

COCO NEWSLETTER

Unleashing the Economic Potential of Coconut-Based Businesses for Sustainable Growth in the South Coastal Regions of Bangladesh

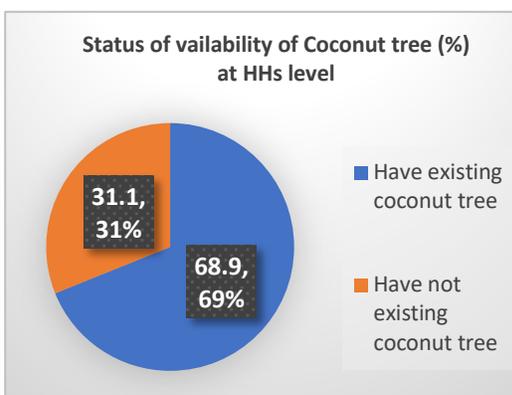
Background: Coconut cultivation in the south coastal regions of Bangladesh has faced persistent challenges in achieving optimal fruiting and productivity due to inadequate crop management practices, pest infestations, and disease prevalence. To address these constraints, the subproject titled *“Development of Integrated Crop Management Technologies for Higher Production of Coconut in Bangladesh”* was launched in June 2018 under NATP Phase 2 funding. The initiative was implemented through a collaborative approach involving four specialized components of the Bangladesh Agricultural Research Institute (BARI) and the Sustainable Soil Resource Development Authority (SSURDA).

Baseline surveys conducted in key coconut-growing districts—including Barishal, Patuakhali, Jashore, Satkhira, Chuadanga, Kushtia, Meherpur, and Gazipur—revealed poor adoption of key agronomic practices. Only 24.3% to 44.3% of farmers reported fertilizer application, and irrigation practices were limited, ranging from 7.6% to 32.4%. Use of growth regulators was negligible. Major pests such as the coconut eriophyid mite, rhinoceros beetle, and red palm weevil, along with widespread diseases like grey leaf spot and bud rot, significantly contributed to declining yields.



Exploring Local Wisdom: Community Perceptions, Knowledge and practices on coconut tree plantation in Climate-Vulnerable South Coast; In June–July 2025, GRACE undertook an insightful assessment to uncover the perceptions, knowledge, and everyday practices of communities living on the frontlines of climate vulnerability. The study focused on 45 households in Raypara, located in Jolma Union under Botiaghata Upazila, Khulna district — a region deeply shaped by the rhythms and risks of the southern coastal ecosystem.

The assessment revealed a nuanced portrait of community understanding, highlighting how local knowledge, cultural beliefs, and adaptive behaviors intersect in the face of mounting climate challenges. It brought to light both the strengths embedded in traditional practices and the gaps that remain in awareness and preparedness.



The assessment found that **68.9%** of households have coconut trees, while 31.1% do not—indicating both a strong cultivation presence and a potential gap for future intervention, both the strengths embedded in traditional practices and the gaps that remain in awareness and preparedness.



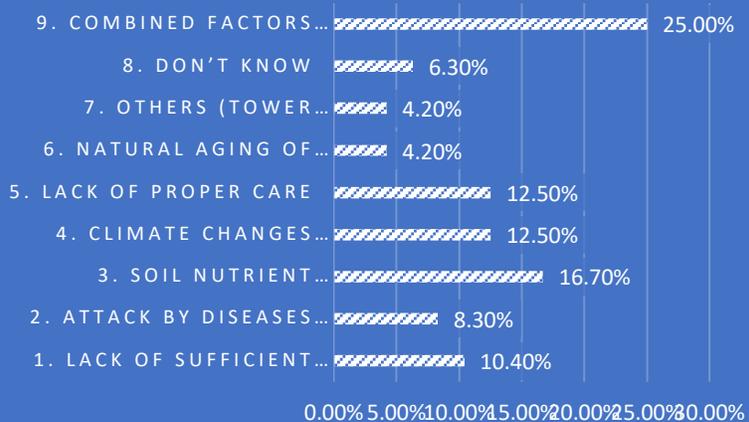
INDICATORS	FINDINGS
AVERAGE NUMBER OF COCONUT TREES PER HOUSEHOLD	3
AVERAGE AGE OF COCONUT TREES (YEARS)	9.75
SAME FRUITING AS 10 YEARS AGO	100% reported no

The assessment found that each household owns an average of 3 coconut trees, with an average age of 9.75 years. Notably, 100% of respondents reported a decline in fruiting compared to 10 years ago, indicating a significant reduction in productivity over time.

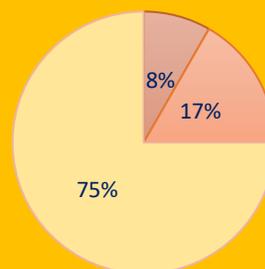
Knowledge measurement

The chart highlights the perceived reasons behind the decline in coconut fruiting in the surveyed coastal region. A significant 25% of respondents attributed the issue to combined factors—namely poor soil nutrition, inadequate irrigation, and pest/disease incidence—indicating a need for integrated management. Soil nutrient deficiency (16.7%) and climate change impacts (12.5%) were also prominent concerns. Notably, 10.4% cited lack of irrigation, while only 4.2% referred to natural aging or other lesser-known causes. These insights reflect that environmental stressors and agronomic neglect are primary drivers of reduced productivity.

KNOWLEDGE MEASUREMENT: ABOUT THE MAIN REASON TO REDUCE THE FRUITING



Practices



Distribution of Practices of Nursing of the existing coconut trees

- 1. Look after/nursing properly
- 2. Sometimes initiated nursing
- 3. Not at all

The assessment of coconut tree care practices revealed that a majority (75%) of households do not provide any nursing or maintenance to their existing trees. Only 16.7% reported occasional care, while a mere 8.3% actively nurse their trees. This lack of regular maintenance is likely a contributing factor to declining tree health and reduced fruiting, underscoring the need for awareness and training on proper coconut tree management.

Summary Findings and Recommendations for -

Exploring Local Wisdom: Community Perceptions, Knowledge, and Practices on Coconut Tree Plantation in Climate-Vulnerable South Coast (June–July 2025)

Key Findings

- **Coconut Tree Availability:** 68.9% of households have coconut trees; 31.1% do not—highlighting both presence and expansion potential.
- **Tree Status:** Households have an average of 3 trees, aged around 9.75 years. All respondents reported a decline in fruiting compared to 10 years ago.
- **Causes of Decline:**
 - 25% identified combined issues (poor soil, irrigation, pests/disease).
 - 16.7% cited soil nutrient deficiency.
 - 12.5% pointed to climate-related factors (storms, drought, waterlogging, etc.).
 - Only 4.2% mentioned natural aging as a cause.
- **Care and Maintenance:**
 - 75% of households do not provide any care to their trees.
 - Only 8.3% nurse their trees regularly.
 - Low maintenance is a key driver of declining productivity.

Recommendations

1. **Promote Integrated Crop Management addressing soil health, irrigation, and pest/disease control.**
2. **Enhance Community Awareness and Training on proper tree care and sustainable practices.**
3. **Strengthen Extension Services to support households lacking access to knowledge and inputs.**
4. **Encourage Replantation and Diversification in households without existing coconut trees.**
5. **Adapt to Climate Challenges through resilient farming methods and localized solutions**

GRACE Plan: Unlocking the Economic Potential of Coconut Trees in South Coastal Bangladesh

- ☐ **Hands-On Training:** Practical training for 25 selected women and male participants, Focus: cultivation, irrigation, fertilization, pest management, and tree nursing
- ☐ **Input Support:** Distribution of coconut saplings and fertilizers Support for climate-smart agriculture (seeds and seedlings)
- ☐ **Monthly Group Meetings:** Experience sharing and coordination among trained participants
- ☐ **Monitoring, Evaluation, and Learning (MEL):** Regular monitoring of irrigation, fertilization, mulching, and pest control including emphasis on adaptive learning and practice improvement