



TRANSFORMING SWEET POTATO, TRANSFORMING LIVES A SUCCESS STORY OF NUTRITION, DIGNITY AND WOMEN-LED ENTERPRISE IN ATTAPPADI



Key achievements of ICAR-CTCRI Tribal Sub Plan (TSP) - Kerala State Kudumbashree Mission programme during 2024–2026 in Attappadi, Palakkad district, Kerala

Achievement	Impact
Tribal women directly empowered	40
Community members indirectly benefited	200+
Area under cultivation expanded	4 acres → 100 acres
Biofortified sweet potato produced	1,200 tonnes
Investment mobilized under TSP	₹27.49 lakh
Women trained in cultivation & entrepreneurship	600+participants
Premium price of biofortified sweet potato tubers	₹60-80/kg
Technologies licensed to Kudumbashree Mission, Government of Kerala	12
Commercial products launched	7
Value of technology transfer	₹5.31 lakh
Tribal enterprise brand established	K-INAM

A crop that changed more than fields

When Kaliyamma, a tribal woman from Agali in Attappadi, planted a few vines of biofortified sweet potato in 2024, she did not imagine that the crop would change her life. Like many women in her village, she depended on seasonal farm labour and small harvests from traditional crops. Income was uncertain and nutritious food was often limited.



Mrs. Kaliyamma, one of the women farmers to adopt biofortified sweet potato under Punarjeevanam



Two years later, her story is remarkably different. Her family now grows and consumes nutrient-rich sweet

potato, earns income from surplus harvests, and participates in a growing community enterprise. What began as a small agricultural intervention has become a movement that is transforming livelihoods across Attappadi.

Why Attappadi?

Attappadi is one of Kerala's most vulnerable tribal regions, home to the Irular and Kurumbar communities. Despite rich traditional knowledge and farming culture, many families face nutritional deficiencies, irregular incomes and limited market opportunities. High rates of anaemia and undernutrition highlighted the need for innovative solutions that could improve both nutrition and livelihoods.

Recognizing this challenge, ICAR-CTCRI and Kerala State Kudumbashree Mission joined hands to launch Punarjeevanam in August 2024.



Attappadi tribal house and tribal women community participation

Why Sweet Potato?

ICAR-CTCRI identified biofortified orange-fleshed and purple-fleshed sweet potato varieties because they offer:

- Rich source of β -carotene (10 to 15 mg 100 g⁻¹)
- Rich source of anthocyanins (60 to 75 mg 100 g⁻¹)
- Short crop duration (Bhu Sona 120 days, SP 95/4 80-90 days, and Bhu Krishna 120-150 days)
- High productivity (Bhu Sona- gross yield is 15-16 t/ha and net yield is 12-12.50 t/ha, SP 95/4-gross yield is 18 t/ha and net yield is 15.50 t/ha, and Bhu Krishna-gross yield is 20 t/ha and net yield is 17 t/ha)
- Processing potential
- Nutritional security benefits

The innovation: More than sweet potato cultivation

Punarjeevanam was never just about growing sweet potato. It was designed as a complete farm-to-market model. Farmers received quality planting materials, scientific cultivation training, nutrition awareness, processing skills, entrepreneurship support and market linkages.

This integrated model transformed a nutritious biofortified sweet potato crop into a sustainable livelihood opportunity for women-led nutrition and enterprise movement.



Biofortified sweet potato cultivation under ICAR-CTCRI TSP programme

The journey of transformation

The journey began with the distribution of more than 5.35 lakh sweet potato vines, 3 tonnes of biofortified sweet potato tubers and essential farm inputs. Women farmers learned scientific cultivation practices and quickly demonstrated that biofortified sweet potato could thrive under Attappadi conditions. As confidence grew, cultivation expanded from 4 acres to 100 acres. Farmers harvested nutrient-rich orange-fleshed and purple-fleshed sweet potatoes and earned premium prices in local markets. Families also began consuming more nutritious foods at home.

The next step was value addition. Tribal women were trained to prepare innovative food products from sweet potato. In March 2025, ICAR-CTCRI licensed twelve processing technologies to Kudumbashree, opening new opportunities for entrepreneurship.

Timeline of ICAR-CTCRI Tribal Sub Plan programme implemented at Attappadi



From farm to functional foods

The most visible outcome emerged in June 2026 when eight sweet potato-based products were launched under the K-INAM brand of Kudumbashree State Mission. Products such as sweet potato muffins, cookies, gummy confections, kulfi and snacks showcased how a locally grown crop could be transformed into premium functional foods. The launch symbolized the evolution of Punarjeevanam from a nutrition intervention into a sustainable business model led by tribal women.

Lives transformed

Across Attappadi, women who once depended mainly on seasonal wage labour began cultivating biofortified sweet potato, learning scientific farming practices, producing nutritious foods for their families, and exploring entrepreneurship opportunities. Many reported improved household food availability, increased income from crop sales, and greater confidence in managing agricultural enterprises. Several women have already started sharing planting materials and knowledge with neighbouring families, creating a multiplier effect within their communities.

Kaliyamma's story is now echoed by many others. What started as a few vines has become a source of hope, dignity and opportunity.

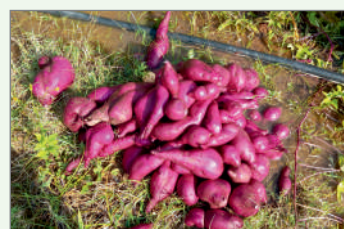
Economic impact summary

The joint ICAR-CTCRI-TSP and Kudumbashree initiative transformed the socio-economic dynamics of tribal communities in Attappadi by converting subsistence sweet potato farming into an institutionalized agri-business ecosystem:

- **25-fold cultivation growth:** Expanded sweet potato farming footprint from 4 acres to 100 acres, yielding 1,200 metric tonnes of high-value biofortified tubers.
- **Technology commercialization:** Secured 12 functional value added food product technologies valued at ₹5.31 Lakh, enabling forward integration into lucrative food sectors.
- **Brand creation and value addition:** Launched 7 sweet potato functional food products under the unified 'K-INAM' brand, boosting profit margins by capturing value beyond raw produce.
- **Livelihood and human capital:** Empowered over 300 tribal individuals with modern agricultural skills and established sustainable livelihoods for 80+tribal women entrepreneurs across Irula, Muduga, and Kurumba communities.



Harvesting of biofortified sweet potato varieties by tribal farm women of Attapaddi



Harvested biofortified sweet potato tubers

Why this model matters for India

ICAR-CTCRI and Kudumbashree joint program like 'Punarjeevanam' demonstrates how agricultural research can create meaningful social impact when combined with community participation, women's empowerment and market development. The initiative simultaneously addresses nutrition security, livelihood enhancement, climate resilience and rural entrepreneurship.

The Attappadi experience offers a scalable model for tribal and rural development across India. It shows that lasting transformation does not come from increasing production alone it comes from building complete value chains that place people at the center.

"Punarjeevanam demonstrates how science, institutions and community participation can transform a nutritious crop into a sustainable pathway for health, livelihood and empowerment"

Media coverage highlights



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Transforming Sweet Potato, Transforming Lives: A Success Story of Nutrition, Dignity and Women-led Enterprise in Attappadi

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