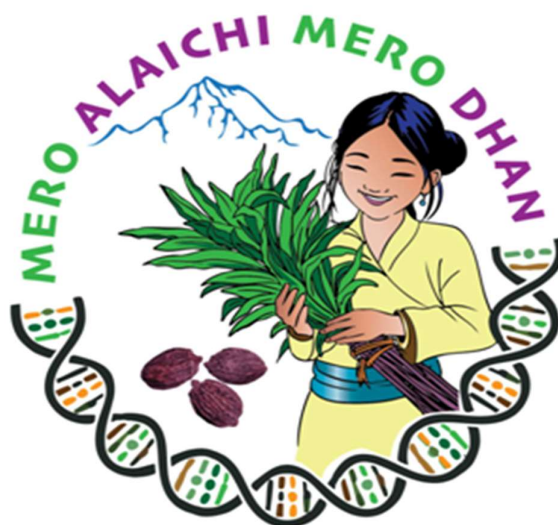


PRESS RELEASE

Science to the Rescue: ₹8 Crore Biotech Project to Revive Large Cardamom



Wednesday, 8 October 2025 : The Department of Biotechnology (DBT), Government of India, has sanctioned a landmark ₹8.06 crore research project to revive Sikkim’s large cardamom. This heritage crop has long been the backbone of the state’s rural economy. Over the next three years, this fund will support India’s top biotechnology institutes—ICGEB, NIPGR, IBSD, NABI, and NCBS—to join hands under the national BioE3 Policy (Biotechnology for Economy, Employment, and Environment) to restore the vitality of this iconic crop.

The initiative aligns with the State Government’s flagship mission, “Mero Alaichi, Mero Dhan” (My Cardamom, My Wealth), spearheaded by Hon’ble Chief Minister Shri Prem Singh Tamang (Golay). Large cardamom (*Amomum subulatum*), domesticated centuries ago in Sikkim by the Lepcha community, sustains nearly 20,000 farming families and is regarded as Sikkim’s gift to the world. Once the driver of rural prosperity, the crop is now in crisis. More than 60% of plantations have turned unproductive, yields have halved, and plant lifespan has plummeted from 15–20 years to just 4–5 years.

This decline has cost rural households nearly ₹318 crore annually, triggering widespread cash distress and threatening a cultural legacy. The root of the problem lies in clonal propagation through root suckers, which has weakened genetic diversity, leaving plants vulnerable to devastating viral and fungal epidemics. Soil degradation, heavy monsoon leaching, and ineffective interventions such as distributing diseased sucker plants have compounded the crisis. A baseline survey and national expert consultations convened by the Department of Science and Technology confirmed the urgent need for modern biotechnology to address this multi-causal decline. Accordingly, a multi-institutional research project was developed to utilise cutting-edge biotechnology in the revival of large cardamom.

This newly sanctioned DBT project will pioneer advanced solutions—protein- and peptide-based antifungal formulations, lignin-based nano-biopesticides, RNA-based viral management tools, and microbial probiotics—ensuring full compatibility with Sikkim’s organic farming mandate. These interventions will not only help farmers manage immediate disease challenges but also lay the foundation for long-term genetic improvement and resilience. For the first time, farmers can look forward with hope that their traditional crop will regain its lost strength. This mission is more than agriculture—it is about securing livelihoods, protecting cultural heritage, and demonstrating how cutting-edge science can preserve a Himalayan legacy.