"Harnessing the Potential of Coconut for Food and Energy Security: Sustainable Solutions for a Resilient Future"

Concept Note

for
Side Event at UNESCAP 81st Session of the Commission



International Coconut Community
3-25-2025

Background

The coconut tree (*Cocos nucifera*), often referred to as the "tree of life," is a vital crop with economic, nutritional, and environmental significance. Grown in over 90 countries, the coconut industry supports more than 24 million smallholder farmers globally and plays a key role in advancing the UN Sustainable Development Goals (SDGs) through food security, renewable energy, climate resilience, and rural development.

Coconut products span over 100 food and healthcare applications including virgin coconut oil, coconut water, flour, milk, and sugar. Non-food products like activated carbon, coir, and coconut shell charcoal contribute to diverse industrial sectors. The global export volume reached over 15 million metric tons in 2023, generating revenues of USD 14.19 billion.

Coconut farming also contributes to environmental sustainability. A 20-hectare plantation can sequester an estimated 370 tons of CO_2 annually, with further potential through agroforestry and biochar-enhanced practices. These features position the coconut industry as a valuable asset for climate change mitigation and carbon credit initiatives.

The Coconut Industry: Opportunities and Challenges

The coconut sector offers strong opportunities to address global goals under the SDGs—notably SDG 1 (No Poverty), SDG 2 (Zero Hunger), SDG 3 (Good Health and Well-being), SDG 7 (Affordable and Clean Energy), and SDG 13 (Climate Action). From nutritious food and innovative health products to clean energy solutions like Sustainable Aviation Fuel (SAF), coconut-based developments can significantly contribute to resilient and inclusive growth. However, the sector continues to face challenges such as limited access to research-based technologies, fragmented coordination among institutions, weak policy integration, climate change effects, and low productivity. These barriers call for coordinated regional action, policy innovation, and investment in research and capacity building.

Objectives

The event aims to:

1. Promote the coconut sector and its diverse products by showcasing its critical role in food security, energy sustainability, and climate resilience, emphasizing its contributions to nutrition, renewable energy, and environmental sustainability.
2. Highlight the growing potential of coconut-based bioenergy solutions, particularly Sustainable Aviation Fuel (SAF), charcoal briquettes, and other biofuels, in addressing global energy challenges, reducing carbon emissions, and strengthening energy security.

3. Present the significance of coconut plantations in carbon sequestration and their integration into carbon credit markets, showcasing how coconut trees serve as natural carbon sinks, contributing to climate change mitigation and providing economic incentives for farmers through carbon trading.
4. Facilitate policy dialogue and collaboration among governments, industry stakeholders, researchers, and financial institutions to expand the global market for coconut-based products, strengthen regional cooperation in bioenergy production, and explore carbon credit opportunities.
5. Encourage investments in research, technology, infrastructure, and certification frameworks to enhance the value chain of coconut-based industries, support innovation in food and energy applications, and unlock new revenue streams for coconut-producing nations.

Expected Outcomes

- Increased awareness of coconut's potential in food security, renewable energy, and climate resilience among policymakers, investors, and industry leaders, including its role in carbon sequestration and carbon credit markets.
- Stronger policy integration of coconut-based solutions into national and regional frameworks, covering food security, biofuel development, carbon credit mechanisms, and climate-smart agriculture.

Event Structure

The side event themed *"Harnessing the Potential of Coconut for Food and Energy Security: Sustainable Solutions for a Resilient Future"* is structured into three focused sessions of 15 minutes each, designed to explore the transformative role of the coconut sector in advancing food security, sustainable energy, and climate resilience. Each session will highlight how coconut-based innovations align with the United Nations Sustainable Development Goals (SDGs) and the ESCAP 81st Session theme: "Regional Cooperation for Resilient and Sustainable Urban Development in Asia and the Pacific." The event will conclude with a 15-minute interactive Q&A session to facilitate deeper discussion among participants.

UNESCAP 81st Session of the Commission

ICC Side Event

"Harnessing the Potential of Coconut for Food and Energy Security: Sustainable Solutions for a Resilient Future"

25th April 2025, 12.45 – 01.45 PM

Meeting Room 01, United Nations Conference Center, Bangkok, Thailand

Tentative Agenda of the Event

Time	Program	Information
12.15 – 12.45	Registration of the Participants	ICC Secretariat
Opening Session		
12.45 – 12.50	Welcome Remarks and Objective by Director General - ICC	Dr. Jelfina C. Alouw
Session 01		
12.50 – 01.05	Health and Nutritional Benefits of Coconut for Food Security	Dr. Fabian M. Dayrit, Chairman, ICC Scientific Advisory Committee for Health
Session 02		
01.05 – 01.20	Coconut for Energy Security – Sustainable Aviation Fuel (SAF) and beyond	Mr. Masato Fujii, Director, Green Power Development Corporation of Japan (GPDJ), Japan
Session 03		
01.20 – 01.35	Carbon Sequestration and Carbon Credit – Coconut's Role in Climate Resilience	Dr. Hebbar K. Balachandra, Director, Central Plantations Crop Research Institute (CPCRI), India
Session 04		
01.35 – 01.45	Discussion on addressing challenges in the coconut industry, particularly in ensuring sufficient raw materials. Questions and Answers	All Participants Moderator: Dr. Prabhat Kumar, Chairman, ICC - TWG