NOTES FOR STRATEGIC PLANNING FOR KITUL IN SRI LANKA (2025–2029):

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Executive Summary

To: Secretary, Ministry of Plantations Industry, Sri Lanka

Subject: Strategic Plan for the Expansion and Development of Kitul Plantations in Sri Lanka (2025–2029)

The proposed strategic plan for Kitul plantations in Sri Lanka aims to position the country as a leading global producer of Kitul products by expanding cultivation, enhancing yield, and maximizing value-added exports. This strategic vision outlines critical steps necessary to achieve the following objectives by 2030:

1. Expansion of Cultivation Area: The plan targets an expansion to 5,000 hectares of Kitul plantations by 2030. This will be achieved through collaborations with smallholders, estate owners, and government incentives, ensuring optimal land use and environmental sustainability.
2. Improved Yield: Achieving an average yield of 2,500 liters of sap per hectare annually will require the adoption of high-density planting, sustainable tapping techniques, and efficient water and nutrient management. By utilizing modern technologies and precision farming, Kitul plantations will achieve higher productivity and sustainability.
3. Increase in Exports: The plan sets an ambitious target of reaching 10,000 metric tons of jaggery and treacle exports annually by 2030. This will be facilitated by the development of modern post-harvest infrastructure, adherence to international food safety standards, and aggressive marketing strategies in global markets.

The plan also focuses on mitigating environmental, operational, and market risks through climate-smart agricultural practices, diversification of product offerings, and enhanced market linkages. To ensure success, the plan incorporates measurable Key Performance Indicators (KPIs) to track progress, including area expansion, sap yield per hectare, and export volumes.

In conclusion, this strategic initiative offers a unique opportunity for Sri Lanka to enhance its Kitul sector, ensuring long-term profitability, sustainability, and global competitiveness. By leveraging innovative agricultural practices, fostering research and development, and strengthening farmer engagement, Sri Lanka can become a world leader in Kitul production and exports.

We look forward to the Ministry’s support in advancing this plan to unlock the full potential of Sri Lanka’s Kitul industry.

Best Regards,

Director, Vivonta Green Tech Consultants Pvt Ltd

23rd Nov. 2024

Strategic Planning for Kitul in Sri Lanka (2025–2029)

Objective:

- **Expansion to 5,000 hectares by 2030.**
- **Achieving an average yield of 2,500 liters of sap per hectare annually.**
- **Targeting 10,000 metric tons of jaggery/treacle exports annually by 2030.**

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1. Expansion of Cultivation to 5,000 Hectares

Target: Achieving the cultivation of 5,000 hectares of Kitul plantations by 2030.

- **Land Selection & Development:**
    - **Focus on suitable regions**: Central Sri Lanka, the Wet Zone, and other high-rainfall areas with optimal soil types for Kitul cultivation.
    - **Utilize government incentives**: Land subsidy programs, tax breaks, and technical support for farmers transitioning to Kitul cultivation.
    - **Collaboration with farmers**: Partner with smallholders and estate owners for land expansion, providing financial and technical support.
    - **Agroforestry model**: Encourage planting Kitul palms alongside other crops (cinnamon, pepper) to optimize land use and reduce risks.

Reference:

- Agroforestry and intercropping models, as seen in Thailand's Kitul expansionnment support for diversification in Southeast Asia【6†source

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2. **Achieving an Average Yield of 2,500 Liters of Sap per Hectare Target:** Establishing high-yield Kitul plantations with consistent sap production.

- **Optimal Planting Density**:
    - **150–200 trees per hectare** for high-density planting to optimize sunlight, space, and resources.(Assuming the land is near flat / levelled)
    - **Spacing of 5m x 5m** to allow for adequate root expansion and sunlight access.
    - Incorporating **intercropping** systems (e.g., pepper, cinnamon) to ensure efficient land use while enhancing soil health and biodiversity.

Reference:

- Research on plant density and intercropping practices for maximizing Kitul sap yield .
- Best from successful agroforestry systems in Sri Lanka .
- **Sustainable Techniques**:
    - Train tappers on proper tapping techniques to prevent damage to trees and enhance sap yield.
    - Use **precision tapping** methods to minimize damage and ensure long-term productivity.
    - **Monitoring and data tracking** for assessing sap production levels and tree health regularly.

Reference:

- Sustainable tapping practices improving Kitul longevity in Sri Lanka 【6†source】 .
- **Nutrient

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- Implement **organic fertilization** (compost, biochar) and ensure efficient water management using drip irrigation and rainwater harvesting to support tree health.
- Regular **soil testing** to determine nutrient needs and prevent nutrient depletion over time.

Reference:

- Successful nutrient management and water systems in high-yield Kitul plantations .

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3. Targeting 10,000 M of Jaggery/Treacle Exports Annually by 2030

Target: Increase the value-added aspect of Kitul production by enhancing jaggery and treacle exports.

- **Post-Harvest Infrastructure Development**:
    - Invest in **modern processing facilities** near plantations to reduce transportation costs and ensure high-quality sap collection.

- Focus on developing **standardized production processes** for jaggery and treacle, adhering to international food safety standards (e.g., HACCP, ISO).

Reference:

- Thailand's post-harvest innovation model for Kitul product enhancement .
- **Marketing & Export Strategy**:
  - Deng market linkages with international buyers, particularly in **Europe** and **North America**, where demand for organic products is growing.
  - **Brand Sri Lanka**: Promote Kitul products as a unique Sri Lankan commodity, focusing on organic, sustainable, and fair-trade certifications to appeal to premium markets.
  - **Strengthen export infrastructure**: Enhance shipping, packaging, and customs procedures for efficient export of treacle and jaggery.

Reference:

- Post-harvest strategies for expanding Kitul export markets【6†source】.
- **Farmer & Community Involvement**: -

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mers in post-harvest handling, hygienic practices, and packaging to ensure that high-quality products reach export markets.

  - Establish a **farmer cooperative model** to streamline product collection, processing, and sales.

Reference:

- Farmer training and cooperative models boosting market access .

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4. Research, Development, and Innovatioctive: Foster innovation in Kitul production to achieve long-term sustainability and higher profitability.

- **Genetic Improvement & Research**:
  - Invest in **research on high-yielding, disease-resistant Kitul varieties**.
  - Collaborate with agricultural universities and research institutes to develop better planting material and enhance sap productivity.

Reference:

- Collaboration between research institutions and farmers for Kitul variety improvement 【6†source】.
- **Technology Adoption**:
    - Implement **precis

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ols such as drones and sensors for monitoring soil health, tree growth, and pest management.

    - **Data analytics** to optimize resource use (water, fertilizers) and improve sap yield prediction.

Reference:

- Use of modern technologies for agricultural optimization in Sri Lanka .

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5. Risk Management and Sustainability

Objective: Miks associated with environmental, market, and operational challenges.

- **Environmental Risks**:
    - Implement climate-smart agricultural practices to combat risks from extreme weather events (e.g., droughts, floods).
    - Develop **agroforestry systems** that incorporate climate-resilient crops to buffer against climate variability.

Reference:

- Climate-smart practices for sustainable Kitul farming【6†source】.
- **Market Risks**:
    - Build market diversification strategies to r

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ndence on one market or product (e.g., expanding into value-added Kitul products like syrup, beverages).

    - **Fair trade and organic certifications** to ensure premium market access.

Reference:

- Risk mitigation strategies for agricultural exports in volatile markets .

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6. Key Performance Indicators (KPIs) and Measurement

**Objective assuring targets to track progress towards the 2030 goals.

- **KPI 1: Area under Cultivation**
  - **Goal:** Expand to 5,000 hectares by 2030.
  - **Measurement:** Annual increase in hectares under Kitul cultivation.
- **KPI 2: Average Sap Yield per Hectare**
  - **Goal:** Achieve 2,500 liters of sap per hectare annually by 2030.
  - **Measurement:** Annual yield data per hectare, tracked through farm records and monitoring systems.
- **KPI 3: Treacle and Jaggery Exports**
  - **Goal:** Reach 10,000 metric tons of exports annually by 2030.
  - **Measurement:** Export volume tracked through customs and trade data.
- **KPI 4: Profitability per Hectare**
  - **Goal:** Increase per-hectare profitability through efficient management and value-added product development.
  - **Measurement:** Profit margins calculated based on sap and product sales per hectare.

Conclusion

By following these strategic actions, Sri Lanka can expand Kitul plantations to 5,000 hectares, achieving an average sap yield of 2,500 liters per hectare annually and targeting 10,000 metric tons of jaggery and treacle exports annually by 2030. The country has a unique opportunity to develop world-class Kitul plantations by leveraging successful practices, post-harvest innovation, and a diversified market strategy, ensuring long-term sustainability and profitability in the Kitul industry. Agriculture's growth into global markets hinges critically on adopting advanced technologies like blockchain for traceability. At Vivonta Green Tech Consultants (www.vivonta.lk), we are deeply appreciative of the invaluable support originated by Mr. Sachitra Yapa (Sweeden) extended by ZenGateGlobal from the US and Control Union, whose contributions have been pivotal. Given the urgency of this issue, we strongly recommend scheduling an online meeting

with their team at your earliest convenience to discuss the integration of blockchain traceability systems in Sri Lanka's agricultural export strategies. This is a key step toward ensuring transparency, trust, and efficiency in our global agricultural supply chains.

23rd November 2024.

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