

Updated as of 22 July 2025

Concept Note

**Inception Workshop for the Pilot Project on
Agricultural Mechanization for Sustainable Reduction of Rice Straw
and Sugarcane Trash Burning in Thailand**

Date: 24-25 July 2025

Venue: Venus 1, IMPACT Arena, Exhibition & Convention Center

Context

Thailand's agricultural sector is a vital part of the country's economy and society. It contributes to approximately 8.4% of Thailand's gross domestic product (GDP), employs about 30% of the total labor force, covering around 6.4 million households. The agricultural labor force is ageing, with a significant increase in workers aged 40-60 years. Approximately 40% of farming households earn below the poverty line. Total agricultural land is approximately 23.6 million hectares (about 46% of the total land area). Around 70% of the agricultural land is used for crop production. Rice is the predominant crop, contributing to about 42% of crop production area followed by sugarcane, cassava, maize, rubber tree and other crops.

A primary problem in the agriculture sector is the widespread practice of burning crop residues in Thailand, which contributes significantly to air pollution and environmental degradation as well as soil degradation. This practice is driven by the need for quick and cost-effective field preparation but has detrimental effects on air quality and public health. The burning of rice straw, sugarcane leaves, and maize stalks accounts for a substantial portion of the PM2.5 pollution in the country. Addressing this issue requires the implementation of sustainable crop residues management practices that can reduce air pollution, enhance soil health, and provide economic benefits to farmers.

The pilot project on “Agricultural Mechanization for Sustainable Reduction of Rice Straw and Sugarcane Trash Burning in Thailand” aims to promote climate-smart crop residue management practices in Thailand. Building on the lessons learned from CSAM’s regional initiative on integrated straw management, this project will extend the efforts of the regional initiative to Thailand. The project will introduce innovative agricultural machinery and capacity-building programs to encourage farmers to adopt sustainable residue management practices, reducing their reliance on crop burning.

This inception workshop will be one of the first activities of the pilot project and will be held in conjunction with the Thailand International Agricultural Machinery Exhibition (CIAME Asia 2025) which will be held from 23 to 25 July 2025. This arrangement will allow inception workshop participants to visit the exhibition booths at CIAME as well. The workshop is jointly organized by the Department of Agriculture, Ministry of Agriculture and Cooperatives of Thailand and the Centre for Sustainable Agricultural Mechanization (CSAM) of the Economic and Social Commission for Asia and the Pacific (ESCAP).

Updated as of 22 July 2025

Objectives

The inception workshop aims to:

- Facilitate knowledge sharing on experiences, challenges and good practices related to crop residue management
- Introduce the pilot project, including its objectives, expected outcomes and activities, to all relevant stakeholders
- Align expectations and understanding of all relevant stakeholders regarding roles and responsibilities
- Agree upon the pilot sites and discuss preliminary plans to operationalise the project at the pilot sites
- Develop a roadmap with clear roles and timelines for the implementation of project activities

Participation

Participation in the inception workshop is by invitation only. The workshop is expected to be attended by 50 participants, bringing together key stakeholders for project implementation, such as:

- Government officials from the Ministry of Agriculture and Cooperatives of Thailand
- Local officials from Ratchaburi province
- Representatives from the Centre for Sustainable Agricultural Mechanization (CSAM) and the Economic and Social Commission for Asia and the Pacific (ESCAP)
- Representatives from the Association of Southeast Asian Nations (ASEAN) Secretariat
- Representatives from the private sector (Siam Cement Group, etc.)
- Representatives from academia (Kasetsart University, etc.)
- Representatives from non-governmental organizations (Friends of Thai Agriculture, etc.)
- Farmers and community leaders from the pilot site

The workshop will have simultaneous interpretation in English and Thai.

Tentative Program

Date/ Time	Activity
23 July 2025 (Wed)	
Full day	CIAME Asia 2025 – Thailand International Agricultural Machinery Exhibition
10:00	Opening ceremony of the CIAME Asia 2025 – Thailand International Agricultural Machinery Exhibition
14:30 – 15:00	Signing ceremony of MOA between ESCAP and Sri Lanka Standards Institution (SLSI)
15:00 – 17:30	The First Asia Symposium on Intelligent Agricultural Machinery and Smart Agriculture (<i>organized by China Agricultural University and supported by CSAM</i>)

Updated as of 22 July 2025

Date/ Time	Activity
24 July 2025 (Thur)	
08:30 – 09:00	Registration
09:00 – 09:20	Opening session <ul style="list-style-type: none"> - Video remarks by Ms. Lin Yang, Deputy Executive Secretary of ESCAP - Video remarks by Minister/ Vice Minister/ Permanent Secretary of Agriculture and Cooperatives of Thailand (tbc) - Official opening address by Deputy Director-General, Department of Agriculture
09:20 – 09:30	Group photo
09:30 – 09:45	Machine donation ceremony <ul style="list-style-type: none"> - Representative from pilot site: Dr. Sanong Amaroek, Acting Agricultural Engineering Expert, Agricultural Engineering Research Institute, Department of Agriculture
09:45 – 10:20	Session 1: Plenary keynote on “National status, policies & government actions” <ul style="list-style-type: none"> - Ms. Siwaporn Rungsiyanon, Specialised Expert on Air Quality and Noise Management, Pollution Control Department, Ministry of Natural Resources & Environment - Mr. Narit Boonchai, Director, Office of Planning and Special Projects, Office of the Permanent Secretary for the Ministry, Ministry of Agriculture and Cooperatives
10:20 – 10:35	Coffee break
10:35 – 12:00	Session 2: Panel discussion on “Past initiatives & case studies from the public sector” Moderator: Dr. Sanong Amaroek, Acting Agricultural Engineering Expert, Agricultural Engineering Research Institute, Department of Agriculture Panelists: <ul style="list-style-type: none"> - Rice Department - Department of Agricultural Extension - Land Development Department - Department of Agriculture - Department of Agricultural Engineering, Faculty of Engineering, Khon Kaen University
12:00 – 13:00	Lunch
13:00 – 14:00	Session 3: Panel discussion on “Past initiatives & case studies from the private sector” Moderator: Dr. Weang Arekornchee, Director, Khonkaen Agricultural Engineering Center, Department of Agriculture Panelists: <ul style="list-style-type: none"> - Siam Kubota - Siam Cement Group (SCG) - Mitr Phol Group - Bank of Agriculture and Agricultural Cooperatives - Mr. Khawan Khamwee, Head, Rice Community Center
14:00 – 15:00	Session 4: Panel discussion on “Development organizations’ initiatives to reduce crop residue burning”

Updated as of 22 July 2025

Date/ Time	Activity
	<p>Moderator: Mr. Marco Silvestri, Deputy Head (a.i.), Centre for Sustainable Agricultural Mechanization</p> <p>Panelists:</p> <ul style="list-style-type: none"> - Dr. Machima Thongdejsri, Project Advisor, German Agency for International Cooperation (GIZ) on "Piloting sustainable uses of rice straw" - Ms. Anna de Guia, Project Coordinator & Agriculture Specialist, German Agricultural Society (DLG) on "Outcomes of the Friends of Thai Agriculture Burning Conference" - Ms. Yuee Feng, Programme Coordinator on "CSAM's regional initiative on integrated straw management" - Dr. Lilik Sutiarmo, Department of Agricultural & Biosystems Engineering, Universitas Gajah Mada on "Indonesia's pilot project on integrated straw management" (<i>online/ video recording</i>)
15:00 – 15:15	Coffee break
15:15 – 15:45	<p>Session 5: Plenary keynote on "Introducing the pilot project in Thailand"</p> <ul style="list-style-type: none"> - Presentation by Dr. Anuchit Chamsing, Director, Post-Harvest Engineering Research Group, Agricultural Engineering Research Institute, Department of Agriculture - Discussion and recommendation <ul style="list-style-type: none"> : What activities to be implemented? : Who should be involved in these activities and why? : Proposed timeline for activities
15:45 – 16:00	<p>Closing session</p> <ul style="list-style-type: none"> - Concluding remarks by ESCAP - Closing remarks by the Ministry of Agriculture and Cooperatives of Thailand <p>End-of-event evaluation</p>
16:00 – 17:00	Visit CIAME Asia 2025 – Thailand International Agricultural Machinery Exhibition
25 July 2025 (Fri)	
07:30 – 08:00	Gather at IMPACT Mueang Thong
08:00 – 09:30	Depart from Nonthaburi to Nakhon Pathom
09:30 – 11:30	Visit China Agricultural Machinery Training and Maintenance Center and Demonstration Base at the Kamphaeng Saen Campus of Kasetsart University, Nakhon Pathom
11:30 – 12:30	Lunch at IGEAR, Faculty of Engineering, Kamphaeng Saen Campus
12:30 – 13:30	Depart from Nakhon Pathom to Ratchaburi pilot site
13:30 – 15:30	<p>Visit pilot site</p> <ul style="list-style-type: none"> - Understand current conditions, available machinery and ongoing agricultural practices - Visit community and farmer households
15:30 – 17:30	Depart from Ratchaburi to Bangkok