



“RBKs Capacity Building In Sericulture: Enhancing Farmer Skills”

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Abstract:-

Andhra Pradesh being the second largest sericulture producer in the country. it is fostering towards obtaining first place in case of mulberry extension and cocoon production by implementing various necessary steps in sericulture farming sector. The Rythu Bharosa Kendras (RBKs), or Farmer Assurance Centres, are established by the Government of Andhra Pradesh to serve as comprehensive resource hubs for farmers at the Panchayat level. This initiative aims to enhance transparency and improve the quality of services available to the farming community, thereby facilitating smoother agricultural practices, reducing production costs, increasing yields, and ultimately boosting farmers' incomes. these centres provide a variety of services, including e-crop booking for crop insurance, timely delivery of agricultural inputs within 24-48 hours via kiosks, custom hiring of machinery, establishment of Agri-Input shops, Farmer Knowledge Centres, technical advisory teams, the YSR Rythu Bharosa program, Polambadi (Farmer Field Schools), CCRC cards, and D-krishi (seed distribution). This decentralization of agricultural services aims to bring support closer to farmers throughout Andhra Pradesh. It also helps the sericulture farmers to avail all the services offered sequentially with other crops. It provides scope for wider extension in sericulture sector. While it's still early to evaluate the quality of services offered for sericulture extension by RBKs and their impact on the farming community, this paper outlines potential opportunities, concerns, and recommendations to enhance the initiative's effectiveness in the future.

Key words:-

Rythu bharosa kendra's, farmers, sericulture, kiosk, knowledge, facilitation centers, sustainable, agriculture, services.

Introduction:-

The Indian economy heavily relies on agriculture, with a significant portion of the population depending on this sector for their livelihoods. Despite notable progress since 1947, the sustainability of agricultural growth in India is increasingly questioned. Even amidst surplus production, agrarian challenges have become a pressing concern. A lack of sufficient public investment in rural areas and the agricultural sector over recent decades is considered a major factor contributing to agrarian distress. However, the issues within India's agricultural sector are not uniform across the nation. Some analysts suggest that state-directed policies in recent decades have intensified the challenges faced by agriculture in dryland and rainfed regions. Embracing modern technologies presents a promising approach to enhancing farm incomes. Yet, significant barriers to adopting these

technologies include inadequate access to information and credit. Over half of Indian farming households lack access to formal credit sources.

To ensure food security for the nation's large population through domestic food production, increased public investment in agriculture is essential. The emphasis on food security has gained traction since the National Food Security Act was enacted in 2013, but challenges related to institutional functioning, procurement, distribution processes, and the sustainability of these provisions warrant thorough examination. The National Commission for Farmers, established in 2004, proposed strategies for more inclusive growth among farmers. Its comprehensive recommendations included land reforms, soil testing, improving water availability, enhancing agricultural productivity, and addressing credit and insurance needs to boost farmers' competitiveness. The Doubling Farmers' Income (DFI) Committee, aligning with the Prime Minister's vision, focused on reforms in the agricultural extension system. It emphasized the importance of technology transfer, capacity building for technology management, and assisting farmers with input decisions and output management.

Origin :

In October 2019, during the AP State Agri Mission Meeting, Andhra Pradesh government proposed the establishment of Agri Input Shops and Village Knowledge Centres at the village level. Following this initiative, 10,725 Rythu Bharosa Kendralu (RBKs) were set up on May 30, 2020, near Village Secretariats. These centers aim to deliver government services and provide training and capacity-building programs for farmers on the latest agricultural technologies.

Purpose :

RBK is a one stop shop at village level for all the farmers to make the services more accessible and to provide hassle free experience to the farmers. The Government of Andhra Pradesh has developed a strategy to transform the agricultural and allied sectors in the state. This strategy focuses on enhancing crop productivity through improved certified seeds, increasing mechanization via custom hiring services, and strengthening extension services through modern ICT tools. The Rythu Bharosa Kendras (RBKs), meaning "Farmer Assurance Centres," were envisioned by the current Chief Minister of Andhra Pradesh, Mr. YS Jagan Mohan Reddy. This initiative is based on the recommendations of the Swaminathan Commission and the Prime Minister's vision to boost farmers' incomes. The aim is to decentralize agricultural activities and bring extension services closer to the farming community.

Materials and methods:-

The present study was undertaken in the Anathapur dist of Andhra Pradesh in the year 2023. two blocks of the district with the most number of RBKs were selected purposively. Further, six RBKs were selected randomly from these two blocks. From each village, five beneficiary farmers of RBK were selected for the purpose of study. Therefore, a sample size of total 40 respondents were selected by using simple random sampling method. Primary data was collected with the help of a well-structured and pre-tested interview schedule and the requisite data was collected from various govt offices like village secretariate, journals, magazines, publications, etc... multi stage sampling were adopted in selection of district, tehsils, villages, sericulture growers. In the first stage, Anantapur district was purposively selected on the basis of availability of area under sericulture production. In second stage, on the basis of area under sericulture production, two tehsils of Anantapur district were selected namely dharmavaram for the present study.

Results and Discussion:-

Andhra Pradesh, primarily an agrarian state, sees 62% of its population relying on agriculture for their livelihoods. The state has 10.1 million hectares of cultivated land, which represents 37% of its total area, with 36% of this area irrigated. Farmers in Andhra Pradesh encounter challenges related to input procurement, product marketing, and access to market information. Additionally, limited facilities for testing agricultural inputs like seeds, fertilizers, and pesticides have resulted in the distribution of low-quality products, leading to significant losses for farmers. In this context, establishing a platform at the village level is crucial for enhancing government agricultural services, providing advisory support to farmers, and addressing their specific needs..

Four pillars of RBK's:-

- ❖ Supply of quality inputs, Delivery of services, Capacity building and knowledge dissemination, Procurement operations.

Services at RBKs :-

Weather & Market info, Community Hiring Centers (CHCs), Soil and Seed testing, Credit Services, Banking Services, All Government Schemes, Seed Distribution, e-Crop booking, Banking Services, Crop Insurance, Input Subsidy, Social Audit.

Knowledge partners:-

- ❖ MS Swaminathan Research Foundation, Chennai.
- ❖ National Institute of Plant Health Management, Hyderabad.
- ❖ Soil Science Division, IARI, Pusa, New Delhi.
- ❖ Central Fertilizer Quality Control & Training Institute, Faridabad.
- ❖ Central Insecticide Lab, Plant Quarantine, Faridabad.
- ❖ National Seed Research & Training Center, Varanasi.
- ❖ National Dairy Research Institute, NDRI, Karnal, Haryana.
- ❖ State Management Institute of Livestock Enterprise (SMILE), Vizag.
- ❖ Indian Veterinary Research Institute (IVRI), Izatnagar.

Information dissemination to Grass Root Level, especially to the remote Villages is made easy through Digital Kiosks. Multifunctional Kiosk Software is present in the Digital Kiosk. Along with Inputs Indent, the Digital Kiosks facilitate Farmers to access the below information....

- Market Prices
- Weather Forecasting (3 Days)
- Agricultural News
- e-Magazines,
- Dept Schemes information
- Testing Labs information.

By availing all the above facilities, provided by the state govt through local village one-stop shops, sericulture farmers achieving more on day by day basis, and increasing their annual returns by reaping good produce. Village sericulture assistants making the local farmers sensitized by the effective rearing practices. By comparing eight years data related to mulberry extension starting from 2015-16 to 2022-23, we can understand the gradual growth index for eight years. Sericulture industry being hit by COVID-19 pandemic, took a upsurge in its growth rate without any backward deviation. During the period of four years, AP sericulture has shown its growth of more than 10000 hectares of mulberry plantation in a rapid upsurge related to extension tremendously.

TABLE:1 VARIANCES IN MULBERRY EXTENSION AND COCOON PRODUCTION

YEARS	MULBERRY (HECTARES)	PLANTATION	COCOON PRODUCTION
2015-16	29829		5086
2016-17	33156		5970
2017-18	36638		6775
2018-19	41915		7476
2019-20	44607		7957
2020-21	47363		8420
2021-22	50731		8832
2022-23	54971		9311

TABLE2: MULBERRY EXTENSION TRENDS IN EIGHT YEARS

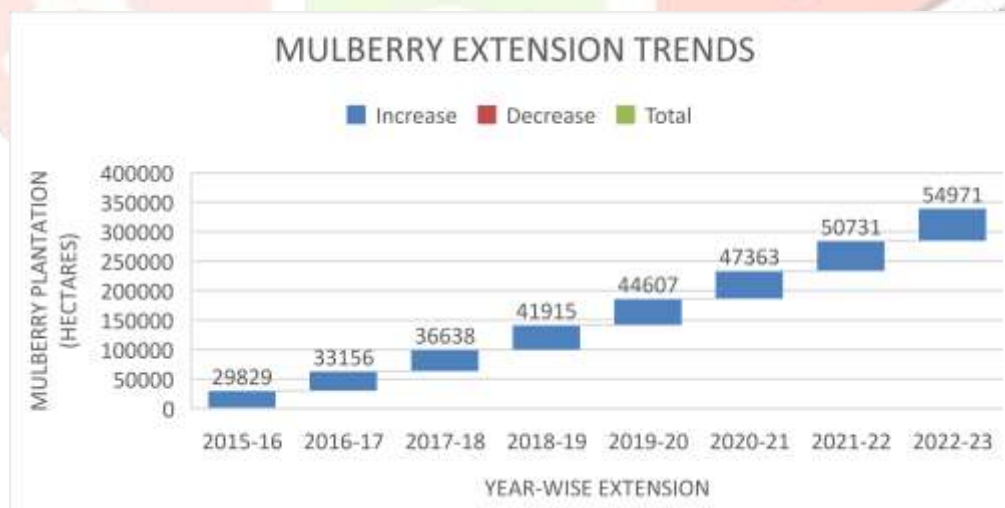
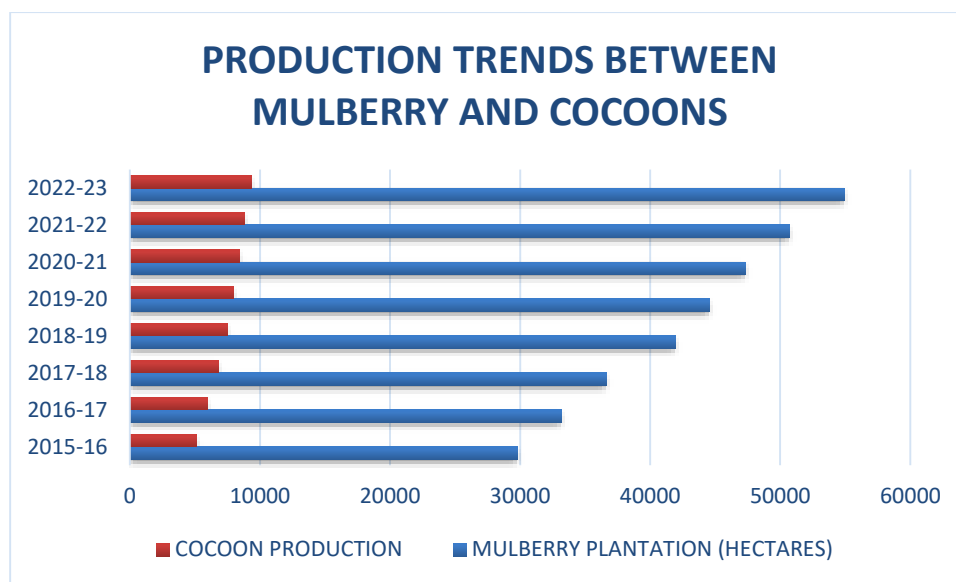


TABLE:3 YEAR-WISE PRODUCTION TRENDS BETWEEN MULBERRY AND COCOONS



Regular interactive sessions between the seri-farmers and field assistants will provide a broader scope for production of quality produce by following optimal rearing conditions and mulberry cultivation techniques. Annual statistics proves us that the mulberry silk production increasing constantly.

TABLE4: Technological constraints elicited by farmers for Non-utilization of services of RBKs

S.NO	TECHNOLOGICAL CONSTRAINTS	FREQUENCY	PERCENTAGE
1	Poor knowledge on services offered by RBKs	140	76
2	Non availability of organic inputs	90	50
3	Lack of infrastructure facilities at RBK premises i.e., warehouses and cold storages	102	56
4	Poor knowledge on suitable cropping systems in Integrated Farming System and their interaction	156	86
5	Lack of knowledge about improved technologies in agriculture by RBK in charge	96	52
6	Dearth of timely sourcing of quality inputs and services	144	80
7	Difficult to get timely information from RBK staff	144	80
8	Non-availability of improved varieties of seed/breeds /fertilizers	88	48
9	Lack of training on skilled work performance among RBK staff	85	47
10	Lack of knowledge and skill on online marketing/marketing information, weather information	98	49

The foremost constraint expressed by farmers were dearth of timely sourcing of quality inputs and services it might be due to meagre performance of RBK in the study area/quite few number of farmers aware of the activities carried out by the RBK. The next most important constraints revealed by farmers were poor knowledge about the services offered by RBKs and lack of knowledge

about improved technologies in SERICULTURE by RBK in charge it may be due to lack of technical guidance /competencies of RBK staff, fewer number of need based training programmes and rarer joint diagnostic field visits of RBK staff with scientific staff to farmers fields. As difficult to get timely information from RBK staff is ranked fourth it might be due to less or non-subscription of RBK channel as it will help the farmer to get latest information on agriculture and allied sectors. The notable suggestion articulated by farmers were motivating farmers for effective utilization of RBKs it may be due to 'dearth of timely sourcing of quality inputs and services' was the foremost constraint to overcome it respondents suggested it. Followed by Maintenance of Custom Hiring center's at RBK (Dryers, Harvesters, Tillers, cultivators) may be due to existing infrastructure of RBK is insufficient to meet the needs of farming.

Conclusion:-

RBK with development of sufficient infrastructure plays an important role in transforming traditional agriculture into modern sustainable agriculture, its allied sectors like sericulture, horticulture, fisheries and provision of access to information at village level through RBK is boon to the farming community, if they render service based on seasonal needs of farmers along with its regular work.

Policy Implications

Enhanced Funding and Resources: Continued physical and digital infrastructure investments are essential. Allocating more funds to build new RBK facilities and upgrade existing ones will improve service delivery. **Training and Capacity Building:** Focused training programs for RBK staff, particularly in digital literacy and testing equipment, will enhance the quality of services provided to farmers. **Strengthening Knowledge Services:** Addressing the decline in knowledge services by integrating more comprehensive digital platforms, expanding the range of educational resources, and improving dissemination strategies can ensure that farmers receive timely and relevant information. **Expanding Market Support Services:** Strengthening the marketing services component by enhancing procurement mechanisms and establishing more accessible market centres will provide farmers with better market access and income opportunities. **Policy Integration and Coordination:** Ensuring better coordination between various governmental departments and RBKs will streamline the implementation of agricultural schemes and reduce bureaucratic hurdles for farmers. **Monitoring and Evaluation:** Implementing a robust monitoring and evaluation framework to assess the performance of RBKs regularly will help identify areas for improvement and ensure that the services provided are meeting farmers' needs effectively. **Promotion of Youth Involvement:** Giving the significant concentration of younger staff, policies that promote leadership development and career progression within RBKs will harness the potential of the younger workforce for innovative and sustainable agricultural practices.

Suggestions

Need based training to VSAs (Village Sericulture Assistants).RBK should render service based on seasonal news of farmers along with its regular work.Joint diagnostic field visit of RBK staff with APSSRDI scientists. Regular conduction of "PATTIBADI PROGRAMMES" in sensitizing the seri farmers about the new trends and technologies to be followed for better yield.Development of mobile application for availing diagnostic, advisory services and integrating with integrated call center to gain first-hand information.Efforts have to made for more Subscription of RBK channel.Regular technical guidance of VSAs help quick transfer of technology.linking of central govt institutes like RSRS, RECs with these one-stop shops will helps in timely exchange of new technologies in rearing sector and mulberry extension effectively.Pupal residues can be used for feeding fishes as it is a good source of nutrients, useful for rapid growth of fishes in quantity as well as quality.Provision of

credit facilities for the farmers at timely manner through RBKs would be benefitable. Imparting knowledge regarding sericulture farming activities to follow optimal and modern techniques for better yield. Identification of suitable farmers to take up Sericulture activity. Collection of soil samples and maintenance of necessary soil test records. Technical follow up to the farmers to take up Mulberry Plantation under Scientific lines. Technical guidance for construction of Silkworm Rearing Sheds and arrangement of rearing equipment. Coordinating with State / Central Silkworm Seed Production Centres / Grainages for supply of Silkworm Eggs (Disease Free Layings). Technical guidance for Silkworm Rearing and cocoon Marketing to the farmers. Creating awareness on Prevention and control of Mulberry & Silkworm Diseases and Integrated Pest Management. Creating awareness on organic and natural farming in Mulberry Garden maintenance. Implementation of Govt. Schemes for the benefit of farmers. Facilitating bank loans to farmers to take up Sericulture units. Documentation and maintenance of Data of the Sericulture farmers. Transfer of technology through conducting trainings / workshops / field visits.

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