



Course outline for Online International Training 2024

1. Course Title

“Sustainable Agriculture and Food Security with BCG Model”

2. Duration

7 Days: 11 – 20 March 2024

3. Background

Bio-Circular-Green Economic Model or BCG has been introduced by the research community and promoted by the Thai government as a new economic model for inclusive and sustainable growth. The BCG model capitalizes the country’s strengths in biological diversity and cultural richness and employs technology and innovation to transform Thailand to a value-based and innovation-driven economy. The model also conforms with the UN Sustainable Development Goals (SDGs) and is also intended to align with the Sufficiency Economy Philosophy (SEP) which is also the key principle of Thailand’s social and economic development.

Based on Thailand’s strengths in robust agricultural activities, rich natural resources, and diversity in terms of both biological resources and physical geography, the BCG model is applied to focus on promoting four industries – namely agriculture and food; medical and wellness; bioenergy, biomaterial and biochemical; and tourism and creative economy. Science, technology and innovation will be employed to enhance the capacity and competitiveness of players in the value chain, both upstream and downstream, in all four industries, coupling with innovative policy and supportive legal and financial measures.

Sustainable agriculture and food security are among of this values sector which can be multiplied with product diversification, product differentiation, high-value and premium-quality products and services, waste reduction, resource- and land-use efficiency improvement. This strategy can be enabled by R&D and technologies such as customer behavior analytics, optimized waste production, smart farming technologies, traceability, food and product safety, as well as the development of high-value and novel food products such as food for special groups of people (patients and the elderly, for example) and functional ingredients.

4. Course objectives

The online training course aims to share the various good practices as well as the experiences in term of the sustainable agriculture and food security with BCG model and all participants are expected to:

4.1 Transfer of knowledge and exchange of the information and good practices in agriculture and food security for sustainability with BCG model.

4.2 Experience in the concept of Thai agriculture and food security aspects focused with BCG model.

4.3 To initiate and build connection with Thai organizations both government and private sectors that deals with the agriculture and food as well as BCG model related.

5. Online Schedule/ Duration

This seventh-day online course period **11 - 20 March 2024** via Zoom Cloud Meeting from Burapha University, Thailand (*See Schedule Table*)

6. Online Course Contents

6.1 Activities: Lecture, Seminar, Study visit (VDO recorded onsite), Wrap up & Daily Summary, Assignment, Presentation and Discussion

6.2 Course Outline

Topic	Detail	Hours
1	Course Introduction	1
2	Agriculture Strategies & Policy of Thailand - Policy and measurement - Situation, Trend - Development Plan - Introduction of BCG economy model: The New Sustainable Growth Engine - Driving Food Security and Sustainable Agriculture under BCG model and UN concepts	1
3	Seminar on Sustainable Agriculture Promotion and Development of Public Sectors in Thailand 1. Production Development (Integrated Agriculture) 2. Agriculture Promotion and Development 3. Agriculture product Trade Negotiation and International Agricultural Economics	2

	4. Agriculture Infrastructure Development for stable production system	
4	<p>Collaboration & Participation in Sustainable Agriculture Development</p> <ul style="list-style-type: none"> - Preparation for tomorrow's agri- business - Conditions for Smart Agriculture - Driving Sustainable Innovation to build BCG Economy 	2
5	<p>Modern Agricultural Innovations & Technologies (EEC partnership) at Kubota Farm, Chonburi province</p> <ul style="list-style-type: none"> - Agriculture Solution, Machinery Solutions - Productivity and more cost effective 	1.5
6	<p>Challenges and Opportunities of Agri-business Management in the future</p> <ul style="list-style-type: none"> -Agri-business Success stories: <ul style="list-style-type: none"> - Achievements - Situation, Challenging, Obstacles And Opportunity - Next Normal Trends Business - Point of view about ESG & BCG economy model 	1.5
7	<p>Food Security in Thailand</p> <ul style="list-style-type: none"> - Driving Strategic plan toward SDGs and Policy <p>Recommendations to overcome the Challenges towards food security in the country</p> <ul style="list-style-type: none"> - Tools and Indicators for Transforming food systems for food security, improved nutrition and affordable healthy diets for all - Economic Equality and Sustainable Food Development, Food system - Creating a state of self-reliance - Case studies 	2
8	<p>Food Security Innovation</p> <p>Exchange with Startup company who receive ASEAN Business Award in Food Security Innovation 2023, Indonesia in product Chemical-free edible coating solution to prolong Fruit & Veg's shelf life.</p>	1.5
9	<p>Multiplied with product diversification</p> <ul style="list-style-type: none"> - Products Design and Development for Added Value - Food Safety 	1.5

10	Agriculture Community Enterprise Development at Kaset Suan noak Agriculture Community Enterprise, Bang Kon thee district, Samut songkram province - Agri-Product Development from Local to Global (high-value and premium-quality products and services) - Community Enterprise Management	1.5
11	Smart Farming and Greenhouse Technology 1. waste reduction, resource-and land-use efficiency improvement 2. FOA Smart Greenhouse 3 Agri-drone platform guiding a sustainable and efficient application of crop protection products.	1.5
12	Innovation for Next Agriculture - Ready Innovation, IoT Cloud Platform, AI - Wireless sensor network for management and Remote control	1.5
13	Food Technology and Sustainable Ecosystem: Plant Based Food at NR Instant Produce Public Company limited (NRF), Carbon Neutral organization& clean Food Tech company, Samut Sakhon province - product differentiation: Ethnic Food, Plant based food and Functional Products - Platform for Future food	1.5
14	Wrap up & Assignment	1
15	Concept paper Presentation & Conclusion	3

Study Visits topic 5, 10, 13

- Kubota Farm, Chonburi province
- Kaset Suan noak Agriculture Community Enterprise, Bang Kon thee district, Samut songkram province
- NR Instant Produce Public Company limited (NRF)

The objectives of the study visits aim to sustainable agriculture and food security to present the contribution and to explore and benchmark with the comparison of the participants' concept ideas.

Workshop

- Pretest/ Post-test
- Wrap up & Assignment
- Concept Paper for further cooperation/projects Presentation (Individual)
- Conclusion

6.3 Advance Assignments

6.3.1 Country reports

Part 1: Country background and some details focus on geography, social and economy background and government policy for sustainable development.

Part 2: Idea/example development project in your country. The details should focus on key success or negative factors.

6.3.2 Project Assignment

Each participant is required to prepare, submit report and give the presentation on how to apply Sustainable agriculture and food security to your country (Concept Paper) before ending the programme

7. Participant Criteria

7.1 Participants should meet the following criteria:

- Be nominated by their government
- University graduated in the fields of agriculture, economics, rural development, social science, environment, public policy or relevant fields.
- Currently working with at least five-year experience in above fields
- Able to participate in the online training course for the entire duration
- In good mental and physical health
- Sufficient command of spoken and written English language
- Computer literacy

7.2 Number of Participants : unlimit but not more than 100 persons

8. Focused countries

Asia, Africa, Pacific, Latin America and Caribbean

9. Expected Results

9.1 To learn and experience the best practice relevant to the participated course

9.2 To be able to apply Sustainable agriculture and food security and concepts as a potential approach to the community development for sustainable development

9.3 To create a good friendship among participants

9.4 To explore the Thainess including the traditional & cultural sharing during the participants' time

10. Evaluation

Participants who are eligible to pass the training must attend all activities at 100% of total time and submit a draft of proposal and presentation are also required.

11. Training Institution

The course will be conducted by Academic Service Centre, Burapha University, 169 Long-Hadd Bangsaen, Saensuk, Muang, Chonburi, 20131 Thailand.

Contact persons

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12. Executing/Funding Agency

Thailand International Cooperation Agency (TICA)

Government Complex, Building B (South Zone), 8th Floor,
Chaengwattana Rd. Laksi District, Bangkok 10210 THAILAND

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Schedule for the Online Training Programme:

“Sustainable Agriculture and Food Security with BCG Model” 2024

Thailand International Cooperation Agency (TICA), Ministry of Foreign Affairs in Collaboration with
Academic Service Centre, Burapha University (BUU)

11 – 20 March 2024

Date/ Period/Topic	Time (Thailand time)	Content	Speaker	Remark
Day 1: 11 March 2024 / 07.30 a.m. – 12.00 a.m.				
07.30 – 08.00 a.m.		Daily Online Register		
1 Course Introduction	08.00 – 09.00 a.m.	Lecture 1 1.Pre-test 2.Programme Orientation - Course Introduction - Assignment & Evaluation	Dr. Nawasit Rakbamrung Deputy Director of ASC, BUU	
2 Agriculture Strategies & Policy of Thailand	09.00 – 10.00 a.m.	Lecture 2 - Policy and measurement - Situation, Trend - Development Plan	Representative from Office of the Permanent Secretary for Ministry of Agriculture and Cooperatives	Moderator : Dr. Nawasit Rakbamrung

Date/ Period/Topic	Time (Thailand time)	Content	Speaker	Remark
		- Introduction of BCG economy model: The New Sustainable Growth Engine - Driving Food Security and Sustainable Agriculture under BCG model and UN concepts		
3 Sustainable Agriculture Promotion and Development of Public Sectors in Thailand	10.00 – 12.00 a.m.	Lecture 3 Seminar on 1. Production Development (Integrated Agriculture) 2. Agriculture Promotion and Development 3. Agriculture product Trade Negotiation and International Agricultural Economics 4. Agriculture Infrastructure Development for stable production system	Representatives from 1. Department of Agricultural Extension, Ministry of Agriculture and Cooperatives 2. <i>Social Enterprise</i> : Doi Kham Food Products Co.,Ltd. or related company 3. Dr. Nawasit Rakbamrung	

Date/ Period/Topic	Time (Thailand time)	Content	Speaker	Remark
Day 2: 12 March 2024/ 08.00 a.m. – 12.00 a.m.				
08.00 – 08.30 a.m.		Daily Online Register		
4 Collaboration & Participation in Sustainable Agriculture Development	08.30 – 10.30 a.m.	Lecture 4 Seminar on - Preparation for tomorrow’s agri- business - Conditions for Smart Agriculture - Driving Sustainable Innovation to build BCG Economy	Representatives from 1. Ministry of Agriculture and Cooperatives 2. National Bureau of Agricultural Commodity and Food Standards 3. Thai Society of Agricultural Engineering (TSAE) or related organization	Moderator : Dr. Nawasit Rakbamrung
5 Modern Agricultural Innovations & Technologies (EEC partnership)	10.30 – 12.00 a.m.	Study Visit 1 at Kubota Farm*, Chonburi province - Agriculture Solution, Machinery Solutions - Productivity and more cost effective * the first educational and experiential modern farm in Southeast Asia Learn to manage income sustainably for the advancement of Southeast Asia nations into the era of modern agriculture	1.Representatives from Kubota Farm 2. Representative from Science Park, Eastern region (partnership with Kubota) 3.Dr. Nawasit Rakbamrung	-Video recorded from site

Date/ Period/Topic	Time (Thailand time)	Content	Speaker	Remark
Day 3: 13 March 2024/ 08.00 a.m. – 12.00 a.m.				
08.00 – 08.30 a.m.		Daily Online Register		
6 Challenges and Opportunities of Agri-business Management in the future	08.30 – 10.00 a.m.	Lecture 5 Seminar on Agri-business Success stories: - Achievements - Situation, Challenging, Obstacles And Opportunity - Next Normal Trends Business - Point of view about ESG & BCG economy model	Representatives from 1. <i>Coconut and vegetables products</i> : Theppadungporn Coconut Co.,Ltd., 2. <i>Agri- Innovation One Stop Service</i> : Chia Tai Co.,Ltd. 3. Dr. Nawasit Rakbamrung	
7 Food Security in Thailand	10.00 – 12.00 a.m.	Lecture 6 Seminar on - Driving Strategic plan toward SDGs and Policy Recommendations to overcome the Challenges towards food security in the country - Tools and Indicators for Transforming food systems for food security, improved nutrition and affordable healthy diets for all - Economic Equality and Sustainable Food Development, Food system - Creating a state of self-reliance - Case studies	Representative from 1. Food and Drug Administration, Ministry of Public Health 2. Thai Health Promotion Foundation 3. National Health Commission office Or related organization	Moderator : Dr. Nawasit Rakbamrung

Date/ Period/Topic	Time (Thailand time)	Content	Speaker	Remark
Day 4: 14 March 2024/ 08.30 a.m. – 12.00 a.m.				
08.30 – 09.00 a.m.		Daily Online Register		
8 Food Security Innovation	09.00 – 10.30 a.m.	Lecture 7 Exchange with Startup company who receive ASEAN Business Award in Food Security Innovation 2023, Indonesia in product Chemical-free edible coating solution to prolong Fruit & Veg's shelf life.	Representative from Eden Agritech Co.,Ltd.	Moderator : Dr. Nawasit Rakbamrung
9 Multiplied with product diversification	10.30 – 12.00 a.m.	Lecture 8 - Products Design and Development for Added Value - Food Safety	Representative from Food Intelligence Center, Bangkok	Moderator : Dr. Nawasit Rakbamrung

Date/ Period/Topic	Time (Thailand time)	Content	Speaker	Remark
Day 5: 15 March 2024/ 08.30 a.m. – 12.00 a.m.				
08.30 – 09.00 a.m.		Daily Online Register		
10 Agriculture Community Enterprise Development	09.00 – 10.30 a.m.	Study Visit 2 at Kaset Suan noak Agriculture Community Enterprise, Bang Kon thee district, Samut songkram province - Agri-Product Development from Local to Global (high-value and premium-quality products and services) - Community Enterprise Management	1.Representatives from Community Enterprise 2. Dr.Nawasit Rakbamrung	
11 Smart Farming and Greenhouse Technology	10.30 – 12.00 a.m.	Lecture 9 1. waste reduction, resource-and land- use efficiency improvement 2. FOA Smart Greenhouse 3 Agri-drone platform guiding a sustainable and efficient application of crop protection products.	Representative from 1. Smart Farmer 2. Kasetsart University, Kampangsaen campus 3. Kao rai Co., Ltd. or related	Moderator : Dr. Nawasit Rakbamrung

Date/ Period/Topic	Time (Thailand time)	Content	Speaker	Remark
Day 6: 18 March 2024/ 08.00 a.m. – 12.30 p.m.				
08.00 – 08.30 a.m.		Daily Register		
12 Innovation for Next Agriculture	08.30 – 10.00 a.m.	Lecture 10 - Ready Innovation, IoT Cloud Platform, AI - Wireless sensor network for management and Remote control	Representative from National Science and Technology Development Agency (NSTDA)	Moderator : Dr. Nawasit Rakbamrung
13 Food Technology and Sustainable Ecosystem: Plant Based Food	10.00 – 11.30 a.m.	Study visit 3 at NR Instant Produce Public Company limited (NRF), Carbon Neutral organization& clean Food Tech company, Samut Sakhon province - product differentiation: Ethnic Food, Plant based food and Functional Products - Platform for Future food	1. Representatives from NRF 2. Dr. Nawasit Rakbamrung	
14 Wrap up & Assignment	11.30 a.m.– 12.30 p.m	Workshop 1 Wrap up, Summary & Assignment	Dr. Nawasit Rakbamrung	

Date/ Period/Topic	Time (Thailand time)	Content	Speaker	Remark
Day 7: 20 March 2024/ 08.30 a.m. – 12.00 a.m.				
08.30 – 09.00 a.m.		Daily Register		Individual
15 Concept paper Presentation & Conclusion	09.00 a.m.– 12.00 a.m.	Workshop 2 : Presentation by Participants, Comment, Discussion and Summary	1. Representative from Department of Agricultural Extension, Ministry of Agriculture and Cooperatives 2. Representative from NSTDA 3. Dr.Nawasit Rakbamrung	Presentation not more than 10 minutes per person including comment from speakers

Remark : 1. Schedule subjects to change if applicable

2. According to the Schedule, Live streaming on ZOOM Cloud Meetings at the local time in Thailand

3. ASC : Academic Service Centre

BUU : Burapha university

EEC: Eastern Economic Corridor