## Model 2: Promotion of banana based enterprises in Erode District – Tamil Nadu

### Background

Banana is the major fruit crop in Erode district, cultivated across 15,000 hectares with an average yield of 38 MT/ha. Despite its significance, farmers often lack awareness of modern crop management practices. Recognizing this, ICAR-KVK, Erode (managed by MYRADA) implemented comprehensive "end-to-end" interventions from 2017 to 2023 to enhance productivity and promote banana-based enterprises.

### KVK Interventions in Banana Cultivation

### Technology Dissemination

KVK demonstrated innovative technologies through On-farm trials, Frontline demonstrations, Exposure visits, Capacity building programs and Entrepreneurship development. Over five years, KVK conducted 73 skill training programs on crop production, value addition, and handicrafts for farmers, rural youth, extension staff, and SHGs.

### Promotion of good agricultural practices in banana cultivation

KVK empowers farmers to optimize their yields by promoting cutting-edge agricultural practices like introducing new crop varieties, precision nutrient management and effective pest and disease control strategies. KVK identifies and validate the most promising technologies from state and central research institutes through field testing and then share these best practices with a wider audience through print and electronic media, ensuring maximum impact.

| S.No. | Intervention | Technology popularized |
|---|---|---|
| 1 | Introduction of new varieties | CO-2, CO-3, Udhayam |
| 2 | Weevil management | Pseudo stem trap |
| 3 | Leafspot management and Erwinia Management | Bio fungicide |
| 4 | Nematode management | Bio nematicide |
| 5 | Nutrient management | IIHR Arka Banana special – Micronutrient mixture |

### Promotion of micronutrients:

On farm trial has been conducted to assess the effectiveness of IIHR (Indian Institute of Horticultural Research) Arka Banana Special, a micronutrient technology developed by IIHR, Bangalore in 5 farmer's field. Since it was the innovative product of ICAR – IIHR, the farmers could not access the product in time. To ensure its availability, KVK Erode purchased the micronutrient technology from IIHR, Bangalore, to produce IIHR Arka Banana Special at KVK.

**Establishment of bio control units:**

On farm trials were conducted in 10 farmers field to evaluate the efficacy of various bio control agents for controlling leaf spot, wilt, Erwinia rot and nematode infestations in banana plants. To ensure the availability of bio control agents throughout the year, KVK established decentralized Bio Control Units at KVK and at village level, producing 75 quintals of high-quality bio-fungicides that empowered local banana growers to protect their crops and boost yields.

**Skill Building Programme**

In order to convert the waste into wealth, harvested banana plants were utilized to produce banana fiber-based products. KVK provided 15 skill training to rural youths on banana fibre-based product preparation. Later, the volunteer youths were formed as SHG and involved in production of various banana fibre-based products. KVK arranged to the entrepreneurs to tie up with the National Research Centre for Banana (NRCB), Trichy, and Technology Business Incubator (TBI) at Tamil Nadu Agricultural University (TNAU), Coimbatore for product standardization since the KVK has no such facilities.

**Food-Based Value Addition**

KVK supported entrepreneurs in developing 20 value-added food products, facilitating partnerships with NRCB (Trichy), TNAU (Coimbatore), CFTRI and NIFTEM. Products are marketed through a federated SHG model under the brand name SBGF (Sustainable Banana Growers Federation).

**Formation of various groups**

Two youth groups were formed in the Gobi and Bhavani clusters, focusing on banana fiber extraction, processing, rope making and handicraft production. Additionally, these groups produced and marketed by-products for textile, defence, and sanitary industries. Three trained SHGs at Sathyamangalam were involved in the production of handicrafts, including baskets, toys and yoga mats using banana fibre and bark.

**Promotion of Entrepreneurship**

Furthermore, KVK promoted entrepreneurship in the production of food-based value-added products in two clusters. Entrepreneurs were exposed to various national-level institutes actively involved in value addition in banana-based products preparation and standardization, including National Research Centre for Banana (NRCB), National Institute of Food Technology Entrepreneurship and Management (NIFTEM), Central Food Technological Research Institute (CFTRI), and Tamil Nadu Agricultural University (TNAU) for product development and quality assurance.

**Sustainability and scaling up**

To enhance and sustain banana productivity, KVK has promoted a range of institutions, including the Agri-Entrepreneurs Service Center (AESC), Community Managed Resource Center (CMRC), and Farmer Producer Organizations (FPOs).

These decentralized units ensure a steady supply of micronutrients and bio control products to farmers in the district and nearby. Technology expertise available with Erode KVK is shared with farmers in other districts having more than 10000 ha area under banana cultivation like Salem, Namakkal, Krishnagiri, Theni, Madurai, Cuddalore, Thirunelveli, Tuticorin and Palakkad, Idukki (Kerala), promoting regional development and growth.

**Conclusion**

Through holistic interventions in banana cultivation, processing, and enterprise promotion, KVK Erode has transformed the banana value chain in Erode district. From productivity enhancement to entrepreneurship development, the efforts have led to measurable improvements in income, sustainability, and global reach. The model holds potential for replication in other banana-growing regions across India.

Value added products made out of Banana fibre