promote use of sex sorted semen)

AP Dairy Development Cooperative Federation (APDDCF)

The APDDCF is implementing Jagananna Pala Velluva (JPV) by organizing Mahila Dairy Associations and Mahila Dairy Sahakara Sangam at village level and providing required infrastructure to these newly formed societies to become sustainable.

Under JPV, current price paying to farmers is ₹87.56 per Ltr of buffalo Milk at measured fat of 11% & SNF of 9.0% and ₹42.56 per Ltr of cow milk at measured fat of 5.4% & SNF of 8.7%.

The project was expanded to 17 newly formed districts covering 2,52,193 women dairying farmers of 3108 villages and collecting 1,71,230 Ltr of Milk per day.

APDDCF is also providing 107 Lakh Lt of Vitamin fortified UHT milk every month to Anganwadi Centers directly through Women and Child Welfare Dept under YSR Sampoorna Poshan scheme.

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

APCARL was established with a vision to be a world class center of excellence for advanced research on livestock. GoAP has issued order to establish Punganur Cattle Breeding Center, Murrah Buffalo Breeding Center and also relocate Veterinary Biological Research Institute of AP State to APCARL, Pulivendula to better serve the farmers and livestock health.

AP Sheep and Goat Development Cooperative Federation Activities

- Under the umbrella of APSGDCGL, 13 District Sheep Breeders Cooperative Unions and 2735 Primary Sheep Breeders Cooperative Societies are functioning in AP covering 110126 members.
- NCDC Programme: Federation is implementing NCDC's Integrated Development of Small Ruminants Scheme with an outlay of ₹ 35.12 Cr for Prakasam and Chittoor districts under phase III. The funding pattern of the programme is 60% loan, 20% subsidy and 20% beneficiary contribution. The programme has benefitted 1310 shepherd families with a loan amount of ₹2036.31 lakh and subsidy of ₹708.07 lakh.
- Other activities: Federation is implementing Group Lending Programme to the members of Primary Sheep breeders Cooperative Societies, with an interest rate of 6.9%.

NLM and Subsidy schemes of Government of India:

Under the National Livestock Mission, the following activities are focussed by Animal Husbandry Department

- Sub mission of Breed Development of Livestock and Poultry –

- Establishment of Regional Goat Semen Bank at Frozen Semen Bull Station at KVK, Banavasi, and propagation of insemination technique in Sheep and Goat
- Proposal has been put forward for the establishment of Semen Production Laboratory and Semen Bank for Sheep at Frozen Semen Bull Station at KVK, Banavasi and FSBS, Vishakhapatnam

Other activities like assistance for quality fodder seed production, innovation and extension activities are also taken up under NLM.

RKVY – RAFTAAR scheme

Under RKVY- RAFTAAR scheme, for the year 2021-22 proposals were submitted for release of ₹ 10239.78 lakhs for the following proposed activities :

- Implementation of mobile ambulatory veterinary clinics
- Establishment of village level livestock feed and fodder centres
- Renovation of Constituency Level Animal Disease Diagnostic Labs (CADDL's)
- Strengthening of vaccine production unit at VBRI, Samalkot
- Fertility management camps

The amount released under RKVY-RAFTAAR scheme upto 2022-23 is as below:

- a. Constituency Level Animal Disease Diagnostic Lab (CADDL): ₹52.73 lakh
- b. Mobile Ambulatory Veterinary Clinic (MAVC): ₹27.87 lakh
- c. Fertility management camps: ₹1.21 lakh
- d. Total Mixed Ration (TMR): ₹792.30 lakh
- e. Administration cost: ₹13.36 lakh

(Source: AP Socio-economic Survey 2022-23)

Marketing

Marketing of animals is carried out through livestock shandies or market. Slaughtering and meat marketing is done by local butcher shops and consumption is confined to domestic market.

Piggery

Andhra Pradesh has a pig population of 0.91 lakhs and stands 22nd among Indian states in pork production with an annual production of 2680 tonnes. The major breeds preferred by local farmers is SVVU T-17, a cross breed developed by Sri Venkateswara Veterinary University (SVVU), with 75% exotic inheritance. Establishment of piggery units are taken up under NLM.

ICAR-AICRP on Pigs at SVVU, Tirupati is working in the field of breed development and development of economic rations for pigs so that piggery can be taken up as a profitable activity. Farmers are also provided training on management of pig farms.

Lack of state government schemes and policies in the sector is the major constraint faced by the pig farmers of Andhra Pradesh. Other constraints are lack of organised markets, less popularity for pork among non- vegetarians, poor export status etc.

Poultry: Andhra Pradesh stands second in poultry population in India (107.9 millions). The per capita availability of eggs in India reached 101 eggs per annum in 2022-23. AP's per capita availability of eggs stood at 526, six times higher than the national average.

Table 4.10 Total egg production, poultry & meat production in Andhra Pradesh

Production	Unit/ Year	2016- 17	2017- 18	2018- 19	2019- 20	2020- 21	2021- 22
Total Meat	Lakh MTs	6.33	7.08	7.81	8.5	9.54	10.25
Growth	%		11.85%	10.31%	8.83%	12.24%	7.49%
Poultry Meat	Lakh MTs	-	-	-	4.78	5.06	5.42
Growth	%	-	-	-	-	5.87%	7.13%
Egg	Crore Nos	1582.75	1777.76	1975.45	2170.77	2496.39	2645.03
Growth	%		12.32%	11.12%	9.89%	15.00%	5.95%
Source: AP Socio Economic Survey 2022-23 & Directorate of Animal Husbandry, AP							

Veterinary Biological & Research Institute, Samalkot

Veterinary Biological & Research Institute, Samalkot is producing potent and quality poultry viral vaccines and supplying on free of cost to entire Andhra Pradesh state for protection of backyard poultry (Desi birds) against the dangerous and dreadful viral diseases and Fowl pox in poultry and Duck Plague in Ducks. 114.02 Lakh doses of Ranikhet Disease vaccine produced, and 77.30 Lakh doses were distributed during 2021-22 up to 31-12-2021.

Existing program and Schemes:

a) Animal Husbandry Infrastructure Development Fund

- Incentivizing investments by individual entrepreneurs, private companies, MSME, Farmers Producers Organizations (FPOs) and Section 8 companies to establish (i) the dairy processing and value addition infrastructure, (ii) meat processing and value addition infrastructure and (iii) Animal Feed Plant. (iv) Breed improvement Technology and Breed Multiplications farms for Cattle/ Buffalo/ Sheep/Goat/ Pig and technologically assisted Poultry farms.
- The project under AHIDF shall be eligible for loan up to 90% of the estimated/actual project cost from the Scheduled Banks based on submission of viable projects by eligible beneficiaries.
- The Central Government is providing 3% interest subvention for all eligible entities.

b) Disease Surveillance Program:

- Avian Influenza: The Virology section, VBRI is coordinating & monitoring the preparedness of Avian Influenza at district level. Monitoring the physical & clinical surveillance for Avian Influenza in the state on weekly basis. Cloacal swabs are also being sent to SRDDL, Bangalore for diagnosis of bird flu disease.

c) YSR Cheyutha

- Under the scheme financial assistance is extended to the women belonging to BC, SC, ST and Minority Communities who are in the age the group of 45 – 60 years with a sum of ₹ 75,000/- in four phases (in four years) to create access to enhanced livelihood opportunities, income generation and wealth creation at the household level.

- 28819 Backyard Poultry/Mini poultry units have been established under the scheme so far. (<https://www.serp.ap.gov.in/SHGAP/>)

The estimated potential for the year 2024-25 under Animal Husbandry Sector including Dairy, Poultry and Sheep, Goats and Piggeries works out to ₹19799.79 crore. The major activities under this sector include loans for mini dairy units, cows, buffalos, calf rearing, dairy outlets, broiler and layer poultry, breeding farms, feed plants, sheep and goat rearing, piggery, KCC for dairy, poultry, sheep, goat, etc. The district-wise projections are given in Annexure-I

4.1.6.4. Suggested action points.

- Self Help Groups may be encouraged to take up Broiler Farming under contract farming with hatcheries as well as to take up marketing of broiler meat in their areas.
- Promoting silages on cluster basis through farmers so as to overcome the shortage of fodder/feed.
- Awareness creation about KCC for animal husbandry activities which will help the farmers to meet the working capital requirement.
- Availability of good quality calves/animals is a big problem in the district. Therefore, promotion of calf rearing scheme by Government is very much required besides promotion of fodder cultivation.

4.1.7. Fisheries – Inland, Marine, brackish etc.

4.1.7.1. Introduction

The Fisheries sector occupies an important place in the socio-economic development of the State. As per the socio-economic survey 2022-23, GVA rates at current prices for fisheries sector is 19.41% and 4.87% at constant prices.

1st in total
aquaculture area
and production
in the country

70% of country's
cultured shrimp
produced in the
state

30.00% of the
national fish
production

36.21% of total
value of seafood
exports

Direct/indirect
employment to
16.50 lakh
persons

The State is endowed with bountiful and diverse water resources under inland, marine and brackish water sectors for development of fisheries and aquaculture.

The fish production in the State has grown from 39.92 lakh MT in 2018-19 to 51.06 lakh MT in 2021-22, (Table 4.11). The inland fisheries sector contributed lion's share of 88% of the total fish production of the State during 2021-22 (Fig 4.1).

Fig 4.1 Fish Production in Andhra Pradesh - Sector-wise share

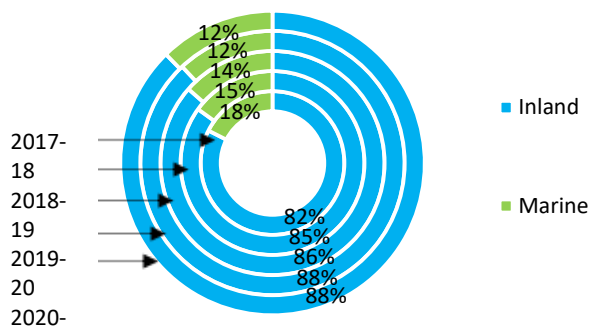


Table 4.11 Fish Production in Andhra Pradesh for last five years (lakh MT)

2018-19	39.92
2019-20	41.75
2020-21	46.23
2021-22	48.13
2022-23	51.06

4.1.7.2. Fisheries potential in Andhra Pradesh

Inland capture fisheries:

The state has abundant inland water resources in the form tanks, ponds, canals, reservoirs and lakes. The state has 1.44 lakh ha of inland licenced reservoirs, 0.46 lakh ha area of reservoir under lease. The state also has 3204 MI tanks and 24494 GP tanks with the spread area of 4.54 lakh hac.

The important rivers flowing in the state are Krishna, Tungabhadra, Godavari and Pennar. The total length of rivers and canals in the state is 11514 km. The Kolleru lake and Pulicat are the important lakes with the effective spread area of 0.90 lakh hac and 400 sq.km respectively.

Aquaculture potential:

The total area under aquaculture in the state is about 2.12 lakh hac i.e, the area under freshwater aquaculture is 1.58 lakh hac and the area under brackish water culture is 0.54 lakh ha. The total no.of aquafarmer in the state is 1.75 lakh farmers. In addition to the existing potential, the state government has also identified 48775 ha for expansion.

Marine fisheries potential:

The state has a large coastline of 974 km spread over 12 coastal districts and continental shelf area of 33,227 sq.km. As far as fisheries villages and fisher folks are concerned, there are 555 fishermen villages in Andhra Pradesh. The marine fishermen population is 8.50 lakh. Out of that, sea going active fishermen are 1.60 lakh. 30,107 fishing vessels (Mechanised – 1655, Motorised – 21959, Non-motorised - 6493) are engaged in marine fishing in AP. The state has constructed 350 fish landing centre for marine fish landing across the coastal districts.

Brackish Water Fisheries:

The total area available for brackish water aquaculture in the State is 1.74 lakh ha, out of which 0.83 lakh ha is developed for shrimp culture. The State is having a mangrove area of 352 sq. km. There is a potential of 64,000 ha of both fresh and brackish water area for

aquaculture as per the remote sensing-based resource survey. The Pulicat Lake covering an area of 46,100 ha is a brackish water lake, offering scope for brackish water capture fisheries development. Brackish water shrimp of 5.92 lakh tonnes was produced during 2020-21. Krishna district occupied the first rank in brackish water shrimp production followed by SPSR Nellore and East Godavari districts. *L. vannamei* contributes more than 70% of brackish water shrimp production. For regulation and promotion of sustainable aquaculture, declaration of Aqua zones has been taken up by the State Government as an innovative model.

Seaweed potential:

There are 78 seaweed species reported to be present in the Andhra Pradesh coast. The coast offers an ideal environment for marine algal communities by the influx of two major rivers, Godavari and Krishna, opening into the Bay of Bengal, where the release of nutrients forms highly productive mangrove habitats in the river deltas. The four erstwhile northern districts (East Godavari, Visakhapatnam, Vizianagaram and Srikakulam) are abundant in algal resources than the southern counterparts. According to the survey carried out by CSIR- Central Salt and Marine Chemical Research Institute (CSMCRI) in collaboration with Dept. of fisheries, AP, the seaweed potential in the coast of AP estimated to be 7500 tonnes. There are also studies, wherein the seaweed culture production potential from the coastal waters of the state was estimated at 100,000 tonnes per year. (Source: Aqua spectrum, CMFRI, 2020)

Infrastructure:

The state has well developed fisheries infrastructure for the augmentation of fisheries production. The state has 107 cold storages with capacity of 2.27 lakh MT, 102 processing plants with the capacity of 5712 MT/day, 258 ice plants with the ice production of 5729 MT/day. The state also has 429 shrimp hatcheries with capacity of producing 60,000 million fries/year. To meet the feed requirement in the state, the state has established 36 feed mills with the effective production of 9594 MT/day. There are 1014 aqua shops and 225 aqua labs (Govt – 19 and pvt - 206) in the state.

Table 4.12 Fisheries Infrastructure in Andhra Pradesh	
Fishing Harbours	4
Fish landing Centres	350
Fish Drying Platforms	782
HSD Outlets	9
Fish Seed Hatcheries (Govt.)	43 (34,904 million nos. PL annual capacity)
Shrimp (<i>L. vannamei</i>) Hatcheries	429 (60,000 million nos. PL annual capacity)
Fish Seed Farms	167 (Public: 54, Private: 113)
Feed Mills	36 (9594 MT/day)
Aqua Shops	1014
Aqua Labs	225
Cold storages	107 (2.27 MT capacity)
Processing Plants	102 (5712 MT/day capacity)
Ice plants	258 (5729 lakh MT/day capacity)
Packaging Units	32
(Source: Commissionerate of Fisheries, GoAP)	

4.1.7.3. Schemes/programmes/plans for fisheries development

Government of India/NABARD

Pradhan Mantri Matsya Sampada Yojana (PMMSY): A scheme to bring about Blue Revolution through sustainable and responsible development of fisheries sector in India with highest ever investment of ₹20,050 crores in the fisheries sector, comprising of Central share of ₹9,407 crore, the State share of ₹4,880 crore and beneficiary's contribution of ₹5,763 crore. PMMSY will be implemented for 5 years from FY 2020-21 to FY 2024-25 in all States/Union Territories. The scheme intends to address critical gaps in fish production and productivity, quality, technology, post-harvest infrastructure and management, modernization and strengthening of the value chain, traceability, establishing a robust fisheries management framework and fishers' welfare. Collectivization of fishers and fish farmers through Fish Farmer Producer Organizations (FFPOs) to increase the bargaining power of fishers and fish farmers is a key feature of PMMSY.

Fisheries and Aquaculture Infrastructure Development Fund (FIDF): For infrastructure development in the fisheries sector, GoI has set up a dedicated Fisheries and Aquaculture Infrastructure Development Fund (FIDF) with a corpus of ₹7,522.48 crore comprising of ₹5,266.40 crore to be raised by the Nodal Loaning Entities (NLEs), ₹1,316.60 crore beneficiaries' contribution and ₹939.48 crore budgetary support from GoI. NABARD is one of the Nodal Loaning Entities (NLE). The State Government has proposed to develop 3 fishing harbours with a TFO of ₹1,015 crore by availing concessional funds of ₹450 crore under FIDF and the balance under NIDA. A Tripartite Agreement has been signed between Central Government, State Government and NABARD under FIDF

KCC for Fisheries: The scheme would be helpful to a large number of fish farmers taking up farming including seed production and the interest on short term bank loan would be lesser at par with the agriculture. The interest subvention would be applicable up to a limit of ₹2.00 lakh. KCC sanctions to Fishery activities from 01.04.2023 to 30.09.2023 is 5112 accounts with an amounts of ₹28595 lakhs. (Source: SLBC, Andhra Pradesh)

Government of Andhra Pradesh:

For the welfare of fishermen, the government is implementing a number of schemes. Some of the important state specific initiatives are as follows:

- **YSR Matsyakara Bharosa scheme:** Under the scheme, the relief during the fishing ban period has been enhanced from ₹4000 to ₹10000. During 2021-22, under the scheme the relief of ₹10000/- per fishermen family was transferred to 97619 fishermen families. During the year 2022-23, a total amount of ₹108.755 crore is going to be transferred to 1,08,755 beneficiaries through DBT.
- The government has enhanced the subsidy on diesel for fishing boats.
- Enhanced ex-gratia from ₹5.00 lakhs to ₹10.00 lakhs to the families of the fishermen who dies while fishing. As on date, ₹580.00 lakhs was disbursed to 116 claims across the state.
- Power tariff concession was also provided to aquaculture units.
- 738 village fisheries technicians were recruited and positioned at village secretariats to render better extension services.

- E-crop (e-fish) booking for aqua farmers to facilitate remunerative prices for their produce, access to insurance, credit support etc. introduced by Government.
- To ensure the successful crop, YSR Mastya Sagu Badi, a Farmer's Field School at village level providing extension services and crop advisories to aqua farmers has been introduced.
- 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.
- Under RKVY 2020-21, an amount of ₹3777.26 lakhs was sanctioned for fisheries sector in the state for equipment/instruments for establishing 35 Integrated labs (27 new + 8 Dept. labs).
- Development of marine infrastructure through construction of Fish Landing centres (Jetties and Harbours).
- Stocking advanced fish seed fingerlings in all potential inland water bodies.
- Promotion of deep-sea fisheries, open sea cage culture and Mari culture, supply of nets, boats and other inputs on subsidy basis
- Promotion of alternative species for brackish water aquaculture
- Establishment of aquatic quarantine facility for *L.vannamei* for production and supply of SPF brood stock to hatcheries to supply quality seed
- Promotion of innovative technologies like nursery management and grow out pond management, innovative technologies like RAS and Bio-floc technologies.
- Cage culture in suitable reservoirs
- Promotion of value addition and cold storage facility
- Promotion of Domestic Consumption through Aqua Hubs, which will be established at Constituency level in the State with facility of storing of live fish, fresh fish and other marine fish species. These facilities will supply fish to the retail outlets and kiosks. These retail outlets in the coming days will be expanded and developed as Janatha bazars to ensure availability of quality fish to common man at affordable prices.
- Promotion of better management practices, capacity building and skilling activities.

Statutory measures taken by Government for promotion of Aquaculture:

Though the state stands in first in fish and shrimp production, sustainability of the sector remained the core issue. Hence for the sustainability of the sector and to protect the interests of small and marginal aquafarmers, the Government has taken up the following statutory measures:

- **AP state Aquaculture Development Authority (APSADA) Act, 2020:** AP State Aquaculture Development Authority (APSADA) Act, 2020 was enacted to bring all the aquaculture activities / products / services under one umbrella to have an integrated delivery mechanism. Hence the new institutional setup, the Andhra Pradesh State Aquaculture Development Authority (APSADA) has been established as per "Andhra Pradesh State Aquaculture Development Authority Act 2020 (Act 29 of 2020) under the Chairmanship of Hon'ble Chief Minister.
- **AP Feed (Quality control) Act, 2020:** 60% of the operational cost in Aquaculture is accounted to Feed. At present no regulatory mechanism is available for Quality Control in Fish Feed in the state as well as in the entire country. In order to prevent unethical and illegal practices in the Fish Feed industry and to implement

Quality Control measures in the Fish Feed Business in the state, “The Andhra Pradesh Fish Feed (Quality Control) Act 2020” first of its kind in the country is enacted to protect the interests of the aqua farmer.

- **A.P. Aquaculture Seed (Quality Control) (Amendment) Act, 2020:** In order to prevent unethical and illegal practices on production of spurious aquaculture seed and to implement Quality Control measures in Aquaculture Seed Business in the state, the enactment and implementation of “Andhra Pradesh Aquaculture Seed (Quality Control) (Amendment) Act 2020” has done to protect the interests of the aqua farmers.
- **Establishment of AP Fisheries University:** The State has initiated steps for establishment of Fisheries University in West Godavari district to give focussed attention to education in different branches of Fisheries Science and to meet the technical manpower demand in aquaculture sector in the state.

Infrastructure for fisheries development:

- **Shrimp/Scampi Hatcheries and Feed Mill:** The State Government with technical support of MPEDA has planned for construction of Aquatic Quarantine Facility (AQF) and Brooder Multiplication Centre (BMC) in Visakhapatnam district, sea bass and mud crab hatcheries at Suryalanka in Bapatla district.
- **Shore Infrastructure:** There are four fishing harbours in the State located at Visakhapatnam, Kakinada, Nizampatnam and Machilipatnam. Visakhapatnam is the biggest fishing harbour in the State as a large number of fishing vessels operate from the place. The State Government has proposed to construct nine fishing harbours at Juvvaladinne of Nellore District, Kothapatnam of Prakasam District, Nizampatnam of Guntur District, Voderevu in Bapatla district, Machilipatnam of Krishna District, Biyyaputippa of West Godavari District, Uppada of East Godavari District, Pudimadaka of Visakhapatnam district and Budagatlapalem of Srikakulam District in two phases.
- **Andhra Pradesh Marine Board (APMB)** is taking necessary measures to develop integrated seafood parks in and around the upcoming 9 fishing harbors. Integrated Seafood Park with facilities like Cold storages, pre-processing and post-processing facilities, ice-plant, packaging unit etc will reduce the post-harvest losses and harness the fisheries production of the state.
- Under Fish Andhra, GoAP is encouraging marketing of fish and fish products.

The potential for credit support for Fisheries sector for the year 2024-25 has been assessed at ₹9537.43 crore.

4.1.7.4. Suggested action points.

(a) Inland Fisheries

- Seed stocking in all potential water bodies.
- Fish seed stocking in potential MI Tanks.
- Captive seed nurseries for quality seed supply.
- Fish landing centres at reservoirs to reduce post-harvest losses.
- Enhancing production and productivity through selective breeding and quality seed supply.

- Cage culture in reservoirs for enhancing the productivity through diversification.
- Capacity building to fishers and aqua farmers on Best Management Practices (BMPs)
- All benefits seeded with Jandhan, Aadhar and Mobile Number for Direct Benefit Transfer (DBT)
- Deploy the IoT and drone technologies in aquaculture activities.

(b) Marine Fisheries

- Arrangement of digital display boards in landing centres for dissemination of weather and potential fishing zone information.
- Providing marine infrastructure in landing centres to avoid post-harvest losses.
- Coastal security through boats registration, colour coding & biometric cards.
- Sea - weed culture for enhanced livelihoods.
- Open sea cage culture for boosting the production from coastal waters.
- Promotion of deep-sea fishing for exploitation of Tuna fishery.
- Ban period in marine fisheries for conservation of resources.
- Capacity building to coastal fishers on Code of Conduct for Responsible Fisheries and Post-harvest technology.
- Voice message services for disaster mitigation.

(c) Aquaculture

- Geo tagging of all aquaculture ponds.
- Establishment of Aquatic Quarantine Facilities, Brood Stock Multiplication Centres for *L. vannamei* for supply of Specific Pathogen Free seed.
- Promotion of hatcheries for high value species like Sea bass, Cobia and Mud crab, etc.
- Disease monitoring and surveillance - mobile lab services.
- Demand driven research & development and extension services.
- Toll free advisory services to aqua farmers.
- Promotion of cage culture, bio-floc and Recirculating Aquaculture System.

(d) Marketing

- Domestic market promotion through retail outlets, modern fish markets and kiosks.
- ICT based marketing intelligence.
- Promoting per capita fish consumption through promotion of fish value added products.
- Promoting MUDRA loans tie up for fishers.
- Electronic and print media campaigns, fish melas & exhibitions.
- Promotion of hygienic handling at landing points and on-board vessels.

4.1.8. Sustainable Agriculture Practices

4.1.8.1 Introduction

Sustainable agriculture is a critical approach to farming that aims to meet the present needs of farmers and consumers without compromising the ability of future generations to meet their own needs. Andhra Pradesh has a predominantly agrarian economy, with agriculture being a significant contributor to its GDP and employment. However, traditional agricultural practices have often led to environmental degradation, resource depletion, and

socio-economic inequalities. By promoting environmentally friendly methods, maximizing resource efficiency, and ensuring economic viability, the state has embraced sustainable agriculture to improve food security, conserve natural resources, and support rural livelihoods.

Some of the major practices under Sustainable Agriculture Practices are as below:

1. Organic Farming
2. Minimum/Zero Tillage
3. Zero Budget Natural Farming (ZBNF)
4. Integrated Farming Systems (IFS)
5. Multilayer farming
6. Agro Forestry

- **Promotion of Organic Farming:**

Andhra Pradesh has emerged as a frontrunner in promoting organic farming practices. The state government has implemented several programs and initiatives to encourage farmers to adopt organic agriculture methods. The Zero Budget Natural Farming (ZBNF) program, introduced in 2015, promotes chemical-free and organic farming practices. This program emphasizes the use of natural fertilizers, bio-pesticides, and crop diversification, reducing farmers' dependence on synthetic inputs. Through training programs, financial support, and certification processes, the government has successfully encouraged farmers to shift to organic farming methods.

- **Conservation of Water Resources:**

Water scarcity is a significant challenge in agriculture, particularly in a state like Andhra Pradesh, which experiences frequent droughts. To address this issue, the state has implemented various water conservation measures. The Jalayagnam program, launched in 2004, focuses on the construction of check dams, farm ponds, and reservoirs to enhance water storage and recharge groundwater. Additionally, the adoption of micro-irrigation techniques such as drip irrigation and sprinklers has helped reduce water wastage and increase irrigation efficiency. These initiatives not only conserve water but also contribute to sustainable agricultural practices.

- **Crop Diversification and Integrated Farming Systems:**

To ensure the long-term viability of agriculture, Andhra Pradesh has prioritized crop diversification and integrated farming systems. The state encourages farmers to diversify their crop choices, moving away from mono-cropping towards mixed cropping or intercropping. This practice helps reduce the risk of crop failure and improves soil fertility. Additionally, integrated farming systems, combining crop cultivation with livestock rearing or fish farming, provide additional income sources for farmers while enhancing nutrient cycling and reducing pest problems. These sustainable farming systems contribute to the overall resilience of agricultural communities.

- **Agroforestry and Afforestation:**

Andhra Pradesh recognizes the importance of forests in sustaining agricultural ecosystems. The state has undertaken significant efforts in agroforestry and afforestation initiatives. Agroforestry involves integrating trees with crops or livestock, providing shade, windbreaks, and additional income sources through timber or fruit production. Afforestation programs aim to increase forest cover, prevent soil erosion, and enhance biodiversity. These practices not only mitigate climate change but also

contribute to sustainable agricultural practices by improving soil health, water retention, and microclimate regulation.

- **Technology and Innovation:**

Farmers have to embrace technology and innovation to enhance sustainable agriculture practices. Use of modern agricultural techniques, such as precision farming, remote sensing, and weather forecasting, should be encouraged to optimize resource utilization and minimize environmental impacts. The government promotes the adoption of advanced machinery and equipment for efficient land preparation, seed treatment, and crop management. By leveraging technology and innovation, Andhra Pradesh ensures the sustainable use of resources and supports farmers in making informed decisions.

4.1.8.2 State Government Schemes available

1. Dr YSR Polambadi (Farmer Field Schools): The Government of Andhra Pradesh have adopted the concept of Farmers Field Schools locally terming it as Dr YSR Polambadi as a viable and effective tool to fight these challenges. Dr YSR Polambadi (FFS) transforms the farmers into the best decision makers to rationalize the usage of chemical inputs that ultimately brings in affect a considerable decline in cost of cultivation and notable increase in productivity of the crops.
(<https://www.apagrisnet.gov.in/pdf/YSR%20Polambadi%20English.pdf>)
2. Biological Control Laboratories of Andhra Pradesh:
Bio-fertilizers are the substances that contains microbes, which helps in promoting the growth of plants by increasing the supply of essential nutrients to the plants. It comprises living organisms which include mycorrhizal fungi, blue-green algae, and bacteria.
A total quantity of 367.8 MTs of Trichoderma viride, 208.6 MTs of pseudomonas flurescence, 0.446 MTs of Metarhizium and 5915 Nos of Trichogramma cards were produced during 2021- 22 in 11 BC Labs functioning in the state.
(<https://www.apagrisnet.gov.in/pdf/BC%20Lab%20English.pdf>)
3. Natural Farming - Andhra Pradesh Community-Managed Natural Farming - a system wide agro-ecology transformation, an Initiative of Rythu Sadhikara Samstha, Government of Andhra Pradesh.
One of the major achievements of the Government of Andhra Pradesh has been the rapid scaling up of Natural Farming. The number of farmers who practice Natural Farming has gone up from 40,000 in 2016 to around 7,50,000 farmers and farm workers in 2020-21—an increase of 17 times in the last 4 years. The APCNF programme has been recognized as the world's largest agroecology programme in terms of the number of farmers enrolled.
(<https://apcnf.in/>)

4.1.8.3 Challenges and solutions:

1. Knowledge and Awareness – A Significant challenge faced in adopting sustainable agriculture practices is the lack of awareness and knowledge among farmers. Educating farmers about the benefits of the sustainable agriculture practices and providing them with training and extension services can help overcome this challenge.
2. Access to resources – Small and Marginal farmers often face challenges in accessing resources required for sustainable agriculture, such as organic inputs and advances irrigation technologies. Strengthening rural credit systems and promoting farmer producer organisations can enhance access to resources.

3. Market linkages – Connecting sustainable agriculture produce with the market can be a challenge. Developing robust market linkages and promoting sustainable branding can incentivize farmers to adopt such practices.

4.1.8.4 Suggested action points:

1. Strengthening Extension Services in the state for enhancing knowledge dissemination on sustainable agriculture practices
2. Promoting research and development in sustainable agriculture technologies and practices tailored to Andhra Pradesh's agro-climatic conditions.
3. Introducing financial incentives and subsidies for farmers adopting sustainable practices to encourage wider adoption.
4. Developing exclusive Package of practices for the crops grown under Sustainable methods, which can be used for working out of Scale of Finances separately for these crops.

Credit potential of ₹391.98 crores is projected for the year 2024-25 in Andhra Pradesh for the Sustainable Agriculture Practices. The district-wise estimates have been indicated in Annexure I.

4.1.9 Farm Credit – Others, including Two Wheelers for Farmers

4.1.9.1 Introduction

The use of two-wheelers in the agriculture is increasing at a rapid pace particularly by the Small and Marginal farmers. Most of the banks are extending to the farmers for purchase of two-wheelers as 'Kisan Bikes' upto a maximum amount of ₹1.00 lakh. The same are being used for transport of agriculture inputs and labour to the fields and agriculture produce to the market. Many new innovations by farmers are using the engine power of the two-wheeler for various farm operations viz., spray of pesticides, inter-cultivation, winnowing etc., as they are easily available in the rural areas and are very cost effective. The use of two-wheelers is more prevalent with Dairy farmers and vegetable farmers, as they are required to supply the milk and vegetables to the collection center/market on a daily basis and within very less time owing to the high perishability nature of the produce.

Small and Marginal farmers are still dependent on animal power for their agricultural operations. The details of number of land holdings as per Socio-economic survey 2022-23 of Govt. of Andhra Pradesh is 85.24 lakh. Out of which, 75.50 lakh (89%) of the land holdings in the State belong to small and marginal farmers. There is still a good demand for bullocks and bullock carts for the purpose of agricultural operations like ploughing, sowing and intercultural operations apart from transportation of agricultural inputs and farm produce. Farmers are depending on wooden ploughs and metal ploughs. Though the use of tractors and power tillers is steadily increasing, the demand for bullock driven ploughs is still persisting among the small and marginal farmers.

Credit potential of ₹2566.05 crore is projected for the year 2024-25 for other activities (bullocks, bullock carts, etc.). The district-wise estimates have been indicated in Annexure-I.

4.1.9.2. Suggested Action Points

- The interest rate charged for the purchase of two-wheelers by the farmers is still on a high side (>10.5%). The same may be reduced.
- Training of youth for maintenance of the Bullock carts may be encouraged.
- Banks may finance low-cost Bullock carts in remote villages for transportation of agriculture produce from villages /farms to markets at the Mandal level.

4.2 Agriculture Infrastructure Construction of Storage Facilities – Warehouses, Market Yards Including Cold Storage Units / Cold Storage Chains

4.2.1.1 Introduction

India is the second largest producer of wheat and rice, the world's major food staples. India also holds the first position in production, consumption and export of pulses in the world. India is also at Second position in production of Horticultural crops. However, 85% of the farmers in our country are small farmers and contribute significantly to the food grain and horticulture production. These small farmers do not have the economic strength to retain the produce with them till the market prices are favorable. There has been a felt need in the country to provide the farming community with facilities for scientific storage so that wastage and produce deterioration are avoided and to enable it to meet its credit requirement without being compelled to sell the produce at a time when the prices are low. Various farm level infrastructure like warehouses & silos, cold storages, pre-cooling chambers, ripening chambers, logistic facilities like reefer van and insulated vehicles, primary processing infrastructures like threshing, shelling, milling, de-corticating, splitting, cleaning, grading, sorting, drying, packing, etc. would enable the farmers to improve the quality of the produce and motivate them to increase the primary processing and domestic as well as foreign exports. A network of warehouses, processing units and logistics would help the farmers to increase the income of the farmers.

Table 4.13 Agriculture Infrastructure availability in the state:

S No.	Infrastructure available	Capacity
1.	Cold storages-373	20.60 Lakhs MTs
2	Ripening chambers-247	54315 MTs
3	Packhouses-4762	142860 MTs
4	Integrated Packhouse-16	256MTs
5	Market yards including sub yards-324.	
6	Godowns-1060	8.48 Lakh MT
	(Source: Agriculture marketing Dept, GoAP, AP Socio-economic survey 2022-23)	

4.2.1.2. Major Interventions/ Policy Initiatives

Government of India supports the farmers to establish the storage and logistics facilities and provides financial assistance in the form of capital subsidy, interest subvention, credit

guarantee and other incentives. The following schemes are operational in FY 2023- 24 for supporting the farmers.

1. Agriculture Infrastructure Fund (AIF)

The Agriculture Infrastructure Fund is a medium-long term debt financing facility for investment in viable projects for post-harvest management infrastructure and community farming assets through interest subvention and credit guarantee. The duration of the scheme is from FY 2020-21 to FY 2032-33. Loan disbursement is to be completed by 2025-26. Under the scheme, ₹1.00 lakh crore will be provided by banks and financial institutions as loans with interest subvention of 3% per annum and credit guarantee coverage under CGTMSE for loans up to ₹2.00 crore. Eligible beneficiaries include farmers, FPOs, Primary Agricultural Cooperative Credit Societies (PACS), Marketing Cooperative Societies, SHGs, Joint Liability Groups (JLG), Multipurpose Cooperative Societies, Agri-entrepreneurs, Start-ups, and Central/ State agency or Local Body sponsored Public-Private Partnership Projects.

The details of the scheme and eligible infrastructure projects for assistance under AIF scheme is available in <https://agriinfra.dac.gov.in>.

The Andhra Pradesh State Government with an objective to develop farm gate infrastructure across the state at RBK level and to develop PACS as multi-purpose facility centres proposed to avail the Central Government Agriculture Infrastructure Fund scheme through PACS in the State, for which refinance has been sanctioned by NABARD.

Under the scheme, various projects have been approved i.e. Warehouses (Scientific 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 are being implemented in 1293 PACS. NABARD has issued revised approval with total Financial Outlay of ₹778.93 crore and refinance assistance of ₹701.04 crore NABARD has released refinance of ₹159.25 crore to APStCB.

The 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.

Apart from the above, NABARD has sanctioned refinance assistance of ₹ 27.52 crore to APStCB for establishment of infrastructure in 62 non-RBK PACS for various activities such as Godowns, Community Hall, RO plant, Petrol Bunk, Cold Storage, etc. since 2020-21. Against this sanction, refinance of ₹11.76 crore has been released to APStCB till date.

2. Agricultural Marketing Infrastructure (AMI)

The Agricultural Marketing Infrastructure (AMI), a subscheme of Integrated Scheme for Agricultural Marketing (ISAM) is meant for holistic development of agricultural value chain critically focusing each linkage of post-harvest value chain including storage, promotion of value addition and processing at farmers level so as to enhance their income by selling more marketable and processed produce in the market. The sub-scheme AMI lays special focus on construction of storage and primary processing infrastructure at farmers' level and developing and upgrading Gramin Haats as GrAMs through strengthening of infrastructure. This infrastructure may function as farmer-consumer market (retails market) and collection/ aggregation points (spokes) with linkage to secondary market

(hub) and also to processing/ exporting and retail chain with participation of FPOs, other farmers' groups and private sector eligible promoters. Farmer consumer markets for agricultural and allied produce (livestock, fishery, poultry and such other allied produce) devoid of intermediaries and developed elsewhere also by eligible promoters are focused and eligible activity under this sub-scheme. Capital subsidy @25% of eligible project cost for general category and 33.33% for women/ SC/ ST/ FPOs is available under the scheme for setting up of Warehouses and primary processing infrastructure.

The AMI scheme is operational from October 2018 and will be operational till March 2026.

- NABARD vide Circular dated 29.12.2023, has issued the Addendum to Operational Guidelines of AMI sub-scheme of ISAM. The details of the scheme are available in <https://www.nabard.org/content1.aspx?id=702&catid=23&mid=530>

3. World's Largest Grain Storage Plan in Cooperative Sector

Ministry of Cooperation, GoI is implementing "World's Largest Grain Storage Plan in Cooperative Sector" by convergence of various schemes of the Ministry of Agriculture and Farmers Welfare, Ministry of Consumer Affairs, Food and Public Distribution and Ministry of Food Processing Industries. In view of the important role played by PACS at the grass root level in transforming the agricultural and rural landscape of Indian economy and to leverage their deep reach up to the last mile, this initiative has been undertaken to set up decentralized storage capacity at the level of PACS along with other agri infrastructure, which would not only strengthen the food security of the country, but would also enable PACS to transform themselves into vibrant economic entities.

M/s Mritunjaya Sahkari Samiti Achanta PACS, West Godavari District is identified by the GoAP for construction of warehouse and setting up of rice processing unit under Phase I of the Plan.

4. Pradhan Mantri Kisan SAMPADA Yojana (PMKSY)

Pradhan Mantri Kisan SAMPADA Yojana (SAMPADA- Scheme for Agro-Marine Processing and Development of Agro-Processing Clusters) with an allocation of ₹ 6,000 crore for the period 2016-20 coterminous with the 14th Finance Commission cycle. The scheme is implemented by Ministry of Food Processing Industries (MoFPI).

PM Kisan SAMPADA Yojana is a comprehensive package for creation of modern infrastructure with efficient supply chain management from farm gate to retail outlet. It aims to provide a boost to the growth of food processing sector in the country and help in providing better returns to farmers and is a big step towards doubling of farmers income, creating huge employment opportunities especially in the rural areas, reducing wastage of agricultural produce, increasing the processing level and enhancing the export of the processed foods. A few schemes implemented under PMKSY are available in <https://www.mofpi.gov.in/Schemes/pradhan-mantri-kisan-sampada-yojana>

Scheme for Integrated Cold Chain and Value Addition Infrastructure

The objective of the Scheme of 'Integrated Cold Chain and Value Addition Infrastructure' is to provide integrated cold chain and preservation infrastructure facilities, without any break, from the farm gate to the consumer. It covers creation of infrastructure facility along the entire supply chain viz. pre-cooling, weighing, sorting, grading, waxing facilities at farm level, multi-product/ multi temperature cold storage, CA storage, packing facility, IQF, blast freezing in the distribution hub and reefer vans, mobile cooling units for facilitating distribution of non-horticulture, horticulture, fish/ marine (except shrimp), dairy, meat

and poultry. The scheme allows flexibility in project planning with special emphasis on the creation of cold chain infrastructure at farm level.

Integrated cold chain and value addition infrastructure projects can be set up by Partnership/ Proprietorship Firms, Companies, Corporations, Cooperatives, Self Help Groups (SHGs), Farmer Producer Organizations (FPOs), NGOs, Central/State PSUs, etc. with business interest in cold chain solutions and also by those who manage the supply chain.

Financial assistance (grant-in-aid) under the scheme is limited to a maximum of ₹10.00 crore per project in relation to technical civil works and eligible plant & machinery subject to the following:

- For storage infrastructure including Pack House and precooling unit, ripening chamber and transport infrastructure, grant-in-aid @ 35% for General Areas and @ 50% for North East States, Himalayan States, ITDP Areas & Islands, of the total cost of plant & machinery and technical civil works will be provided.
- For value addition and processing infrastructure including frozen storage/ deep freezers associated and integral to the processing, grant-in-aid @ 50% for General Areas and @ 75% for North East States, Himalayan States, ITDP Areas & Islands, will be provided.
- For irradiation facilities grant-in-aid will be provided @ 50% for General Areas and @ 75% for North East States, Himalayan States, ITDP Areas & Islands.

5. 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 various agriculture related infrastructure for agriculture and horticulture by the promoters like farmers, FPOs and the Primary Agricultural Cooperative Society under supervision of Cooperation Department.

The details of the scheme are available in <https://rkvy.nic.in/#>.

6. Mission for Integrated Development of Horticulture (MIDH)

Mission for Integrated Development of Horticulture (MIDH) is a Centrally Sponsored Scheme for the holistic growth of the horticulture sector covering fruits, vegetables, root & tuber crops, mushrooms, spices, flowers, aromatic plants, coconut, cashew, cocoa and bamboo. Under MIDH, Government of India (GOI) contributes 60% of total outlay for developmental programmes in all the states except states in Northeast and Himalayas, 40% share is contributed by State Governments. In the case of North-eastern States and Himalayan States, GOI contributes 90%.

To facilitate proper handling, storage and packaging of seeds, assistance is provided for creating infrastructure like drying platforms, storage bins, packaging units and related equipment. The Public sector will receive 100% assistance, while assistance to the Private sector will be credit linked back ended subsidy @ 50% of cost norms.

MIDH would include projects relating to establishment of pre-cooling units, 'on-farm' pack houses, mobile pre-cooling units, staging cold rooms, cold storage units with and without

controlled atmosphere capability, integrated cold chain system, supply of refrigerated vans, refrigerated containers, primary/ mobile processing units, ripening chambers, evaporative/low energy cool chambers, preservation units, onion storage units and zero energy cool chambers. These projects will be entrepreneur driven and provided credit linked back-ended subsidy.

PSUs/Government agencies/ Cooperatives/ Growers' association recognized/registered by the DMCs, having at least 25 members, will also be entitled to avail assistance for such activities. They may avail back ended subsidy without credit link, subject to condition that they are able to meet their share of the project cost.

Assistance for setting up of new multi-chamber cold storage units with technologies which are energy efficient with provision for thermal insulation, humidity control, advanced cooling systems, automation, etc., having specifications and standards approved by the Ministry cold storage infrastructure is available under the MIDH scheme. While Cold storages (Long term storage and distribution hubs) upto 5000 MT capacity is promoted under NHM/HMNEH sub-schemes, capacity above 5000 MT upto 10000 MT is promoted under NHB sub-scheme. Assistance for pre-cooling unit will be linked to pack-houses and cold rooms (staging).

The details of the scheme are available in
<https://www.midh.gov.in/midhSchemes.html#>.

Credit potential of ₹4040.29 crore is projected for the year 2024-25 in Andhra Pradesh for Construction of Storage Facilities. The district-wise estimates have been indicated in Annexure I.

4.2.1.3. Suggested Action points.

- Private warehouses are required to be encouraged to get accredited and registered with WDRA.
- Construction of cold storages with latest technology.

4.2.2 Land Development, Soil Conservation, Watershed Development

4.2.2.1 Introduction

About 30.86 lakh ha out of net sown area (60.38 lakh ha.) in Andhra Pradesh is rainfed, characterized by low productivity, low income, low employment with high incidence of poverty and a bulk of fragile and marginal land. Rayalaseema region, Prakasam and Nellore districts of the State experience severe and frequent droughts coupled with erratic rainfall, land degradation, low water holding capacity, poor soil health, high temperatures and high evapotranspiration. As per Composite Index (by National Rainfed Area Authority), erstwhile districts of Anantapur, Kurnool, Kadapa, Prakasam, Chittoor and Nellore are found to be most critical in the state and ranked 1 to 6 respectively for prioritisation for development of natural resources.

Land resources– soil, water, livestock, forest– are considered as integral part of the natural capital, which forms the foundation for the wealth of our societies and economies. India's dependence on Land resources can be gauged from the fact that 54.6 % of the total workforce is engaged in Agriculture and allied sectors contributing 18.6% to the countries total Gross Value Added (GVA) (source: Ministry of Agriculture & Farmers Welfare- Annual Report 2022-23) at current prices. Various types of Ecosystem Services are being provided by Land resources including Provisioning Services (e.g. food, fodder), Regulating and

maintenance Services (e.g. soil quality regulation, pollination) and Cultural Services (festivals, arts) (source: https://unstats.un.org/unsd/statcom/52nd-session/documents/BG-3f-SEEA-EA_Final_draft-E.pdf) With structural changes in economy, we are observing distinct changes in the Land Use / Land Cover (LULC), visible in the form of a gradual shift of land from agricultural uses to non-agricultural uses. Anthropogenic activities have given rise to various challenges- like land degradation, severe water crisis, soil productivity decline- to the harmony of ecosystem. As a result, the land quality restoration, sustainable and scientific soil & water management have become primary concerns of the policy makers to ensure sustainable, equitable and inclusive growth.

The status of land utilisation in Andhra Pradesh:

As per the Socio-economic survey, report of Andhra Pradesh (2022-23), the percent share of the different segments of land use of the total geographical area 162.97-lakh hectares of the state is as follows:

Table 4.14 Status of Land Utilization in Andhra Pradesh

Land Use Category	Net area sown	Current fallow lands	Barren and Uncultivable land	Other fallow land	Cultivable waste land	Forest	Land put non-agricultural uses	Remaining land
Area (lakh hectares)	60.38	15.00	13.35	8.94	4.02	36.88	20.82	3.56
% of total Land Use	37.05 %	8.96%	9.20 %	5.49 %	2.47%	22.63 %	12.78%	2.20%

4.2.2.2. Major policy interventions/ schemes

Andhra Pradesh Drought Mitigation Project (APDMP): The main objective of APDMP is to improve the income and strengthen the drought resilience of 90,000 farm households in 105 mandals in the rainfed areas of five erstwhile districts in southern AP i.e., Ananthapuramu, Chittoor, Kurnool, Kadapa & Prakasam districts. It aims to address the problem of repeated drought, low productivity and aims to increase their income. (source: <https://apagrisnet.gov.in/>)

National Mission for Sustainable Agriculture (NMSA)- Rain-fed Area Development: Rain-fed Area Development (RAD) aims to adopt an area based approach for development and conservation of natural resources along with farming systems. This component has been formulated in a 'watershed plus framework', i.e., to explore potential utilization of natural resources base/assets available/created through watershed development and soil conservation activities / interventions. (Source: <https://nmsa.dac.gov.in/frmComponents.aspx>). The scheme is being implemented in 9 districts (viz., districts Kurnool, Nandyal, Anantapuram, Sri Satya Sai, Kadapa, Annamayya, Chittoor, Tirupati and Prakasam). Activities under RAD include promotion of Integrated Farming System, Value Addition and Resource Conservation. Creation and development of common property resources/assets/utilities like grain bank, biomass shredders, fodder bank, group marketing etc. is being encouraged under this scheme.

Watershed Development Programmes: Recognising the importance of watershed based approach for the management of soil and water resources, NABARD has constituted

Watershed Development Fund. The primary objective of Watershed Development Programme is enhancing land productivity, crop production, and livestock resources through extension of grant assistance to the sanctioned projects. The participative approach of the programme helps create awareness among the community for adopting sustainable cropping practices. So far NABARD has implemented 213 watershed projects (including 38 KfW Soil projects) in AP covering 11 districts (Kurnool, Nandyal, Anantapur, Sri Satya Sai, Kadapa, Annamayya, Prakasam, Nellore, Palnadu, Tirupati and Chittoor districts) and 2.00 lakh Ha of degraded area has been treated so far. There are 23 ongoing watershed development projects covering 9 districts.

PMKSY- Watersheds projects Andhra Pradesh: In Andhra Pradesh, the Drought Prone Area Programme (DPAP) and Desert Development Programme (DDP) are being implemented since 1995 in 6 districts. Watershed programmes are implemented in Srikakulam, Prakasam, Chittoor, Cuddapah and Kurnool districts under DPAP and in Anantapur district under DDP Programme. Under DPAP/DDP programme so far 2210 watersheds were implemented in 296 mandals of 12 districts with treated areas of 13.89 Lakh hectares (Source: <http://iwmp.ap.gov.in/WebReports/UI/Miscellaneous/NewVersionGlance.aspx>).

Under PMKSY the state is implementing Command Area Development and Water Management Programme (CADWMP) which aims to bridge the gap between potential created and their utilization through micro level infrastructure development and efficient farm water management practices. The programme includes components like On-farm Development works, construction of field, intermediate and link drains, reclamation of waterlogged area etc. Under the Accelerated Irrigation Benefit Programme (AIBP), eight projects are covered in Prioritized projects in Andhra Pradesh State.

Soil Health Card Scheme (SHC): Soil Health & Fertility (Soil Health Card) 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. SHC is a printed report that contain an advisory based on the soil nutrient status of a farmer's holding. It shows recommendations on dosage of different nutrients needed and advise the farmer on the application of fertilizers and their quantities, the soil amendments measures to realize optimal yields. The soil testing labs will help farmers to identify the problems (Alkalinity/Salinity) and deficiency of nutrients if any. There are 16 district level Soil Testing Labs, 1 Regional Soil Testing Lab at Bapatla, 13 Mobile Soil Testing Labs in all the districts and 30 Soil Testing Labs in AMCs in the state.

Dr.YSR Agri Testing Labs: To help farmers access good quality inputs like seeds, fertilizers, and pesticides, 70 Agri Testing Labs have been established in AP. The state has planned to establish another 77 such labs at the constituency level. It will encourage farmers to use Micronutrients for correction of Micronutrient deficiencies and Soil Amendments for correction of Soil Salinity and Alkalinity.

Dr.YSR Rythu Bharosa Kendralu: 10,778 Rythu Bharosa Kendras have been established across states serving the farmers by supplying pretested quality inputs, as well as functioning as procurement centres at the village level.

Dr. YSR Polambadi (Farmer Field School): This programme has been launched to educate farmers about harmful effects of excess use of chemical pesticides, creating awareness on integrated pest management, and to train them for adoption of Good Agricultural Practices (GAP). The farmers are trained on studying, analysing 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 effect a significant decline in cost of cultivation and increase in the yields of in crops. The State will issue GAP certificate to the farmers who

meet GAP standards in their produce produced through Dr YSR Polambadi, and the produce acknowledged with GAP certificate would secure a far higher price than the normal existing price offered for sale in the market.

Paramparagat Krishi Vikas Yojana- The scheme aims to promote organic production through certified organic farming. The scheme encourages adoption of Participatory Guarantee System (PGS) certification through cluster approach (cluster of 50 acre). The scheme extends assistance for PGS Certification and Quality control, establishment of Botanical extracts production units, Transportation of organic produce, Organic Fairs etc.

AP Community managed Natural Farming (APCNF)- Government of Andhra Pradesh has been implementing, AP Community managed Natural Farming (APCNF) in 10,300 clusters bringing 5,92,089 farmers in 2,68,263 ha area under Natural Farming. APCNF programme is implemented under Paramparagat Krishi Vikas Yojana (PKVY), Bharatiya Prakritik Krishi Padhati (BPKP) CSS Schemes of GOI in 3011 Gram Panchayats. For expansion of Natural farming in the State, Govt. of AP/RySS have secured a Results-Based Lending (RBL) mode loan of 90 million Euro from KfW, for the APCNF-KfW Project for the period of 2020-25 in 719 Gram Panchayats. During 2023-24, programme targets to cover 10.5 lakh farmers under APCNF with area coverage of 4.58 lakh ha. Programme plans to establish 5.0 lakh Kitchen Gardens by the Women Self Help Groups and to cover 8.61 lakh farmers to practice PMDS method during 2023-24.

JIVA Programme: The programme will promote natural farming in completed watershed and tribal development projects of NABARD in 11 states covering five agro-ecological zones, which are in ecologically fragile and rain-fed areas. JIVA aims to ensure using the principles of agro-ecology, long-term sustainability and transform the pre-existing social and natural capital and nudge the farming community towards natural farming. For the year 2023-24, pilot phase has been sanctioned for 4 projects in Prakasam (Watershed-1), Parvatipuram Manyam (TDF-2) and Srikakulam (TDF-1) districts with total grant support of ₹120.00 lakh from NABARD covering around 140 acres. Programme aims to cover 500 acres in each project during next phase.

The credit potential available for the Land development, Soil Conservation and Watershed development sector for 2024-25 has been estimated at ₹2145.36 cr

Suggestions:

- Capacity building and awareness generation for climate resilient agronomy exercises need to be undertaken for farmers.
- Incentivise formation of social Institutes like Village Watershed Committees (VWCs)/ Water Users Association (WAUs) for comprehensive and inclusive management of water resources
- Banks and other financial institutions (like MFIs) need to be galvanized to finance NRM activities.
- Credit outreach programmes for VWCs, SHGs, and JLGs for NRM activities.
- Realigning the public expenditure towards ecologically sensitive green and blue infrastructure
- Need of Innovative Finance instruments for Land Restoration on the lines of Land Degradation Neutrality (LDN) Fund of UNCCD (Source: Global Land Outlook-UNCCD)

- Use of IoT, machine learning and other emerging technologies may be incentivized, promoted and popularized for promotion of precision farming which will ensure optimum use of natural resources.

It is evident that the efforts and investments undertaken for Land Development, Soil Conservation and Watershed Development leads to significant return on investment (RoI) in the form of Crop yields increase, improved food security, restoration of ecological balance, optimal utilization of natural resources, and generating inclusive growth. Reorienting policy apparatus towards sustainable and green public expenditure and creating incentives for lenders to finance these activities should be high on agenda.

4.2.3. Agri-Infrastructure: Others (Tissue culture, Agri biotechnology, Seed Production, Bio-Pesticides/ fertilizers, Vermicomposting, and e-NAM)

4.2.3.1. Introduction

The availability of quality inputs – seed material, bio-fertilizers, and bio-pesticides - is critical for enhancing the productivity of crops, which also calls for increasing the flow of credit for bankable activities identified under Agri infrastructure – others viz., Plant tissue culture and agri-biotechnology, seed production, production of bio-pesticides, bio-fertilizer, vermicomposting and e-NAM

4.2.3.2. Infrastructure, policy support Available

Tissue Culture & Agri Bio-technology

Currently 78 commercial tissue culture production units have been recognized by the Department of Biotechnology (DBT), Govt. of India under the National Certification System for Tissue Culture Raised Plants (NCS-TCP). Out of this ABT Tissue Culture Lab., Ananthapur. Micro Laboratories Pvt Ltd, Chittoor and Sri Soma Biotech, Guntur are in the State of Andhra Pradesh.

Seed Production & processing:

Seed is a critical determinant in increasing Agricultural production. The performance and efficiency of other inputs depends on the quality of seed. Certified/quality seed plays an important role in achieving higher yields. Hence, supply of quality seed to the farmers is one of the most important interventions to increase the production and productivity of any crop. To bring more area under cultivation certified or quality seed must be supplied at affordable prices and in adequate quantities to the farmers. The area under cultivation is not going to increase significantly; the thrust will have to be on rising productivity per unit of cultivated land.

Seed Farms: The 27 State Seed Farms are taking up of Seed production programme utilizing the Breeder seed from the ANGRAU and Foundation seed from Seed farms. The quality Foundation seed produced in the Farms is being utilized under Seed Village Scheme implemented by the Department.

Seed Village Programme: introduced in Rabi 2004-05 in the state by state Govt. of A.P. and from Rabi 2005-06 onwards the Scheme is being implemented as per the norms of GOI. 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.

Bio-pesticides and Fertilizer

The Government of Andhra Pradesh has decided to provide quality and certified fertilizers to the farmers at RBKs so the (3) existing Fertilizer Quality Control Laboratories (FQCLs) and one Biofertilizer testing lab in the State was strengthened under SHM Scheme during 2020-21.

The budget allocated under the RKVY scheme- Biological control laboratories – ₹1.37 Cr.

Under NFSM, cluster demos of all critical inputs like seed, bio-fertilizers, PP chemicals, need-based farm implements are distributed to the farmers on 50% subsidy FOR FY 20-21.

Vermi-composting/ NADEP Composting

1 ton of vermicompost contains N (0.75%), P (0.6%) and K (1.0%) which is equal to 16.3 Kg of Urea, 37.5 Kg SSP, 16.7Kg MOP

Under the RKVY project, vermicomposting is promoted with a 50% subsidy. The unit cost of the vermicomposting unit is ₹50000 (64- 71 kg earthworms with 150 kg filler material @ (₹8000; 4 composting pits@ ₹14000; and semi-permanent shed@ Rs 28000) out of which ₹25000 is provided as subsidy. Also, for vermin-hatcheries 75% subsidy (max ₹75000 per unit) is provided.

e-NAM

e-NAM (National Agriculture Market electronic trading portal) is a reformed linked scheme and States are required to carry out pre-requisite reforms to enable (i) a single license to be valid across the State, (ii) a single point levy of market fee, and (iii) Provision for electronic auction as a mode of price discovery. SFAC will operate and maintain the e-NAM platform with the help of a Strategic Partner, presently NFCL. As of January 18, 2023, 1389 Mandis from 23 states and 04 UTs have been integrated on e-NAM. A total of 57 Mandis from Andhra Pradesh have been integrated on eNAM. 216 FPOs and 14,51,940 farmers from the state have been registered on eNAM.

4.2.3.3. Assessment of credit potential for 2023-24

The credit potential available for the Agri-Infrastructure- Others (Tissue culture, Agri biotechnology, Seed Production, Bio-Pesticides/ fertilizers, Vermicomposting, and e-NAM) sector for 2024-25 has been estimated at ₹1249.71 crore. The district-wise/ sector-wise PLP estimates for 2024-25 have been indicated in Annexure I.

4.2.3.4. Suggested Action Points

- Since 2015, APSMD has initiated the e-NAM and e- Permit system 2018.
- Developing Andhra Pradesh as a global seed hub, Mega Seed Park in Kurnool district.
- Promotion of ZBNF throughout the state.
- Promotion of Tissue culture banana cultivation in the state. Tissue culture banana is supported under Mission for Integrated Development of Horticulture and Normal State Plan of Horticulture Department.
- Similarly, Vermicompost is supported by Agriculture Department under RKVY.
- Exclusive state-level Bio-Control Laboratory at Nidadovola, West Godavari.
- Encouraging IPM and INM management in crops.

- Andhra Pradesh Seeds Development Corporation is producing seed varieties for the crops like rice (BPT-5204), black gram (LBG623, 645 and 752), Bengal gram (KAK-2 and JG-11), red gram (LRG-41 and PRG-158), groundnut (TMV-2 and TAG-24), green gram (LGG-460), jute (JRO-524) and pillipesara (*Phaseolus trilobus*) in Prakasam district with the help of farmers.
- Subsidized seed supply through various schemes like NFSM, RKVY, NMOOP through various agencies like APSSDC, APOILFED, and APMARKFED.
- Seed Village Programme supplies quality certified seeds to the farmers at an affordable price.

4.3. Agriculture Ancillary Activities

4.3.1 Food and Agro Processing

4.3.1.1. Introduction

Food processing Sector serves as a vital link between the agriculture and industrial segments of the economy. Strengthening this link is of critical importance to reduce wastage of agricultural raw materials, improve the value of agricultural produce by increasing shelf life, fortify the nutritive capacity of the food products and ensure remunerative prices to farmers as well as affordable prices to consumers and boost exports. Food processing sector has also emerged as an important segment of the Indian economy in terms of its contribution to GDP, employment and investment. Post-harvest technology and management plays a crucial role in value addition to agriculture. The post-harvest loss in the country is estimated to be in the range of 30 to 40 percent. This is due to lack of Post-Harvest Management (PHM) and the paucity of processing facilities.

Andhra Pradesh has a strong raw material base due to its diverse agro climatic conditions and it can tap the potential for processing and value addition in perishables like fruits and vegetables by making investment in Food Processing Infrastructure. The 06 agro-climatic zones favouring cultivation of a multitude of crops, vegetables and fruits round the year opens up vast scope for post-harvest management, processing and value addition. With abundant raw material supply and a huge domestic market for processed food, the sector offers immense potential for growth.

Under Food Processing Fund, NABARD provides affordable credit for infrastructure works in food parks and food processing units in designated food parks. State Government, State Govt. entities and corporations are eligible for availing loan under Food Processing Fund at the rate of interest prevailing under RIDF for setting up of such food processing projects. State Government may therefore, like to collaborate with NABARD in financing projects in food processing sector, fisheries development and other infrastructure.

4.3.1.2. Government of India Policy Initiatives

Several policy initiatives have been taken from time to time to promote the growth of the food-processing sector in the country. Some of these are:

- Exempting all the processed food items from the purview of licensing under the industries (Development and Regulation) Act, 1951
- Automatic approval for foreign equity up to 100% for most of the processed food items excepting alcohol and beer subject to certain conditions.
- 100% Foreign Direct Investment under government approval route for trading, including through e-commerce, in respect of food products manufactured or produced in India.

- Developing a strong supply chain for perishable farm produce to reach the processing sector promptly.
- Incentivizing creation of infrastructure and developing technology to convert such produce into value-added products.
- Reducing Excise Duty on food processing and packaging machinery from 10% to 6%.
- Reducing basic Customs Duty/Excise Duty on Refrigerated Containers.
- Simplifying Application Forms of all the schemes and minimizing the requirement of documents.
- Uploading Food Maps identifying surplus raw material on the website.
- Assisting Skill Development Initiatives through the Sectoral Skill Council [i.e. Food Industry Capacity and Skill Initiatives (FICSI)] on Food Processing working in Federation of Indian Chamber of Commerce and Industry (FICCI)
- Classifying loan to food & agro-based processing units and Cold Chain under agriculture activities for Priority Sector Lending.
- Exempting pre-cold storage services of preconditioning, pre-cooling, ripening, waxing, retail packing, labelling of fruits & vegetables from Service Tax.

Operation Greens

In the Union Budget 2018-19, a new Scheme “Operation Greens” was announced on the line of “Operation Flood”, with an outlay of ₹500 crore to promote Farmer Producers Organizations (FPOs), agri-logistics, processing facilities and professional management. Accordingly, MoFPI has formulated a scheme for integrated development of Tomato, Onion and Potato (TOP) value chain. Andhra Pradesh Food Processing Society has been appointed for implementation of Operation Green scheme for developing value chain of tomato in the clusters of Chittoor and Anantapur district of the State. MoFPI has extended the Operation Greens Scheme on 11.06.2020 from Tomato, Onion and Potato (TOP) to all fruits & vegetables (TOTAL) upto 31.03.2026 on pilot basis as part of Aatmanirbhar Bharat Abhiyan to provide 50% subsidy on transportation and storage.

PM Formalisation of Micro Food Processing Enterprises Scheme

Ministry of Food Processing Industries (MoFPI), in partnership with the States is also implementing the PM Formalization of Micro Food Processing Enterprises (PM FME) scheme under the ambit of ‘Atmanirbhar Bharat Abhiyan’. The scheme envisages to provide credit-linked capital subsidy at 35% of the eligible project cost with a maximum ceiling of ₹10 lakh per unit to existing individual micro food processing units for infrastructure upgradation, for development of common infrastructure including common processing facility, lab, warehouse, etc., through FPOs/ SHGs/cooperatives or State-owned agencies or private enterprises. The scheme will be implemented from FY2020-21 to FY 2024-25. Andhra Pradesh Food Processing Society is the nodal agency identified by the Government of Andhra Pradesh for implementation of PMFME in the State.

Production Linked Incentive Scheme for Food Processing Industry (PLISFPI)

The PLISFPI has been formulated based on the Production Linked incentive scheme of NITI Aayog under “Aatma Nirbhar Bharat Abhiyaan for Enhancing India's Manufacturing Capabilities and Enhancing Exports”. The scheme envisages to support creation of global food manufacturing champions commensurate with India’s natural resource endowment and support Indian brands of food products in the international markets with an outlay of ₹10,900 crore. The objective of the scheme is to support food manufacturing entities with

stipulated minimum sales and willing to make minimum stipulated investment for expansion of processing capacity and branding abroad to incentivize emergence of strong Indian brands.

- Support creation of global food manufacturing champions.
- Strengthen select Indian brand of food products for global visibility and wider acceptance in the international markets.
- Increase employment opportunities of off-farm jobs.
- Ensure remunerative prices of farm produce and higher income to farmers.

Government of Andhra Pradesh's Initiative

The Andhra Pradesh Food Processing Society (APFPS) has been established by the Government of Andhra Pradesh under The Andhra Pradesh Societies Act in November 2012 to act as a nodal agency for development of Food Processing Sector in the State. APFPS aims at creation of Secondary food processing units with modern infrastructure meeting global standards in areas of Food Processing, Horticulture, Dairy, Agriculture and Aqua production. Government of Andhra Pradesh has released AP Food Processing Policy 2020-25 and APFPS as a nodal agency for implementation of policy. Andhra Pradesh has strategically chosen Visakhapatnam, East Godavari, and West Godavari districts in the cluster for future expansion of cold chain facilities, secondary and tertiary processing units, along the proposed Vizag – Chennai Industrial Corridor (VCIC) (AP Vision 2029).

Specialized and tailor-made incentives are being provided by the state in order to encourage green field projects in the state. Major incentives include:

- Grant-in-aid @ 35% of eligible project cost up to ₹10.00 crore for development of secondary food processing clusters.
- For Micro and Small Enterprises – 100% reimbursement of net SGST for 5 years
- A seed capital assistance of 25% of machinery cost is extended to SC/ST entrepreneurs for setting up of micro units
- For SC/ST entrepreneurs, 100% of cost incurred is extended as incentive towards Quality Certification/Patent Registration, subject to a limit of ₹3.00 lakh
- FPOs, women from BC and minority communities are eligible for Interest subvention of 3% for 5 year period for MSME units. SC/ST entrepreneurs are eligible for 9% over and above 3% interest subvention.

Mega Food Parks and Agro Processing Clusters in Andhra Pradesh

Ministry of Food Processing Industries (MoFPI) had approved 25 Mega Food Parks and Agro Processing Clusters in Andhra Pradesh details are as under:

Table 4.15 Mega Food Parks in Andhra Pradesh

Sl No	Mega Food Parks as on 31.03.2023	District
01	Srini Food Park promoted by M/S Srini Food Park Pvt Ltd	Chittoor
02	Food Park promoted by Andhra Pradesh Industrial Infrastructure Corporation Ltd.	Chittoor
03	Mega Food Park – Krishna promoted by Andhra Pradesh Industrial Infrastructure Corporation Ltd.	Krishna
04	Mega Food Park – West Godavari promoted by M/S Godavari Mega Aqua Park Pvt Ltd.	West Godavari
05	MIP_Kopparthy	Kadapa
06	IP-Peddapuram	East Godavari
07	IP-Peddapuram, Phase-III	East Godavari
08	Peddapuram, Un-developed	East Godavari
09	IP Naidupet	Nellore

Sl No	Mega Food Parks as on 31.03.2023	District
10	IP_Valasalapalli	Chittoor
11	IP_Gambheeram	Visakhapatnam
12	Growth Centre Bobbili	Vijayanagaram
13	IP_Gollapuram	Ananthapur
14	Spices Park	Guntur
15	Nekkanti Mega Food Park	SPSR Nellore
16	SH Food Processing Pvt Ltd	Prakasam
17	Patanjali Food and Herbal Park Pvt Ltd	Vizianagaram
18	Vyshnavi Mega Food Park Pvt Ltd	Chittoor
19	Aveena Andhra Food Park Pvt Ltd	Ananthapuramu
20	North Andhra Food Park Pvt Ltd	Srikakulam
21	North Coastal Integrated Food Park Pvt Ltd	Vizianagaram
22	Sri Varsha Integrated Food Park Pvt Ltd	Kadapa
23	Sri Chanda Food Park Ltd	Vizianagaram
24	Specialized SRK Foods Pvt. Ltd	Chittoor
25	Safe n Fresh Integrated Food Park Pvt. Ltd	Nellore
26	M/S CRPL, Visakhapatnam Cold Chain Private ltd	Visakhapatnam
27	M/S Aalamandha Food Park	Vizianagaram
Sl No	Agro Processing Centre(APC) as on 21.11.2023	District
01	M/s Charan Biotech Private Ltd, Sai Balaji T Email Id: tsaibalaji2002@gmail.com, Mob No: 9108055959	Ananthapuramu
02	M/s KPS Agro And Ind Private Ltd, Kotrike Venkatesh Teja Email Id: KPSCMD2@GMAIL.COM, Mobile No.9848076136	Kurnool
03	M/s Gama Biotech Farms, M Satyanarayana Raju Email id:for gamabiotechfarms@gmail.com, Mobile No 9676946464	NTR
04	M/s Ramansinghs Global Food Park, Gogineni Srinivas Email: rsfoodpark1@gmail.com , Mob: 8085272737	Eluru
05	M/s MR Agrotech Industries, Kanikarla Norman Wesley Email: meghana.wesley@gmail.com Mob: 7397463128	Nellore

Potential assessed for lending to **Food & Agro Processing Sector**, keeping in view the special focus of the state and potential for exponential growth of agro processing units during 2024-25 is **₹7301.13 crore**. District-wise estimates have been indicated in Annexure-I.

4.3.1.3 Suggested Action Points

- To arrest post-harvest losses of produce, considerable investments are required in rural infrastructure and components of the supply chain by way of grading and packing centers, controlled atmosphere storage facilities, reefer vans, testing laboratories, etc., which may not come from private sources at this stage of the development of the food processing industry. It is therefore essential that public

investment is significantly increased to fund these components of rural infrastructure to enable private enterprises to take up the remaining commercially viable components of the supply chain.

- The sector offers immense potential for export of processed food by adhering to the quality standards. Initiatives for strengthening quality standards through creation and provision of services like R&D, testing, quality improvement, marketing will enhance competitiveness of the sector. Promotion of innovations in products and processes creating adequate infrastructure for food testing and training manpower for food safety will provide impetus to the sector.
- Capacity Building of micro-entrepreneurs especially SHGs on emerging technologies, food safety, quality management etc through greater participation of Skill Development Centres, RSETI and NGOs with support from line departments.
- Banks may tap the potential available in the unorganized sector. Matured SHGs may be trained, and credit linked for setting up of small agro processing unit in potential rural areas.
- Banks may support unorganized units to modernize and upscale with the support under PMFME and NABARD's Special Refinance Scheme.
- Banks may closely liaison with DIC to leverage on the benefits of various subsidy schemes implemented by the centre for financing activities in the Sector.
- FPOs to be encouraged and incentivised to take up primary processing and grading facilities for enhancing the income of farmers.
- Banks to Provide timely hassle free and adequate working capital to food processing units as the commodities are seasonal.
- Availing of funds under food processing fund maintained by NABARD.

4.3.2 Agri Ancillary Activities & Others- Miscellaneous

4.3.2.1 Introduction

As per the latest RBI Master Directions on Priority Sector Lending Targets and Classifications), the activities like setting up of Agri-Clinics and Agri-Business Centres, Custom Service Units, Primary Agricultural Credit Societies (PACS), Farmers' Service Societies (FSS) and Large-sized Adivasi Multi-Purpose Societies (LAMPS) for on-lending to agriculture, loans to MFIs for on-lending to agriculture and loans to NBFCs for on-lending to agriculture and MSMEs are included under **Agriculture – Ancillary Activities**. Loans to distressed persons to prepay their debt to non-institutional lenders, Overdraft limit to PMJDY account holders and Loans sanctioned to State Sponsored Organisations for Scheduled Castes/ Scheduled Tribes for the specific purpose of purchase and supply of inputs and/or the marketing of the outputs of the beneficiaries of these organisations, SHGs/JLGs are included under

Others- Miscellaneous.

4.3.2.2. Major Policy Interventions/ Schemes

Agri-Clinic and Agri-Business Centres Scheme (ACABC)

Agri-Clinics provide expert advice and services to farmers on various technologies, which would enhance productivity of crops / animals. Agri-Business Centres are commercial units of agri-ventures which provide agri-extension services.

ACABC Scheme is being implemented by GoI through National Institute of Agricultural Extension Management (MANAGE) and NABARD since 2002. The Scheme is continued for FY 2023-24.

This Scheme aims to tap the expertise available in the large pool of Agriculture Graduates to own Agri-Clinic or Agri-Business Centre and offer professional extension services to innumerable farmers.

Specialised training is provided to Agriculture Graduates interested in setting up such a centre. Being provided free of cost, 45 days training course is offered by Nodal Training Institutes (NTIs). Initiated by SFAC, and co-ordinated by MANAGE, the course comprises Entrepreneurship and Business Management, as well as skill improvement modules in chosen areas of activity. As on date, there are 7 NTIs in Andhra Pradesh – two in Visakhapatnam, one each in Annamayya, Srikakulam, Guntur, Kurnool and Krishna. (Source: <http://www.https://www.agriclinics.net/Nti-Contacts.aspx>). The trained candidates are eligible for availing a composite loan from Commercial banks, Regional Rural Banks, State Cooperative Banks and other institutions eligible for refinance from NABARD for establishing Agri-clinics and Agri-Business Centres.

The scheme also includes a credit-linked subsidy component, which is being implemented through NABARD. Subsidy will be back-ended with minimum 3 years lock in period. Subsidy will be 44% of project cost for women, SC/ST & all categories of candidates from NE and Hill states and 36% of project cost for all others. Ceiling of project cost for subsidy is ₹20 lakh for an individual project (₹25 lakh in case of extremely successful individual projects) and up to ₹100 lakh for a group project (established by a group comprising at least 5 trained persons under the scheme). Delivery of extension services shall be the main component of ACABC projects for availing of the subsidy benefit under the scheme.

A total of 1740 agri-preneurs from the state were trained as on 22.01.2024 and 495 Agri-ventures have been established in the State of Andhra Pradesh (<https://www.agriclinics.net/OtherDocuments/state-wise.pdf>). As on 22.01.2024, a total of 21 proposals have been sanctioned in the State involving total financial outlay of ₹382.96 lakh, against which subsidy of ₹127.37 lakh has been released for 20 projects.

Loans to PACS/FSS/LAMPS

Primary Agricultural Credit Societies (PACS) and Farmers' Service Societies (FSS) are integral to the cooperative credit structure. It serves as the final conduit between the financial institutions and ultimate beneficiaries. PACS and FSS undertake activities under credit and non-credit businesses. The Large-sized Adivasi Multi-Purpose Co-operative Societies, shortly called LAMPS cater to the developmental requirements of tribals. There are 2046 functional PACS in Andhra Pradesh

(Source: <https://pib.gov.in/PressReleaseDetailm.aspx?PRID=1907177>).

PACS as Multi Service Centres (PACS as MSC)

NABARD took up the initiative for transforming PACS into Multi Service Centres (MSCs) to diversify the business model of the PACS and make them self-sustainable entities in the long run. The ultimate objective is to convert the PACS and to make the PACS into "One Stop Shop" so that it can cater to all the needs of its members and increase its profit margin. NABARD has introduced a Special Long Term Refinance Scheme for transformation of PACS to MSCs at a concessional rate of interest. The scheme intends to develop all the potential PACS as MSC by Providing Concessional Refinance to StCBs at 3% to support

PACS to create quality infrastructure (capital assets) and increase their business portfolio in tune with needs of members.

The Scheme has been extended till 31.03.2026 or till allocated fund of ₹5000.00 crore is fully sanctioned whichever is earlier. Under the Special Refinance Scheme – PACS as MSC, in synergy with Agriculture Infrastructure Fund (AIF) of GoI, NABARD has sanctioned TFO of ₹778.93 crore and refinance assistance of ₹701.04 crore in respect of 1,293 PACS for establishing various agri-infrastructure facilities in convergence with Rythu Bharosa Kendra (RBK) scheme of GoAP. NABARD has released refinance of ₹159.2532 crore to APStCB.

Apart from the above, NABARD has sanctioned refinance assistance of ₹ 27.52 crore to APStCB for establishment of infrastructure in 62 non-RBK PACS for various activities such as Godown, Community Hall, RO plant, Petrol Bunk, Cold Storage, etc. since 2020-21. Against this sanction, refinance of ₹11.76 crore has been released to APStCB till date.

Loans to MFI for on lending of Agriculture

MFIs are those organizations, other than banks, providing micro financial services to the poor in rural, semi urban or urban areas, to enable them to raise their income levels and improve their livelihood.

The lending by commercial banks to NBFCs and lending by Small Finance Banks (SFBs) to NBFC-MFIs, for the purpose of on-lending is continued by RBI on on-going basis. Bank credit to MFIs extended for on-lending to individuals and also to members of SHGs / JLGs will be eligible for categorisation as priority sector advance under respective categories viz., Agriculture, Micro, Small and Medium Enterprises, Social Infrastructure and Others, provided not less than 85 percent of total assets of MFI (other than cash, balances with banks and financial institutions, government securities and money market instruments) are in the nature of “qualifying assets”.

Further, the banks have to ensure that MFIs comply with the caps on margin and interest rate as also other ‘pricing guidelines’, as prescribed by RBI to be eligible to classify these loans as priority sector loans.

Others

- i. Loans to distressed persons to prepay non-institutional lenders: Loans to distressed farmers indebted to non-institutional lenders and distressed persons other than farmers, with loan amount not exceeding ₹1 lakh per borrower to prepay their debt to non-institutional lenders qualify for priority sector lending.
- ii. **PMJDY:** Pradhan Mantri Jan-Dhan Yojana (PMJDY) is National Mission for Financial Inclusion to ensure access to financial services, namely, a basic savings & deposit accounts, remittance, credit, insurance, pension in an affordable manner. Benefits under PMJDY include:
 - Rupay Debit card is provided to PMJDY account holder.
 - Accident Insurance Cover of ₹1 lakh (enhanced to ₹2 lakh to new PMJDY accounts opened after 28.8.2018) is available with RuPay card issued to the PMJDY account holders.
 - An overdraft (OD) facility up to ₹10,000 to eligible account holders is available.
 - PMJDY accounts are eligible for Direct Benefit Transfer (DBT), Pradhan Mantri Jeevan Jyoti Bima Yojana (PMJJBY), Pradhan Mantri Suraksha

Bima Yojana (PMSBY), Atal Pension Yojana (APY), Micro Units Development & Refinance Agency Bank (MUDRA) scheme.

As on 12 July 2023, there are 1,34,03,545 PMJDY accounts in the state of Andhra Pradesh, with a deposit outstanding of ₹4,703.55 crore. 89,21,820 Rupay Cards have been issued to the beneficiaries in the state of Andhra Pradesh.

- iii. Loans to State Sponsored Organisations for SC/ST for the specific purpose of purchase and supply of inputs and/or the marketing of the outputs of the beneficiaries of these organisations are eligible for classification under Priority Sector Lending.
- iv. SHGs/JLGs: Following loans are eligible to be classified under priority sector lending:
 - a. Loans not exceeding ₹1.00 lakh per borrower provided directly by banks to individuals and individual members of SHG/JLG, provided the individual borrower's household annual income in rural areas does not exceed ₹1.00 lakh and for non-rural areas it does not exceed ₹1.60 lakh
 - b. Loans not exceeding ₹2.00 lakh provided directly by banks to SHG/JLG for activities other than agriculture or MSME, viz., loans for meeting social needs, construction or repair of house, construction of toilets or any viable common activity started by the SHGs.
 - c. Loans to Start Ups upto ₹50 crore

4.3.2.3. Suggested action points.

- The Government should encourage FPOs with interest subvention and working capital based on the grading and business.
- There is a need to sensitize banks, including RRBs and Cooperative Banks, as there are potential FPOs for absorbing credit for their short term and long-term credit needs. Branch managers/staff are required to be apprised of the FPO concept and the modalities of their financing.
- There is good scope for private extension services which will supplement the already existing public extension services and thus there is good potential for establishment of Agri clinics and Agribusiness Centres.

The potential assessed for lending under Agri Ancillary & Other activities is ₹5611.66. crore for 2024-25. District-wise estimates have been indicated in Annexure-I.

4.4 Micro, Small & Medium Enterprises (MSME) – Working Capital and Investment Credit

4.4.1 Introduction

In accordance with the provision of Micro, Small & Medium Enterprises Development (MSMED) Act, 2006 the Micro, Small and Medium Enterprises (MSME) are classified as below:

- a. Micro: Investment ≤ ₹1 crore, Turnover ≤ ₹5 crore.
- b. Small: Investment ≤ ₹10 crore, Turnover ≤ ₹50 crore.
- c. Medium: Investment ≤ ₹50 crore, Turnover ≤ ₹250 crore.

India is home to a large base of 7.9 million registered Micro, Small and Medium Enterprises (MSMEs). The sector contributes around 33% of the country's total GDP and accounts for around 120 million jobs in areas such as manufacturing, non-captive electricity generation and transmission, trade and other service, across rural and urban areas in the country.

Uttar Pradesh leads with 14.20% of national MSMEs. Andhra Pradesh, at 7th with 33.87 Lakh MSMEs (5% of total), focuses on sectors like food, minerals, pharmaceuticals, and services. The MSME Policy 2020-23 aims for global competitiveness through incentives, skill development, and rehabilitation of sick industries. In 2022-23, 55,761 MSMEs were established, investing ₹13,360.15 crores and creating 2,27,027 jobs.

4.4.2. Government Initiatives for MSME:

- PMEGP: A central scheme implemented by KVIC, targeting various social categories, offering subsidies and loans with a repayment period of 3-7 years.
- Dr. Y.S.R Navodayam Scheme: Supports MSMEs with One-Time Restructuring (OTR) of loans and reimburses auditor's fees for eligible MSME units.
- APMSE Facilitation Council: Established for redressal and recovery of delayed payments to MSEs.
- YSR Jagananna Badugu Vikasam: Special incentives for SC/ST entrepreneurs in manufacturing and services.
- Other Incentives: Include reimbursement of stamp duty, power subsidies, investment subsidy, interest subsidy, and land conversion charges.
- Skill Development: Focuses on aligning skills with industrial needs, establishing a Skill University and multi-skill centers.
- MSME Cluster Development Programme: Enhances productivity and competitiveness of MSEs through cluster development.

Agencies working for the development of MSME Sector:

MSME Ministry has five statutory bodies namely, Khadi and Village Industries Commission (KVIC) which is responsible for promoting and developing khadi and village industries for providing employment opportunities in rural areas, thereby strengthening the rural economy, Coir Board in charge of promoting overall development of the coir industry and improving living conditions of workers in this industry, National Small Industries Corporation Limited (NSIC) responsible for promoting, aiding and fostering growth of micro and small enterprises in the country, generally on commercial basis, National Institute for Micro, Small and Medium Enterprises, (NI-MSME) in-charge of enterprise promotion and entrepreneurship development, enabling enterprise creation, performing diagnostic development studies for policy formulation, etc. and lastly, Mahatma Gandhi Institute for Rural Industrialisation (MGIRI) responsible for accelerating rural industrialisation for sustainable village economy, attract professionals and experts to Gram Swaraj, empower traditional artisans, encourage innovation through pilot study/field trials and R&D for alternative technology using local resources.

- In addition to institutions under Ministry of MSME and State Government, like KVIC, KVIB, NSIC, NIMSME, MGIRI, Coir Board etc, the following agencies also mandated for the development of MSME sector:
- Pradhan Mantri MUDRA Yojana (PMMY): Micro Units Development and Refinance Agency (MUDRA) Ltd., has been launched on 8 April 2015 to extend finance and credit

support to Microfinance Institutions (MFI) and agencies that lend money to small businesses, retailers, self-help groups and individuals.

- Small Industries Development Bank of India (SIDBI): Principal Financial Institution for Promotion, Financing and Development of the Micro, Small and Medium Enterprise (MSME) sector as well as for co-ordination of functions of institutions engaged in similar activities.
- National Bank for Agriculture and Rural Development (NABARD) also mandated for development for Rural areas and has various schemes to impart employable skills to rural youth, support marketing of MSME products etc. Various schemes of NABARD for the development of Off-farm sector are SDPs, promotion and nurturing of OFPOs, supporting Rural Mart, construction of Rural Haat, and supporting marketing initiatives like Exhibitions, stall in mall etc.

The potential assessed for lending to MSME sector for 2024-25 is ₹88481.62 crore (investment credit ₹55577.47 crore and working capital ₹32904.15 crore). District-wise estimates have been indicated in Annexure-I.

4.4.3. Challenges and road ahead

Challenges include inadequate finance, lack of technical and entrepreneurial skills, slow technology adoption, and low R&D investment. The goal is to enhance MSME's contributions to exports and GDP, requiring investment in backend services, technology, and R&D collaboration with academic institutions.

4.4.4. Suggested Action Points:

- Establish artisan parks and production-cum-sales outlets.
- Launch an information-cum-sales portal for weavers.
- Promote technology-driven e-commerce for small town communities.
- Develop the tourism sector for employment generation.
- Organize clusters/mega clusters into producer companies with comprehensive support.

4.5 Export Credit

4.5.1 Introduction

Export credit, vital for exports, is in Priority Sector since 2015-16, with interest subvention programs. NABARD offers 100% refinance to eligible institutions (SCBs, RRBs, StCBs) with NPAs under 5%. Special refinance packages are available for all contract farming in AEZs.

4.5.2 Export Scenario of Andhra Pradesh

Andhra Pradesh, rich in resources and port access, ranks 6th in India's exports, contributing 5% to the national total. In FY 2022-23, exports reached USD 19.8 billion. The state is the top exporter of bananas, exporting 94,571 MT in 2020-21. Despite high export volume, it ranked 8th in Niti Aayog's 'export preparedness index.' Improvement areas include business and export ecosystems. APEDA has identified potential clusters in the state for various products. Additionally, APEDA and MPEDA are key players in promoting agricultural and marine product exports, respectively.

Table 4.16 Export statistics of Andhra Pradesh for the Year 2022-23

State	Products	Qty (MT)	₹ Crore
Andhra Pradesh	Non-basmati rice, Maize, Wheat, cashew kernels, jiggery & confectionery, poultry products, animal feeder, processed fruits, juices and nuts, pulses, alcoholic beverages, floriculture, Coconut Shell liquid, Millets, processed vegetables, dairy products, cereal preparations, Groundnut, Natural honey etc.	7,925,373.87	22,761.96
(Source: APEDA-India Export Statistics)			

APEDA- The Agricultural and Processed Food Products Export Development Authority (APEDA) is mandated with the responsibility of export promotion and development of products such as Fruits, Vegetables and their products, meat and meat products, poultry & poultry products, dairy products, confectionary, biscuits and bakery products, honey, jaggery and sugar products, cocoa and its products, chocolates of all kinds, alcoholic and non-alcoholic beverages, cereals and cereal products, groundnut, Peanuts and walnuts, Pickles, chutneys and papads, guar gum, Floriculture and Floriculture products, Herbal and Medicinal Plants, Green pepper in brine, basmati rice etc. The potential clusters identified by APEDA in Andhra Pradesh have been presented below:

Table 4.17 Potential clusters identified by APEDA in AP

S N	Products	Potential cluster
1	Banana	Kadapa, Anantapur
2	Pomegranate	Anantapur, Kurnool
3	Mango	Krishna, Chittoor, Kurnool

Promotion of Millet export

APEDA has been entrusted with the task of promoting Indian millets in the international market. APEDA has identified three knowledge partners - Indian Institute of Millet Research (IIMR); Centre of Excellence on Millets – University of Agriculture Sciences, Bengaluru; and Yes Bank. These knowledge partners collaborate for preparation of content for publication of millet promotion material; identification of participants for the millet-promotion events to be organized by Indian Missions abroad; and millets value chain development. APEDA has published e-catalogues for 30 major millet importing countries and for 21 millet-producing Indian states.

Table 4.18 Andhra Pradesh Millet export for the year 2022-23

State	Port	Product	Qty (MT)	₹Crore
Andhra Pradesh	Visakhapatnam Sea	Millet	792.98	3.07
	Kakinada Sea		329.90	1.13
	Visakhapatnam SPL Economic Zone		189.00	0.60
	Krishnapatanam Sea		7.90	0.08
	Total		1319.78	4.88
(Source: APEDA India Export statistics)				

MPEDA- The Marine Products Export Development Authority (MPEDA) was set up with the mandate to promote the marine products industry with special reference to exports from the country like “all varieties of fishery products known commercially as

shrimp, prawn, lobster, crab, fish, shellfish, other aquatic animals or plants or part thereof and any other products.

The quantity and value of exports of marine products through Visakhapatnam port (2022-23) are as given below:

Name of the port	Qty	₹ in Crore	US \$ Million
Visakhapatnam	264214	16876.93	2133.35
(Source: https://mpeda.gov.in/)			

Agriculture Export Zones - To promote agricultural exports from the country and remunerative returns to the farming community in a sustained manner, the concept of the Agri export zones (AEZ) was floated. These zones have been set up for end-to-end development for the export of specific products from a geographically contiguous area. Services, which would be managed and coordinated by State Government /corporate, sector and would include the provision of pre/post-harvest treatment and operations, plant protection, processing, packaging, storage and related research & development, etc.

Table 4.19 Statement of actual investment and exports from Agri export zone

S N	AEZ Project	Districts	Actual Exports (₹Cr.)	Actual Investments (₹Cr.)
1	Mango Pulp & Fresh Veg.	Chittoor District	2736.03	91.40
2	Mango	Krishna District	2.75	17.90
3	Gherkins	Ananthapur	44.52	20.05
4	Chilli	Guntur	51.00	20.32
(Source: https://apeda.gov.in/apedawebsite/trade_promotion/Agri_Export_Zone.htm)				

4.5.3 Major Initiatives taken by government:

- **Central Government:** The Financial Assistance Scheme (FAS) by APEDA, part of the Finance Commission Cycle 2021-22 to 2025-26, supports businesses in export infrastructure, quality, and market development, offering assistance from ₹5 lakh to ₹5 crore.
- **State Government:** Andhra Pradesh's Export Promotion Policy 2022-27 aims to double exports by 2030, requiring an 8% annual growth rate. A State Level Facilitation Cell and District Level Cells guide exporters throughout the project cycle.
- **RBI Initiatives:** RBI has implemented measures to facilitate export credit, including rationalization of interest rates, pre-shipment credit flexibility, special packages for large value exporters, and inclusion of export credit under the Priority Sector for loans up to ₹40 crores.

The bankable credit potential of ₹3609.57 crore has been assessed for the Export sector for 2024-25 and the district-wise potential is furnished in Annexure I.

4.5.4. Critical gaps & Actions Required

The critical gaps, interventions required and issues to be addressed in the sector are:

- Facilities and dedicated services may be extended by qualified centres to guide producers in introducing themselves on the e-commerce front keeping in view the Pandemic-related restrictions.
- Micro, Small and Medium Exporters should be properly trained by MSME / export organizations with technical assistance from banks.
- International demand and supply situation, price competitiveness for exportable and related domestic factors may be announced/projected in public portals continuously.
- Exporters may be encouraged to avail themselves of the export credit insurance facilities extended by ECGC.
- Forex branches may be opened in the district exclusively to cater services to exporters.
- The banks should put in place a control and reporting mechanism for export credit.

4.6 Education

4.6.1 Introduction

The Government of Andhra Pradesh is giving utmost importance to school education using a multi-pronged approach by strengthening the existing infrastructure for all government schools under the flagship program Manabadi Nadu-Nedu, Mid-Day meal program, implementing curricular reforms envisaged in National Education Policy (NEP) 2020 and by setting up regulatory and monitoring mechanism to streamline the functioning of schools. The education sector saw an increase in budgetary allocation for 2023-24. The State government has earmarked ₹ 29690.71 crore for the sector.

The School Education Department directly manages 61000 schools, 2.8 lakhs teachers of the state. In the 2011 census, the state had a literacy rate of 67.4% with wide gender, caste, and regional disparities. The state has one of the healthiest Student-Teacher ratios in the country (23) and most (99.97%) of the teachers have appropriate professional qualifications. Special emphasis is given to achieving 100% literacy, qualitative and quantitative improvements in the system and improve the retention rates in schools for which adequate and safe infrastructure, including working toilets, clean drinking water, clean and attractive spaces, electricity, computing devices, internet, libraries, and sports and recreational resources is envisaged in all schools to ensure that teachers and students, including children of all genders and children with disabilities, receive a safe, inclusive, and effective learning environment and are comfortable and inspired to teach and learn in their schools.

There are 476 Government and Vocational Junior Colleges and 45 Aided Junior Colleges, 2535 Private unaided and 729 other Junior Colleges functioning in the state. Modernisation and transformation of Junior colleges is proposed under the Mana Badi Nadu Nedu programme in Phase II.

There are 169 Government Degree Colleges and 55 Private aided colleges in the state catering to around 1.45 lakh students. In this sector, employable skills are being imparted through Jawahar Knowledge Centres (JKC) established in 132 Government Degree colleges.

Loans to individuals for educational purposes, including vocational courses, not exceeding ₹ 20 lakh will be considered as eligible for priority sector classification. Loans currently classified as priority sector will continue till maturity.

4.6.2 Important schemes/programmes implemented by the State government in education Sector

In order to impart qualitative and holistic development of children through education, the state Government has rolled out a slew of measures aimed at improving the Gross Enrolments rates, retention rates and reduce Drop –out rates as under :

- a) **Jagananna Amma Vodi scheme:** This is a unique and innovative scheme by the state Government providing financial assistance of ₹15000 per annum to each mother or Recognised Guardian (RG) from Below Poverty Line (BPL) to all families who are sending their children to schools or colleges in all Government and Private recognised management schools / colleges in the state.
- b) **Jagananna Vidya Kanuka scheme:** Under this Scheme, the State Government supplies student kits consisting of (3) pairs of uniforms, set of notebooks, shoes, socks, belt, school bag and dictionary to all students studying from Class I-X in Government / MPP/Municipal/Residential schools of Education & Welfare Department/Ashram schools/Aided schools/Model schools/KGBVs/Registered Madrassas.
- c) **Jagananna Gorumudda scheme (PM Poshan):** To ensure nutritious food to the children the state Government has revamped the Mid-Day Meal scheme and relaunched it with a revised / upgraded menu in the name of Jagananna Gorumudda since 2020.
- d) **Mana Badi Nadu-Nedu:** This program was launched in 2019-20 to provide for 09 components in schools / Junior Colleges in mission mode viz., (i) Toilets with running water, (ii) Drinking Water Supply, (iii) Major & Minor Repairs (iv) electrification with fixtures, (v) Furniture for students and staff, (vi) Green chalkboards (vii) Painting, (viii) English lab and (ix) Compound Wall and Kitchen sheds. Under Phase I, 15717 out of 44512 schools were covered and Phase II is now under progress.
- e) **Samagra Shiksha (SS):** The State Government has implemented the Samagra Shiksha (SS) in the State by integrating the erstwhile Sarva Shiksha Abhiyan, Rashtriya Madhyamik shiksha Abhiyan and Teacher Education. The scheme has two focal points –Teacher & Technology and envisages inclusive and equitable quality of education from pre-school to senior secondary stage. Fund sharing pattern of the scheme is 50% Central and 40% State. The scheme also envisages, inter alia, providing building and infrastructure facility and other amenities to all Government Primary, High schools/senior secondary schools in the state.
- f) **Kasturba Gandhi Balika Vidyalayas (KGBV):** This scheme was launched by the State in 2005 in educationally Backward Blocks (EBBS) for establishing residential schools at the Upper Primary Levels for girls from SC/ST/OBC/Minority communities from difficult areas.

4.6.3 Initiatives of NABARD

4.6.4 Under RIDF XXV (2019-20), XXVI (2020-21) and XXVII (2021-22), NABARD has sanctioned ₹3092.19 crore to GoAP for the augmentation of the infrastructure of 23,313 schools including 23 Tribal welfare schools under Nadu Nedu scheme.

Assessment of Credit Potential for 2024-25

A bankable potential of ₹3559.08 crore has been assessed under education for the year 2024-25 for the state. The district-wise estimates have been indicated in Annexure-I.

4.6.4 Suggested Action Points/issues

- The literacy rate in the state (67.41%) is below the national average of 72.98%. Hence, there is a need to improve the infrastructure, student-teacher ratios and the enrolment rates and retention rates in the schools. This has been facilitated to a great extent by the various flagship programs rolled out by the State Government.
- There is a need to improve the literacy rates in the state particularly female literacy. The expenditure on Education as a percentage to GSDP is lower than the national level (4.64%) in Andhra Pradesh.
- The initiatives of the state government for improving the infrastructure requirements in for schools, junior colleges, technical education institutions etc. in tandem with the student welfare schemes is a step in the right direction for addressing the issues in this sector.

4.7 Housing

4.7.1 Introduction

Housing is a basic human need and plays critical role in the well-being of the individuals, families and communities. Public housing programme in the country started with the rehabilitation of refugees immediately after independence and since then, it has been a major focus area of the Central as well as the State Government as an instrument of poverty alleviation.

GoAP is committed to provide permanent houses to all the eligible households in the state by 2024 in saturation mode duly providing house sites and housing in the name of “Pedalandariki illu” which is included in the Govt. flagship programme of “Navaratnalu”.

Housing Finance under Priority Sector lending

Bank loans to the Housing sector as per limits prescribed below are eligible for priority sector classification:

- (i) Loans to individuals up to ₹35 lakh in metropolitan centres (with a population of ten lakh and above) and up to ₹25 lakh in other centres for the purchase/construction of a dwelling unit per family provided the overall cost of the dwelling unit in the metropolitan centre and at other centres does not exceed ₹45 lakh and ₹30 lakh respectively.
- (ii) Loans up to ₹10 lakh in metropolitan centres and up to ₹6 lakh in other centres for repairs to damaged dwelling units conforming to the overall cost of the dwelling unit as prescribed in the above para (i)

- (iii) Bank loans to any governmental agency for the construction of dwelling units or slum clearance and rehabilitation of slum dwellers subject to dwelling units with a carpet area of not more than 60 sq.m.
- (iv) Bank loans for affordable housing projects using at least 50% of FAR/FSI for dwelling units with a carpet area of not more than 60 sqm.

(Source: Master Directions on PSL, RBI dated October,2022)

4.7.2 Initiatives by the Government of India

Pradhan Mantri Awas Yojana – Gramin and Urban

To address the gaps in the erstwhile rural housing schemes and in view of Government's commitment for providing "Housing for All" by 2022, Indira Awaas Yojana was re-structured into Pradhan Mantri Awaas Yojana –Gramin (PMAY-G). Under the scheme, 2,46,430 houses have been sanctioned, out of which 66,575 houses have been completed as on 16.01.2024. Under PMAY-U, out of 21,32,432 houses sanctioned, 8,83,209 houses have been completed.

Objectives of PMAY-G/U: This social welfare scheme is intended to provide financial assistance to people from the economically marginalized section to have access to housing infrastructure providers. All beneficiaries of this PMAY-G/U will have not only permanent housing but also additional amenities like electricity, LPG, and road connectivity. A 25-square meters pucca (permanent) house will be built, and the accompanying comforts will be provided under this ambitious 'Housing for All' program.

4.7.3 Initiatives by the State Government

- 30.20 lakh house pattas with an extent of 1.50 cents in rural areas were distributed free of cost to women beneficiaries. House sites were distributed by the State Government in 17005 layouts and named as YSR Jagananna colonies. Government has decided to construct 30.20 lakh houses in 3 Phases, out of which Government has decided to construct 15.60 lakh houses in Phase I, 3.03 lakh in Phase II (this includes 1.79 lakh houses PMAY-YSR Gramin. Government is ensuring supply of quality housing materials from manufacturers to all beneficiaries for less than market price through reverse tendering. Also, they are providing Infrastructure facilities viz., Roads, Water supply and Electrification in layouts.
- The following two schemes are under implementation:
 - PMAY YSR Urban
 - PMAY YSR Gramin

Table 4.20 Financing Pattern under PMAY YSR Gramin

SI. No.	Source	Unit Cost in ₹	
		Plain areas	IAP Districts
I	Subsidy from Housing		
1.	GoI Subsidy (60%)	72000	78000
2.	GoAP Subsidy (40%)	48000	52000
3.	GoAP Addl. Subsidy	30000	20000
	Total	150000	150000

II	MGNREGS Funds (90 person days & ISL)	30000	30000
	Total Unit Cost	180000	180000

(Source: Socio Economic Survey of GoAP, 2023)

The potential available under Housing sector for 2024-25 is estimated at ₹20901.81 crore. The district-wise estimates have been indicated in Annexure-I.

4.7.4 Suggested Action Points / Issues to be addressed.

- Long gestation period in housing projects, accentuated by multiple approvals from State authorities needs to be simplified.
- There is a need to address the issue of inadequate assistance for purchase of house-sites as well as streamline homestead plot provision through collaborative working of various depts.
- There is a need to expedite completion of houses on a faster pace.
- The lending of the banks has been mainly restricted to urban areas and the salaried class. The housing needs of the rural people need to be addressed. Banks and Micro-finance companies to come forward to finance buyers from the economically weaker sections.

4.8 Social Infrastructure Involving Bank Credit

4.8.1 Introduction

Social infrastructure refers to the physical assets and facilities that are essential for the social well-being and development of a society, including areas such as education, healthcare, housing, and community services. With increased focus on human resource development and for attainment of Sustainable Development Goals 2030, the social sectors, viz., education, health, sanitation etc. have gained greater focus in the overall development process. Bank credit plays a significant role in supporting the development and maintenance of social infrastructure.

Government of India has been giving thrust on social infrastructure projects. The schemes like “Swachh Bharat Mission”, 'Har Ghar Jal' are the examples of GoI's scheme to promote social infrastructure in the country. Government of India has also introduced various other schemes for improving education facilities, skill development, training etc., which in the long run will improve the GDP of the region.

4.8.2 Need for private investments

Though investments for this sector have been the prerogative of the Government, the gap between the demand and supply of this infrastructure requirement has been widening over the years. As social Infrastructure sector has to be developed on a priority basis, Governments have given specific thrust to these sectors and to attract investments from the banking sector.

- In this context, RBI has included the development of Social Infrastructure as a Priority Sector Lending for the banks. Bank loans up to a limit of ₹5 crore per borrower for building social infrastructure for activities namely schools, drinking water facilities and sanitation facilities (including loans for construction/

refurbishment of toilets and improvement in water facilities in the household) in Tier II to Tier VI centers are eligible for classification under priority sector.

- Loans upto a limit of ₹10.00 crore per borrower for building healthcare facilities including under Ayushman Bharat in Tier II to Tier VI centres and Bank credit to Micro Finance Institutions (MFIs) extended for on-lending to individuals and also to members of SHGs/JLGs for water and sanitation facilities will be eligible for categorization as priority sector under 'Social Infrastructure'.

4.8.3 Status

- **Literacy rates:** As per the 2011 census data, literacy rate of India is 72.98%, whereas for Andhra Pradesh, literacy rate is 67.35%. Among the districts, West Godavari is having high literate rate of 74.32% and the lowest in Vizianagaram (58.89%)
- **Education:** As per article 21A and 93rd constitutional amendment 2009, Education has become a fundamental right. AP government provides schooling facility to school aged population of 71.79 lakh children, of which 21.72 lakhs (30.25%) are in primary schools, 9.79 schools (13.63%) Upper primary schools, 40.29 (56.12%) in High schools. The school dropout percentage is 4.83% in 2021-22 compared to 44.19% in 2010-11. Necessary measures such as Jagananna Ammavodi, supply of quality Mid-day meal with new menu, Nadu-Nedu, supply of student kits under Jagananna Vidya Kanuka scheme etc have been taken to retain children in schools.
- **Health:** Ensuring access to health facilities is one of the top agenda for the state government. Health services are provided by 11071 sub-centres (including 10032 YSR village clinics), 1142 Rural Primary Health Centres, 542 Urban Primary Health Centres, 175 Community Health Centres, 53 Area Hospitals, 12 District Hospitals, 2 MCH centres and 28 Teaching and other allied hospitals in the state.
- **Housing:** Andhra Pradesh State Housing Corporation (APHCL) has been the pioneer in implementation of weaker section Housing programme along with adequate amenities. GoAP is committed to provide permanent houses to all eligible households in the state by 2024 in saturation mode duly providing house sites and Housing in the name of "Pedalandariki illu" which is included in the Govt. flagship

The potential available under Social Infrastructure Involving Bank Credit for 2024-25 is estimated at ₹1066.18 crore. The district-wise estimates have been indicated in Annexure-I.

programme of "Navaratnalu".

- **Drinking water:** State government is giving top priority to provide protected drinking water to all urban local bodies by strengthening existing infrastructure and improving service levels. During the year, 1954 MLD of drinking water is being supplied in 123 ULBs.

4.9 Renewable Energy

4.9.1 Introduction

As per the "India 2020 Energy Policy Review" published by the International Energy Agency (IEA), around 750 million people in India gained access to electricity between 2000 and 2019, due to strong and effective policy implementation by the central and state Governments. India has taken significant steps to improve energy efficiency, which have

avoided an additional 15% of annual energy demand and 300 million tonnes of CO₂ emissions over the period 2000-18, making significant progress towards meeting the United Nations Sustainable Development Goals, notably SDG 12 on Responsible Consumption and Production and SDG 7 on delivering energy access.

The 2015 Paris Agreement followed by COP 26 summit (26th Conference of Parties) held during 2021, under UNFCCC (United Nations Framework Convention on Climate Change) targeted to limit the increase in global warming by 2% and achieve “Net zero” emissions by 2050. Government of India presented “Panchamrit” to deal with this challenge and pledged to achieve “Net Zero by 2070”. One of the targets under “Panchamrit” is to meet 50% of energy requirements from Renewable Energy sources by 2030.

Hydrogen is emerging as one of the major alternative fuels due to zero carbon content, thereby generating interest in world about the possibility of manufacturing hydrogen through Renewable Energy. Recognising the impact of Green Hydrogen, Government of India constituted National Hydrogen Energy Board in 2003. In 2022, GoI launched Green Hydrogen and Ammonia Policy that aims to boost domestic production of Green Hydrogen to 5 MT per annum by 2030 and make India “export hub” for this clean fuel.

The Government of Andhra Pradesh, in order to encourage, develop and popularise and promote green hydrogen production plants by investors, decided to notify “Andhra Pradesh Green Hydrogen / Green Ammonia Policy 2023” to mitigate carbon emissions and ensure sustainable future. Details of this policy can be obtained on the link [https://nredcap.in/PDFs/2023/GO Ms No 14 Dt 20 06 2023.pdf](https://nredcap.in/PDFs/2023/GO_Ms_No_14_Dt_20_06_2023.pdf).

4.9.2. Potential of Renewable Energy in India and Andhra Pradesh

India stands 4th globally in Renewable Energy Installed Capacity, 4th in Wind Power capacity & 4th in Solar Power capacity (as per REN21 Renewables 2022 Global Status Report).

The installed Renewable energy capacity (including large hydro) has increased from 76.37 GW in March 2014 to 133.89 GW in December 2023.

Subsidies provided by Government:

- Nine-hour free power supply to 18.87 lakh agricultural connections with a subsidy of ₹4384.80 cr.
- Aqua subsidy of ₹500.00cr to aqua farmers towards consumption of 1891.24MU at a subsidising unit rate @ ₹1.50.
- Free power supplied to domestic consumers of SC colonies/ST colonies (200 units /month) 14,72,571 SC and 4,34,340 ST benefitted.
- Under SC/ST sub plan bore wells provided to 5896 SCs and 1985 STs.

Table 4.21 Sector-wise cumulative achievements (as on 31.12.2023)

Sector	Installed capacity (GW)	
	All India	Andhra Pradesh
Solar Power	73.32	4.57
Wind Power	44.74	4.10
Bio Energy	10.84	0.57
Small Hydro	4.99	0.16
Total	133.89	9.40

- (Source: Ministry of new and renewable energy website)

4.9.3 Major policy interventions/ schemes by the Government

Government of India has been implementing several programmes for mitigating and adapting to the climate change and promoting the renewable energy. The National Action Plan on Climate Change has eight missions under the programme including National solar Mission, National Mission for Enhanced Energy Efficiency focussing on the sector. In July 2019, the **Prime Minister Kisan Urja Suraksha evam Utthaan Mahabhiyan** (PM-KUSUM) scheme was launched with the aim to add Solar capacity of 25,750 MW by 2022 with the total Central Financial Support of ₹34,422 crore.

At present, over 30 million agricultural pumps are installed in India, out of which nearly 10 million are diesel based and over 20 million are grid-connected that consume more than 17 percent of total annual electricity production of the country. Solarisation can reduce dependence of these pumps on conventional sources of energy supplied by DISCOMs and thus reducing their burden of subsidy on agriculture consumption of electricity. This will also provide additional source of income to farmers who will be in a position to sell the surplus power to DISCOMs.

Other Initiatives by the Government of India

- **Production Linked Incentive Scheme** - In November 2020, the government announced PLI scheme worth ₹4,500 crore for high-efficiency solar PV modules manufacturing over a five-year period.
- To encourage domestic production, customs duty on solar inverters has been increased from 5% to 20%, and on solar lanterns from 5% to 15%.
- **Green Energy Corridor:** In the Union Budget 2021-22, MNRE was allocated ₹6,053 crore for the 'Green Energy Corridor' scheme for synchronizing the electricity produced from renewable sources, such as solar and wind, with conventional power stations in the grid.
- **Convergence Project:** India's **first convergence project** to generate green energy for rural and agriculture consumption is set to come up in **Goa in a JV with Ministry of Power and Goa state government. Energy Efficiency Services Ltd. is offering convergent interventions under Gram Ujala scheme providing LED bulbs @ ₹10 per household, solarized agriculture feeders and LED Street lights.**

The details of schemes under implementation by Government of India are available on the link (i) <https://mnre.gov.in/bio-energy/> (ii) <https://mnre.gov.in/energy-storage-systems/>; (iii) <https://mnre.gov.in/green-energy-corridors/> (iv) <https://mnre.gov.in/hydrogen/> (v) <https://mnre.gov.in/small-hydro/> (vi) <https://mnre.gov.in/solar/> (vii) <https://mnre.gov.in/wind/>

Policy initiatives by the State Government

The Andhra Pradesh Renewable Energy Export Policy, 2020, has been announced to facilitate 120 GW renewable energy projects, lease of 5 lakh acres of land, setting up of equipment manufacturing facility and attract private investments for establishing solar/wind/wind-solar hybrid projects on a massive scale.

Under the policy, private and assigned lands will be used, the landowner or assignee will get lease rentals at ₹25,000 per acre (escalated by 5% every 2 years) assuring the landowners to get fixed income for the lands which are not used for. Initially, Kurnool, YSR Kadapa and Anantapur districts have been chosen to set up the Ultra Mega Renewable Energy Power Project (UMREPP) as per the policy.

The relevant website links to State Government GOs on its various policies on Renewable Energy are given below:

1. <https://nredcap.in/PDFs/Pages/GO Ms No 25 PSP Policy.pdf>
2. <https://nredcap.in/PDFs/Pages/Amnd RE Export GO 20 13 09 2022.pdf>
3. <https://nredcap.in/PDFs/Pages/AP RE Export policy 2020.pdf>
4. <https://nredcap.in/PDFs/Pages/AP Solar Power Policy 2018.pdf>
5. <https://nredcap.in/PDFs/Pages/AP Wind Power Policy 2018.pdf>
6. <https://nredcap.in/PDFs/Pages/AP Wind Solar Hybrid Power Policy 2018.pdf>
7. <https://nredcap.in/PDFs/Pages/AP Electric Vehicle Policy.pdf>
8. <https://nredcap.in/PDFs/Pages/Amendment order GO Ms NO 35 dt 18 11 2019.pdf>

Institutional Interventions by the State Government

The State Government has established Andhra Pradesh Green Energy Corporation Ltd., to install 8GW to 10GW of dedicated solar power in order to provide free power to agriculture in the long run; New & Renewable Energy Development Corporation of AP Limited (NREDCAP), the nodal agency under the RE export policy to promote the projects and AP Solar Power corporation private limited a JV between the GoAP and GoI for promoting solar power projects.

4.9.4 Suggested Investments through Bank Finance

As per the June 2021 revised Master directions of the RBI, following are considered under the priority sector lending:

- Loans to farmers for installation of stand-alone Solar Agriculture Pumps and for solarisation of grid connected Agriculture Pumps.
- Loans to farmers for installation of solar power plants on barren/fallow land or in stilt fashion on agriculture land owned by farmer.
- The bank loans for solar rooftop systems are being treated as part of home loans with eligible tax benefits.
- Bank loans up to a limit of ₹30 crores to borrowers for purposes like solar based power generators, biomass-based power generators, windmills, micro-hydel plants and for non-conventional energy based public utilities, viz., street lighting systems and remote village electrification etc., and for individual households, the loan limit will be ₹10 lakhs per borrower is considered under the priority sector lending.

Other opportunities for financing includes

- Solar Mini Cold rooms / Stores
- Solar Aerators in Fishery projects
- Solar fencing and solar power-based farm implements
- Solar powered Electric vehicle charging stations - unit cost is approx. ₹40.00 lakh.
- Windmills
- Biomass Gasification, pellets and briquettes

Assessment of Credit Potential for 2024-25

The potential available for Renewable energy for 2024-25 is estimated at **₹1054.32 crore**. The district-wise estimates have been indicated in Annexure-I.

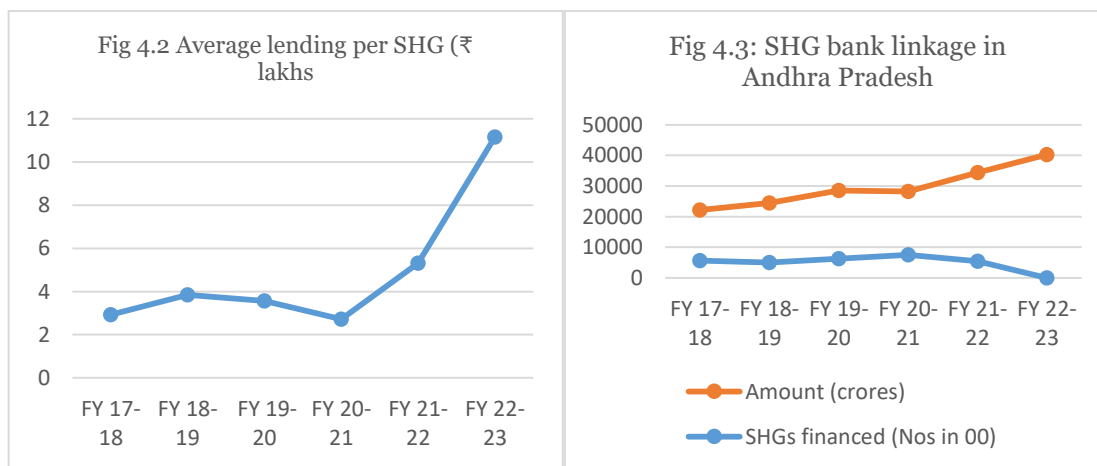
4.10. Informal Credit Delivery System

4.10.1. Introduction

NABARD has been striving for inclusive development by bringing the vulnerable, marginalized and the distressed population, especially women, into the formal banking system by addressing both demand and supply side constraints mainly through the Self-Help Group Bank Linkage Programme (SHG-BLP) and Joint Liability Groups (JLGs). The SHG -bank linkage programme, pioneered and nurtured by NABARD is the biggest micro finance programme in the world, touching more than 16.19 crore households thereby linking 134.03 lakh SHGs to formal banking channel, making available credit to more than 69.57 lakh SHGs, with outstanding loan amount of ₹1,88,078.80 crore as on 31 March 2023 (Source: Status of Microfinance in India by NABARD).

4.10.2. Status of Informal Credit Delivery System in the State:

Andhra Pradesh is the pioneering state in the SHG – BLP Program. During the FY 2022-23, a total of 526732 SHGs have been credit linked with a total loan amount of ₹40230 crore and loan outstanding is ₹58757 crore. The average per SHG bank loan increased from ₹0.45 lakh in 2004-05 to ₹11.15 lakhs in 2022-23 and NPA as percentage to SHG bank loan outstanding has declined to 0.42% only as on 31.03.2023.



With a view to incentivize prompt payment, and to make the rural enterprises more remunerative, Government of Andhra Pradesh started Pavala Vaddi scheme under which interest on all Bank loans over and above 3% per annum was reimbursed directly to SHGs. From 2012, the Pavala Vaddi scheme was converted into 'Vaddi Leni Runalu' under which total interest reimbursement is being made by the Government to further strengthen the viability of rural enterprises. VLR is available up to a loan outstanding of ₹5.00 lakh per group.

4.10.3. Issues Related to Microfinance

There is a scope for consolidating the commercial activities of the SHGs in order to ensure emergence of vibrant activity-based clusters.

- Lack of in-house capacity especially for Bookkeeping and overdependence on animators.
- Internal lending among the groups is on a declining trend.
- Group dynamics are not sound and awareness about group objectives beyond thrift and credit at member level is limited.
- Discrepancy between Micro Credit Plan (MCP) and end use of loan post disbursement by banks.
- With no rotation of leadership, dependence of groups on same leader continues to be high and there is no clear understanding of rights and responsibilities of leaders/members.
- Groups are unaware of the benefit of financial products like CC limits over TL, insurance etc.

4.10.4. Various policy interventions, and schemes:

- **Government of India schemes**

PM Formalisation of Micro Food Processing Enterprises Scheme: This is a centrally sponsored scheme that is designed to address the challenges faced by the micro enterprises and to tap the potential of groups and cooperatives in supporting the upgradation and formalization of these enterprises. The Scheme would support clusters and groups such as FPOs/SHGs/ producer cooperatives along their entire value chain for sorting, grading, assaying, storage, common processing, packaging, marketing, processing of agri-produce, and testing laboratories.

(For details: <https://pmfme.mofpi.gov.in/pmfme/#/Home-Page>)

Streenidhi Mahila Bank

Stree Nidhi credit cooperative Federation Ltd., was promoted by the Government of Andhra Pradesh and Mandala Mahila Samakhyas to provide Livelihood Finance to SHG women. Stree Nidhi is a flagship programme of the Government of AP. Stree Nidhi provides timely and affordable credit to the poor SHG women as a part of the overall strategy of SERP for poverty alleviation. (For details: <https://www.sthreenidhi.ap.gov.in/SNBank/UI/Home.aspx>)

YSR Aasra

This Scheme of Government of Andhra Pradesh aims to reimburse the entire bank outstanding loan amount as on 11.04.2019 directly to the Groups Savings accounts of the SHG women in four installments from financial year 2020-21 through the respective welfare Corporations. This will create access to enhanced livelihood opportunities, income generation and wealth creation at the household level, on a sustainable basis leading to better standards of living of poor SHG members both in rural and urban areas. (For details: <https://old.apmepma.gov.in/ysr-asara.php>)

YSR Sunna Vadi

The YSR Sunna Vaddi Scheme aims to encourage better repayment culture, economic empowerment and to reduce interest burden on the Rural and Urban Self-Help Group members on their bank loans. (For details: <https://old.apmepma.gov.in/ysr-sunna-vaddi.php>)

Capacity Building through Micro Enterprise Development Programme (MEDPs) & Livelihood and Enterprise Development Programmes (LEDPs)

Micro enterprise is an engine of economic growth and equitable development and is widely accepted as an anti-poverty strategy in India. It is generally observed that rural womenfolk are held back from earning a decent income due to a lack of access to institutional credit, opportunities for skill building and support networks. Though a majority of them have accessed credit through SHG Bank Linkage Programme, they typically face discrimination in accessing good quality skill training. Keeping this in view, NABARD initiated the Micro Enterprise Development Programme (MEDP) from 2005 onwards to help matured SHG members to graduate into micro enterprises. Further, for a holistic intervention in livelihood promotion and sustainable development of rural women, right from skill building, backward-forward linkages to escort support, Livelihood and Enterprise Development Programme (LEDP) were launched by NABARD on a pilot basis in 18 states of the country in 2015.

In the state of Andhra Pradesh, a total of 624 MEDPs and 159 LEDPs have been conducted so far. In FY 2022-23, NABARD has sanctioned 46 MEDPs and 31 LEDPs in Andhra Pradesh thereby benefitting 4,170 SHG members. As a result, a large number of trained SHG members have successfully been credit-linked and have set up their own micro enterprise units. These programmes have not only helped to supplement the earnings of rural women but have also had a transformational social impact in the spheres of decision making, self-esteem, quality of life and education, among others.

Financing through Joint Liability Groups (JLGs)

Besides, the SHG-BLP, NABARD has been supporting formation of informal groups like Joint Liability Groups (JLGs) with 4-10 members. JLGs are intended basically as credit groups for tenant farmers and small farmers who do not have proper title of their farmland or security to offer but needed longer term credit or seasonal credit for pursuing their economic activities. NABARD besides extending financial support for awareness creation / capacity building of all stakeholders also extends 100% refinance support to Banks on their lending to JLGs. Post MEDP / LEDP training programmes, trainees undertaking same livelihood activities come together on the strength of the mutual guarantee to seek livelihood finance for setting up their own collective unit. The JLG mode of financing serves as collateral substitute for loans provided to the small, marginal, tenant farmers, oral lessees, sharecroppers, etc. In FY 2020-21, NABARD had enhanced the grant support for JLG formation, nurturing and financing from ₹2000 per JLG to ₹4000 per JLG over the course of 3 years. During the FY 2022-23, NABARD had sanctioned the grant of ₹46.00 lakhs for promotion and credit linkage of 1150 JLGs in Andhra Pradesh.

The issues faced by the JLG financing in the state can be analysed from two dimensions.

Demand side issues:

- GoAP enacted Crop Cultivator Rights Act 2019 which mandates written consent from landowner to tenants. Reluctance on part of owners to give consent is a major hurdle for the tenant financing.
- There is a demand from the JLG groups for higher loan amount at lower rate of interest.
- There is general lack of awareness among farmers and SHG women on the concept of JLG per se.

Supply side issues:

- Absence of state-wide Project Management Agency like DRDA or SERP to credit link and handhold JLGs.

- Small loan size leads to higher transaction cost.
- Lack of monitoring and verification of assets leads to poor asset quality and NPAs.
- Lack of standard procedures and documentation leads to delays in sanction and disbursement of the loan.

Capacity Building of Bankers/BCs

NABARD has been supporting various training programmes and interventions under SHG/JLG-Bank Linkage Programme for capacity building of Bankers /NGOs and SHG members with a view to promote quality SHGs/JLGs and bring about all round expansion of the programme with increased credit and provision of livelihoods to groups.

Under PM JANMAN, PVTG families can be provided credit either individually or in JLG mode.

RBI's Regulatory Framework for Microfinance Loans

The Reserve Bank of India (RBI) issued guidelines on microfinance loans titled as 'Regulatory Framework for Microfinance Loans' with effect from 1st April 2022. Some of the important aspects of the guidelines are given below.

- Definition of a Microfinance Loan: - The RBI revised the definition of a microfinance loan to indicate a collateral-free loan given to a household having annual income of up to ₹3 lakhs.
- As per the revised norms, Regulated Entities (REs) should put in place a board-approved policy regarding pricing of microfinance loans, a ceiling on interest rate and all other charges applicable to microfinance loans.
- Each RE shall disclose pricing-related information to a prospective borrower in a standardised, simplified factsheet.
- There shall be no prepayment penalty on microfinance loans.
- Penalty, if any, for delayed payment shall be applied on the overdue amount and not on the entire loan amount.
- Any change in interest rate or any other charge shall be informed to the borrower well in advance and these changes shall be effective only prospectively.
- RE would have to put in place a mechanism for identification of the borrowers facing repayment-related difficulties, engagement with such borrowers and providing them necessary guidance about the recourse available.

The new framework will eventually help in expanding the market opportunity and interest rate cap removal will promote risk-based underwriting. It will also help scale the industry further, ensure better risk mitigation and financial inclusion.

4.10.5. Assessment of Potential for the year 2024-25

The potential for credit support for Informal Credit Delivery System for the year 2024-2025 has been assessed at ₹32164.37 crore. District-wise estimates have been indicated in Annexure I.

Status and Prospects of Cooperatives

1. Background

A cooperative is defined as ‘an autonomous association of persons united voluntarily to meet their common social, economic and cultural needs as well as their aspirations through a jointly owned and democratically controlled enterprise’.

A cooperative is governed by seven major principles, i.e. voluntary and open membership; principle of democratic member control; principle of member economic participation; principle of autonomy and independence; principle of education, training and information; principle of cooperation and, principle of concern for community.

Cooperative enterprises help their members to collectively solve shared socio-economic problems. Cooperatives strengthen bargaining powers of their members, help them get access to competitive markets and to capitalise on new market opportunities. As such, they improve income opportunities, reduce costs and manage risks of the members.

2. Status of Cooperatives in the country

Different types of cooperatives are operating in the country. The details are as under:

Sr No	Type	Number of Societies
1	Housing	191688
2	Dairy	141534
3	Primary Agricultural Credit	103726
4	Credit and Thrift	80051
5	Labour	44533
6	Miscellaneous Non Credit	30103
7	Agriculture and allied	26797
8	Fishery	25606
9	Women Welfare	24366
10	Agro Processing/Industrial	22687
11.	Consumer	21071
12.	Multipurpose	19930
13.	Handloom Textile and weavers	19598
14.	Livestock and Poultry	16669
15.	Marketing	9124
16.	Miscellaneous Credit	5574
17.	Handicraft	5059
18.	Transport	4166
19.	Social Welfare and Culture	2055
20.	Tribal SC/ST	1474
21.	Urban Cooperative Bank	1337
22.	Sericulture	498

Sr No	Type	Number of Societies
23.	Tourism	459
24.	Education and Training	386
25.	Bee Farming	324
26.	Sugar Mills	284
27.	Jute and Coir	56
	Total	799155
		<i>Source:</i> https://cooperatives.gov.in/en

Table 5.1 Status of cooperatives in the country

Further, in terms of federations, there are about 2705 district level federations, 390 state level federations and 20 national level federations in the country.

3. Formation of Ministry of Cooperation by GoI

The GoI has set up a separate Ministry for Cooperation on 06 July 2021 which will provide a separate administrative legal and policy framework for strengthening the cooperative movement in the country, to help deepen the presence of cooperatives, to streamline processes for 'Ease of doing business' for co-operatives and enable development of Multi-State Co-operatives (MSCS). In the words of the Hon'ble Prime Minister, "The Cooperative movement is such a model which can provide a successful alternative to socialism and capitalism".

4. Latest initiatives by Ministry of Cooperation (MoC), GoI

The MoC has, in consultation, coordination and partnership with state governments, NABARD, national level federations, training establishments at state and national level and other stakeholders is working on the following initiatives:

- a. **Computerization of Primary Agriculture Cooperative Societies:** This scheme aims at computerization of 63000 functional PACS leading to increase in efficiency, profitability, transparency and accountability in the working of PACS.
- b. **Co-operative Education - Setting up of World's largest Cooperative University:** This aims at introduction of cooperative education as a course curriculum and also as independent degree / diploma courses in Schools and Universities. This will also take care of research in the field of cooperation.
- c. **World's largest Cooperative Training Scheme:** This aims at revamping strengthening existing cooperative training structure in the country and modernize the training methods through a revamped scheme.
- d. To provide facilities at par with FPOs for existing PACS
- e. Establishing Multipurpose PACS/ Dairy/ Fisheries cooperatives in every panchayat

- f. World's largest food grain storage scheme for cooperatives
 - g. Revival and computerization of PCARDBs/ SCARDBs
 - h. Establishment of National Cooperative Database
 - i. Amendment to Multi State Coop. Act 2002 and setting up of 3 new MSCS
 - j. New Cooperative Policy - Drafting of new Cooperative policy with a view to strengthen the cooperatives and make them vibrant with increased contribution to the economy
- All these initiatives will create immense business potential from grass root upward in times to come.

5.1 Status of Cooperatives in Andhra Pradesh

Cooperatives play a significant role in the economy of Andhra Pradesh. With a focus on agriculture and rural development, cooperatives have been instrumental in empowering farmers and promoting financial inclusion in the region. The state has a long history of cooperative movements and has several types of cooperatives that cater to different sectors of the economy. The status of cooperatives in the state is as under:

Sr No	Type	Number of Societies
1	Miscellaneous Non Credit	6246
2.	Fishery	2135
3	Primary Agricultural Credit	2047
4.	Livestock and Poultry	1627
5.	Labour	1527
6.	Dairy	812
7.	Agriculture and allied	695
8.	Handloom Textile and weavers	617
9.	Credit and Thrift	593
10.	Housing	575
11.	Consumer	226
12.	Agro Processing/Industrial	156
13.	Handicraft	142
14.	Marketing	137
15.	Urban Cooperative Bank	39
16.	Social Welfare and Culture	29
17.	Miscellaneous Credit	20
18.	Multipurpose	14
19.	Education and Training	9
20.	Sugar Mills	5
21.	Tribal SC/ST	3
22.	Tourism	2

Sr No	Type	Number of Societies
23.	Women Welfare	2
24.	Transport	1
	Total	17659
		Source: https://cooperatives.gov.in/en

Table 5.2 Status of Cooperatives in Andhra Pradesh

5.1.1 Cooperative credit system

At present there is a three tier cooperative structure in the state with APCOB at apex level, 13 DCCBs at district level catering to 26 districts and 2046 PACS at the grassroots level. Based on the recommendations of the taskforce headed by Prof. A.Vaidyanathan, constituted for suggesting the re-organization of cooperative societies, the long pending re-organization of PACS has been completed for making them viable. The PACS have been re-organized from 4465 to 2046 in the State.

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 ₹935.00 Cr and this includes the State's share of ₹146.31 Cr. 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 ₹ 22700.86 crore as Farm Credit during the year 2022-23. APCOB has refinanced an amount of ₹1819.40 Crore to the DCC Banks under Long Term Agriculture Credit to the extent as against the loaning programme of ₹4650 Cr allotted to all the 13 DCCBs during the year 2022-23. The aggregate crop loans disbursed to 26,120 tenant farmers/cultivators are to a tune of ₹164.45 Crore during the year 2022-23.

5.2 Recent Developments/latest initiatives by State Government in strengthening the outreach and activities of cooperatives

5.2.1 PACS Computerization:

The computerization of PACS is expected to enhance the quality of lending, promote good accounting practices and strengthen governance and financial discipline. Government of India is also focussing on the overall development of PACS through various initiatives, such as establishing new Multipurpose Cooperative Societies and promoting projects under

PACS as Multi Service Centres, introduce model bylaws, promote FPOs through PACS, promoting PACS as Common Service Centre, etc.

NABARD has setup a State Project Monitoring Unit at AP RO. In AP, a total of 2037 PACS are identified for computerization, with hardware procurement and data migration in progress. It has now become the anchor programme pertinent for business diversification.

5.2.2 Target for establishing new societies:

a. A target of 2 lakh new societies nationwide in a five year span. For Andhra Pradesh, a target of 213 new PACS for this year is given covering dairy and fisheries in uncovered panchayats.

b. Nearly 3000 Mahila Dairy Sahakara Sangham (MDSS) are being registered.

5.2.3 PACS as Common Service Centres: 1900 PACS in the State whitelisted for getting registered as Common Service Centres (CSCs) through the Ministry of Electronics and Information Technology for providing more than 300 services. A total of 1519 PACS applied and 1371 have been on boarded so far in the state.

5.2.4 Retail Petrol/ LPG Distributorship: 83 PACS have given Letter of Intent, out of which final NOCs have been received in 31 cases and rest 52 under process.

5.2.5 Jan Aushadhi Kendras GoI permitted PACS & DCMS to operate as PMBJPs (Pradhan Mantri Bhartiya Janaushadhi Kendras) for improving access to generic medicines in rural areas at cheaper rates. 137 PACS and 12 DCMS applied for preliminary licenses, out of which 94 PACS and 10 DCMS are cleared so far.

5.2.6 PM KUSUM: DCDCs and DCOs have been entrusted to disseminate information to PACS and farmers. Adusumalli LSCS, Bapatla came forward for installation of Solar Photo Voltaic Modules.

5.2.7 Cooperative Banks included as Member Lending Institutions under CGTMSE: APCOB and 03 DCCBs (Vizianagaram, Nellore and Chittoor) have been enrolled under CGTMSE. The applications of remaining DCCBs are under process.

5.2.8 National Cooperative Database: Under Phase 1 and 2, details pertaining to 17612 cooperatives were uploaded on the portal.

5.2.9 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 ₹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 ₹609.39 Cr with the Project period of five (05) years. NCDC released ₹141.61 Crores (including State matching share of PIT Component of ₹2.96 crores) to the State Project Monitoring Cell. During the year 2021-22, ₹137.62 Cr loan component was released by the NCDC to the State Government.

5.2.10 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 fulfil 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. More than 27 lakh women in rural areas are engaged in dairying activity. AP 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 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.

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 ₹71.47 per litre, but now the price paid to farmers is ₹87.56 per litre of milk based on Fat & SNF.

This project is expanded to 17 newly formed districts covering 2, 52,193 women dairy farmers of 3,108 villages and collecting 1,71,230 Litres 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 at ₹20.42 lakhs and to the AMCU buildings at ₹12.81 lakhs for establishment of Milk Collection Centers in the identified Milk Potential Villages with a total projected cost of ₹2,451.66 Cr.

Detailed project proposal for the years of 2022-23, 2023-24 and 2024-25 was submitted to GoI 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 ₹202.62 crores.

5.3 Potential for formation of cooperatives:

Andhra Pradesh has a rich/ average/ deficient cooperative profile under Agriculture, Aqua Culture, Animal Husbandry & Dairy sectors. There is fair potential for cooperative activity in the agriculture/ aqua culture sectors etc. This can have immense multiplier effect in giving a fillip to economic activities in these areas.

Table 5.3 Potential for formation of cooperatives

Sr. No.	Name of Sector	Name of Potential District/s	Approximate Potential (No. of Cooperatives)
1	Agriculture	Vizianagaram	3 (these 3 mandals have only one Cooperative Society is functional)
2	Aqua Culture / Fisheries	West Godavari	3 (in Akividu and Kalla and Bhimavaram Blocks)
3	Aqua Culture / Fisheries	Eluru	2 (Eluru Rural Block)
4	Animal Husbandry – Dairy	Eluru	2 (Covering Chintalapudi, T Narasapuram, Jangareddygudem, Polavaram blocks)
5	Animal Husbandry - Dairy	Kakinada	2 (Kotananduru and Tuni mandals)
6	Aqua Culture / Fisheries	Konaseema	2 (Mummidivaram and Katrenikona mandals)
7	Animal Husbandry - Dairy	East Godavari	1 (Kovvur mandal)
8	Fisheries	Krishna	20 (Source : Fisheries Dept)
9	Dairy	Krishna	50 (Source : AH Dept)
10	Agriculture/Animal Husbandry	YSR	326 (as per the vision of Ministry of Cooperation to form at least one cooperative in each Gram Panchayat)
11	Agriculture/Animal Husbandry	Annamayya	246 (as per the vision of Ministry of Cooperation to form at least one cooperative in each Gram Panchayat)
12	Agriculture/Animal Husbandry	Visakhapatnam	30
13	Agriculture/Animal Husbandry	Anakapalli	319
14	Agriculture/Animal Husbandry	ASR District	366

Three new Multi-State Societies at the National Level

New National Multi-State Cooperative Seed Society for certified seeds: Government has established a new apex multi-state cooperative seed society under the MSCS Act, 2002, namely Bharatiya Beej Sahakari Samiti Limited (BBSSL) as an umbrella organization for quality seed cultivation, production and distribution under a single brand. BBSSL has received 8,200 PACS/ cooperative society applications from 27 States/ UTs including applications from 947 PACS/ cooperative societies from the State of Andhra Pradesh for membership so far.

Infrastructure Support – Public Investment

6.1 Introduction

Infrastructure development plays a catalytic role in growth of an economy. Availability of adequate infrastructure is a prerequisite for sustained economic growth, particularly in rural areas. Rural infrastructure investments help raising the socio-economic status of the rural people through increased income levels and quality of life. In rural areas, major infrastructure gaps identified are irrigation, roads and bridges, power supply, education, skilling etc., plugging these gaps will ignite rural activities and create ample economic and employment opportunities.

NABARD has been partnering with Government of Andhra Pradesh for meeting the above goals by extending support for creation of infrastructure in Agriculture, Social and Rural Connectivity Sectors.

6.2. Rural Infrastructure Development Fund

NABARD's credit assistance to GoAP for the creation of rural infrastructure under the RIDF is over ₹ 28,000 crore for 35,907 projects. An amount of approximately ₹ 21,375 crores has been disbursed as of 31 December 2023. Investments in Rural Infrastructure have helped in improving the credit absorption capacity, increased access to markets, enhanced incomes and better quality of life in Rural Andhra Pradesh.

6.2.1. Impact of RIDF

The sanctioned projects till Tranche XXVIII, on completion, will provide the following benefits:

- Irrigation potential created - **17 lakh ha**
- Road network - Over **23,435 km**
- Rural bridges – **44,735 m**
- Primary schools/secondary schools/high schools – **42,218**
- Junior colleges – **691**, polytechnic colleges- **79**, Ashram schools - **245**
- Anganwadi Centers – **2172**
- Projects in ANGRAU, YSRHU, SVVU – **123**
- Rural Water Supply - **13,368** Habitations
- Field Veterinary units – **1652**

Currently, assistance from RIDF is available for supporting 39 eligible activities grouped under three distinct heads viz. Agriculture and related sectors, Social Sectors and Rural connectivity.

Table 6.1 Broad sector wise sanctions under RIDF to GoAP till Tranche XXVIII

Activity	RIDF Loan (₹ crore)	% to the total sanctioned amount
Irrigation	4228.94	15.0%
Agri and allied	1856.15	7%
Social sector -Drinking water	2558.33	9%
Social Sector – Other than Drinking water (Health and Education)	12113	43%
Rural Connectivity – Bridges	1186.61	4%
Rural Connectivity – Roads	6127.76	22%
Total	28070.79	

6.2.3 Support under RIDF to Infrastructure Projects under Different Sectors

The status of major infrastructure sectors in the Andhra Pradesh and the support drawn from the RIDF is discussed in the ensuing paragraphs.

6.3 Irrigation

NABARD extended support to AP to the extent of ₹3808.51 crore to 13 major, 21 medium, 1,369 minor and 273 lift irrigation projects with an irrigation potential of 17.20 lakh ha created/ to be created. NABARD also supported soil and moisture conservation and watershed development projects in community as well as forest lands with about 4,541 projects involving ₹567.95 crore.

6.4 Road Network

471 bridge projects and 4,828 road projects are supported in the State by NABARD under RIDF with an assistance of ₹6127.76 crore with the cumulative potential of 23,435 Km.

6.5 Power

13 mini hydel power projects have been supported by NABARD in AP with an installed capacity of 7.8 MW whose operations and maintenance are being carried out with the active participation of SHG women members.

6.6 Allied Agricultural Sector

The health care needs of the animal husbandry sector were supported by 12 Veterinary Poly Clinics, 323 Hospitals, 1,576 Dispensaries and 1,217 Rural Livestock Units. Artificial Insemination (AI) facility is available in 6,597 departmental institutions.

NABARD has provided support to 1,651 field veterinary institutions and 2 animal vaccine and diagnostic unit with an amount of ₹375.51 crore.

NABARD has also assisted ₹138.54 crore for construction of 162 Agri-labs for testing agriculture inputs (seed, fertilizer and pesticides) and 46 Aqua-labs.

6.7 Social Sector

6.7.1 Health

The government is committed to ensure access for all to the government hospitals. Maternal health care, child health care and family welfare services are provided through 7458 Sub-centres, 1145 Primary Health Centres, 18 Community Health Centres, 28 Area Hospitals, 14 District Hospitals, 3 Mother and Child Health Centres. NABARD has supported strengthening of the health infrastructure in Andhra Pradesh by extending assistance to 385 PHCs/ Area Hospitals with a financial support of ₹1565.59 crore.

NABARD has sanctioned ₹ 1392.23 crores during 2021-22 for construction of 03 Medical Colleges cum Hospitals and Establishment of 05 Multi-Specialty Hospitals in ITDA area. An amount of ₹ 1638.54 Cr was sanctioned for the construction of hospitals and nursing colleges in 6 districts of Andhra Pradesh during the year 2022-23.

During the year 2023-24, NABARD has sanctioned ₹471.68 crore for 23 Rural Health projects including establishment of 02 Medical colleges in the State

6.7.2 Education

Government of Andhra Pradesh launched **Mana Badi Nadu Nedu** Scheme to develop around 15000 schools with modern facilities. The scheme will be implemented in three years in a phased manner with financial assistance to the tune of ₹6000 crore. The aim of the scheme is to bring about qualitative change in the education system in Andhra Pradesh in terms of infrastructure and amenities in Government schools. As on 31 December 2023, NABARD has extended assistance to 42,218 Schools, 691 Junior Colleges and 65 Polytechnic Colleges and ITIs, ANGRAU, Dr. YSR Horticulture University and SV Veterinary University to the tune of ₹6340.85 crore.

6.7.3 Anganwadi Centres

Women Development and Child Welfare department is implementing 257 ICDS projects in the State and provides maternal health care, child health care and family welfare services. About 5.15 Lakh children are attending pre-school education activities in Anganwadi Centres. There are 55,607 AWCs in the State catering to needs of women and children in Rural Areas. NABARD extended assistance in AP to the tune of ₹331.19 crore to for construction of 3886 Anganwadi Centres.

6.7.4 Rural Drinking Water Supply & Sanitation

Safe drinking water is unquestionably the primary need of life and it assumes greater significance in the context of a developing country like India. Provision of drinking water supply has been a primary consideration in all the successive Five year plans. NABARD has sanctioned an amount of ₹ 1986.11(Including 839.2 crore during 2022-23) Crores to GoAP for creation of 13,368 drinking water projects benefitting more than 70% of the rural population in the covered areas.

6.8 Long Term Irrigation Fund

The Pradhan Mantri Krishi Sinchayee Yojana (PMKSY) was launched during 2015-16, for extending the coverage of irrigation 'har khet ko pani' (water to all farms) and improving water use efficiency 'per drop more crop' in a focused manner.

The Hon'ble Union Finance Minister, during his Budget speech 2016-17, announced the creation of a dedicated Long-Term Irrigation Fund (LTIF) in NABARD, for funding of Central and State shares for the identified projects under PMKSY. The fund is being used for financing and fast tracking of incomplete major and medium irrigation projects identified by Ministry of Jal Shakti (erstwhile Ministry of Water Resources, River Development & Ganga Rejuvenation (MoWR, RD & GR)), Govt. of India on a mission mode.

6.8.1 LTIF Projects in Andhra Pradesh

Govt. of India has allowed Ministry of Water Resources to fund Polavaram Project under LTIF. Accordingly, NABARD sanctioned loan amount of ₹ 11218 crore under LTIF to National Water Development Agency on behalf of Ministry of Jal Shakti (erstwhile Ministry of Water Resources, River Development & Ganga Rejuvenation (MoWR, RD & GR)) for funding Polavaram Project. In Andhra Pradesh, NABARD has sanctioned a loan amount of ₹513.87 crore towards funding of state share for 4 projects under LTIF. As against the sanction, the State Government availed an amount of ₹489.34 crore as on 31 March 2023.

Presently, the Government of India (GoI) has extended the LTIF funding arrangement through NABARD for the State Government's share in respect of all ongoing projects till 2025-26

Table 6.2 : Projects sanctioned under LTIF and benefits created: (Amt in Cr)

Sl. No.	Name of the Project	District	Total Sanction	Disbursed	Irrigation potential (Ha)	Population benefitted
1	Gundlakamma	Prakasam	148.59	148.59	32,400	2.50 lakhs in 43 villages
2	Tadipudi LIS	W. Godavari	79.53	55.00	83,609	5.40 lakhs in 130 villages
3	Tarakaram Teerta Sagaram	Vizianagaram	251.75	251.75	10,000	0.77 lakhs in 49 villages
4	Pushkara LIS	E. Godavari	34.00	34.00	75,375	4.0 lakhs in 104 villages
	Total		513.87	489.34	2,01,384	

6.9 Micro Irrigation Fund :

A dedicated Micro Irrigation Fund (MIF) was instituted in NABARD with an initial corpus of ₹5000 crore. The fund operational for a period of 5 years (2017-18 to 2021-22) is expected to provide impetus to micro irrigation. The announcement made in the budget of 2017-18 was for facilitating the States to mobilize additional resources for expanding coverage of Micro Irrigation. The main objective of the fund is to facilitate the states in mobilising resources for expanding coverage of Micro Irrigation by taking up special and innovative projects and also for incentivising micro irrigation beyond the provisions available under PMKSY-PDMC to encourage farmers to install micro irrigation systems. An additional allocation of ₹ 5000 crore has been made in the union budget 2021-22. GoAP was sanctioned and released ₹616.13 crore during 2020-21 under MIF. Potential created under MIF in Andhra Pradesh covers an area of 1,83,230 Ha, benefitting more than 1.5 lakhs farmers, and covering various horticultural and agricultural crops.

Government of India has approved the continuation of Micro Irrigation Fund till 31 July 2024 as part of extension of Rashtriya Krishi Vikas Yojana.

6.10 Warehouse Infrastructure Fund (WIF)

As creation of quality Warehousing Infrastructure is a thrust area of GoI, an allocation of ₹ 5000 cr has been made under the WIF in the budget for 2014-15. The fund envisages extension of loans to Public and Private sectors for construction of warehouses, silos, cold storages and other cold chain infrastructure. WIF would be utilized for meeting the growing demand for creating scientific storage capacity for agricultural commodities in the State. Under WIF, a cumulative amount of ₹ 99.00 crore has been sanctioned to State Government and amount of ₹98.56 crore has been disbursed as on 31 March 2023, covering a total of 19 projects, creating a total storage capacity of 1,76,500 MT.

6.11 Rural Infrastructure Promotion Fund (RIPF)

RIPF has been created with an initial corpus ₹25 crore and operationalized from 1st September 2011 with an objective to promote capacity building initiatives, and also for the creation of innovative/experimental/promotional and replicable model of infrastructure in rural sector and rural areas.

Table 6.3- Major projects implemented in Andhra Pradesh under RIPF during last 03 years

Sl no.	Year	Name of the project	Amount sanctioned (₹ lakhs)
1	2021-22	Establishment of virtual farmers training centre at YSR Horticultural University	9.84
2	2022-23	Establishment of Bio-flock inland aquaculture unit for entrepreneurship promotion at KVK, Banavasi, Kurnool	7.46
3	2022-23	Procurement and Installation of Automatic weather station at Dr YSRHU-Horticulture Research Station, Kovvur, East Godavari District	4.47
4	2022-23	Purchase and instalation of solar dryer for marine products by Sahajamitra FPCL, Guntur District	5.00
5	2022-23	Construction of slab culvert on the canal at Kanaka Durgamma temple at Pasarlapudi, Konaseema District	9.47

6.15 Food Processing Fund (FPF)

Food Processing Fund with a corpus of ₹ 2,000 crore was established by GoI to provide impetus to the development of the food processing sector on a cluster basis in the country, to reduce wastage of agricultural produce, and to create employment opportunities, especially in rural areas. Under the Fund, NABARD will provide term loans to the State Government, State Government entities, entities promoted by GoI, Joint ventures, SPVs, Cooperatives, Federations of Cooperatives, Farmers' Producer Organizations, corporations, Companies, Entrepreneurs, etc. to set up Food Parks, Infrastructure for Agro-processing clusters and individual processing units in the Designated Food Parks.

6.16 Suggested Action Points

Based on the sectoral priorities of the State Government and the existing gaps in infrastructure, the following action points are suggested for bridging the gaps:

- Rehabilitation and strengthening of the existing rural road network, construction of new roads including link roads for establishing last mile connectivity, maintenance and quality control of rural roads, etc.
- Capitalizing on GoI subsidy scheme for Grid connected Roof-Top solar system program.
- New roads/ rehabilitation of existing roads to unconnected habitations, places of religious/ tourist importance, etc.
- To educate the farmers for using of scarce water resources judiciously by adopting micro irrigation techniques like drip and sprinkler in the state. Involvement of farmers in the management of irrigation projects. WUAs need to be strengthened and separate budget may be provided in the project cost for capacity building of the members of WUAs.
- Infrastructure funding for ensuring the supply of potable drinking water in all the far-flung habitations and other rural areas in the State.
- Creation of adequate storage and warehousing infrastructure for scientific storage and better marketing of both perishable and nonperishable commodities, particularly cold storage facilities enabling higher income generation for the producers.
- Additional infrastructure such as primary and secondary schools, hostels, etc., to enable effective implementation of Right to Education in the State.
- Infrastructure for rural health care services such as health care centers, sub-centres etc.

6.17 Potential Investments required to be made

Andhra Pradesh had targeted an overall growth rate of 10% during the 12th Five Year Plan(2012-17) period. The targeted growth rates for agriculture, industries and service sector were at 6%, 10.5% and 11.5%, respectively. Achieving this kind of growth rates requires huge amount of investments. The investments are also required to be made considering the availability of resources at the ground level, the status of development of the area and such other factors.

Irrigation: Irrigation accounts for almost 90 per cent of the gross public capital formation in agriculture. Private sector investment includes investments by (a) farm households and (b) private corporates. Higher government spending on infrastructure and other capital investments has a crowding-in effect on private investments by raising the marginal productivity of capital. Hence, public investment in agriculture needs to be increased to encourage private investments. Creation of Irrigation Potential continued to be the most prioritized area. So far 101.72 lakh acres of irrigation potential has been created up to December 2023 under major anicuts on Krishna, Godavari and Pennar rivers. With the completion of 40 Jalayagnam Projects extra 28.54 lakh acres irrigation potential will be created.

Health: According to the latest Sustainable Development Goals [SDG] report released by NITI Aayog, there is a definite lag in the performance of some of the key indicators in healthcare segment, the proportion of health spending to total government expenditures remains at an average of 4.5%, which is considerably low against the required minimum of 8% as stated in the National Health Profile database. Government of Andhra Pradesh has launched a comprehensive program for revitalization of hospital and healthcare services across the State with a total cost of INR. 16,200 Crore. With the advent of dedicated programs and schemes under Navaratnalu and Nadu-Nedu, comprehensive and affordable health care can be provided to all by ensuring effective and efficient service delivery.

Education: The literacy rate in AP is 67.35% as per the 2011 census compared to the all-India figure of 72.98%. Mana- badi Nadu Nedu scheme of Govt of AP envisions to improve the educational infrastructure of the state in a phased manner by taking up infrastructural components like provision of additional classrooms, toilets, drinking water supply, etc.

Some of such projects have been identified across the districts of Andhra Pradesh and the investment required under these sectors is detailed in Annexure-III. As indicated therein, critical infrastructure gaps are required to be filled in sectors like last mile projects, rural connectivity, increasing the storage space for agricultural products and health & education needs. Huge benefits can accrue to the people if these gaps are plugged immediately.

Important Policies and Developments

7.1 Policy Initiatives - Government of India

7.1.1 Union Budget of India- 2023-24 - Major Highlights

Vision for *Amrit Kaal* – an empowered and inclusive economy

- Facilitating ample opportunities for citizens, especially the youth, to fulfil their aspirations
- Providing strong impetus to growth and job creation
- Strengthening macro-economic stability

Priorities of the Budget: Saptarishi

1. Inclusive Development

- Building an accessible, inclusive and informative solutions for farmers
- Setting up Agri Accelerator Fund for encouraging innovative start-ups in rural areas
- Launching of Atmanirbhar Horticulture Clean Plant Program to boost production of high value horticultural crops
- Target of ₹20 lakh crore for agriculture credit with focus on animal husbandry, dairy and fisheries
- Pradhan Mantri Matsya Kisan Samridhi Sah-Yojana (PM-MKSSY), as a Central Sector Sub-scheme under PMMSY with targeted investment of ₹6,000 crore
- Making India Global Hub for Millets : ‘Sree Anna’
- Setting up of massive decentralised storage capacity for enhancing remuneration of farmers

2. Reaching the Last Mile

- Saturation of essential government services across multiple domains in 500 aspirational blocks
- Launching of Pradhan Mantra Development Mission to saturate Particularly Vulnerable Tribal Groups (PVTG) families and habitations

3. Infrastructure and Investment

- Continuance of the 50-year interest free loan to state governments for one more year to spur investment in infrastructure

4. Unleashing the Potential

- National Data Governance Policy to be brought out to enable access to anonymized data for start-ups and academia
- Vivad se Vishwas I for providing relief to MSMEs affected during COVID
- Entity Digi Locker to be set up for use by MSMEs, large business and charitable trusts for storing and sharing documents online securely

5. Green Growth

- Green Credit Programme to be notified under the Environment (Protection) Act to incentivize environmentally sustainable and responsive actions

- PM Programme for Restoration, Awareness, Nourishment and Amelioration of Mother Earth (PM-PRANAM) to be launched to incentivize States/UTs to promote alternative fertilizers
- 500 new 'waste to wealth' plants under GOBARDhan (Galvanizing Organic Bio-Agro Resources Dhan) scheme to be established for promoting circular economy
- Mangrove Initiative for Shoreline Habitats & Tangible Incomes (MISHTI) to be taken up for mangrove plantation along the coastline and on salt pan lands
- Amrit Dharohar to be implemented for optimal use of wetlands
- Setting up 10,000 bio-inputs resource centre to facilitate farmers adopt natural farming

6. Youth Power

- Pradhan Mantri Kaushal Vikas Yojana 4.0 to be launched to skill lakhs of youth within the next three years
- Digital ecosystem for skilling to be further expanded with the launch of a unified Skill India Digital platform

7. Financial Sector

- National Financial Information Registry (NFIR) to be set up to serve as the central repository of financial and ancillary information
- Expanded corpus under Credit Guarantee for MSMEs to enable additional collateral-free guaranteed credit of ₹2 lakh crore

7.1.2 PACS Computerisation - The new Ministry of Cooperation was formed with a mandate to realise the vision of 'Sahakar Se Samridhi'. To realise this vision, the GoI have initiated computerisation of 63,000 Primary Agricultural Credit Societies (PACS) with an investment of ₹2,516 crore. NABARD, apart from financial contributions, has taken the initiative of ground level implementation of the project.

7.1.3 National Cooperative Policy - The National Cooperative Policy envisions increasing contribution of cooperative sector in GDP from present level of ₹21 lakh crore to ₹90 lakh crore by year 2030 and reaching around ₹900 lakh crore by 2047, thereby aiming to achieve the target of around 40% share in the GDP of the nation. The Policy Framework is under finalisation.

7.1.4 World's Largest Grain Storage - Ministry of Cooperation, GoI had conceived the idea of creating the World's largest grain storage in the Cooperative sector by establishing Godowns /Warehouses of varying capacities at the grassroots cooperatives. NABARD is involved with the MoC in implementing the pilot project. NABARD has awarded the assignment on preparation of Detailed Project Report (DPR) and Project Management Consultancy (PMC) to NABCONS.

7.1.5 Formation of 2 lakh more PACS - Union Cabinet, in its meeting held on 15.02.2023, has approved the plan for Strengthening Cooperative Movement in the country by formation of 2 lakh PACS in next five years. NABARD, NDDB and NFDB are required to prepare national level action plans for strengthening of primary cooperative societies and establishment of new multipurpose PACS or primary Dairy/ Fishery cooperative societies, as per requirement.

7.1.6 Formation of Multi State Cooperative Societies – GoI is envisaging formation of three Multi State Cooperative Societies at national level, one each for Exports,

Certified Seeds and Organic Farming to give special focus on the produce of the cooperatives.

7.1.7 JanSamarth Portal – GoI has launched JanSamarth Portal, a unique digital portal linking twelve Credit Linked Govt. Schemes on a single platform, for ease of access to all the beneficiaries and related stakeholders. The Portal uses cutting-edge technology and smart analytics to provide intuitive guidance to beneficiaries for checking subsidy eligibility and auto recommendation system offers best suitable scheme as per beneficiary's requirements and credentials. Advanced technologies automate entire lending process based on digital verifications making the entire process simple, speedy and hassle free.

7.1.8 Account Aggregator Framework - Account Aggregator (AA) network is a financial data-sharing system that gives consumers, greater access and control over their financial records and expands the potential pool of customers for lenders and fintech companies. GoI has directed that all banks, including the Cooperative Banks and RRBs should on-board the AA framework. NABARD has come forward to set up a Common Infrastructure at its level and on-board the cooperative banks on the AA ecosystem as a service to the banks.

7.1.9 Aspirational Block Programme (ABP) - The Hon'ble Prime Minister has launched the Aspirational Block Program throughout India with a special emphasis on the "India-First Approach" in January 2023. The programme aims at developing the most backward blocks of the country identified based on a variety of factors as recognized by NITI Aayog. The program will cover 500 districts across 31 states and UTs initially with over half of these blocks are in 6 states - Uttar Pradesh (68 blocks), Bihar (61), Madhya Pradesh (42), Jharkhand (34), Odisha (29) and West Bengal (29). ABP will concentrate on tracking 15 important socio-economic indicators covering Health and nutrition, education, agriculture and water resources, basic infrastructure, skill development, financial inclusion and social development. These socio-economic indicators will be monitored in real-time, and periodic rankings in important subject areas will be made public in order to promote healthy competition among the blocks and data-driven government.

7.1.10 Enhancing Credit Flow: Credit Guarantee Schemes: Credit Guarantees are risk-sharing instruments for lenders and are aimed to improve flow of credit in borrowers' segment which are normally perceived to be risky by lenders. For the promotion of Agriculture and Allied Sector, GoI has announced two Credit Guarantee Schemes which are being managed by NABSanrakshan Trustee Private Limited, a wholly owned subsidiary of NABARD.

Table 7.1 Credit Guarantee Schemes – FPOs & Animal Husbandry

Item	Credit Guarantee Scheme for FPOs	Credit Guarantee Scheme for Animal Husbandry and Dairying
Guarantee Cover	85% of the sanctioned amount max. ₹1.5 cr	25% of the Credit Facility
Annual Guarantee Fee	Up to 0.85% of sanctioned amount	0.50% of the sanctioned amount
Eligible Lending Institutions	Scheduled Commercial Banks, Co-operative Banks, NEDFI, NABKISAN, etc.	Scheduled Banks
Eligible Borrower	FPOs (Agri based)	FPO, Pvt. Company, Sec. 8 Company, Individual Entrepreneur, MSME, etc.

7.2 Policy Initiatives – Reserve Bank of India

The following important initiatives have been taken by the RBI under Agriculture and Rural Sector:

- i. Master Circular on Lead Bank Scheme (FIDD.CO.LBS.BC.No.04/02.01.001/2023-24 dated 03 April 2023) issued by RBI has inter alia included revised agenda for SLBC meetings, activities under annual calendar, mechanism of data flow for LBS I meetings, alternative framework of Due Diligence in place of No Dues Certificate, etc.
- ii. As per Master Circular on SHG – Bank Linkage Programme (FIDD.CO.FID.BC.No.1/ 12.01.033/2023-24 dated 01 April 2023) issued by RBI, a simple system requiring minimum procedures and documentation is a precondition for augmenting flow of credit to SHGs.
- iii. Master Circular on Deendayal Antyodaya Yojana – National Rural Livelihoods Mission (DAY-NRLM) SHG-Bank Linkage Programme consolidating all the instructions/ guidelines issued on the subject issued till date was issued by RBI vide circular FIDD.GSSD.CO.BC.No.07/09.01.003/2023-24 dated 26 April 2023.

7.3 Policy Initiatives – NABARD

7.3.1 Long-Term Refinance

To ensure increased and uninterrupted credit flow to farmers, as also to give a boost to capital formation in agriculture sector, NABARD provides refinance to the cooperative banks and RRBs out of Long Term Rural Credit Fund, at a reasonable rate of interest. An amount of ₹ 1,07,015 crore was disbursed during the year 2022-23.

7.3.2 Short-Term Refinance

NABARD provides Short Term refinance to Cooperatives, RRBs and SFBs for their crop loan lending. The disbursement for the year 2022-23 was ₹1,58,905 crore.

24.4.2 Special Refinance Scheme

NABARD introduced Special Refinance scheme for financing under Agriculture Infrastructure Fund (AIF) for RRBs, Cooperative Banks and subsidiaries of NABARD with a view to address the existing infrastructure gaps and to provide a fillip to the rural financial institutions for funding projects of other than PACS under AIF and also funding to eligible beneficiaries being covered under AIF. The scheme envisages creation of investment in viable projects relating to post harvest management infrastructure and community farming assets.

24.4.2 Government Sponsored Programmes with Bank Credit

- Government of India introduced Sugar Ethanol Interest Subvention scheme in 2018-19 with a view to increase the production of ethanol and its supply under the 'Ethanol Blended Petrol (EBP).' NABARD is the nodal agency responsible for managing the Sugar Ethanol Interest Subvention Scheme of the Department of Food and Public Distribution (DFPD), Government of India.
- KCC-ISS portal developed by MoA & FW, GoI went live in 26 December 2022. Presently, the data entry is going on in the portal. As on 30 March 2023, 174 Cooperative Banks

and 29 RRBs have started data entry in the portal. NABARD is monitoring the progress in respect of Cooperative Banks and RRBs.

- NABARD has been playing an important role in channelling subsidy to eligible banks under various credit-linked subsidy schemes of Government of India, primarily for agriculture projects and priority sector activities. Implementation of these schemes has also enabled enhancement of flow of Ground Level Credit (GLC) to agriculture and allied sector and priority sector activities.

7.3.5 Rural Infrastructure Development Fund (RIDF)

RIDF instituted in NABARD during 1995-96 with the main objective of providing loans to State Governments for completing ongoing rural infrastructure projects, at present covers as many as 39 activities, classified under three broad sector, viz; (i) Agriculture and related sector (ii) Social Sector and (iii) Rural Connectivity. RIDF is estimated to create/restore irrigation potential of 376 lakh ha, 5.35 lakh km of rural roads and 13.34 lakh meters of bridges and also generate non-recurring employment of 3029 crore man-days as on 31 March 2023.

7.3.6 Micro Credit Intervention

NABARD has been extending grant support to partner agencies for promotion and nurturing of SHGs, training and capacity building of SHG members and other stakeholders, besides initiating special programmes for backward regions.

7.3.7 Financial Inclusion

NABARD supports the creation of the financial inclusion infrastructure of banks and various financial inclusion awareness activities under the aegis of the Financial Inclusion Fund (FIF) placed in NABARD. Apart from extending assistance to RFLs for onboarding to technology platform, NABARD has onboarded the Account Aggregator platform as Financial Information User (FIU) which will facilitate structured financial data sharing from Financial Information Users (FIUs).

7.3.8 Institutional Development

• Cooperative Development Fund (CDF):

The Cooperative Development Fund was constituted in 1993 under section 45 of NABARD Act 1981, with an initial corpus of Rs 10 crore. The fund is replenished every year through Contribution from NABARD's surplus. Assistance from the CDF is available to co-operatives in the form of soft loans/grants for infrastructure development of PACS for resource mobilisation, human resource development, capacity building and operational streamlining, setting up of PACS Development Cells in CCBs etc., which in turn contribute to their functional efficiency.

As on 31 March 2023, the total utilizations from CDF was ₹ 3,363.30 lakh against the budget allocation of ₹11,368.50 lakh (Allocation includes ₹7,000.00 lakh towards GoI's PACS Computerization project).

7.3.9 Farm Sector Development

• Central Sector Scheme on Formation and Promotion of 10,000 FPOs:

NABARD, as one of the Implementing Agencies under the scheme, has empanelled 110 Agencies to work as CBBOs across the country. As on 31 March 2023, NABARD has sanctioned 1,751 FPOs wherein a total of 3.04 lakh farmers have taken the membership.

- **Climate Change:** NABARD has facilitated sanction of 40 projects with a total financial outlay of ₹1,852.61 crore under various funding mechanisms viz., Adaptation Fund (AF), National Adaptation Fund for Climate Change (NAFCC) and Green Climate Fund (GCF).

7.3.10 Off Farm Sector Development

Capacity Building Fund – Social Stock Exchange (CBF-SSE): A Capacity Building Fund of Social Stock Exchange (CBF-SSE) is proposed to be created in NABARD with a corpus of ₹100 crore funded by NABARD, SIDBI, BSE, NSE and Others for awareness creation and capacity building of the different stakeholders.

7.3.11 Agriculture Credit target for 2023-24

For the FY 2022-23, agriculture credit achievement was ₹21.67 lakh crore, as against the target of ₹18.50 lakh crore. Agriculture credit target for the year 2023-24 has been fixed at ₹20 lakh crore. In order to provide special focus to allied activities, separate sub targets of ₹1.40 lakh crore for working capital and ₹1.53 lakh crore for term loan towards allied activities under GLC targets have been fixed.

7.3.12 Policy Initiatives – State Government

The major policies of Andhra Pradesh State Government are as under:

➤ Agriculture:

- **Dr. YSR Rythu Bharosa – PM Kisan:** Farm Investment Support of ₹13,500 per farmer family (including tenant & ROFR farmers) per year (including ₹6,000 under PMKISAN) was provided under Dr. YSR Rythu Bharosa during 2022-23. During 2022-23, 50.92 lakh farmer families including 1.97 lakh tenant/ROFR farmer families and ROFR cultivators were provided with the assistance. The Government has allocated ₹3,900 crore input subsidy through Dr. YSR Rythu Bharosa-PM KISAN for FY 2022-23.
- **Dr. YSR Rythu Bharosa Kendralu:** The GoAP has established 10778 Dr. YSR RBKs which are functioning as integrated agriculture input shops and farmer knowledge centres. They act as one stop centres, right from the supply of pretested quality agriculture inputs to the procurement of farm produce at village level. About 7 lakh quintals of certified and subsidised crop seeds worth of ₹187 crore were distributed to about 12 lakh farmers during 2022-23. The beneficial impact of RBKs has been praised by the Food and Agriculture Organisation of the United Nations, NITI Aayog as well as the RBI. An amount of ₹40.46 crore has been allocated for construction of 7,578 RBKs during the year 2023-24.
- **Dr. YSR Polambadi – Farmer Field schools:** They were set up for empowering the farmers in Integrated Crop Management techniques to achieve reduction in cost of cultivation, increase in crop yields and adoption of eco-friendly organic farming. In 2021-22, about 16,123 Polambadi sessions were organised. As per budget 2023-24, 17,000 Polambadi sessions will be organized during current FY.

- **Dr. YSR Free Crop Insurance Scheme:** The scheme was introduced during Kharif 2019 covering all farmers growing notified crops in the notified areas after mapping of eCrop and e-KYC. Since the inception of the scheme, insurance claims amount of ₹6,872 crores has been settled to 44.55 lakh farmers' accounts through DBT. The Government has allocated ₹1600 crore towards the scheme for the year 2023-24 covering an extent of 55 lakh ha of notified crops.
 - **Agriculture Marketing & Price Stabilisation Fund:** The government had established the 'e Farmarket', a digital marketing platform to connect the farmers of AP with traders in the country. More than 4,000 farmers and 2,000 traders have benefitted through this application so far. Similarly, Price Stabilisation Fund of ₹3,000 crore was established for protecting the farmers from selling their crops below the MSP.
 - **Dr. YSR Agri Testing Labs:** The GoAP launched Dr. YSR Agri Testing labs on 08 July 2021 for quality testing of agricultural inputs. An amount of ₹36.39 crore has been allocated for Dr. YSR Agri Testing labs for the year 2023-24.
- **Animal Husbandry and Fisheries:**
- **Dr. YSR Sanchara Pasu Arogya Seva:** The GoAP has operationalised 340 Mobile Ambulatory Veterinary Clinics to provide veterinary services at the doorstep of farmers for the care of their animals. Further, 154 Constituency Level Animal Disease Diagnostic Centres have been sanctioned for integration with Dr. YSR Agri labs to enable accurate diagnosis of animal diseases and help the farmers to save their resources while ensuring timely treatment of sick animals.
 - **Fishing harbours:** The GoAP has taken up construction of 9 fishing harbours of international standards. In the first phase, four fishing harbours located at Uppada, Nizampatnam, Machilipatnam and Juvvaladinne are under construction. The remaining 5 fishing harbours will be taken up in the 2nd phase. Construction of 4 Fish Landing Centres with berthing and post-harvest facilities has been taken up at Manchineelapeta, Chintapalli, Bheemilli and Rajayyapeta.
 - **YSR Pasu Bhima Padhakam:** The GoAP launched YSR Pasu Bhima Padhakam to provide livestock insurance to the farmers covering improved & indigenous as well as non-descript breeds of animals.
- **Jalayagnam – Water Resources:**
- Through Jalayagnam, the Government is committed to improve water availability for irrigation, thereby attaining to build resilient infrastructure, promote inclusive and sustainable industrialisation and foster innovation. The GoAP has allocated an amount of ₹11,908 crore to the Department of Water Resources for 2023-24.
 - **Jalakala programme:** The GoAP launched the YSR Jalakala program on 28th September 2020 to drill bore wells free of cost and install pump sets for the small and marginal farmers so that more arable land could be brought under irrigation. So far, 17,047 bore wells have been drilled.

- **YSR Nethanna Nestham:** Under the YSR Nethanna Nestham, ₹24,000 per annum is provided to every BPL weaver family owning a handloom. An allocation of ₹200 crore is made for YSR Nethanna Nestham in 2023-24.
- **Micro, Small & Medium Enterprises (MSME):**
 - The GoAP extended ReSTART package to MSMEs during Lockdown to bail them out of Financial crisis
 - Under YSR Navodayam (One Time Restructuring of MSME loans), 1.78 lakh MSME whose accounts, worth more than ₹7,976 crore was restructured.
 - The GoAP is extending incentives under Industrial Development policy and YSR Jagananna Badugu Vikasam Policy to nurture MSMEs.
- **Women Empowerment**
 - **YSR Aasara:** The GoAP announced the YSR Aasara scheme for the waiver of outstanding bank loan as on 11-04-2019 of rural and urban poor women Self Help Groups in 4 instalments. An amount of ₹19,137 crores has been waived in 3 instalments by way of reimbursement to about 78.74 lakh SHG women in both rural and urban areas. The GoAP allocated an amount of ₹6,700 crore for the 4th instalment of YSR Aasara scheme for the year 2023-24.
 - **YSR Sunna Vaddi:** The GoAP is implementing the YSR Sunna Vaddi scheme to promote a culture of timely repayment and also reduce the interest burden on SHGs for all outstanding bank loans up to ₹3 lakh. An amount of ₹3,615 crore has been paid to 1.02 crore SHG women since 2019 covering both rural & urban areas. The GoAP allocated an amount of ₹1,000 crore for YSR Sunna Vaddi scheme for the year 2023-24.
 - **YSR Cheyutha:** The GoAP is providing an assistance of ₹75,000 over four years i.e., ₹18,750 per year, to more than 25 lakh women in the age group of 45-60 years, belonging to SC/ST/BC/Minority communities. The beneficiaries are investing the amounts as per their choice in existing livelihood activities or setting up new enterprises. An amount of ₹14,129 crore has been disbursed in 3 instalments to 26.7 lakh women members so far. The GoAP allocated an amount of ₹5,000 crore for YSR Cheyutha scheme for the year 2023-24.
- **Education**
 - **Jagananna Amma Vodi:** The scheme provides poor mothers (or recognized guardian in the absence of mother) ₹15,000.00 per annum for sending their children to school. The GoAP allocated an amount of ₹6,500 crore for the scheme for the year 2023-24.
 - **Manabadi Nadu-Nedu:** For improving infrastructural facilities through community participation, an allocation of ₹3,500 crore has been made for this scheme in 2023-24.

- **Jagananna Vidya Kanuka:** The GoAP launched the programme to improve attendance and enhance the learning outcomes of government school going children by providing teaching-learning material in form of student kits, consisting of uniforms, shoes, socks, textbooks, notebooks, workbooks, school belt and a set of masks. An amount of ₹560 crore has been allocated for the scheme for the year 2023-24.
- **Jagananna Vidya Deevana and Jagananna Vasathi Deevana:** The GoAP is implementing the Jagananna Vidya Deevana scheme which provides full fee reimbursement for Polytechnic, ITI, Engineering, Medical, degree and higher courses. Jagananna Vasathi Deevana scheme covers the food and hostel expenses of students with the objective of improving the gross enrolment ratio in higher education. An amount of ₹2,841 crore and ₹2,200 crore were allocated for the schemes for the year 2023-24.
- **Housing:** The GoAP is implementing 'Pedalandiriki Illu' scheme to provide 30.2 lakh permanent houses to all eligible beneficiaries by the end of 2023 in saturation mode. An amount of ₹5,600 crore has been allocated for 2023-24 towards the scheme.
- **Health and Nutrition:** The GoAP allocated an amount of ₹15,882 crore for Health, Medical & Family Welfare Department for the year 2023-24. Some important schemes under the department are as under:
 - **Dr. YSR Arogyasri scheme,** the flagship programme of GoAP covers 1.41 crore families wherein 3,255 procedures are available for free of cost. Dr YSR Arogyasri scheme, the Government provides ₹225 per day as post-operative sustenance allowance to BPL patients to compensate for wage loss and medicines
 - **Jagananna Gorumudda – Revamped Mid-Day Meal scheme:** The scheme was launched to serve tasty, nutritious, and qualitative Mid-Day meals to children.
 - The Nadu-Nedu Health scheme focuses on the improvement of Public Healthcare as well as Health Infrastructure.
- **Welfare Schemes:** The GoAP allocated an amount of ₹20,005 crore for SC Component, ₹6,929 crore for ST Component and ₹38,605 crore for BC Component for the year 2023-24. Further an amount of ₹4,887 crore and an amount of ₹4,203 crore were allocated for Kapu welfare and minorities welfare respectively for the year 2023-24.
- **Industries and Commerce:**
 - The GoAP allocated an amount of ₹2,602 crore for Industries and Commerce for the year 2023-24.
 - The 'YSR Jagananna Mega Industrial Hub' being developed over an extent of 3,155 acre near Kopparthi, YSR district will act as a Multi-Product Mega Industrial Park to attract investments of ₹25,000 crore with potential to generate employment for about 75,000 individuals.
 - Andhra Pradesh received sanction for establishment of five clusters from the Government of India under MSE-CDP scheme. The state has also received approval

from National Industrial Corridor Development Corporation for partnering in the development of three industrial clusters, namely Nakkapalli cluster of Visakhapatnam node; Chittoor South cluster of Srikalahasthi-Yerpedu Node; and Kopparthi cluster of Kadapa Node under VCIC.

7.4.1 Status of Cooperatives in the State

Andhra Pradesh has an integrated three-tier cooperative credit structure, with short-term and long-term credit functions under one umbrella. The APStCB is at the apex level with 18 branches and 13 DCCBs are operating at the district level through 429 branches. A total of 2037 PACS are functioning at the village level.

7.4.1.1 Financial Position of APStCB as on 31.03.2023

The total deposits of APStCB as on 31 March 2023 were ₹9041.79 crore, while the total borrowings were ₹22658.81 crore. The total loans and advances extended by APStCB were ₹27690.64 crore and total investments stood at 1992.83 crore. The CRAR of the APStCB stood at 9.86% and the Gross NPA was at 0.62%. The CD ratio of APStCB was 160.38%

7.4.1.2 Status of CBS in cooperative banks

APStCB migrated to new CBS B@NCS24 of TCS w.e.f. 4th July 2021, as part of NABARD initiated CBS project. The process of migration to the new CBS has been completed in all DCCBs. The APStCB is providing other services like RTGS/NEFT, ATM facility and the issue of RuPay debit cards to its customers. The DCCBs are also providing RTGS and NEFT under sub-route through StCB. ATMs are also installed in DCCBs and RuPay debit cards are issued on a small scale. SMS facility is also extended by all the banks.

7.4.1.3 NABARD's role in strengthening PACS in the state

NABARD Andhra Pradesh RO Sanctioned TFO of ₹1844.49 Crore with a refinance of ₹1660.45 Crore to APStCB for the establishment of multipurpose post-harvest infrastructure facilities by 1305 PACS at RBKs in convergence with Rythu Bharosa scheme of GoAP and disbursed ₹58.28 crore.

With the purpose of transforming PACS into self-sustainable entities, NABARD, Andhra Pradesh Regional Office has sanctioned refinance assistance of ₹27.52 crore at a concessional rate of interest of 3% to APStCB covering 62 PACS for creating infrastructure facilities (storage facilities, petrol bunks, RO water plant, cold rooms, etc.) under the Scheme. Against this sanction, refinance of ₹8.14 crore has been released in respect of 34 PACS during FY2022-23.

7.4.1.4 Association with Commonwealth of Learning, Canada: ApStCB unveiled its new Micro-Learning Centre (MLC) at the Cooperative Training Centre (CTI) of APStCB in collaboration with the intergovernmental organization Commonwealth of Learning (COL), as part of Lifelong Learning for Farmers (L3F) & Lifelong Learning for Employees (L3E) initiatives. Through the platform, Educational media content can now reach tens of thousands of farmers across the state on a daily basis, helping them obtain new skill sets to solve problems they face in their small farms and micro-businesses in real time.

7.4.2 Sector-wise/ Activity-wise distribution of Cooperatives

Sr No	Type	Number of Societies
1	Miscellaneous Non Credit	6246
2.	Fishery	2135
3	Primary Agricultural Credit	2047
4.	Livestock and Poultry	1627
5.	Labour	1527
6.	Dairy	812
7.	Agriculture and allied	695
8.	Handloom Textile and weavers	617
9.	Credit and Thrift	593
10.	Housing	575
11.	Consumer	226
12.	Agro Processing/Industrial	156
13.	Handicraft	142
14.	Marketing	137
15.	Urban Cooperative Bank	39
16.	Social Welfare and Culture	29
17.	Miscellaneous Credit	20
18.	Multipurpose	14
19.	Education and Training	9
20.	Sugar Mills	5
21.	Tribal SC/ST	3
22.	Tourism	2
23.	Women Welfare	2
24.	Transport	1
	Total	17659
		Source: https://cooperatives.gov.in/en

Table 7.2 Sector wise/ Activity wise distribution of cooperatives

7.4.3 Recent Developments/ Initiatives, if any, taken by State Government in strengthening of outreach and activities of Cooperatives

7.4.3.1 Computerisation of PACS: The computerisation of PACS was launched by Govt. Of India with an outlay of ₹2516 crore. The project would be implemented and monitored at 03 levels i.e. national level, state level and district level. Under this project, State Level Implementation and Monitoring Committee (SLIMC) and District Level Implementation and Monitoring Committee (DLIMC) were constituted. Audit of all PACS have been completed.

7.4.3.2 Business Development and Product Innovation Cell

With NABARD's assistance, APStCB constituted BDPI Cell at its Head Office to integrate new products into the existing product lines emphasising a focus on the development of new products for business improvement and re-engineering of the existing product basket.

7.4.3.3 RBK & PACS Integration

Rythu Bharosa Kendra (RBK) is GoAP's initiative for providing "Seed to Sale" services at one stop. For extending wide range of credit and non-credit services to farmers and rural community at village level, RBK & PACS Integration is being taken up with detailed Standard Operating Procedures & Plan of Action. G.O.252 was issued to give effect to this.

7.4.3.4 Gold loan business through PACS

In view of integration of RBKs and PACS under chairmanship of Chief Secretary to GoAP. Agriculture & Cooperation department, GoAP had issued Standard Operating Procedure (SOP) on Gold Loans in PACS in order to guide and encourage PACS to take up Gold Loan business. At present, around 320 PACS are undertaking Gold Business and the total outstanding's under Gold Loan Business by PACS in the state of Andhra Pradesh is ₹470.44 crores.

7.5 State Government Sponsored Programmes with Bank Credit

YSR Sunna Vaddi Panta Runalu: Under the scheme, interest free crop loans up to ₹1.00 lakh are provided to farmer who repay their loans in time. From 2020-21, the interest subsidy claim amount is credited directly into the eligible farmers' bank accounts instead of releasing to the banks. Since inception, an amount of ₹1,834 crore has been credited to 73.88 lakh farmer accounts through DBT mode. An amount of ₹500 crore has been allocated by GoAP for the year 2023-24 towards YSR Sunna Vaddi Panta Runalu which is expected to benefit 33 lakh farmers.

Jagananna Thodu: Under this scheme, the government has facilitated an interest free financial assistance of ₹10,000 per annum through banks to hawkers, street vendors and artisans engaged in traditional handicrafts to expand their business. The scheme has benefited 15.31 lakh beneficiaries belonging to the most vulnerable sections of society with the total amount of loan disbursed at ₹2,470 crore. An amount of ₹35.00 crore has been allocated for Jagananna Thodu for the year 2023-24.

Jagananna Chedhodu: The scheme provides a financial assistance of ₹10,000.00 per year to Rajakas, Naye Brahmins and Tailors for ensuring self-employment to them. The GoAP allocated an amount of ₹350 crore for Jagananna Chedhodu for the year 2023-24.

Annexure - 1

District wise and sub sector wise PLP Projections for 2024-25

No.	Particulars (in lakh)	Sri Satyasai	Anantha puramu	Nellore	Srikakulam	Prakasam	Palnadu	Bapatla	Guntur	Alluri Sitarama Raju	Anaparthi	Visakhapatnam	Krishna	NTR
I	Credit Potential for Agriculture													
A	Farm Credit													
i.	Crop Production, Maintenance and Marketing	430187.65	665274.34	987840.47	424019.18	739903.21	865296.20	563102.72	518406.27	129730.06	374854.63	37212.24	865237.07	763073.26
ii.	Water Resources	11497.29	19588.88	8754.43	12616.48	10311.49	6257.14	4888.24	5137.42	1593.72	25768.54	1200.08	5374.47	33320.75
iii.	Farm Mechanisation	5457.43	15956.38	33576.05	16324.41	12139.44	23523.69	16024.53	26748.39	3661.92	47956.40	2030.72	40767.11	52681.07
iv.	Plantation and Horticulture including Sericulture	74366.15	65690.62	9561.56	9466.18	11443.45	9983.61	10289.47	9658.32	4961.05	14493.50	1783.50	24493.09	41272.07
v.	Forestry & Wasteland Development	868.38	1504.28	8961.67	1401.11	11527.60	1948.50	685.35	536.65	537.01	446.51	19.78	3265.59	8864.64
vi.	Animal Husbandry - Dairy	24389.94	14675.39	41123.86	39122.57	117405.98	106284.87	92224.12	90726.44	3841.55	95444.77	13791.99	107703.86	104555.51
vii.	Animal Husbandry - Poultry	3027.54	5438.32	4812.05	8112.15	11421.32	4887.53	8216.13	7792.26	1801.35	8770.21	7315.00	62694.44	61094.87
viii.	Animal Husbandry - Sheep, Goat & Piggery, etc.	6946.44	15952.37	29255.16	7403.13	34488.10	10592.53	10055.91	3632.26	1839.85	5960.73	3879.69	28686.81	36635.41
ix.	Fisheries	760.77	4061.93	20063.77	5601.14	10140.71	4991.16	4099.95	2199.40	336.08	5433.84	14093.19	115286.55	6938.24
x.	Farm Credit-Others (Bullock, Bullock Carts, Two-Wheelers, etc.)	18000.54	30000.34	7165.29	937.15	36036.00	19954.40	2017.60	1104.30	1039.50	797.40	46.35	9108.94	3114.19
xi.	Sustainable Agriculture Practices	2851.46	3471.35	9955.58	47.88	286.46	3436.55	2345.25	2185.45	2961.00	2658.24	468.00	1422.32	1306.27
	Sub-Total	578939.59	841614.40	1153739.89	525051.18	997397.35	1050756.17	731999.26	668127.17	152243.09	582294.77	81840.45	1261255.25	111856.28
B	Agricultural Infrastructure													
i.	Construction of storage facilities (Warehouses/Godowns, Market Yards, Silos, Cold Storage Units/Cold Chains)	13674.50	14899.50	34770.13	5275.37	14216.49	59664.27	34616.07	45622.24	1658.78	1926.10	1167.48	11241.81	13611.40
ii.	Land development, Soil Conservation and Watershed Development	4890.32	8460.98	8608.55	4077.59	2447.22	3153.20	2017.45	1260.20	476.70	5406.95	131.22	6512.56	8813.77
iii.	Agricultural Infrastructure - Others (e-NAM, Tissue Culture, Agri Bio-technology, Seed Production, Bio-Pesticides/Fertilisers, Vermicomposting)	319.77	8270.98	1587.81	2685.37	2041.52	4374.60	5107.69	5144.32	1664.73	2949.20	648.16	7807.21	8328.20
	Sub-Total	21684.79	316314.16	44966.49	12038.33	18795.23	67192.07	41771.21	59026.76	3800.21	10282.25	1946.85	25561.38	30753.37
C	Ancillary Activities													
i.	Food and Agro Processing	16710.00	14912.00	18905.90	6136.16	62125.95	40273.77	48636.74	56150.07	3639.36	11007.52	115392.80	14894.05	14130.84
ii.	Agriculture Ancillary Activities - Others (Agri-Clinic/Agri-Business Centres (ACABC), Loans to PACS/FSS/LAMPS, Loans to MFIs for On-lending, Loans to Distressed Persons to Prepay Non-Institutional Lenders, PMADY, Loans to State Sponsored Organizations for SC/ST)	107112.00	6380.00	58107.41	4243.60	9375.01	7943.69	5496.44	7753.96	1693.00	2645.00	6359.00	30823.30	102278.96
	Sub-Total	123822.00	21292.00	77013.31	10379.76	71500.96	48217.46	54133.18	63914.03	5332.36	13652.52	121751.80	45717.35	116509.80
	Total Agriculture (A+B+C)	723800.39	894537.86	1275739.69	547469.27	1087603.74	1172165.70	827903.65	784067.96	163375.66	606299.54	205539.10	1332534.18	126119.45
II	Micro, Small and Medium Enterprises (MSME)													
i.	MSME - Investment Credit	15382.80	203342.00	309250.01	49042.30	239587.80	163854.36	329599.38	67517.50	44655.00	255843.75	83776.25	297033.07	253415.36
ii.	MSME - Working Capital	58005.00	131950.00	62095.18	98868.00	52499.67	49976.46	62764.46	116444.80	20572.00	183200.00	315391.60	194344.48	565972.34
	Total MSME	216387.80	335292.00	371345.19	148210.30	292017.47	213800.82	385733.84	791562.30	65227.00	439043.75	1149477.85	491377.55	819387.70
III	Export Credit	1995.00	3520.00	7678.94	10314.00	3600.00	36895.32	13855.75	21741.89	11840.00	91200.00	52000.00	6545.00	9350.00
IV	Education	3548.12	4387.97	27004.82	7915.00	12768.00	15972.00	21768.00	17424.00	648.00	7200.00	26010.00	45375.00	49804.00
V	Housing	59759.50	86140.00	72006.22	93709.50	52345.75	65532.80	9476.00	96575.42	1772.00	43320.00	171680.00	212975.87	169540.96
VI	Social Infrastructure Involving Bank Credit	7528.00	11884.00	2200.70	2254.56	2627.62	1084.51	1123.51	3244.72	241.60	1500.00	3288.00	3627.93	1164.01
VII	Renewable Energy	7683.17	3373.74	1900.43	1105.65	1790.79	478.20	460.77	3351.00	392.08	627.40	4822.96	5700.25	3426.56
VIII	Informal Credit Delivery System	13531.00	45270.00	146275.00	125992.98	207650.00	162855.00	160530.00	212130.00	4450.00	48500.00	30242.50	123480.00	121128.00
	Total Priority Sector (I to VIII)	1034192.98	1384405.56	1904151.00	936971.46	1660403.37	1665784.35	1502843.54	1930097.28	245916.34	1237620.69	168460.41	2221615.78	2441370.68

District wise and sub sector wise PLP Projections for 2024-25															
No.	Particulars (in lakh)	Kurnool	Nandyal	Chittoor	Tirupati	West Godavari	Eluru	East Godavari	Konaseema	Kakinada	Amamayya	YSR	Paravathi puram Manyam	Vizianagaram	Grand Total PLP 2024-25 (in lakhs)
I	Credit Potential for Agriculture														
A	Farm Credit														
i.	Crop Production, Maintenance and Marketing	561410.44	602066.83	343132.32	405095.71	532648.37	630629.46	501232.59	474460.93	484187.13	461009.26	588922.13	270986.17	392913.09	13610261.72
ii.	Water Resources	13858.95	1726.40	13846.84	8751.06	2482.12	4592.94	10369.93	10497.08	10537.13	15723.18	17549.58	5012.91	9482.77	286279.81
iii.	Farm Mechanisation	20106.82	35374.70	16049.00	21154.93	22939.19	20549.44	17623.64	17817.76	19366.80	27529.70	21544.88	4387.68	5374.05	557406.13
iv.	Plantation and Horticulture including Sericulture	7913.38	15610.50	30829.57	11690.25	20442.77	195850.56	18626.36	11969.82	12076.67	17639.03	24171.70	5390.40	5811.64	663885.23
v.	Forestry & Wasteland Development	271.36	414.95	2005.74	6650.07	130.11	1117.25	1521.45	1072.01	1672.45	1920.13	3207.97	715.90	1095.57	62242.03
vi.	Animal Husbandry - Dairy	32869.90	44074.05	55711.39	44875.88	27337.36	27900.55	20918.11	26682.97	24245.76	90220.60	66972.50	9172.68	36167.90	1357520.41
vii.	Animal Husbandry - Poultry	1178.18	1436.73	7268.85	5917.05	12241.45	13283.32	22175.31	12356.83	23302.67	2381.64	2639.30	1480.05	3148.11	304126.66
viii.	Animal Husbandry - Sheep, Goat & Piggery, etc.	14093.52	16296.68	10668.13	45280.01	2064.23	2953.06	3896.70	3394.30	3723.60	1545.07	32123.32	1226.97	2046.35	318331.73
ix.	Fisheries	340.14	3293.63	308.76	5186.54	346147.23	229501.51	46549.95	61632.38	60323.96	493.98	1055.81	458.20	2640.42	953743.04
x.	Farm Credit-Others (Bullock, Bullock Carts, Two-Wheelers, etc.)	10669.04	85317.26	2544.30	370.76	827.15	788.87	1080.00	401.40	1173.60	1159.65	3384.32	354.38	1712.70	256605.43
xi.	Sustainable Agriculture Practices	4160.80	1756.79	1196.64	1396.08	118.86	111.87	109.81	88.20	270.00	2479.53	3099.42	12.03	52.09	39197.93
	Sub-Total	675274.53	822677.92	483251.54	536368.34	967378.83	1127278.84	644123.85	619683.68	640879.78	695901.78	761970.93	299206.37	460444.69	18409600.13
B	Agricultural Infrastructure														
i.	Construction of storage facilities (Warehouses/Godowns, Market Yards, Silos, Cold Storage Units/Cold Chains)	5720.44	12949.37	4586.03	22455.14	26443.74	27074.85	5290.61	9418.21	16269.85	6412.00	10668.00	1088.72	3278.32	404029.41
ii.	Land development, Soil Conservation and Watershed Development	4160.80	3858.99	2906.42	6136.58	18200.00	11620.33	30191.48	19923.67	45555.61	6974.67	6976.94	520.39	1252.88	214535.68
iii.	Agricultural Infrastructure - Others (e-NAM, Tissue Culture, Agri Bio-technology, Seed Production, Bio-Pesticides/Fertilisers, Verm-Composting)	9610.41	14927.63	4268.63	3126.47	5390.54	4350.18	3639.38	3382.88	7501.99	5106.01	4815.55	1323.93	3797.60	124970.76
	Sub-Total	19491.65	31735.99	11761.08	31718.19	50034.28	43045.36	39121.47	35724.77	69327.45	18492.68	22460.50	2933.04	8328.80	743535.85
C	Ancillary Activities														
i.	Food and Agro Processing	14883.83	32731.38	20351.10	15955.75	83748.65	21599.77	27968.68	27259.12	30272.40	15800.00	12437.50	1627.04	2762.84	730113.22
ii.	Agriculture Ancillary Activities - Others (Agri-Clinic/Agri-Business Centres (ACARC), Loans to PACS/FSS/LAMPS, Loans to MFIs for On-lending, Loans to Disresised Persons to Prepay Non-institutional Lenders, PMJDY, Loans to State Sponsored Organizations for SC/ST)														
	Sub-Total	20933.33	39391.38	20751.10	20985.75	130833.45	50893.97	55186.68	5821.12	77621.40	18710.00	14387.50	2301.44	4125.24	1291278.89
	Total Agriculture (A+B+C)	715699.51	863805.29	519033.72	579972.28	1148351.40	1221218.17	738432.00	711399.57	787828.63	673504.46	798818.93	304440.85	472898.73	2044419.72
II	Micro, Small and Medium Enterprises (MSME)														
i.	MSME - Investment Credit	1,60,938.75	94668.75	136818.40	199891.28	397125.50	197573.94	104966.25	63349.50	150974.25	84911.00	104860.00	17100.00	34900.00	5556795.15
ii.	MSME - Working Capital	45153.00	31248.00	203927.50	305680.00	26343.00	26354.00	186598.80	127550.00	150022.00	77430.00	125034.50	20720.00	55460.00	3290414.79
	Total MSME	206991.75	125916.75	340745.90	505571.28	423468.50	224027.94	291595.05	190899.50	300996.25	162341.00	229894.50	37820.00	89960.00	8848162.19
III	Export Credit	450.00	240.00	480.00	7324.00	21200.00	14400.00	17200.00	13200.00	13200.00	1000.00	1000.00	99.50	448.00	360957.40
IV	Education	14624.00	13328.00	9360.00	19720.00	8478.00	8820.00	6255.00	9107.50	8775.00	7353.63	7617.04	1854.00	4779.00	353908.08
V	Housing	183085.00	70862.50	50160.00	71800.00	81990.00	47304.00	94255.00	48280.00	69975.00	56490.00	72790.00	24571.80	50203.50	2090180.82
VI	Social Infrastructure Involving Bank Credit	4800.75	7485.75	3960.00	4666.00	4378.50	4422.60	1357.60	10432.80	8548.00	1590.00	1507.50	504.00	835.20	106617.86
VII	Renewable Energy	1231.89	3134.36	2256.36	4596.95	1618.48	1336.92	1843.63	4103.58	3162.50	2386.30	2646.05	224.70	427.39	105432.11
VIII	Informal Credit Delivery System	33310.00	45397.50	16578.00	205568.00	131025.00	102750.00	190675.00	148838.75	19735.00	184030.00	257905.00	30540.00	121000.00	3216436.73
	Total Priority Sector (I to VIII)	1159492.90	1160370.45	1091573.48	1398518.51	1820405.04	1624279.64	1318128.28	1136161.69	1368635.38	1089595.38	1371369.01	400054.85	740531.82	3532810.05

Annexure II

Agency-wise Broad Sector-wise Flow of Ground Level Credit for Last Three Years and Target for 2023-24

S. No.	Agency/ Type of Loan	2020-21			2021-22			2022-23			2023-24		
		Target	Ach.	% Ach.	Target	Ach.	% Ach.	Target	Ach.	% Ach.	Target	Ach. (As on 30.09.2023)	% Ach.
1	Crop Loan												
	Commercial Banks	66610.76	76437.38	115%	78504.42	85792.11	109%	86421.89	105387.15	122%	110322.01	61588.53	56%
	Cooperative Banks	12127.64	13287.75	110%	13588.79	15849.54	117%	14962.45	14458.31	97%	11476.40	5413.02	47%
	Regional Rural Banks	15863.09	19485.01	123%	18297.88	20727.44	113%	20147.13	21104.36	105%	25853.16	15327.50	59%
	Other Agencies	27.75	0.00	0%	31.35	0.00	0%	48.52	82.35	170%	348.42	0.41	0%
	Sub-Total	94629.24	109210.14	115%	110422.46	122369.09	111%	121580.00	141032.17	116%	148000.00	59792.97	40%
2	Agri Term Loan (Incl. Agri Infra and Ancillary)												
	Commercial Banks	26596.42	26514.30	100%	29913.62	69965.62	234%	33908.27	64767.22	191%	65427.99	46399.27	71%
	Cooperative Banks	1953.68	2091.69	107%	2169.59	6226.24	287%	2459.54	4100.23	167%	6523.60	1783.80	27%
	Regional Rural Banks	5480.80	9062.63	165%	5994.10	13113.77	219%	6791.93	14696.05	216%	10846.62	10082.27	93%
	Other Agencies	0.22	0.00	0%	-	495.59	0%	0.26	401.75	154519%	201.58	337.52	-
	Sub-Total	34034.12	37668.62	111%	38077.31	89801.22	236%	43160.00	83965.25	195%	82999.79	58602.86	71%
3	Total Agriculture Credit												
	Commercial Banks	93207.18	102951.68	110%	108418.04	155757.73	144%	120330.16	170154.37	141%	175750.00	107987.80	61%
	Cooperative Banks	14081.32	15379.44	109%	15758.39	22075.78	140%	17421.99	18558.54	107%	18000.00	7196.82	40%
	Regional Rural Banks	21343.89	28547.64	134%	24291.98	33841.21	139%	26939.06	35800.41	133%	36699.78	25409.77	69%
	Other Agencies	27.97	0.00	0%	31.35	495.59	1581%	48.78	484.10	992%	550.00	337.93	-
	Sub-Total (1+2)	128660.36	146878.76	114%	148499.77	212170.31	143%	164739.99	224997.42	137%	230999.78	140932.32	61%
4	MSME + OPS (inc. Export credit)												
	Commercial Banks	53369.43	45072.57	84%	58963.48	105057.97	178%	64263.60	69393.40	108%	79410.00	53302.00	67%
	Cooperative Banks	405.06	1182.56	292%	368.70	2875.82	780%	432.19	3020.32	699%	4999.95	1199.10	24%
	Regional Rural Banks	4069.52	3689.48	91%	4381.45	5779.94	132%	4730.99	5422.07	115%	4800.00	3047.89	63%
	Other Agencies	1046.58	158.15	15%	1346.37	987.26	73%	15.13	1148.96	7593%	2790.40	672.63	-
	Sub-Total	58890.59	50102.76	85%	65060.00	114700.99	176%	70940.01	78984.75	111%	92000.35	58221.62	63%
5	Total Priority Sector												
	Commercial Banks	146576.61	148024.25	101%	167381.52	260815.70	156%	184593.76	239547.77	130%	255160.00	161289.80	63%
	Cooperative Banks	14486.38	16562.00	114%	16127.09	24951.60	155%	17854.18	21578.86	121%	22999.95	8395.92	37%
	Regional Rural Banks	25413.41	32237.12	127%	28673.43	39621.15	138%	31670.04	41222.48	130%	41499.78	28457.66	69%
	Other Agencies	1074.55	158.15	15%	1377.73	1482.85	108%	15.62	1633.06	10455%	3340.40	1010.56	30%
	Grand Total (3+4)	187550.95	196981.52	105%	213559.76	326871.30	153%	235680.01	303982.17	129%	323000.13	199153.94	62%

(Source: SLBC of Andhra Pradesh)

Annexure III							
Critical Infrastructure Support to be provided							
Sl No	District	Sector	Project description	Mandal	Estimated TFO (₹ lakh)	Likely impact/ Proposed benefits accruing out of the project	
1	Alluri Seetarama Raju	Irrigation	Development of Gravity Irrigation systems from source to field.	Various mandal	2000	Multiple cropping and utilisation micro irrigation through convergence of APMIP schemes	
2		Roads	Road Connectivity between major towns of ASR district and to plain areas.	Various mandal	Works are in progress	Improvement in connectivity and development of commerce	
3		Social sector	Additional Class Rooms and infrastructure in schools.	Various mandal	3000	6,000 students will be benefitted	
4		Social sector	Additional Infrastructure in Hospitals	Various mandal	1500	10,000 to 12,500 patients will be benefitted	
5		Agriculture - Storage Fisheries	Rural Godowns	Various mandal	600	10,000 MT of storage capacity	
6			Fish Drying Yard & Market, Nakkapalli	Nakkapalli mandal	90	Fish drying yard and market	
7		Fisheries	Improvements in fish seed farm in Narsipatnam	Narsipatnam mandal	60	Improvement in fish production due to improved fish seeds	
8		Fisheries	Net mending hall in Parawada mandal	Parawada mandal	50	Net mending hall to safe guard nets and provide shelter for Net mending activity	
9		Fisheries	Improvements to Fish seed farms, Thandava reservoir	Various mandal	44	Improvement in fish production due to improved fish seeds	
10		Anakapalli	Social sector	Additional Classroom and infrastructure in schools	Various mandal	3000	6,000 students will be benefitted
11			Social sector	Additional Infrastructure in Hospitals	Various mandal	1500	10,000 to 12,500 patients will be benefitted
12		Annamayya	Food Processing	Banana and Papaya processing unit	Various mandal	50	The project would prevent distress sale of Bnaana and Papaya, which are the major crops in Rajampeta and its adjacent mandals.
13	Irrigation		Chinthalakunta LI scheme	Nandaluru mandal	12956	Providing irrigation to an area of 5324 acres	

Annexure III						
Critical Infrastructure Support to be provided						
Sl No	District	Sector	Project description	Mandal	Estimated TFO (₹ lakh)	Likely impact/ Proposed benefits accruing out of the project
14	Chittoor	Horticulture	Integrated Pulp Processing Industries (3)	Various mandal	650	The requirement of pulp industry is very essential in the District (Mango and Tomato being major crops), as the load on present industries is high. Establishment of new pulp producing industries (Mango, Tomato and other fruits) @6 tons production per hour capacity (single line).
15		Minor Irrigation	Excavation of Flood flow channel from foreshore of NTR Jalasyam to feed chain of tanks at Penumuru and G.D.Nellore mandals	Penumuru and G.D.Nellore mandals	210	Reducing the flood effect in the 2 mandals and increasing tank ayacut of 320 ha.
16		Rural Connectivity	Construction of all season roads for habitations with less than 250 population is required in the District (50).	Various mandal	3250	Increased economic activity in the habitations and social benefits to the rural people.
17		Minor Irrigation	Formation of Balancing Reservoir near Nethiguntapalli Village in Punganur mandal	Punganur mandal	785	The project will help in providing irrigation to 841 ha.
18	Eluru	Irrigation	Completion of the CHLIS	Various mandal	Works are in progress and is considerably delayed.	18 Mandals in Eluru District will be benefitted on completion of the CHLIS as it will create the irrigation potential in Eluru District.
19		Irrigation	Yerrakalava - Repairs Works	Various mandal	3000	Excavation of Distributary system
20	Nellore	Agriculture Infrastructure	Construction of Mega Storage Godowns and Marketing Infrastructure like Rythu Bazaar	Various mandal	2500	In all mandals in the district. Nearly 2 lakh farmers will be benefitted.

Annexure III						
Critical Infrastructure Support to be provided						
Sl No	District	Sector	Project description	Mandal	Estimated TFO (₹ lakh)	Likely impact/ Proposed benefits accruing out of the project
21	Nellore	Fisheries	Construction of fish markets in Major GP's & Municipalities with good hygienic condition for healthy & high consumption fish.	Various mandal	1000	In major towns of the district. Nearly 25000 fisher man will be benefitted
22	Tirupati	Rural Connectivity	Construction of Rural Bridges (15)	Various mandal	650	The bridges in rural areas help in improving the connectivity of habitations.
23		Education	Construction of 160 Additional Class Rooms (60 schools)	Various mandal	640	The new class rooms help in segregation of the students based on class and thus helps in improving the quality of education.
24		Rural Connectivity	Construction of all season roads for habitations with less than 250 population is required in the District (60).	Various mandal	4000	Increased economic activity in the habitations and social benefits to the rural people.
25	Visakhapatnam	Agriculture - Storage	Rural Godown	Various mandal	600	10000 MT
26		Agriculture - Storage	Rural Godown	Various mandal	600	10000 MT
27		Fisheries	Fish Drying Yard & Market, Ch.Timmapuram	Ch.Timmapuram	100	Fish drying yard and market
28	West Godavari	Social sector	Additional Class Rooms and infrastructure in schools	Various mandal	1500	3000 students will be benefitted
29		Fisheries	Construction of the fish landing centre at Biyyaputhippa.	Biyyaputhippa	2000	10000 and more Fishermen will be benefitted in Narasapuram Mandal - Biyyaputippa Village after creation of the facility.
30		Roads and Buildings	There are number of roads laying on the bunds of canals and drains. During modernization the sections are increased due to which the road berms and embankments are damaged. Retaining walls are necessary for retention of the roads and for strengthening.	Various mandal	80000	Approximately an amount of Rs.800.00 Crores is required for developing 500Kms length of roads on Canal bunds. It can be taken up for 5-8 years in phase wise manner.

Annexure III						
Critical Infrastructure Support to be provided						
Sl No	District	Sector	Project description	Mandal	Estimated TFO (₹ lakh)	Likely impact/ Proposed benefits accruing out of the project
31	YSR	Goturu LI Scheme	Providing irrigation to an area of 1420 acres in Kamalapuram Mandal.	Kamalapuram Mandal	2198.00	Providing irrigation to an area of 1420 acres
32		Thappetla LI Scheme	Providing irrigation to an area of 1170 acres in Valluru mandal.	Valluru mandal	1669.00	Providing irrigation to an area of 1170 acres
33	East Godavari	Agriculture - Storage	Rural Godown	Various mandal	650	Storage around 10000 MT will be created for protecting the produce from natural calamities and distressed price
34		Irrigation	Repairing of canals and desiltation	Various mandal	5000	Smooth Irrigation to agriculture fields
35	Kakinada	Agriculture Infrastructure	Food processing clusters parks for agriculture processing	Various mandal	2000	Value addition to rice products and oil palm products
36		Agriculture - Storage	Rural Godown	Various mandal	700	Storage around 10000 MT will be created for protecting the produce from natural calamities and distressed price
37	Konaseema	Irrigation	Repairing of canals and desiltation	Various mandal	450	Smooth Irrigation to agriculture fields
38		Fish drying yard & market	Fish Drying Yard & Market, Ch.Timmapuram	Ch.Timmapuram	200	Reduction in the wastage of unmarketed fish and timely marketing of fish
39	Anantapur	Agriculture - Storage	Rural Godowns	various mandal	6000	Storage around 10000 MT will be created for protecting the produce from natural calamities and distressed price
40		Irrigation	Repairing of canals and desiltation	various mandal	3000	Smooth Irrigation to agriculture fields
41	Sri Satya Sai	Agriculture - Storage	Rural Godowns	various mandal	300	10,000 MT of storage capacity
42		Agriculture - Storage	Rural Godowns	various mandal	300	10,000 MT of storage capacity

Annexure IV

Critical Interventions required in various sectors/ sub-sectors

District	Activity/ Sector	Description
Alluri Sitarama Raju, Anakapalli and Visakhapatnam	Crop production and maintenance	Crop diversification, popularisation of Seed Village Programme, establishment of Automatic weather station, creation of storage facilities etc
	Water resources	Financing of new irrigation/ pumping systems, Rujevenation of existing MI tanks by de-silting
	Farm Mechanisation	Setting up of custom hiring centres, use of drones
	Agriculture infrastructure	Integrated Post-harvest management infrastructure including cold chain infrastructure and processing units
	Animal Husbandry	Promotion of calf rearing scheme, Improvement of local breeds through Artificial Insemination and other breeding activities
Annamayya	Fisheries	Cold storage facilities for fish
	Sustainable Agriculture Practices	Financing of IFS models in cluster mode by banks
	Construction of storage and Marketing Infrastructure	on-boarding FPOs and PACS on eFARMARKET electronic platform for aggregation of produce and marketing.
	Crop production and maintenance	PGS/ICS Certification for farmers practicing organic/natural farming, crop specific value chains
	Water Resources	Adoption of solar pump sets, Intensive rainwater harvesting measures, promotion of Water Users' Association (WUAs)
	Farm Mechanisation	Identification of authorised dealers
	Agriculture infrastructure	Development of agriculture value chains
	Animal Husbandry	lack of availability of good quality calves/animals, Promoting silages on cluster basis
	Fisheries	Credit support for Domestic market promotion through retail outlets, modern fish markets and kiosks.
	Sustainable Agriculture Practices	Initiation of Mission on Integrated Farming Systems in the district
Chittoor	Export	Setting up an Export Facilitation Centre in the district
	Housing	Geo tagging of houses constructed under government schemes
	Public infrastructure	Safe drinking water (RO plants) through private participation
	Crop production and maintenance	Increasing Individual Maximum Borrowing Power (IMBP) by Cooperative banks to ensure adequate credit support to the farmers
	Water resources	Participatory irrigation management, Promotion of crop diversification in favor of less water consuming high value crops
	Farm Mechanisation	Encouraging young agriculture /agriculture engineering graduates to establish agri-clinics and agribusiness centers
	Agriculture infrastructure	IoT interventions, Adoption of new technologies, Establishing atleast 1 forest nursery per block
	Animal husbandry	Setting up/ tie-up with hatcheries infrastructure in the District, timely vaccination, de-worming facilities
	Fisheries	Introduction of Cage culture practices in reservoirs
	Sustainable Agriculture Practices	More research on different combinations of production systems to determine the best IFS models
Eluru & West Godavari	Agriculture Infrastructure	Establishment of New Rythu Bazaars, Construction of new Godowns and Cold Storages in the Market Yards in the District
	Water resources	Desilting of minor irrigation tanks and maintenance of supply channels, banking plan for accessing potential for micro-irrigation is required in the district.
	Animal Husbandry	Encouraging Self Help Groups to take up Broiler Farming under contract farming with hatcheries
	Fisheries	There is a need to increase the fish seed production at Badampudi to cater the needs of the district.
	Informal credit delivery system	Encouraging cashless transactions among the SHG groups
Guntur, Palnadu, & Bapatla	MSME	Setting up of Industrial Parks at identified location – Nuzvidu, Eluru, Jangareddygudem, Dwaraka Tirumala Blocks. Also, Setting up of Aqua Processing Zones in Eluru and Kaikaluru Divisions.
	Agriculture Infrastructure	On-boarding FPOs and PACS on eFARMARKET electronic platform for aggregation of produce and marketing.
	Animal Husbandry	Sensitization of Bankers on issuance of KCC to AH Sector
	Crop production and maintenance	The extension wing of Agriculture Department has to be strengthened so as to guide the farmers about improved package of practices for different crops
	MSME	Establishment of RSETI/RUDSETI in the district, Lack of dynamism/ strategy in banks in utilization of CGTMSE scheme and extension of credit facilities to Industries.
Kurnool	Public infrastructure	The Village Water and Sanitation Committees may be formed and their capacity building may be done
	Export	Awareness Programmes on Various Schemes
	MSME	Entrepreneurs Development Programmes, Awareness Programmes, Skill Development Programmes
	MSME	Establishment of Livelihood Business Incubators.

Annexure IV

Critical Interventions required in various sectors/ sub-sectors

District	Activity/ Sector	Description
Parvathipuram Manyam	Animal Husbandry	Encouraging youth for establishment of Desi Poultry Units
	Crop production and maintenance	Promoting value chain & brand building for natural farming/organic farm produce of the district
	MSME	Training to youth in EDP & New Age Skills
	Plantation and Horticulture	Establishment of Cashew Processing Centres
Prakasam	Water resources	Desilting of canals of irrigation projects through MGNREGS
	Farm mechanization	Setting up of Custom Hiring Centres for 65 FPOs in district
	Water resources	Clean drinking water supply scheme to floride affected mandals
	Agriculture	Promotion of water conserving technologies in Paddy
Tirupati	Fisheries	Establishing cold chain for reducing post harvest aqua losses
	Fisheries	Promotion of export oriented brackish water shrimp cultivation.
	MSME	Establishing micro units catering to industrial area of Sri city
	MSME	Organizing the artisans on a cluster basis; and establishment of work place and handicraft shops in prominent places
Vizianagaram	Renewable Energy	Promoting local entrepreneurs as solar integrators or distributor cum integrator
	Renewable Energy	Promoting establishment of new charging stations for EV vehicles.
	Agriculture Infrastructure	Sensitization of Bankers on Credit Gaurantee scheme for FPOs
	Animal Husbandry	Promoting Dairy Farmers collective such as FPOs in Milk Routes
	Crop production and maintenance	Promoting convergence between RBKs -FPOs for efficient supply of input needs, procurement and storage activities
	Export	Promoting awareness and capacity building on Sanitary & Phytosanitary protocols
	Export	Establishment of packhouse
	Fisheries	Promotion of Fishereis FPO in the coastal Mandals & establishing value chain
	Fisheries	Providing capacity buidling in alternative livelihood in for fisherfolk such as sea weed cultivation, fish processing
	MSME	Revival of jute mills and sugar mills in the district
	Crop Production, Maintenance and Marketing	Additional Storage Facilities
Nellore	Water Resources	Construction of minor irrigation tanks
	Farm Mechanization	The maintenance and security of the CHCs established under Rythu Bharosa Kendras
	Plantation and Horticulture including Sericulture	Infrastructure for processing and value addition of fruits and vegetable
	Forestry and Waste Land Development	Raising nurseries and development of forestry species of economic importance.
	Animal Husbandry	Establishment of cattle shandies in and mobile veterinary clinics
	Fisheries	Creation of organized marketing facilities for fish and shrimp
	Agriculture Infrastructure	Creation of additional infrastructure for soil/ water/ pesticide/ fertilizer testing
	Ancillary Activities	Banks may encourage setting up of food processing units.
	MSME	To set up common facility centres for weavers
	Agriculture Infrastructure	Construction of additional cold storages in the district with latest technology
	Agriculture	Seed Village programme has to be popularised so as to motivate the farmers to go for seed production of major crops grown and preservation of best quality seeds.
YSR	Agriculture	More automatic weather stations to be established
	Agriculture	Setting up of crop specific value chain and banks may channelize credit to value chain financing.
	Agriculture	State level accreditation agency for organic farming
	Export	Export of organic products through APEDA.
	Farm mechanization	Popularising the use of drones in Agriculture/Horticulture.
	Fisheries	Promotion of domestic market through retail outlets, modern fish markets and kiosks.
	IFS	Initiation of a mission on Integrated Farming System
	Plantation and Horticulture	Integrated Post-harvest management infrastructure including cold chain infrastructure and processing units
	Public infrastructure	Secondary food processing units especially for Banana
	Water resources	Intensive rainwater harvesting measures and efficient use of water is suggested for over exploited and critical i.e., water stressed mandals.

List of Abbreviations

ACP	Annual Credit Plan	FIF	Financial Inclusion Fund
ACABC	Agri Clinic and Agri Business Centre	FLC	Financial Literacy Centre
ADS	Area Development Scheme	FLCC	Financial Literacy and Credit Counselling Centres
AEZ	Agri. Export Zone	FM	Farm Mechanization
AH	Animal Husbandry	FPF	Food Processing Fund
AMRUT	Atal Mission for Rejuvenation and Urban Transformation	FPO	Farmer Producers' Organization
AIF	Agriculture Infrastructure Fund	FSPF	Farm Sector Promotion Fund
AMI	Agriculture Marketing Infrastructure	GCA	Gross Cropped Area
APMC	Agricultural Produce Market Committee	GCF	Green Climate Fund
APY	Atal Pension Yojana	GIA	Gross Irrigated Area
APEDA	Agricultural and Processed Food Products Export Development Authority	GLC	Ground Level Credit
AI	Artificial Insemination	GoI	Government of India
ATMA	Agricultural Technology Management Agency	GSDP	Gross State Domestic Product
BC	Business Correspondent	GVA	Gross Value Added
BF	Business Facilitator	HYV	High Yielding Variety
BLBC	Block Level Banker's Committee	ICT	Information and Communications Technology
BPL	Below Poverty Line	IWMS	Integrated Watershed Management Scheme
BSBDA	Basic Savings Bank Deposit Account	JLG	Joint Liability Group
CAT	Capacity Building for Adoption of Technology	KCC	Kisan Credit Card
CBs	Commercial Banks	KVIB/KVIC	Khadi and Village Industries Board/ Khadi and Village Industries Commission
CBS	Core Banking Solution	KYC	Know Your Customer
CCF	Climate Change Fund	KVK	Krishi Vigyan Kendra
CDR	Credit Deposit Ratio	LBR	Lead Bank Return
CGTMSE	Credit Guarantee Fund Trust for Micro and Small Enterprises	LDM	Lead District Manager
CISS	Capital Investment Subsidy Scheme	LEDP	Livelihood and Enterprise Development Programmes
CRAR	Capital to Risk weighted Asset Ratio	LWE	Left Wing Extremism
DAP	Development Action Plan	MAP	Monitorable Action Plan
DBT	Direct Benefit Transfer	MEDP	Micro Enterprise Development Programme
DDD-GKY	Deen Dayal Upadhyaya-Grameen Kaushal Yojana	MFI	Micro Finance Institution
DCCB	District Central Cooperative Bank	MIDH	Mission for Integrated Development of Horticulture
DCC	District Consultative Committee	MI	Minor Irrigation
		MPPA	Million Passengers Per Annum
DCP	District Credit Plan	MNRE	Ministry of New and Renewable Energy
DDM	District Development Manager	MNREGA	Mahatma Gandhi National Rural Employment Guarantee Act
DTPC	District Tourism Promotion Council	EDP	Entrepreneurship Development Programme
e-NAM	e-National Agriculture Market	NABARD	National Bank for Agriculture and Rural Development
DIDF	Dairy Processing and Infrastructure Development Fund	PACS	Primary Agricultural Credit Societies

DLMRC	District Level Monitoring and Review Committees	PMFBY	Pradhan Mantri Fasal Bima Yojana
DLRC	District Level Review Committee	PMJDY	Pradhan Mantri Jan-Dhan Yojana
DLTC	District Level Technical Committee	PMSBY	Pradhan Mantri Suraksha Bima Yojana
DRDA	District Rural Development Agency	PPP	Public Private Partnership
HLC	High-Level Committee	PRI	Panchayati Raj Institution
NBFC	Non-Banking Financial Company	PWCS	Primary Weavers Cooperative Society
NDDDB	National Dairy Development Board	RBI	Reserve Bank of India
NEFT	National Electronic Fund Transfer	RIDF	Rural Infrastructure Development Fund
NFDB	National Fisheries Development Board	RNFS	Rural Non-Farm Sector
NAFCC	National Adaptation Fund for Climate Change	RKBY	Rashtriya Krishi Bima Yojana
NHB/ NHM	National Horticulture Board/ National Horticulture Mission	RKVY	Rashtriya Krishi Vikas Yojana
NIDA	NABARD Infrastructure Development Assistance	RRB	Regional Rural Bank
NIA	Net Irrigated Area	RUDSETI	Rural Development & Self Employment Training Institute
NRLM	National Rural Livelihood Mission	RSETI	Rural Self Employment Training Institute
NRM	National Resource Management	SAMIS	Service Area Monitoring and Information System
NSA	Net Sown Area	SAO	Seasonal Agriculture Operation
NSSO	National Sample Survey Organisation	SCARDB	State Cooperative Agriculture & Rural Development Bank
NWR	Negotiable Warehouse Receipt	SDI	Skill Development Initiative
OFPF	Off-Farm Promotion Fund	SF/MF	Small Farmer / Marginal Farmer
OPS	Other Priority Sector	SFAC	Small Farmers' Agri-Business Consortium
PACS	Primary Agricultural Cooperative Society	SHG	Self Help Group
PCARDB	Primary Cooperative Agriculture & Rural Development Bank	SHPI	Self Help Group Promotion Institution
P & H	Plantation & Horticulture	SIDBI	Small Industries Development Bank of India
PKVY	Paramparagat Krishi Vikas Yojana	SMAM	Sub Mission on Agricultural Mechanization
PMFBY	Pradhan Mantri Fasal Bima Yojana	SLBC	State level Banker's Committee
PMJDY	Pradhan Mantri Jan Dhan Yojana	SRI	System of Rice Intensification
PMJJBY	Pradhan Mantri Jeevan Jyoti Bima Yojana	SRLM	State Rural Livelihood Mission
PMKVY	Pradhan Mantri Kaushal Vikas Yojana	StCB	State Cooperative Bank
PMMY	Pradhan Mantri Mudra Yojana	TDF	Tribal Development Fund
PMRY	Prime Minister's Rozgar Yojana	WDF	Watershed Development Fund
PMSBY	Pradhan Mantri Suraksha Bima Yojana	WDRA	Warehousing Development and Regulatory Authority
PMKSY	Prime Mantri Krishi Sinchayee Yojana	WIF	Warehouse Infrastructure Fund
PODF	Producer Organisation Development Fund	WSHG	Women Self Help Group
POPI	Producer Organisation Promoting Institution		
POS	Point of Sale		
MSME	Micro, Small and Medium Enterprises		
MoRD	Ministry of Rural Development		
MSC	Multi Service Centre		
MSME	Micro, Small & Medium Enterprises		

NABARD's District Offices in Andhra Pradesh				
S. No.	District/ Location	Name of the Officer	Contact Number	Email
I. NABARD Amaravati Cell (NAC), Vijayawada				
1	Vijayawada	M S R Chandra Murthy	0866-2950010, 9426289788	blo.apro@nabard.org
II. District Development Managers				
1	Anantapur Sri Satya Sai	K Anuradha	9441913878	anantapur@nabard.org
2	Chittoor Tirupathi	C Sunil	08572-226453, 8143446172	chittoor@nabard.org
3	Kakinada East Godavari Dr.B.R.Ambedkar Konaseema	Y Somu Naidu	0884-2375321, 7358208934	eastgodavari@nabard.org
4	Guntur Bapatla Palnadu	G Sarath Babu	7013054602	guntur@nabard.org
5	YSR Kadapa Annamayya	Vijaya Vihari B	08978761908	kadapa@nabard.org
6	NTR Krishna	Milind Chousalkar	0866-2542675, 8989792373	krishna.ap@nabard.org
7	Kurnool Nandyal	M Subba Reddy	8184970404	kurnool@nabard.org
8	Nellore	Ravi Singh M	08779-577210, 9849381707	nellore@nabard.org
9	Prakasam	J Ravi Kumar	7780196169	prakasam@nabard.org
10	Srikakulam	Varaprasada Kumar K	08942-221379, 8712774177	srikakulam@nabard.org
11	Visakhapatnam Anakapalli Alluri Sitarama Raju	Samanth Kumar Gangala Reddy	9818717838	visakhapatnam@nabard.org
12	Vizianagaram Parvathipuram Manyam	Nagarjuna Tupakula	9381695048	vizianagaram@nabard.org
13	Eluru West Godavari	Anil Kanth Tanukula	08812-357586, 9493478733	westgodavari@nabard.org



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