Problem

Southeast Asia Braces for More Droughts and Haze

Editor
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FAO and partners join forces to mitigate the impact of El Niño in the ASEAN region

15/12/2023 Bangkok

El Niño has made its presence felt in Southeast Asia and is projected to persist for at least the next three months. In July, the World Meteorological Organization (WMO) officially declared the presence of El Niño conditions for the first time in seven years, setting the stage for a surge in global temperatures and disruptive weather and climate patterns.

The next three to six months are critical as the region braces for the full potential impact. It is crucial to emphasize the imperative use of early warnings to enable anticipatory action for potential dry conditions associated with this climate phenomenon. This has prompted governments to mobilize preparations and limit impacts on health, agri-food systems, and economies.
Problem

Smart Farming Technology is Cool, but it’s \textbf{EXPENSIVE} and \textbf{COMPLEX} to use and maintain for most peoples.

Dialogue and discussion session with local farmers in Lubang Island, Philippines
Temperature and humidity sensor inside equipped with WiFi module for remote monitoring from TerraGrow App.
Target Audience

Suburban Generational Farmers:
Reliant on Agriculture  ●  Middle-Low Income Households

Possible Pilot Site: Municipality of Lubang in Occidental Mindoro, Philippines where traditional farming techniques exhaust the land with rice, garlic, onion, and peanut cultivation.

“Given that a significant percentage of crops grown on the island are for human consumption, assistance is crucial to support Lubang’s agricultural development and marketing initiatives.”

- Hon. Mike Orayani, Municipal Mayor of Lubang
Environmental Impact

**Water Conservation**
- Decreased water waste in farming through precision agriculture

**CO2 Sequestration**
- Enhanced crop growth leading to increased CO2 capture

**Sustainable Land Use**
- Improved land sustainability and consistent plant production through efficient farming practices
Social Impact

At least 25% farmers use real-time data from the sensors

At least 75% technological adoption rate

At least 30% improved resource efficiency in farming practices

20% Increase in the Community Livelihood Enhancement Index within the First Year of Project Implementation
Next, let’s go through our **FINANCIAL STATUS**

<table>
<thead>
<tr>
<th>Cost Structure</th>
<th>Fixed Cost</th>
<th>Budget (USD)/Quarter</th>
<th>Variable Cost</th>
<th>Budget (USD)/Quarter</th>
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</thead>
<tbody>
<tr>
<td>Renting Warehouse</td>
<td></td>
<td>300</td>
<td>Material Cost</td>
<td>5x450</td>
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<tr>
<td>R&amp;D</td>
<td></td>
<td>600</td>
<td>Labor Cost</td>
<td>600</td>
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<tr>
<td>MKT</td>
<td></td>
<td>300</td>
<td>Commission</td>
<td>200</td>
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<tr>
<td>Utilities</td>
<td></td>
<td>150</td>
<td>Shipping</td>
<td>300</td>
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<tr>
<td>Total</td>
<td></td>
<td>1350</td>
<td>Total</td>
<td>3350</td>
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<table>
<thead>
<tr>
<th>Revenue</th>
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<tbody>
<tr>
<td>Unit Sale</td>
<td>120</td>
<td>150</td>
<td>180</td>
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<tr>
<td>Revenue (USD)</td>
<td>1800</td>
<td>2250</td>
<td>2700</td>
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</table>

**Sale price:** $15/ unit

**Expected Revenue In One Year**

<table>
<thead>
<tr>
<th>BEP</th>
<th>CM%</th>
<th>Unit</th>
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<tr>
<td></td>
<td>50.4%</td>
<td>179</td>
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</table>
Where do we see ourselves in the market?

Affordable, user-friendly precision agriculture solution, empowering farmers and gardeners.
Climate Smart Technology Hubs and Research & Development Sectors

Local Farmers Associations, Organizations, and Environmental and Agricultural Groups

Government, Funding Bodies, Academia, the Community, and the General Public

Stakeholder Engagement Plan

COLLABORATE
Actively involve in decision-making processes

CONSULT
Seek input and feedback to inform decision-making

INFORM
Provide with relevant information about decisions or initiatives
to deliver the best values, we PLACED FOCUS ON

- Tailored Training Programs
- Community Engagement Events
- Demonstration Farms
- Interactive Learning Materials
- Peer-to-Peer Learning
Implementation Plan

- **Partnership and Fundraising**
  - **MAY 2024**

- **Product Launch and Campaign**
  - **DEC 2024**

- **Product Expansion in SEA Region**
  - **DEC 2027**

- **Regional Impact in ASIA**
  - **DEC 2030**

- **Long-Term Vision (5-10 years):** Long-term objectives and expected outcomes.
- **Medium-Term Goals (1 year):** Milestones achievable within a year.
- **Short-Term Plan:** Actions you can start immediately.
Project Proponents

Jidan Fikri
Background: Electrical Engineering
Experiences: Research assistance in National Research and Innovation Agency of Indonesia (BRIN); Machine Learning mentor at Bangkit by Google, GoTo, & Traveloka.

Ngoc Quynh Anh Dao
Background: International Business Economics
Experiences: Member of Social Work Club FTU2; Project with SchoolabxLEGO; Trainee at Jolie Siam

Noelle Cubacub
Background: Sociology and Anthropology
Experiences: Project Manager for Climate and Green Tech Initiatives; Researcher-Consultant for Environment and Public Health Projects
THANK YOU
Pilot Site: Municipality of Lubang, Occidental Mindoro

Poverty Incidence: 9.5% (PSA, 2018)

Agricultural Products: Rice, Garlic, Onion, Mango, and Peanuts

No available data on municipal agricultural industry
Pilot Site: Municipality of Lubang, Occidental Mindoro
TERRA GROW APP DESIGN & FEATURES

*) still in development