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IKI INTERNATIONAL CLIMATE INITIATIVE

"Enhancing Thailand's Nationally Determined Contribution (NDC) towards Transparent, Responsible, and Sustainable Food Systems" Workshop Report

Workshop on

"Enhancing Thailand's Nationally Determined Contribution (NDC) towards Transparent, Responsible, and Sustainable Food Systems"

Date: 4 - 5 March 2025 (1.5 days) **Venue**: 3rd Floor, Focus Room, Mövenpick BDMS Wellness Resort Bangkok, Thailand

WWF Thailand

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The objective of the workshop was to support the development of Thailand's Third Nationally Determined Contribution (NDC 3.0) and to promote systemic transformation in the agriculture and food sectors. The event featured the introduction of the Food Forward NDCs Tool, an interactive platform designed to support policy analysis and coherence across five key dimensions of food systems: food environment, governance, production, supply chains, and consumption, with the aim of aligning these areas with the country's climate goals.

WWF Thailand wishes to express its sincere appreciation to all participants for their constructive engagement and knowledge sharing. We especially acknowledge the valuable contributions from:

NDC Partnership, Office of Agricultural Economics (OAE), Department of Climate Change and Environment (DCCE), Food and Agriculture Organization of the United Nations (FAO), Deutsche Gesellschaft für Internationale Zusammenarbeit (GIZ), Growing Cities Group, InterContinental Phuket Resort, Sustainable Agriculture Foundation (Thailand), Sustainable Development Foundation (SDF), WorldFish, WWF International, National Center for Genetic Engineering and Biotechnology (BIOTEC), and BioThai.

The insights and recommendations shared by all stakeholders were instrumental in advancing Thailand's food systems policy in alignment with its climate commitments, in a tangible and effective manner.

We would also like to express special thanks to the workshop team who helped make this workshop a reality. This includes Ms. Chonlathan Naratree, who was the minute taker, and the team at Blue Renaissance Co., Ltd. who helped facilitate the workshop.

1.Background

Over 80% of the 2030 Natural Climate Solution (NCS) mitigation potential is closely linked to food systems (Conservation International, 2022). Within the agricultural sector, emissions are distributed among livestock and fisheries (31%), crop production (27%), land use (24%), and supply chains (18%) (WWF, 2022). Recognizing this, countries worldwide are setting more ambitious Nationally Determined Contributions (NDCs) with clearer, actionable targets to transform food systems for climate resilience and sustainability.

For Thailand, enhancing NDC ambition requires close alignment with National Adaptation Plans (NAPs) and sectoral policies, particularly in agriculture, food security, and land use planning. Under the United Nations Framework Convention on Climate Change (UNFCCC) process, countries must submit updated NDCs by 2025, presenting a strategic opportunity for Thailand to position food systems transformation as a key climate action pillar.

The importance of this alignment is particularly pronounced in Thailand's key agricultural regions, including the Chao Phraya and Mekong River Basins, which are vital to national food security and economic stability. These regions already experience climate impacts such rising sea levels, extreme weather variability, and shifting rainfall patterns, which threaten agricultural productivity and rural livelihoods. Strengthening NDC targets with a food systems approach can drive a low-carbon, climate-resilient transition in Thailand's agri-food sector.

This technical workshop served as a strategic consultation to enhance Thailand's NDC, using WWF's Food Forward NDCs Tool to facilitate policy integration. The event provided a platform for multi-stakeholder engagement, supporting Thailand's commitment to climate-resilient and sustainable food systems.

2. Objectives

The key objectives of the workshop were to:

1. Review Thailand's NDC progress in the food and agriculture sectors, identifying achievements, challenges, and gaps in implementation.
2. Introduce and apply the Food Forward NDCs Tool to support Thailand in strengthening its NDC ambitions, focusing on policy measures and best practices that enhance climate resilience and sustainable food system transformation.
3. Facilitate multi-stakeholder engagement to align Thailand's NDC priorities with actionable strategies for implementation, ensuring policy coherence across agriculture, land use, and food security sectors.
4. Strengthen knowledge and capacity among policymakers, practitioners, and stakeholders by providing insights on the climate change mitigation, adaptation, and sustainable development benefits of various policy options.

3. Report Summary

Thailand's climate action efforts encompass ambitious national commitments alongside specific agricultural strategies. The country aims for carbon neutrality by 2050 and net zero by 2065, with plans targeting a 30-40% emissions reduction from business-as-usual levels by 2030. Agriculture—representing 17.8% of Thailand's emissions—faces severe climate impacts costing approximately 36 billion baht between 2021-2024, prompting comprehensive adaptation and mitigation initiatives. The Climate Change Action Plan for the Agricultural Sector 2023 – 2027 establishes emissions reduction targets while addressing challenges from aging farmers and limited irrigation coverage. Rice production, Thailand's dominant crop accounting for over half of crop-related emissions, is transitioning to low-carbon practices through genetic improvement and techniques like Alternate Wetting and Drying, which reduced methane by 47.5% in trials. Implementation involves community leader training, technology transfer, and direct farmer engagement to ensure adoption of climate-smart agricultural practices throughout the country.

The Food Forward NDCs guidance tool addresses this gap through an interactive platform organized around five intervention areas: Food Environment, Food Governance, Food Production, Food Supply Chain, and Food Consumption. The tool helps policymakers evaluate policy interactions and trade-offs, with the key message that the 1.5°C target cannot be achieved without transforming food systems, which countries can still integrate into their NDCs.

The results and perspectives from a workshop on food system transformation and NDCs in Thailand are presented in this study, with a focus on how the **Food Forward NDCs** tool may be integrated to address the unique issues of the nation. Five working groups covering several facets of the food system—Food Environment, Food Governance, Good Production, Food Supply Chain, and Food Consumption—were included in the workshop. In order to improve Thailand's food system and meet its NDCs, each group contributed to a comprehensive action plan by identifying policy alternatives, obstacles, and solutions. The results emphasized how crucial stakeholder involvement, cross-sector cooperation, and creative financing tools are to Thailand's sustainable growth and food system reform.

4. Welcome Address

Dr. Michael Roy, Conservation Director of WWF-Thailand

Dr. Michael Roy, Conservation Director of WWF-Thailand, welcomed participants from government agencies, international organizations, NGOs, businesses, and academia to the workshop on "Enhancing Thailand's NDCs Towards Transparent, Responsible and Sustainable Food Systems." He particularly acknowledged Mr. Alongkot Srivijitkamol from the Department of Climate Change and Environment (DCCE), while expressing appreciation for partnerships with FAO, UNDP, UN Food Systems Coordination Hub, and NDC Partnership.

Drawing on IPCC research showing how food systems contribute up to 37% of global greenhouse gas emissions, Dr. Roy highlighted Thailand's current climate challenges, including erratic weather patterns and threats to food security. He outlined WWF's vision of harmonious coexistence between people and nature through nature-based solutions like regenerative agriculture, while noting Thailand's second NDC includes emissions reduction targets of 30-40% by 2030 with agriculture now officially incorporated.

The one-and-a-half-day workshop agenda focused on assessing Thailand's NDC progress, exploring policy solutions with the Food Forward NDCs tool, fostering multi-stakeholder collaboration, and enhancing transparency in sustainability initiatives. Dr. Roy concluded that with COP30 approaching, Thailand has a unique opportunity to transform climate challenges into economic and environmental opportunities, calling for cross-sector collaboration to make Thailand's food systems a global model for climate resilience and sustainability.

5. Main Topic Discussions

5.1 NDC Presentations from key stakeholders in Thailand

5.1.1 Overview and Status of Thailand's NDC in the Agriculture and Food System Sector by Mr. Alongkot Srivijitkamol, Director of Climate Change Mitigation Action Subdivision, Department of Climate Change and Environment (*link to presentation)*

Mr. Alongkot Srivijitkamol, Director of Climate Change Mitigation Action Subdivision, Department of Climate Change and Environment

Mr. Alongkot Srivijitkamol outlined Thailand's climate commitments and strategies, focusing on the National Greenhouse Gas Reduction Action Plan 2021-2030 and Thailand's NAP (National Adaptation Plan). Thailand aims to achieve Carbon Neutrality by 2050 and Net Zero Emissions by 2065, with a 2030 target of reducing emissions by 30-40% from business-as-usual levels. The plan addresses five sectors: Energy, Transportation, Industrial processes, Waste Management, and Agriculture. The agricultural sector, which accounts for 17.8% of Thailand's emissions, targets a 4.1 MtCO2eq reduction through livestock waste management, chemical fertilizer reduction, alternate wetting and drying rice cultivation, and climate-smart rice cultivation.

The NAP complements these mitigation efforts by addressing six sectors including water resources management, agriculture and food security, tourism, public health, natural resource management, human settlement and security. For agriculture and food security, adaptation strategies include crop, livestock, and fishery area management, along with support mechanisms like developing self-reliance indices, creating risk maps, promoting precision farming, establishing seed banks, developing food reserve systems, and supporting adaptation networks

among farmers. Both plans have been approved by Thailand's Cabinet on 2 April 2024 and aimed to position the country for a sustainable future while meeting international climate commitments.

5.1.2 Climate Challenges for Agriculture Sector in Thailand, Policy Priorities and Analytical Approach to Country Climate and Development Reports (CCDR) by Mr. Thitipong Srisombut. Plan and Policy Analyst, Professional Level, International Agricultural Economics Division, Office of Agricultural Economics, Ministry of Agriculture and Cooperatives (*link to presentation*)

Mr. Thitipong Srisombut. Plan and Policy Analyst, Professional Level, International Agricultural Economics Division, Office of Agricultural Economics, Ministry of Agriculture and Cooperatives

Mr. Thitipong Srisombut outlined the Ministry of Agriculture and Cooperatives' Climate Change Plan for Thailand, highlighting both the severe impacts of climate change on the agricultural sector and the ministry's response strategies. Climate impacts include reduced crop yields from temperature changes, damage from irregular rainfall patterns, increased plant diseases and pest infestations, and losses from natural disasters—collectively costing Thailand approximately 36 billion baht in flood and drought damage between 2021-2024. The Climate Change Action Plan for the Agricultural Sector 2023 – 2027 addresses these challenges through five key mission areas: enhancing adaptation capacity throughout the supply chain, reducing greenhouse gas emissions, developing knowledge and data systems, building human resource capacity, and improving administrative coordination.

The ministry has set emission reduction targets of approximately 1 million tons CO_2 equivalent by 2027 and 1.5 million tons by 2030, with a long-term goal of carbon neutrality between 2030-2050. Adaptation measures include district-level learning centers for technology transfer,

expanded irrigation systems, soil analysis technologies, crop insurance programs, Good Agricultural Practices certification, and carbon market development. However, significant obstacles remain, including incomplete irrigation coverage, predominance of monoculture farming, an aging farmer population (70% over age 60) with low technology adoption rates, and limited access to funding and information resources.

5. 1.3 Overview and Status of NDCs in Agriculture and Food System in Thailand by Dr. Jonaliza L. Siangliw, Researcher, National Center for Genetic Engineering and Biotechnology (BIOTEC), National Science and Technology Development Agency (NSTDA) (*link to presentation*)

Dr. Jonaliza L. Siangliw, Reserchер, BIOTEC, NSTDA

Dr. Jonaliza L. Siangliw of BIOTEC/NSTDA focused on Thailand's agricultural NDCs (Nationally Determined Contributions), particularly in rice production. It highlights agriculture's dual importance in Thailand's economy (contributing 8.58% to GDP with rice as the dominant crop) and its environmental impact (agriculture generates 15.69% of national emissions, with rice alone accounting for 51.28% of crop-related emissions). Rice paddies emit methane through plant transpiration, soil bubbles, and diffusion, contributing significantly to Thailand's greenhouse gas footprint while simultaneously facing challenges from climate change, including altered growing patterns, new pests and diseases, water management issues, and food security concerns.

The presentation outlined Thailand's transition strategy to low-carbon rice production through two main approaches: (1) genetic improvement -breeding eco-friendly, climate-ready rice varieties with shorter maturity periods and (2) improved crop management practices -including Alternate Wetting and Drying techniques (which reduced methane emissions by 47.5% in trials),

Azolla application, residue management and the "One Must, Five Reductions (1M5R) approach" (which promotes both food safety and environment benefits by reducing seed rates, pesticide use, fertilizer use, water consumption and post-harvest losses), and the use of digital monitoring technologies). Implementation involves working directly with farmers and agricultural agencies in Phetchabun Province, training community leaders who then educate local farmers, demonstrating efficient rice varieties, and raising awareness about climate change impacts and greenhouse gas reduction technologies.

5.1.4 Perspectives on opportunities in the agricultural sector in the context of NDC3.0 by Mr. Janek Toepper, Climate Change & Disaster Risk Finance Specialist - Asia Pacific, Food and Agriculture Organization of the United Nations (FAO) Support Program on Scaling up Climate Ambition on Land-use and Agriculture through Nationally Determined Contributions (NDCs) and National Adaptation Plans (NAPs) -SCALA (*link to presentation*)

Mr. Janek Toepper, Climate Change & Disaster Risk Finance Specialist - Asia Pacific · FAO

Mr. Janek Toepper from FAO, stated that Thailand has established ambitious climate targets for its agriculture sector, aiming to reduce emissions by 4.1 million tons by 2030 through three primary strategies: livestock waste management, nutrient management with reduced chemical fertilizers, and rice cultivation interventions. According to recent reporting, Thailand is making substantial progress, with the livestock waste management component already exceeding its 2030 target.

The SCALA program supports Thailand's efforts by addressing barriers such as information gaps, institutional capacity limitations, and financing challenges. The program conducts system-level

assessments, focusing particularly on integrated value chains like maize and livestock to identify emission sources and climate vulnerabilities.

Thailand submitted its Biennial Transparency Report (BTR) to the UNFCCC in late 2024, demonstrating progress toward Paris Agreement commitments. While the adaptation component focuses primarily on processes rather than outcomes, work continues developing robust measurement systems. The program is creating a Climate Change Action Plan for the Agricultural Sector with eight headline indicators and a web application to track progress, which will inform future NDC submissions in accordance with the Paris Agreement's requirement for progressively increasing ambition.

5.2 Presentations of the Food Forward NDCs Tool

Food Forward NDCs: Guidance to enhance NDC 3.0 ambition and implementation for Agriculture and Food Systems by Ms. Martina Fleckenstein, Global Policy Director Food, WWF International (*link to presentation*)

Ms. Martina Fleckenstein, Global Policy Director, Food WWF International

The presentation by Ms. Martina Fleckenstein focused on integrating food systems into Nationally Determined Contributions (NDCs) for climate action, highlighting the importance of this integration and introducing guidance tools developed by WWF and its partners.

Why the food forward NDCs

1. Importance of Food Systems in Climate Action: Food systems account for one-third of global greenhouse gas emissions while offering significant mitigation potential, potentially contributing 20% of the reductions needed by 2050 to meet the Paris Agreement's 1.5°C target. Moreover, 80% of the mitigation potential from nature-based solutions is directly linked to food systems, which also represent the primary threat to nature.
2. NDC Focus: Current NDCs predominantly focus on narrow agricultural aspects like livestock, rice, and pesticide reduction, overlooking the need for comprehensive food system integration from production to consumption. Analysis for COP 29 reveals only minimal progress in incorporating food systems measures into NDCs.
3. Food Forward NDCs Guidance Tool: The Food Forward NDCs guidance tool was developed through a collaborative effort between WWF and Climate Focus with technical collaborative support by FAO and UNEP, as well as CGIAR, NDC Partnership and others. The tool aims to facilitate the strengthening and execution of ambitious NDC commitments aimed at transforming agricultural practices and food systems.

About the NDC Guidance Tool

The NDC Guidance Tool represents a comprehensive five-year initiative designed to address critical knowledge gaps in climate planning. It employs a structured approach organized around five strategic intervention areas—Food Production, Food Supply Chain, Food Consumption, Food Environment, and Food Governance—with thirty distinct policy options distributed across these categories.

The NDC Guidance Tool is an interactive and web-based platform which creates a foundation for comprehensive policy development and execution by examining how various food system goals interact with each other, while evaluating the advantages and disadvantages of each potential policy.

Key Messages from Martina's presentation

- There is still sufficient time to integrate comprehensive food systems approaches into Thailand's NDCs
- 1.5°C target cannot be achieved without transforming agriculture and food systems
- Member states need to integrate and scale up commitments for the agri-food sector in NDC 3.0
- The NDC Guidance tool is a "living document" that opens to additions and refinements and more specific tools are being developed; for example, Blue Food and food loss and food waste

Stakeholder Feedbacks

- Recommendations should be specific rather than general, with particular focus on targeted groups like small-scale fishers.

- They advocated for incorporating human rights-based approaches and implementing comprehensive frameworks that integrate social, economic, and environmental considerations.
- A key concern was that vague recommendations might allow governments to claim compliance without meaningful action.

5.3 Presentation by the NDC Partnership

Supporting strong NDCs and sustainable food systems, NDC Partnership by Mr. Putera Zenata, Regional Program Officer at the NDC Partnership Support Unit (*link to presentation*)

Mr. Putera Zenata, Regional Program Officer at the NDC Partnership Support Unit

The NDC Partnership, represented by Mr. Putera Zenata, operates as a global coalition of over 200 members established in 2016 to implement ambitious climate initiatives advancing both the Paris Agreement and Sustainable Development Goals. Through its Support Unit, the Partnership coordinates assistance for member countries in developing climate commitments, providing three streams of support: preparatory assistance, enhancement of climate targets, and promotion of long-term transformation.

With 34 developing country members in the Eastern Europe and Asia Pacific Regions, the Partnership has responded to 21 regional support requests, offering resources including the NDC 3.0 Navigator tool, a Climate Funds Explorer database, and a Climate Finance Bulletin. These tools help countries integrate agriculture and food systems into their climate commitments while developing investment plans that align domestic and international funding with climate objectives.

5.4 Presentations by development partners

5.4.1 InterContinental Phuket Resort's Presentation by Mr. Marco Turatti, Executive Chef (*link to presentation*)

Mr. Marco Turatti, Executive Chef at InterContinental Phuket Resort

Mr. Marco Turatti, Executive Chef at the InterContinental Phuket Resort, presented on their sustainability initiatives in the hospitality sector since opening in 2020 as a LEED Gold certified property. The resort has achieved 85% local sourcing from across Thailand, developed partnerships with Phuket farmers for seasonal produce, and launched "Hom," a restaurant focused exclusively on locally-sourced ingredients. Their sustainability program includes an AI system to monitor food waste, a composting machine processing 150kg of food waste daily to create 15kg of compost for local farmers, and the establishment of a circular economy approach that connects the resort directly with local producers.

The presentation highlighted how local sourcing and sustainable procurement reduce carbon footprints, support local economies, promote biodiversity through seasonal offerings, reduce waste, and increase consumer awareness. Future plans for 2025-2027 include establishing frameworks for responsible produce use, expanding sustainable supply chains across all restaurants, guiding farmers on sustainability, and involving more hospitality businesses in their program. Mr. Turatti also emphasized educational initiatives such as training programs and community workshops, as well as their partnership with WWF where InterContinental Phuket Resort provides hospitality expertise while WWF contributes conservation knowledge and sustainability guidelines.

5.4.2 Integrating blue foods into national climate strategies: Enhancing nationally determined contributions and strengthening climate action, by Dr. Michelle Tigchelaar, The Consultative Group on International Agricultural Research (CGIAR) (*link to presentation*)

Dr. Michelle Tigchelaar, The Consultative Group on International Agricultural Research (CGIAR)

Dr. Michelle Tigchelaar from CGIAR presented on integrating blue foods (aquatic foods) into national climate strategies, highlighting their importance for global food systems as a source of high-quality, low-carbon nutrition. She emphasized that when sustainably managed, blue foods can reduce greenhouse gas emissions while providing essential micronutrients and supporting nearly 500 million livelihoods. For Thailand specifically, she noted projections of a 15% decline in fish production by the end of the century, while currently producing 1 million tons of aquaculture and 1.3 million tons of fisheries annually. Her analysis showed that many countries either don't include blue foods in their Nationally Determined Contributions (NDCs) or only mention them vaguely.

The presentation outlined five key intervention areas with specific policy options: (1) Capture Fisheries Production, focusing on sustainable management, emission reduction, and supporting climate-adaptive livelihoods; (2) Aquaculture Production, emphasizing improved feed management, energy efficiency, low-input systems, and climate-adaptive technologies; (3) Blue Food Supply Chains, targeting waste reduction and lower emissions from processing and transport; (4) Consumption & Diets, integrating blue foods into procurement programs and helping consumers make sustainable choices; and (5) Blue Foods & Coastal Blue Carbon Habitats, reducing impacts on carbon-storing habitats and implementing restoration efforts. She concluded

by highlighting the February 2025 NDC submission deadline as an opportunity to better address climate impacts on aquatic food systems.

6. Key Takeaways from the Working Groups

Throughout the 1.5 day of workshop, we engaged stakeholders using a World Café format centered on the session on the Food Forward NDCs Tool's five key intervention areas—Food Environment, Governance, Food Production, Food Consumption, and Food Supply Chain. Participants are divided into thematic groups to collaboratively identify national priorities, explore easy-to-implement (low-hanging fruit) and challenging policy options, and map these against Thailand's NDC targets. The format fosters inclusive dialogue, peer learning, and co-creation of practical policy measures. Each group's findings are synthesized to uncover common themes, gaps, and opportunities, helping inform more ambitious and context-specific climate actions in Thailand's food systems.

6.1 Food Environment

The policy aims to improve food safety and the food environment by regulating quality standards and promoting urban agriculture. Key strategies include revising agricultural chemical laws, enhancing public participation, and encouraging urban food production hubs. Challenges include transparency in chemical use and access to funding, while opportunities lie in expanding communication and research. The goals are to establish One Subdistrict, One Agroecology Community and reduce agricultural chemical use by 70% by 2050. A dedicated fund and government support are needed, alongside civil society organizations like WWF. A core agroecology working group should be established within three years.

Working Group	Policy Option	Challenges	Solutions	Timeline & Responsible Institutions
Food Environment	- Control food quality and safety. - Phase out 70% of agricultural chemicals by 2050.	Ensure transparency, fair power, consumer awareness, protected farmland, and tax incentives for sustainable food.	Expand model communities, phase out harmful chemicals, distribute seeds, and enhance soil, water, and biodiversity management.	Platform: Task Force for Advancing Eco-Agriculture 2027.

6.2 Food Governance

This project focuses on long-term solutions involving multiple stakeholders in the value chain.

Key areas are:

1. **Multi-Stakeholder Collaboration (MSC)**: An intermediary organization can facilitate collaboration among diverse stakeholders. A subcommittee with authority to sign MOUs may drive initiatives like Biomass.
2. **Agroecology**: Addressing both macro (export-driven) and micro (local) scales, integrating agroecology into national policies and ensuring farmer feedback is essential.

The recommendation is for WWF to help improve coordination among ministries and agencies, with a special task force to draft Food Forward NDCs or NDC 4.0. The goal is to form an inter-ministerial committee by 2035.

Working Group	**Policy Option**	**Challenges Addressed**	**Solutions**	**Timeline & Responsible Institutions**
Food Governance	- Multi-Stakeholder Collaboration (MSC) between ministries and agencies	**MSC:** Policies for environmentally friendly agriculture and emission reduction are lacking. Inter-ministerial discussions should **Agroecology:** - Define agroecology and integrate it into Thailand Taxonomy. -Address the shortage of research and institutions. -Bridge research-policy gaps and assess greenhouse gas emissions in integrated farming systems.	Appoint a working group for the Food Forward NDCs project to prepare for NDC 4.0.	July 2025

6.3 Food Production

The Agroecological Farming and Fishing policy focuses on biodiversity, the economy, and human rights but faces challenges like centralized decision-making, poor inter-agency integration, and limited support for ecosystem-based practices. Key issues include lack of data and innovation, aging farmers, and no clear youth transition. Policies should promote integrated farming, coastal sustainability, and youth innovation.

The food production sector aims to create evidence-based policies for small-scale producers, establish OECMs for mangroves, and strengthen OECMs' role in climate commitments. Success requires enhanced sustainability, reinforced laws, and a GEDSI database. "In the final discussion, it was proposed that the Sustainable Development Foundation, together with WWF, the Department of Fisheries, and other partners, could consider taking a coordinating role in moving this effort forward. A policy recommendation may be developed, with a follow-up discussion suggested in approximately four months."

Working Group	**Policy Option**	**Challenges Addressed**	**Solutions**	**Timeline & Responsible Institutions**
Food Production	- Implementing sustainable fisheries management - Sustainable aquaculture management - Implementing nature positive food production practice - Implementing agroforestry	The policy prioritizes economic growth over balancing productivity, biodiversity, and economics. It favors larger farmers, lacks support for agroecology, and offers no clear incentives. There are concerns about greenwashing in carbon credits and environmental impacts without proper benefit-sharing.	Enhance the sustainability of the food system and supply chain by strengthening laws, policies, and plans in the NDC and NAP. Integrate a GEDSI database for smallholder fishers and establish more mechanisms, secure additional funding, and engage more stakeholders for impactful change.	Proposed to submit a policy recommendation and follow up on the government's response within four months.

6.4 Food Supply Chain

The Food Supply Chain initiative aims to reduce food spoilage by 3-5% annually after 2027, targeting to reach the 5% target by 2070. Key actions include tracking spoilage, optimizing agricultural zones, improving technology access, and simplifying the supply chain. It also promotes Smart Farmer Certification, data-driven decisions, and free access to agricultural data. The initiative seeks to reduce trade barriers and establish an eco-friendly, zero-spoilage supply chain, develop tracking system to decide point of intervention. Support is needed for infrastructure, regulatory control, community cold chain initiatives, and post-harvest technology. Full implementation is targeted for 2035, with a focus on reducing greenhouse gas emissions.

Working Group	Policy Option	Challenges Addressed	Solutions	Timeline & Responsible Institutions
Food Supply Chain	The Ministry of Agriculture plans to reduce food spoilage by 3%-5% annually after 2027, with a target of 5% by 2070. Challenges include identifying food loss in the value chain, lack of harvesting technology, and insufficient cold chain infrastructure. Zoning is also being considered.	- Facilitate the certification for access smart farmer - Reduce food distance - Reduce complexity of supply chain - Data driven plantation	The initiative focuses on securing global financial support, improving infrastructure (roads and rail), regulating logistics to reduce losses, and supporting community-led cold chain projects. It also aims to develop a growth plan, provide post-harvest technology to farmers, and expand food loss research, including economic botany.	Year 2035

6.5 Food Consumption

The policy focuses on reducing food waste in gastronomy, retail, and households, promoting sustainable diets in Thailand. Strategies include improving access to healthy foods, connecting farmers with businesses, and raising awareness. Challenges include building farmer capacity, reducing pesticide use, and addressing knowledge gaps.

Proposals for NDC 3.0 include local waste sorting, household education, and business-farmer collaboration. The plan aims to create a circular system where food waste is converted into fertilizer, supporting local sourcing and sustainability. Support is needed for research, community initiatives, and infrastructure. The initiative will begin in May 2025, with key milestones by 2030.

Working Group	Policy Option	Challenges Addressed	Solutions	Timeline & Responsible Institutions
Food Consumption	Reducing food waste in the gastronomy sector, retail and at the household level Increasing demand for sustainable healthy diets	The policy focuses on building Thai farmers' capacity, reducing pesticide use, and producing healthier food. It addresses language, knowledge, and technical gaps, and promotes dietary guidelines in public procurement, aiming for school meals at 21 Baht per person.	The policy emphasizes research and development, community implementation (e.g., hotel chains), tax incentives, local policy support, and providing infrastructure, knowledge, and financial support.	Year 2030

7. Key Recommendations

Key recommendations include forming an inter-ministerial committee for better coordination and drafting a recommendation for Thailand's NDC 4.0 by 2035. In food environment, aim for "One Subdistrict, One Agroecology Community" and a 70% reduction in chemicals by 2050, with necessary budget, policies, and seed distribution. Create a working group for agroecology within 3 years. For the food supply chain, develop an eco-friendly system with zero spoilage by 2035, supported by infrastructure and technology. In food production, focus on policies for small-scale producers, OECMs, and integrating GEDSI data. Lastly, implement a circular food system for waste reduction in gastronomy and retail, with research, incentives, and infrastructure support by 2030.

8. Importance of Outcomes for Stakeholders

These outcomes are crucial for stakeholders as they foster collaboration, promote sustainability, and improve equity in food systems. By addressing policy gaps and focusing on agroecology, chemical reduction, and conservation, they benefit farmers, consumers, and communities. Small-scale producers gain support through evidence-based policies, while circular food systems reduce waste and improve local sourcing. Ultimately, these outcomes help stakeholders make informed decisions and contribute to a more sustainable and inclusive food system.

9. Potential Implications for Future Initiatives

The potential implications for future initiatives include enhanced collaboration across sectors, leading to more coordinated and effective policies. The focus on agroecology and sustainable farming practices could drive a shift toward environmentally friendly agriculture, benefiting both

ecosystems and local communities. Reducing food waste and spoilage will contribute to a more resilient and efficient food supply chain, with a positive impact on climate change mitigation.

Additionally, the integration of small-scale producers into national policies may lead to greater equity, improving access to resources and markets. The emphasis on research, technology, and infrastructure will drive innovation, creating opportunities for new business models and more sustainable food systems. Overall, these initiatives could set the foundation for long-term systemic change, influencing policy, industry practices, and consumer behaviors globally.

10. Specific Recommendations for Follow-up and Collaboration: Building on the Food Forward NDCs Workshop

To ensure the workshop's outcomes translate into tangible progress, the following actions are recommended:

10.1 Focused Policy Development and Implementation

- **Targeted Policy Refinement:** Organize follow-up meetings with the Ministry of Agriculture and Cooperatives, Ministry of Public Health, and Ministry of Commerce to specifically address the policy options identified by the five working groups (Food Environment, Governance, Production, Supply Chain, Consumption). Focus on developing concrete action plans with clear roles, responsibilities, and timelines for each policy recommendation.
- **Pilot Project Development:** Facilitate the development of pilot projects based on the workshop's action plans. For example, initiate a pilot "One Subdistrict, One Agroecology Community" project in a selected region, as proposed by the Food Environment working group.
- **Regulatory Gap Analysis:** Conduct a detailed gap analysis of existing regulations related to food safety, chemical use, and sustainable agriculture, focusing on the specific challenges raised by the working groups. Use this analysis to develop targeted recommendations for regulatory reform.

10.2 Strategic Stakeholder Engagement and Collaboration

- **Farmer-Business Linkages:** Organize dedicated dialogues to foster direct linkages between small-scale farmers and businesses, focusing on creating market access for sustainably produced food.
- **Consumer Awareness Campaign on Food Waste:** Launch a targeted public awareness campaign focusing on reducing food waste at the household level guided by insights and data provided by the Food Consumption working group to shape effective messaging and outreach strategies.
- **Agroecology Task Force Establishment:** Facilitate the establishment of the core agroecology working group within three years, as recommended, with specific terms of reference and a clear mandate to drive agroecology implementation.

10.3 Data-Driven Research, Innovation, and Capacity Building

- **Research on Small-Scale Fisheries:** Conduct research to address the specific data gaps related to small-scale fisheries, as highlighted by the Food Production working group, focusing on evidence-based policy development.
- **Innovation Hub for Post-Harvest Technologies:** Support the development of an innovation hub focused on post-harvest technologies to address food spoilage issues, as identified by the Food Supply Chain working group.
- **GEDSI Database Development:** Prioritize the development of a Gender, Equity, Diversity, and Social Inclusion (GEDSI) database for smallholder fishers, as recommended by the Food Production working group, to ensure equitable access to resources and support.

10.4 Rigorous Monitoring, Evaluation, and Reporting

- **KPIs for Chemical Reduction:** Develop specific, measurable, achievable, relevant, and time-bound (SMART) KPIs to track progress towards the 70% chemical reduction target, as proposed by the Food Environment working group.
- **Food Loss and Waste Measurement:** Establish a standardized system for measuring food loss and waste across the supply chain, to track progress towards the 3-5% reduction target by 2027.
- **Impact Assessment of OECMs:** Conduct impact assessments to evaluate the effectiveness of Other Effective Area-Based Conservation Measures (OECMs) for mangroves in contributing to climate commitments, as recommended by the Food Production working group.

11. Conclusion

This report highlights the critical need for integrating food systems into Thailand's Nationally Determined Contributions (NDCs) for climate action. A workshop, utilizing the "Food Forward NDCs" Tool, engaged diverse stakeholders across food environment, governance, production, supply chain, and consumption sectors.

Key recommendations include:

- **Inter-ministerial collaboration:** Establishing a committee for coordinated policy development and NDC 4.0 drafting.
- **Agroecology promotion:** Implementing policies for sustainable farming, reducing chemical use, and supporting local communities, **including small-scale fishers and farmers.**
- **Sustainable food supply chains:** Minimizing food waste and spoilage through technology, infrastructure, and improved logistics.

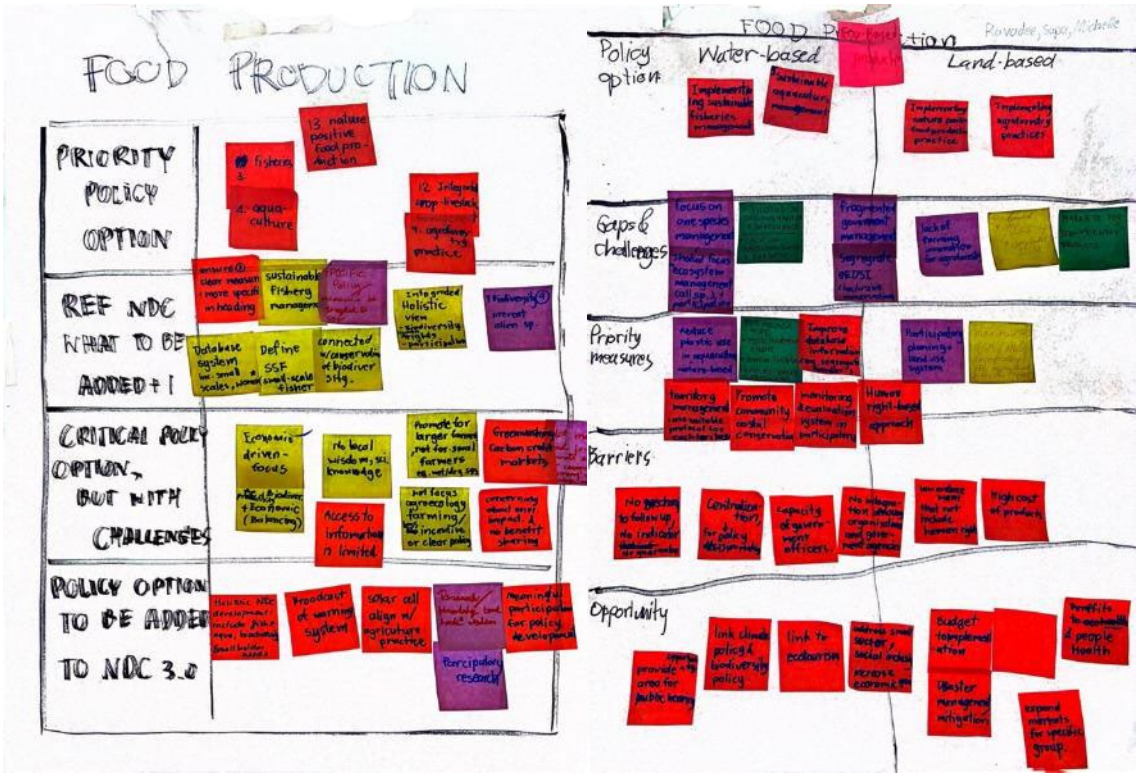
- **Empowering small-scale producers:** Creating evidence-based policies and integrating them into national strategies, **ensuring fair access to resources and markets for small-scale fisheries and farmers.**
- **Circular food systems:** Reducing waste through composting and local sourcing initiatives.

These outcomes are vital for fostering collaboration, promoting sustainability, and enhancing equity within Thailand's food systems. Future initiatives should focus on continued stakeholder engagement, collaborative research, international partnerships, and ongoing training to drive systemic change towards a more resilient and inclusive food sector.

APPENDIX

1. Working Groups Breakout Session Forms

Working Group 1- Food Production



Part 1 Deep Dive Methodology

Priority Policy Option	• Fisheries • Aquaculture • Agroforestry practice • Integrated crop-livestock management • Nature positive food production
Ref NDC What to be added + I	Fisheries & Aquaculture • Ensure clear measure + more specific in heading • Sustainable fishery management • Specific Policy/ Measure target to SSF (small-scale fisher) • Database system inc.small scales, women • Define SSF • Connected w/conservation of biodiversity Agroforestry practice, Integrated crop-livestock management, Nature positive food production • Integrated Holistic view - Biodiversity Human rights - Participation - Biodiversity prevents alien species.
Critical Policy Option, but with challenge	• Economic driven-focus • Balancing Productivity Biodiversity. + Economic • No local wisdom, science knowledge • Promote for larger farmer, not for small farmers eg. wet/dry system • Not focus agroecology farming/ less incentive or clear policy • Greenwashing carbon credit markets

	• Concerning about environmental impact & no benefit sharing
Policy Option To be Added to NDC 3.0	• Holistic NDC development: includes fish & aqua, biodiversity, smallholder needs • Broadcast of warning system • Solar cell align w/ agriculture practice • Participatory research • Meaningful participation for policy development • Researcher/ knowledge

Part 2 Deep Dive - 2nd Round

Topics	**Water-based**	**Land-based**
Policy Option	• Implementing sustainable fisheries management • Sustainable aquaculture management	• Implementing nature position food production practice • Implementing agroforestry practice
Gaps & Challenge	• Focus on one species management should focus on ecosystem management (all., sp.) + participation *SILOING IN DECISION MAKING & GOVERNANCE *LACK OF BASELINE DATA & TARGETS • Fragmented government management • Segregate GEDSI (Gender Equality, Disability, and Social Inclusion) (inclusive conservation)	• Fragmented government management • Segregate GEDSI (Gender Equality, Disability, and Social Inclusion) (inclusive conservation) • Lack of farming innovation for agroforestry • Limited *crop sustainability complicates Social Security Number (SSN)
Policy Measures	• Reduce plastic use in aquaculture nature-based	• Participatory planning + land use system

Topics	Water-based	Land-based
	• For aquaculture: - Feed ingredients & Feed management - Spatial Planning - Nature-based production - Improve database information (e.g. Segregate gender) - Territory management (use suitable protocol for each territory) Promote community coastal conservation • Monitoring & evaluation system in participatory • Human right-based approach	• Main Steaming CSA/NbS (agroforestry) into agricultural extension (DOAE)
Barriers	• No • Centralization for policy decision making • Capacity of government officers • No integration organisations and government agencies	• Law enforcement that not include human right • High cost of products
Opportunities	• Provide opportunity area for public healing • Link climate policy & biodiversity policy • Link to ecotourism • Address small sector, social inclusion increase economic gain	- Budget to implementation - Reform subsidies & other FIN. incentives (insurance) - Benefits to people health

Group members

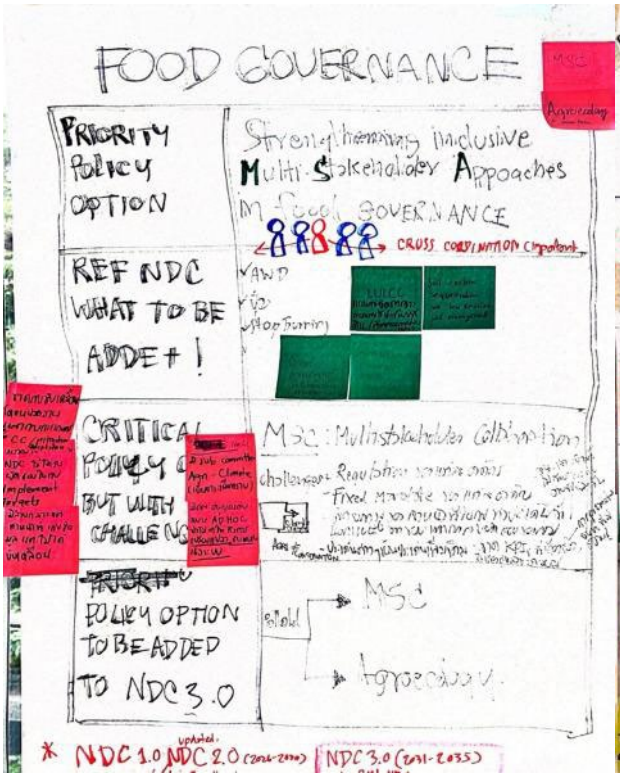
1. Mr. Janek Toepper (FAO),
2. Ms. Ravadee Prasertcharoensuk (Sustainable Development Foundation: SDF),
3. Dr. Michelle Tigchelaar (Worldfish),
4. Ms. Supa Yaimuang (Sustainable Agriculture Foundation),
5. Ms. Sarunphak Kittivorapoom (WWF Thailand)

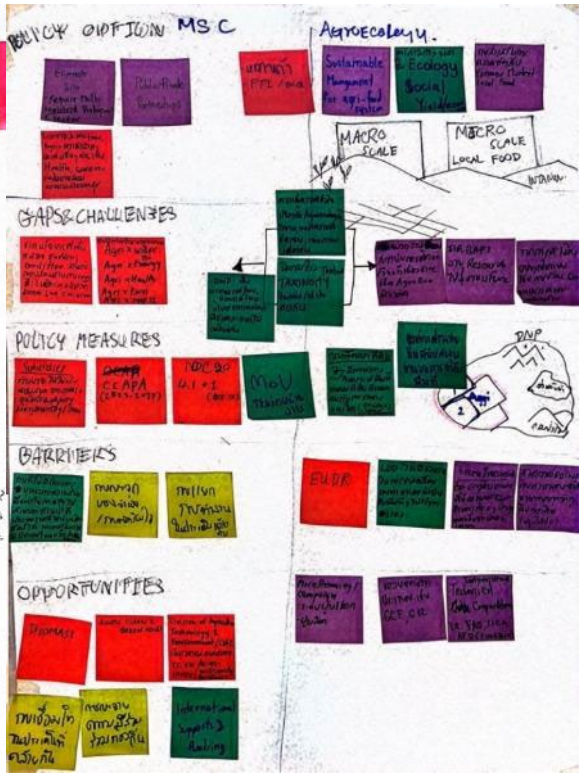

CH.1 ENGLISH

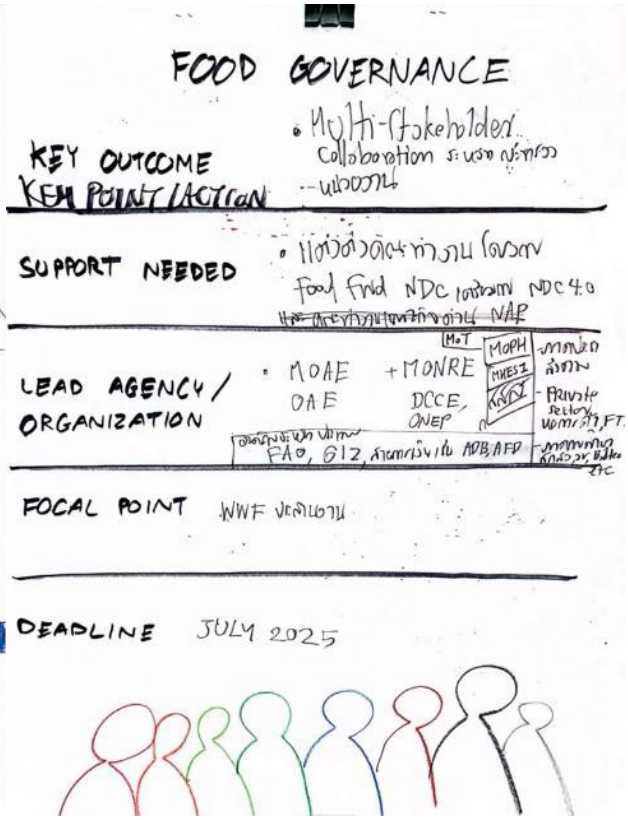
Day2

Key Outcome Key point/ Action	• Develop evidence-based policies that specifically address the needs of the small-scale sector. • Integrate targeted small-scale initiatives into the National Policy and Action Plan. • Support the establishment of Other Effective Area-Based Conservation Measures (OECMs) for mangrove and coastal areas, ensuring a human rights-based approach and the active participation of small-scale fishers in decision-making. • Strengthen the role of OECMs in climate commitments by linking them to the Nationally Determined Contributions (NDCs).
Support Needed	• Enhance the sustainability of the entire food system and supply chain. • Strengthen laws, policies, and plans in the Nationally Determined Contributions (NDC) and National Adaptation Plan (NAP). • Integrate a comprehensive database on Gender Equality, Disability, and Social Inclusion (GEDSI) for smallholder fishers. • Establish more mechanisms, secure additional funding, and engage more stakeholders to drive impactful change.
Lead Agency/ Organization	Sustainable Development Foundation (SDF)
Focal Point	WWF Thailand, Department of Fisheries, Department of Agriculture, Royal Forest Department, DMCR, Local community, Private Sector, Sustainable Agriculture Foundation Thailand
Deadline	Submit a policy recommendation and follow up on the government's response within four months.

Working Group 2- Food Governance







Part 1: Deep Dive Methodology

Priority Policy Option	• Each department has its own mission, but there's a lack of collaboration due to policy constraints. • Strengthening inclusive multi-stakeholder Approaches in food Governance
Ref NDC What to be added + I	• AWD, Fertilizer, Stop Burning • LULCC - land use planning and monitoring changes • Green procurement - buying safe food for school lunches • Promoting safe food markets / green markets • Soil Carbon sequestration via low emission soil management
Critical Policy Option, but with challenge	MSC: Multi Stakeholder Collaboration Challenges: - Regulation each organizations • The fixed mandate of each organization. • The capacity of officials to handle issues beyond their department's responsibilities. • Various issues are considered additional concerns. • Lack of relevant KPIs, especially those related to the environment, and promoting knowledgeable officials has led to staff shortages amid increasing workloads. • Lack of leadership from an integrated agricultural agency for climate change mitigation and adaptation. • Agencies responsible for NDC (Nationally Determined Contributions) do not oversee the implementation of targets. • A central body exists but primarily collects data without driving action. • The Ministry of Agriculture and Cooperatives (MoAC) has a subcommittee on Agri-Climate, but it only serves as an informational agenda. • Existing ad hoc subcommittees have yet to drive systemic change.
Policy Option To be Added to NDC 3.0	Parallel - MSC • Agroecology

- NDC 1.0, NDC 2.0 (2026-2030) | NDC 3.0 (2031-2035) ~ 2nd NDC

Part 2: Deep Dive - 2nd Round

Topic	MSC	Agroecology
Policy Option	• Eliminate Silo • Require Multi-ministrid Dialogue & sector • Chamber of Commerce • The Federation of Thai Industries (FTI) has adopted the Bio-Circular-Green (BCG) Economy Model to drive Thailand's industrial sector forward. Public-Private Partnership • Besides food and agriculture issues, other aspects such as health and environmental impacts should also be considered. • Ministry of Public Health	• Sustainable Management for agri-food system • Focus on the three pillars of sustainability: Ecology Social Yield/ economy • Promote Local Market, Farmer Market, Local Food
Gaps & Challenge	• Lack of policies supporting the transition to environmentally friendly agriculture and emission reduction. • There should be inter-ministerial discussions, such as: Agri x Energy Agri x Health Agri x Envi Agri x MHESI	• Establish a clear definition and shared understanding of agroecology. • Define it within the Thailand Taxonomy for consistent understanding. • There are limited institutions and researchers specializing in agroecology. • Bridge the gap between research findings and policy implementation. • Conduct comprehensive assessments, such as measuring greenhouse gas emissions in integrated farming systems.
Policy Measures	• Subsidies: Deny government subsidies to farmers who engage in crop burning. Explore new and diverse financial support mechanisms. • CCAPA (2023-2027) • NDC 2.0: 4.1+1 (GCF. TH)	• The Department of Land Development analyzes land suitability, which should inform agricultural practices. • Local Government should support and facilitate access

Topic	MSC	Agroecology
	• MOU between agencies to foster collaboration.	to land for sustainable agriculture.
Barriers	• The lack of integrated projects limits the government's ability to work across departmental boundaries. New projects or MOUs are needed to overcome this. • Address the concentration of power and decision-making that hinders collaborative action. • Avoid duplication of work on the same issues across different departments.	• European Union Deforestation Regulation (EUDR) • Land Development Department (LDD) lacks the authority to drive sustainable agriculture in all areas. • Green Procurement - Promote diverse food procurement, going beyond common vegetables like kale and carrots. • Address the lack of knowledge on local food cultivation and cooking.
Opportunities	• Biomass • Promote clean & green food • Division of Agriculture Technology & Environment / OAE Promote (should have capacity building) • International Support & Funding • Link and coordinate with similar initiatives at the international level. • Increase local community involvement in sustainable agriculture.	- Mainstreaming/ Campaign • Consumers • Producers - Explore funding opportunities from international sources like GCF, GIZ - International Technical Cooperation i.e. FAO, JICA, AFD (Finance bio)

Group members:

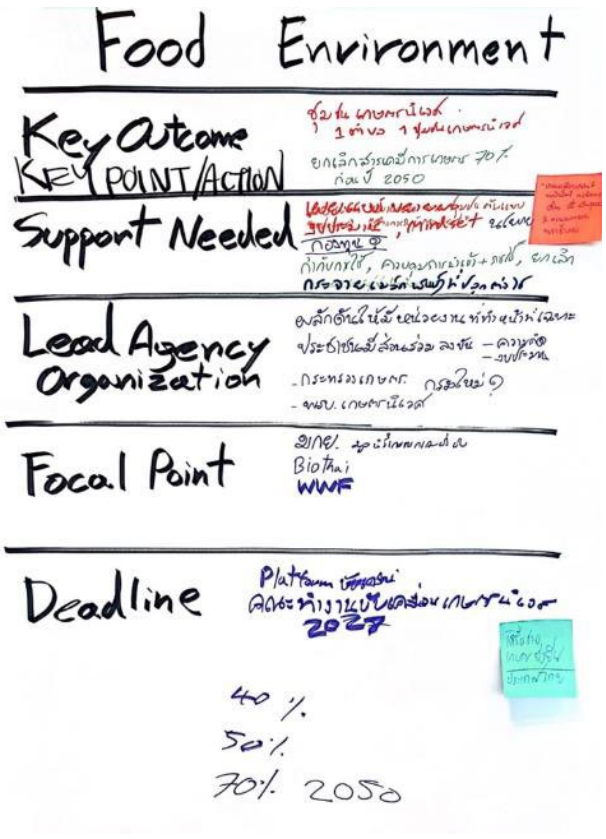
1) Mr. Rachata Arunsurat, FAO (SCALA)
2) Mr. Norawit Suwannakarn, GIZ
3) Mr. Panus Danpitakkul, WWF Thailand


FOOD
GOVERNANCE

Day 2

Key Outcome Key point/ Action	• Multi-Stakeholder Collaboration between ministries and agencies
Support Needed	• Appoint a working group for the Food FWD NDC project to prepare for NDC 4.0.
Lead Agency/ Organization	• MOAE, OAE + MONRE, DCCE, ONEP, Thai Health Promotion Foundation, MOPH, MHESI,MoT • Civil society sector • Private sector Chamber of Commerce, FTI • Academic sector: Thailand Science Research and Innovation (TSRI), National Research Council of Thailand (NRCT), BIOTEC • International organizations: FAO, GIZ, financial institutions such as ADB, AFD
Focal Point	• WWF for coordination.
Deadline	• July 2025

Working Group 3- Food Environment



Part 1 Deep Dive Methodology

Priority Policy Option	• Regulating, food quality and safety • Developing and improving agriculture in urban peri-urban areas and enhancing local food markets
Ref NDC What to be added + I	• Improve laws regulating agricultural chemicals. • Establish a participatory mechanism for monitoring law enforcement. • Manage organizational structures with clear accountability. • Enhance the capacity of consumers and the government to access and regulate safe food. • Shift perspectives and roles to recognize cities as production bases. • Cities should have a vision and policies ensuring food security for all, especially vulnerable groups. • Implement effective tax measures to distribute the benefits of urban land use for food production. • Consider community market models. • Connect local organic and safe agriculture to schools. • Expand the promotion and advertisement of healthy food through mainstream channels.
Critical Policy Option, but with challenge	• Disclose chemical substance records to the public. • Distribute power fairly. • Raise consumer awareness about safety. • Design urban planning to protect agricultural and food production areas in cities. • Use tax incentives to encourage producers (organic farmers) and businesses to produce and sell food that is healthy and environmentally friendly.
Policy Option To be Added to NDC 3.0	• Prioritize the overall ecosystem. • Recognize customary rights. • Support the development of essential infrastructure to make urban areas suitable for agriculture. • Implement policies and measures to secure land and resources for food production and markets. • Provide systematic training on urban agriculture (organic farming). • Promote the development of public food spaces or "urban food forests." • Establish a health-focused agricultural fund. • The government should create a fund to support small-scale urban farming or facilitate the transition from chemical-based to organic agriculture.

Part 2 Deep Dive - 2nd Round

Policy Option	• Control food quality and safety. • Phase out 70% of agricultural chemicals by 2050.
Gaps & Challenge	• Transparency of data on chemical imports in the agricultural sector. • Lack of access to accurate information. • No funding to support safe food production. • MRL (Maximum Residue Limit) exists for over 10,000 chemicals, leading to increased chemical use. • Monitoring and evaluation of law enforcement measures. • Knowledge on health and environmental impacts lags behind chemical development. • Lack of public participation in monitoring and oversight.
Policy Measures	• Set the mindset of the younger generation toward sustainable living. • One Subdistrict, One Eco-Agriculture Initiative – Provide concrete support by establishing model eco-agriculture communities in each subdistrict.
Barriers	• Monopoly by corporate groups • Corporate monopoly across the entire supply chain • Laws allowing "strategic lawsuits" (SLAPP) against critics • Communication strategies to help consumers understand food safety
Opportunities	• Wider communication channels allow consumers to access more information. • An increase in researchers studying the impacts of chemicals related to agriculture, creating a data foundation to drive policy. • Promote the preservation of local biodiversity as an alternative method for production without using chemicals.

Group members:

1) Ms. Natthakarn Teankrajang, Office of Natural Resources and Environmental Policy and Planning (ONEP)
2) Ms. Warangkanang Nimhattha, Growing Cities Group
3) Ms. Varuntorn Kaewtankam, Sustainable Development Foundation (SDF)
4) Mr. Niwut Laicharoenchokchai, Biothai
5) Mr. Nakorn Limpacuptathavon (Prince City farm)

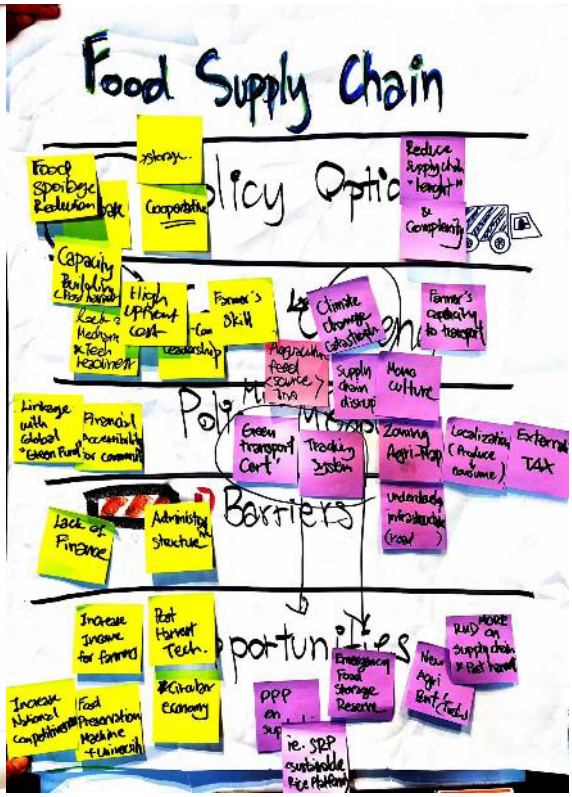

FOOD ENVIRONMENT
FOOD ENVIRONMENT
POLICY OPTION

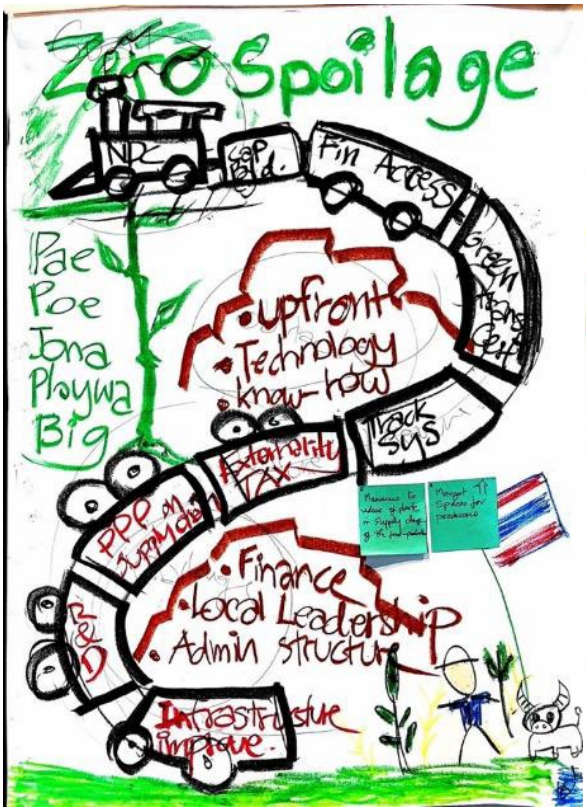

FOOD ENVIRONMENT

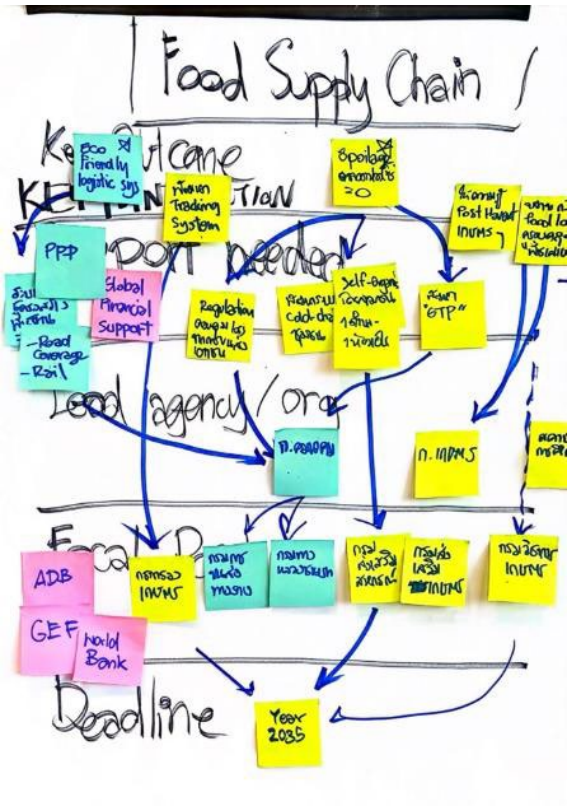
Day2

Key Outcome Key point/ Action	• Eco-Agriculture Communities: One Subdistrict, One Eco-Agriculture Community • Phase out 70% of agricultural chemicals before 2050
Support Needed	• Promote and expand model communities through budgets, mindset changes, and policies. • Regulate use, control imports and usage, and phase out chemicals. • Distribute seeds for planting. • Develop the capacity and technology for soil, water, genetic management, and biodiversity.
Lead Agency/ Organization	• Push for the establishment of dedicated agencies to enhance power. • Public participation in pooling resources: - Ideas - Budgets • Ministry of Agriculture • New department? • Eco-Agriculture Act with participation from civil society and researchers.
Focal Point	• Sustainable Agriculture Foundation • BioThai • WWF Thailand * Currently, there is no sustainable agriculture assembly due to a lack of funding. There should be a platform established, and a Working Group developed.
Deadline	• Platform: Task Force for Advancing Eco-Agriculture 2027.

Working Group 4- Food Supply Chain







Part 1 Deep Dive Methodology

Priority Policy Option	1. Spoilage Reduction 2. The Ministry of Agriculture has a plan to create a database to study food spoilage occurring in the supply chain in order to implement interventions. The goal is to reduce spoilage by 3%–5% per year starting from 2027 onward. 3. Identify food loss along the value chain. Reduce food spoilage by 5% by the year 2070. 4. Idea of zoning 5. Lack of tech (harvest) 6. Lack of cold chain infrastructure
Ref NDC What to be added + I	1. Seasonal Crop 2. Food storage due to price fluctuations: Agricultural product prices fluctuate, causing farmers to stockpile their produce. 3. Waste due to EU'a Rejection 4. Corporate Standard 5. Corporate Regulation
Critical Policy Option, but with challenge	1. Facilitate the certification for access smart farmer 2. Reduce food distance 3. Reduce complexity of supply chain 4. Data driven plantation
Policy Option To be Added to NDC 3.0	1. Data Driven Plantation 2. Free Access of government big data. 3. Trade Barrier CO_2 4. Animal feed and GHG Emissions

Part 2 Deep Dive - 2nd Round

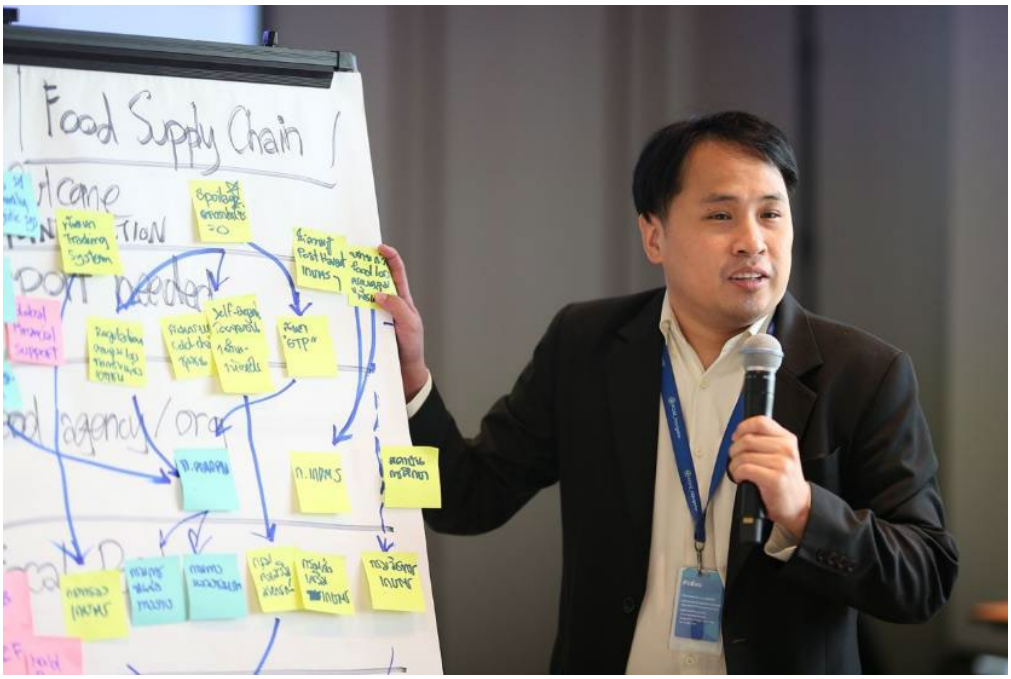
Policy Option	• Food spoilage reduction through improved storage methods and tracking system • Enhancing cooperation among stakeholders • Reducing the length and complexity of supply chains
Gaps & Challenge	• Insufficient capacity building during post-harvest • High upfront costs for implementation • Limited skills among farmers • Lack of appropriate mechanisms and technology • Agricultural feed sources located too far from farms • Catastrophic impacts of climate change on agriculture • Farmers' limited capacity to transport goods • Disruptions due to monoculture practices in supply chains • Food spoilage due to agricultural product price fluctuation
Policy Measures	• Establishing linkages with global green finance initiatives • Enhancing financial accessibility for communities • Implementing green transport certificates and tracking systems • Developing zoning agricultural maps • Promoting localization strategies from production to consumption • Introducing externality taxes to support sustainability initiatives
Barriers	• Addressing underdeveloped infrastructure, such as roads • Lack of financial support for initiatives • Lack of administration structures
Opportunities	• Increasing national competitiveness • Creating income opportunities for farmers • Implementing food preservation machines in collaboration with universities • Advancing post-harvest technology • Promoting a circular economy • Establishing public-private partnerships on supply chains, such as the Sustainable Rice Platform (SRP) • Setting up emergency food storage reserves • Enhancing research and development on supply chain and post-harvest processes

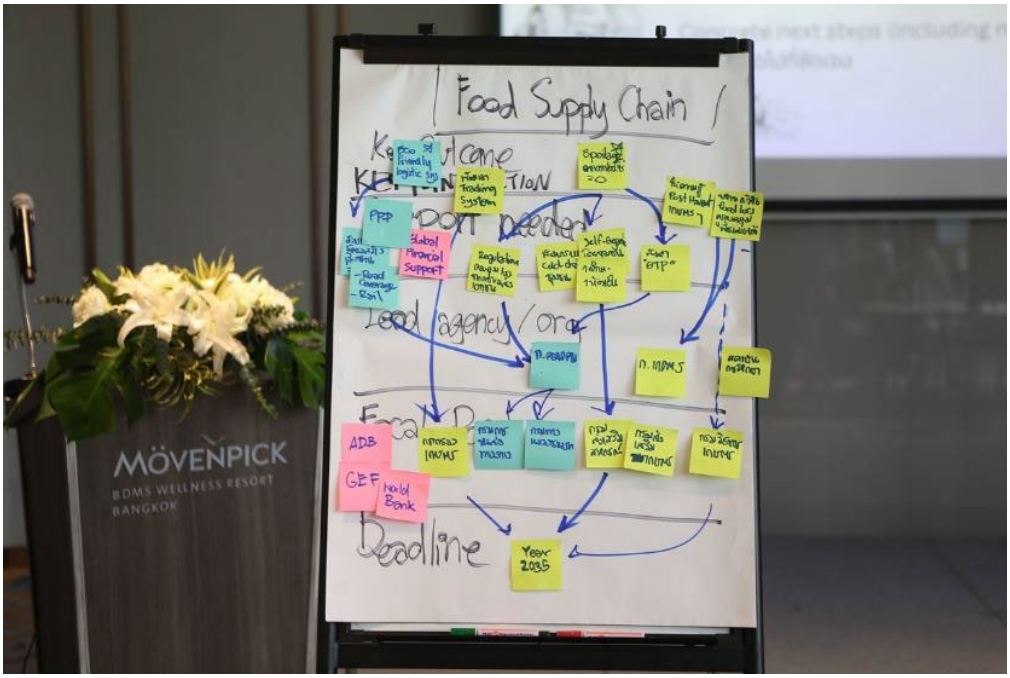
Group members:

1) Mr. Thitipong Srisombut, Policy and Planning Analyst (Professional level), Office of Agricultural Economics.

2) Dr. Jainta Chomtoranin. Economist (Professional level), Office of Agricultural Economics.

3) Dr. Jonaliza L. Siangliw, BIOTEC, Kasetsart University.





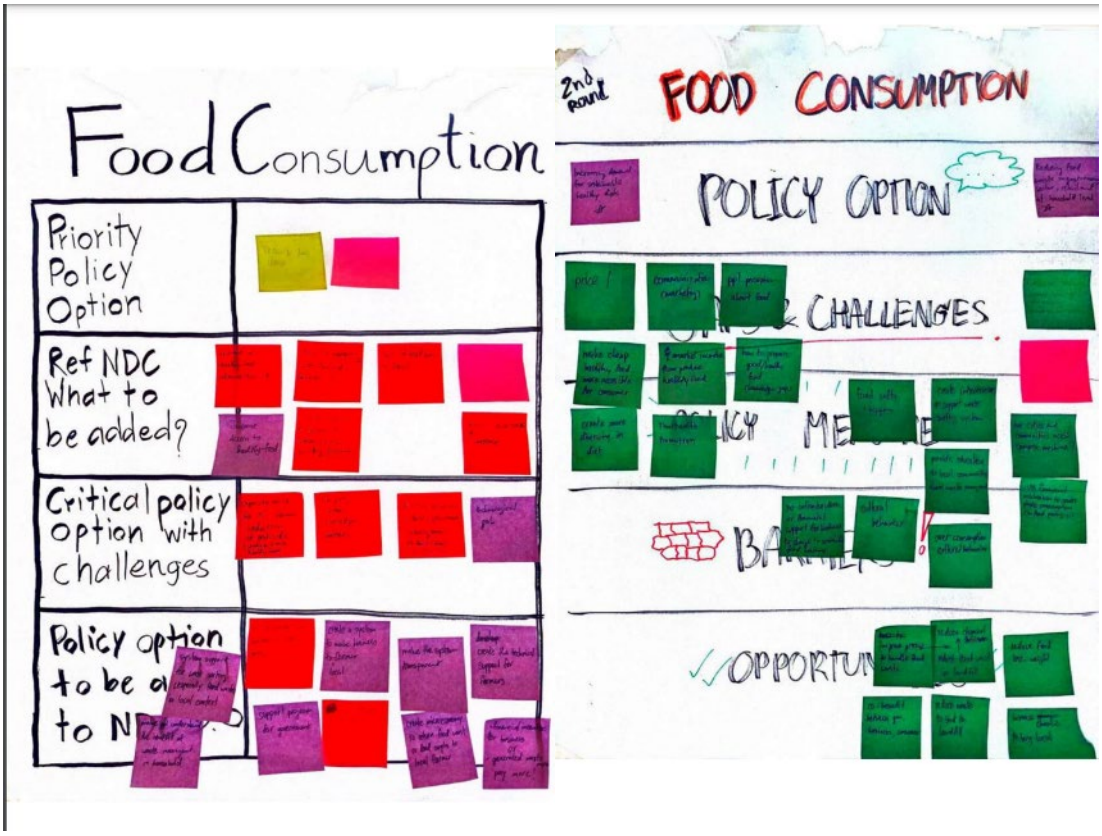

Zero Spoilage
Sharing & Get inpu

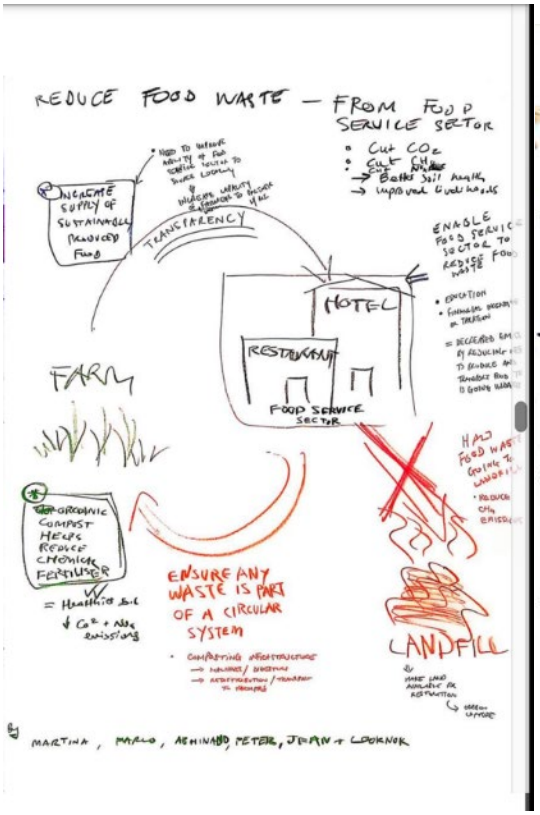

FOOD SUPPLY CHAINS
Priority Policy Option
RE NDC WHAT TO BE ADDED + I
CRITICAL Policy OPTION BUT
Option added
MÖVENP
BANGKOK

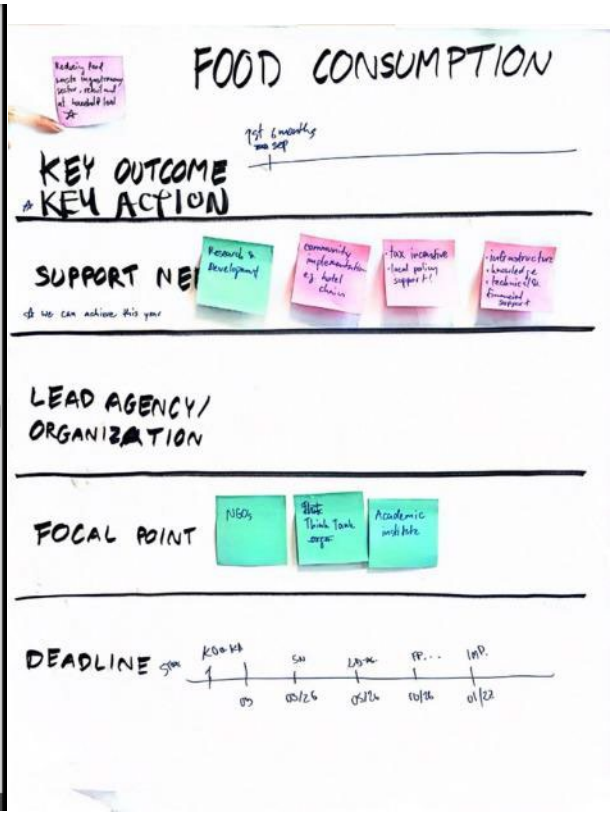
Day 2

Key Outcome Key point/ Action	Eco Friendly System Develop Tracking System Spoilage during Supply Chain = 0
Support Needed	Global Financial Support Infrastructure Systems Road Coverage Rail Regulation control loss from Private Logistics Self-Organize by Communities such as 1 ตำบล 1 ห้องเย็น (one tambon, one cold storage) and Develop Cold Chain System Develop Growth and Transformation Plan Provide Postharvest Technology Knowledge for Farmer Expanding Food Loss Research cover Economic Botany
Lead Agency/ Organization	Ministry of Transport Ministry of Agriculture and Cooperatives Educational Institutions
Focal Point	-ADB -GEF -WorldBank -Ministry of Agriculture and Cooperatives -Department of Rail Transport -Department of Rural Highways -Department of Cooperative Promotion -Department of Agricultural Extension
Deadline	Year 2035

Working Group 5- Food Consumption







Part 1 Deep Dive Methodology

Priority Policy Option	• Reducing food waste in gastronomy sector, retail and at household level • Increasing demand for sustainable healthy diets
Ref NDC What to be added + I	• Demands of healthy food are advance in Thailand • Increase access to healthy food in Thailand • How to communicate with Thai farmers? • Create a chance for farmer to communicate with big businesses • 90% of the food chain is local • Increse public awareness

Critical Policy Option, but with challenges	• Capacilty building with Thai farmers
	  • Reduction of pesticides
	  • Produce more healthy food
	• Language, system,and knowledge barriers among Thai farmers
	• Technical gap in Thai farmers
	• Dietary guideline in public procurement: School meals -> 21 Bath/meal/person

Policy Option To be Added to NDC 3.0	• System support for waste sorting (especially food waste) in local context • Make people understand the benefit of waste management in household • Build relationship between business and farmer • Support program for government • Create system to make business to local farmer • Make system transparent • Create microeconomy to return food waste or food surplus to local farmer • Create technical support for farmers • Create financial incentive for business or waste management depends on how much waste generated

Part 2 Deep Dive - 2nd Round

Policy Option	• Reducing food waste in gastronomy sector, retail and at household level
Gaps & Challenge	• Customer behavior • Supply chain and availability • Distribution system
Policy Measures	• Food safety • Create infrastructure to support waste sorting system • Provide education to local communities about waste management • How do cities and communities access compose machine? • Use financial mechanism to control pastic consumption (food packaging)
Barriers	• No infrastructure or financial support for business to change to sustainable food system • Cultural behavior • Over consumption culture or behavior
Opportunities	• Improve process to handle food waste -> reduce rate of sending food to landfill -> send to make fertilizer instead -> reduce chemical fertilizer -> reduce GHG • Co-benefit between government, business and customer • Reduce waste sent to landfill • Reduce food loss weight • Increase chance to buy local

Group members:

1) Mr. Peter McFeely, WWF International
2) Ms. Martina Fleckenstein, WWF International
3) Mr. Marco Turatti, InterContinental Phuket Resort
4) Mr. Abhinand Aryapratheep, WWF Thailand


FOOD CONSUMPTION
2030 VISION


Food Consumption

Day 2

Key Outcome
Key point/ Action
	Reduce food waste in gastronomy sector, retail and at household level by having transparency system and having policy guideline as well as clear action plan to reduce food waste.
	• Circular system
	  • Food waste for hotel and restaurant is sent to farms to make fertilizer
	  • Organic food from farm sent to hotel and restaurant as a local supply

Support Needed	• Research and development • Community implementation, for example, hotel chain • Tax incentives • Local policy support • Infrastructure, knowledge and financial support
Lead Agency/ Organization	• NGOs, Think tanks, Academic institutes, Local governments
Focal Point	• NGOs, Think tanks, Academic institutes
Deadline	• 2030 Start: 05/2025 – stakeholder discussion -> sign agreement -> having policy guideline and action plan 03/2026 – Support needed and lead organization • Infrastructure, knowledge, financial, cooperation and community implementation

Workshop Photos:

https://drive.google.com/drive/folders/1WdlGUgbpS_9qNJpkKipolz4q36jAMPuf

Presentations:

https://drive.google.com/drive/folders/1Euwxum-AbLkI_FvMEPYG4dgsTHfO1Nhw?usp=drive_link

All Flipcharts:

https://drive.google.com/drive/folders/1Inv-IkVnWqbkUbNxVfdBefCo8QTe3Fmf?usp=drive_link

Participant List

1. Mr. Putera Zenata – NDC Partnership
2. Dr. Jainta Chomtoranin - Office of Agriculture Economics (OAE)
3. Ms. Ratsamee Simma - Office of Agriculture Economics (OAE)
4. Mr. Thitipong Srisombut - Office of Agriculture Economics (OAE)
5. Mr. Alongkot Srivijitkamol – Department of Climate Change and Environment (DCCE)
6. นางณัฐธิดา จันทรสุข – Department of Climate Change and Environment (DCCE)
7. Mr. Rachata Arunsurat – Food and Agriculture Foundation (FAO)
8. Mr. Janek Toepper - Food and Agriculture Foundation (FAO)
9. Mr. Norawit Suwannakarn – Deutsche Gesellschaft für Internationale Zusammenarbeit (GIZ)
10. Mr. Warangkanang Nimhattha – Growing Cities Group
11. Mr. Marco Turatti – InterContinental Phuket Resort
12. Ms. Supa Yaimuang – Sustainable Agriculture Foundation (Thailand)
13. Ms. Waranthorn Kaewtunkham – Sustainable Development Foundation
14. Ms. Ravadee Prasertcharoensuk – Sustainable Development Foundation
15. Dr. Michelle Tigchelaar – WorldFish
16. Mr. Peter McFeely – WWF International
17. Ms. Martina Fleckenstein – WWF International
18. Mr. Pituck Jongnarangsin – WWF Thailand
19. Dr. Jonaliza L. Siangliw – BIOTEC
20. Mr. Niwut Laicharoenchokchai – Biothai

If you have any questions or would like to request further information regarding this report, please contact: IKI SCP Asia Phase II SUSTAINABLE CONSUMPTION AND PRODUCTION IN THAILAND AND CAMBODIA

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Thank you for your interest and for following the information provided in this report.