

Project Proposal: Climate-Smart Spices & Green-Tech Hub

Project Title: Climate-Smart Spices: Modern Cultivation Training in the Central Highlands

Organization: CP/MT/Kandenuwara Tamil Maha Vidyalayam

Location: Alwatta - Matale

Lead Applicant: Mr. J. Nantharuban, Principal

Date: March 2026

1. Executive Summary

This proposal outlines a plan to transform 2 acres of rocky, underutilized school land into a "Green-Tech Spice Hub". By integrating high-value spices—including **Eelakkai (Cardamom)**, **Karuwa (Cinnamon)**, Ginger, and Turmeric—with traditional crops like **Kampu Thaaniyam (Millets)** and herbal varieties, the project will serve as a living classroom for 21st-century circular farming. With a total budget of Rs. 850,000, the initiative aims to equip over 100 students with vocational skills while achieving long-term financial self-sufficiency.

2. Problem Statement

The school is situated in the Hill Country, a region with an ideal climate for high-value spices, yet local youth often lack the modern technical agricultural skills required to capitalize on this. Currently, the 2-acre site is comprised of rocky, steep terrain that contributes to soil erosion and remains economically unproductive.

3. Goals and Objectives

- **Establish a Green-Tech Hub:** Convert 2 acres of rocky land into fertile, leveled soil for training.
- **Vocational Skills Training:** Train over 100 students in modern spice cultivation, BSFL composting, and landscape design.
- **Diversified Agriculture:** Successfully cultivate a mix of Cardamom (Eelakkai), Cinnamon (Karuwa), Millets (Kampu Thaaniyam), and herbal crops.
- **Financial Self-Sufficiency:** Generate income from raw turmeric and value-added floral sales to fund future school development.
- **Climate Resilience:** Use organic methods and Vetiver grass to prevent landslides and restore soil health.

4. Project Strategy / Methodology

The project will be organized into distinct **Blocks**, with each block featuring specific herbal/spice crops, **Banana** plants, and **Flowering Beds**.

Phase 1:

Land Reclamation: Use an excavator for heavy rock removal and terracing of the 2-acre slope.

Phase 2:

Biological Fencing: Establish a perimeter of **Pangiri (Citronella)** and **Gliricidia** to act as a pest repellent and nitrogen-fixer.

Phase 3:

Diversified Planting: Establish raised beds for Ginger, Turmeric, Eelakkai, Karuwa, and Kampu Thaaniyam.

Phase 4:

Circular Waste Management: Install BSFL (Black Soldier Fly Larvae) bins and vermicompost units to process school waste into "Black Gold" fertilizer.

5. Resource Requirements

- **Mechanical:** Excavator for land clearing and rock leveling.
- **Biological:** Seed rhizomes, Cardamom/Cinnamon saplings, Millet seeds, Gliricidia cuttings, and BSFL starter kits.
- **Infrastructure:** Drip irrigation system and block-based fencing for the 2-acre plot.

6. Budget Estimate

The total project expenditure is capped at **Rs. 850,000**.

- **Land Preparation:** Mechanical clearing and leveling.
- **Planting Materials:** Seeds for Spices (Eelakkai, Karuwa, Ginger, Turmeric), Millets, Herbs, and Banana.
- **Soil & Tech:** BSFL bins, earthworms, and irrigation setup.
- **Landscape:** Nursery stock for flowering beds and ornamental borders.

7. Timeline

Months 1–2:

Land Reclamation and terrace stabilization.

Month 3:

Perimeter planting of biological fencing (Pangiri/Gliricidia).

Month 4:

Systematic planting of spice blocks, millets, and flowering beds.

8. Risk Management

- **Soil Erosion:** Prevented by planting Vetiver grass on terrace edges.
- **Harvest Security:** Focusing on root crops (Ginger/Turmeric) and ornaments prevents "plucking" issues common with fruit trees.
- **Cost Control:** Using Gliricidia and BSFL frass reduces the need for expensive chemical fertilizers.

9. Conclusion

This project, guided by the principle "PRACTICE IN ORDER TO KNOWLEDGE," will provide students with a stable, disciplined agricultural education. It bridges the gap between traditional heritage crops and modern sustainable technology, ensuring the school becomes a beacon of climate-smart agriculture.