



REVITALISING THE INDONESIAN COCONUT SECTOR

Forum & Workshop Jakarta 30th April 2025

The Urgent Need for Seedling Investment

Prof. Dr. Hengky Novarianto, MS

Coconut Breeder & Former Senior Scientist of Palma Research Institute, and BRIN



Coconut industry is at risk:
Coconut Commodity
Status in Indonesia



Challenges in
Upstream –
Coconut Seedling



Changes and Investment
Needed for Indonesia
Coconut

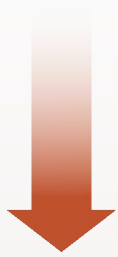


Pathway Forward





EL NINO 2023:
The Coconut yield
decreased 50-60%



COCONUT INDUSTRY IS **AT RISK**



COCONUT INDUSTRY:
Lack of raw
materials



EXPORT
NUTS 2025



Indonesia Coconut Production
declined from 1st to 2nd in the
world after Philippines



COCONUT
PRICE



The Bitter Irony

"Whole Coconut Exports are Soaring..."

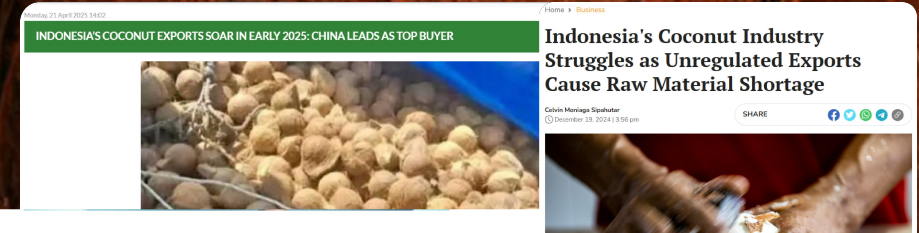
January–February 2025: 181,500 tons exported, up 29.84% month-on-month.

(Source: Indonesian Agricultural Quarantine Agency, 2025)

BUT

"Indonesia's Coconut Processors are Shutting Down..."

Domestic factories are closing because there aren't enough whole nuts left to process locally.



Root Cause of Decline Production of Coconut..



Aging and unproductive coconut trees, over 60 years old



Dead or senile coconut trees



Coconut trees **severely damaged** by pest infestations

Why Coconut **Rejuvenation** is **Progressing Too Slowly**



**Limited
Upstream
Investments**



**High-Quality
Seedling
Availability and
Production
Challenges**



**Seedling
Distribution
System Issues**



Rejuvenation and Replanting Progress Are too Slow..

At the Current Pace, it will take
over **20 years to rejuvenate
Indonesia's coconut farms**

Without urgent action, **the coconut sector faces declining
income, exports, and farmer welfare.**

1

Limited Upstream Investments



Lack of large-scale coordinated replanting.



Minimal private sector interest in coconut seedling production compared to palm oil.



Lack of large-scale investment to develop modern seed gardens and nurseries.



Inadequate incentives for farmers and investors to build seed gardens.

High-Quality Seedling Availability and Production Challenges

- **Low Supply Despite Many Varieties:**
Although superior coconut varieties exist, actual seedling production remains far below demand.
- **Traditional Propagation Methods:**
Seedlings are mostly propagated through conventional seed methods, limiting scale and efficiency.
- **No Established Seed Gardens:**
Purified, superior seed gardens are not widely available to ensure consistent seedling quality.
- **Low Private Sector Investment:**
Compared to oil palm, private sector interest in coconut seedling nurseries is very limited.



Capacity from **National Superior Varieties:**

3,000,000 seedlings

Capacity from **Local Superior Varieties:**

3,000,000 seedlings

TOTAL AVAILABLE **SEEDLINGS ACROSS INDONESIA:**

6,000,000 SEEDLINGS





3 Seedling Distribution System Issues

Dispersed Seed Sources:

Seed sources are spread across many provinces and islands, making logistics complicated.

Regulatory Restrictions:

Certified superior varieties are required for national distribution; local varieties can only circulate within their origin province.

High Transportation Costs:

Moving seedlings and seednuts across islands is expensive due to bulky volume and logistical challenges.

Limited Availability from Selected Mother Palms:

The supply of seedlings from selected mother palms remains insufficient.

Delayed Implementation of Seed Garden Policy:

Regulations requiring a seed garden for every released variety are not fully enforced.

Our Strengths: Superior varieties are ready...

Timeline: release of 58 superior coconut varieties (1983–2025).

Tall
Coconut

34

Varieties

Dwarf
Coconut

14

Varieties

Hybrid
Coconut

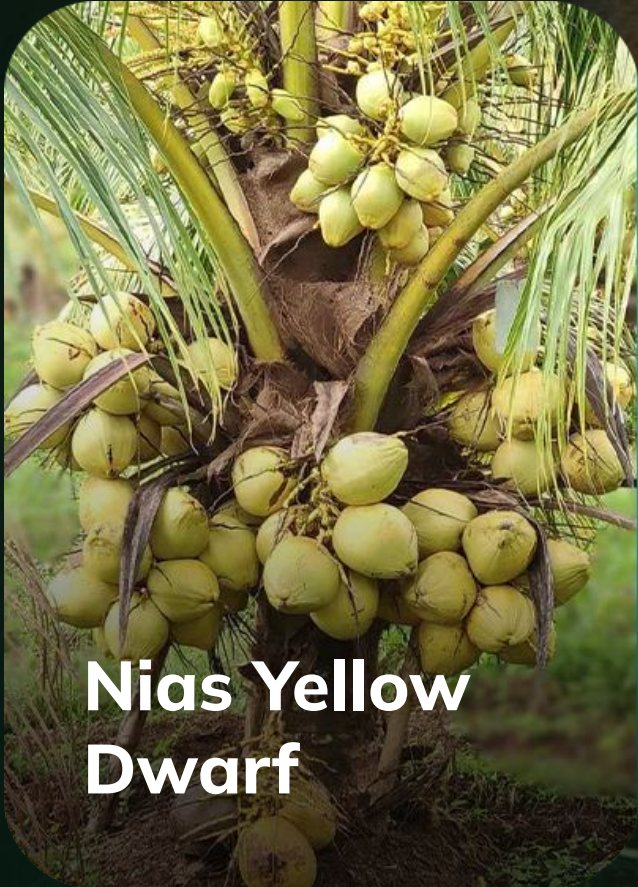
10

Varieties

Total **58**
Varieties

"We have the science. **Now we need the systems.**"

Examples:



**Nias Yellow
Dwarf**



Bido Tall



**Hengniu
Hybrid**



Each Coconut Varieties has different usage...

Dwarf Type of Coconut

More suitable for industrial raw materials: beverages, ice cream, cakes, coconut sugar, young coconut for tourist areas



Tall Type of Coconut

More suitable for integrated coconut industry raw materials: Cooking oil, VCO, DC, coconut milk, coir fiber and cocopeat, charcoal briquettes and activated carbon, coconut water, nata de coco, vinegar, etc.

Without Action: A shrinking industry

1

Expand and Strengthen Seedling Production:

- Develop large-scale superior seed gardens.
- Modernize propagation methods.

Improve Distribution Systems

- Regionalize seedling hubs.
- Incentivize affordable logistics.

2

3

Attract Private Investment:

- No investment today, no coconut industry tomorrow.

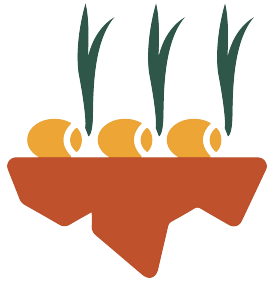
Accelerate Replanting Programs

- Public-private partnerships for rejuvenation.

4

Pathway Forward

The Investment Pathway



**Develop
regional seed
gardens**



**Scale up
certified
seedling
distribution**



**Strengthen
public-private
partnerships**



**Incentivize
farmer-led
replanting
programs**



Development of Production Plantations and Seed Sources through the **Nucleus-Plasma Model**



Estimated total area of Nucleus-Plasma plantations
50,000 hectares



The Nucleus plantation, which owns seed gardens and production plantations, supports Plasma farmers in establishing their plantations



The Nucleus plantation can cover **60–80%** and the Plasma plantation **20–40%**, or other ratios as mutually agreed



Coconut fruit production from Plasma plantations is sold to the Nucleus, which owns an Integrated Coconut Processing Industry

DEVELOPMENT OF **NUCLEAR (SEED)** GARDEN IN CORE LOCATION

The development of the nuclear garden is divided into:



Tall Coconut

5 varieties
50 ha each
Totaling
250ha



Dwarf Coconut

3 varieties
50 ha each
Totaling
150ha



Hybrid Coconut

2 varieties
50 ha each
Totaling
100ha

Seed Production Estimates:



Tall Coconut Seed
Production Capacity:

3.0 million seeds
/year



Dwarf Coconut Seed
Production Capacity:

4.0 million seeds
/year



Hybrid Coconut Seed
Production Capacity:

1.0 million seeds
/year

From a total of 8 million coconut seeds, it is possible to support coconut development (replanting, rehabilitation, and new planting) over an area of **46,000 hectares per year.**



**Good Case
Example**



PT. DEWA COCO HAS ESTABLISHED A COCONUT PROCESSING INDUSTRY IN WEST HALMAHERA REGENCY, AND VARIOUS SUPERIOD COCONUT VARIETIES HAVE BEEN PLANTED AROUND THE FACTORY.

Hybrid coconut varieties such as HENGNIU, Genjah Kopyor, Dalam Bido, Dalam Upat Upat SA, Dalam Lokal, and Genjah Kuning Bali have been planted, totaling around 5,000 trees.



Hybrid Coconut: **Hengniu**

3 tahun mulai keluar tandan
(April 2022-April 2025)

Supporting **Regulations Needed** from Government and Partners

1 Policy acceleration for replanting.

Introduction of coconut seed varieties, including superior local varieties, for the development of production plantations in the Inti-Plasma area.

Collaboration with BRMP Palma Crops to supply and establish mother plants at the Inti location.

Partnership with BRIN and BRMP Palma Crops to enable researchers and technical staff to assist in observing superior local seed sources around the Inti-Plasma area.

2 Co-funding seed garden infrastructure.



3 Facilitating private sector participation.



A man with glasses and a colorful, patterned shirt is smiling and giving a thumbs-up gesture. He is holding a green coconut with a white straw. The background shows a large nursery of young palm trees in black plastic pots, with a dense forest of mature palm trees and mountains in the distance under a blue sky with light clouds.

**"Today's investment
will secure tomorrow's
livelihoods and global
leadership."**

Thank You!