







#### **International Conference on**

# Circular Economy and Technology Transfer for Small and Medium Sized Enterprises

### 23 September 2020 BITEC, Bangkok, Thailand

Organized by

Ministry of Higher Education, Science, Research and Innovation (MHESI), Thailand and

Thailand Institute of Scientific and Technological Research (TISTR)

Jointly with

Asian and Pacific Centre for Transfer of Technology (APCTT) of the United Nations Economic and Social Commission for Asia and the Pacific (ESCAP)

#### Background

Climate change has become one of the major threats being faced by the world with the magnitude and frequency of impacts increasing in the past few decades. The differential vulnerability to the impacts of climate change is an important factor to consider while moving towards solutions. According to the Global Climate Risk Index, four of the world's ten countries most affected by climate change are located in Southeast Asia including Myanmar, the Philippines, Thailand, and Viet Nam<sup>1</sup>. The impacts of climate change are widespread across sectors and cause disruption of business and society in a wide area.

In the face of the pressing social, economic and ecological challenges of climate change, there is growing emphasis on managing our finite resources in a sustainable manner. Under the framework of Circular Economy, a shift towards Bio-Circular-Green (BCG) economy can be a potential solution to this challenge. The BCG economy represents the integration of biological usage, economic activity and environmental wellbeing in a sustainable context.

<sup>&</sup>lt;sup>1</sup> https://germanwatch.org/sites/germanwatch.org/files/20-2-01e%20Global%20Climate%20Risk%20Index%202020 10.pdf

The concept of Bio Economy advocates for deriving industry inputs from renewable biological resources as well as bio-technology applications. Circular Economy aims for minimal input and minimal production of waste. Green Economy became mainstreamed after the 2012 UN Conference on Sustainable Development in Rio de Janeiro and was defined by United nations Environment Programme (UNEP) as improved human well-being and social equity, while significantly reducing environmental risk and ecological scarcities.

The ASEAN region represents one of the most dynamic part of the global economic growth. Resource consumption is continuously rising to serve the market requirement. Adopting BCG model and shifting towards circular economy is a strategy that ASEAN member countries have agreed at the 10<sup>th</sup> Sustainable Development Symposium in "Circular Economy" that promotes responsible consumption and production. In addition, it is the object of the UN's Sustainable Development Goals (SDGs). In the ASEAN region, transition to a BCG economy will require an integrated approach with involvement of multi-stakeholders. Since Small and Medium Sized Enterprises (SMEs), comprising of 97-99% of total enterprises in most ASEAN countries, play an important role in the economy of the region, they can be crucial vehicles to achieve this goal. Therefore, it is important for ASEAN countries to build the adaptive capacity and resilience of their SMEs. It is equally crucial to utilize the maximum potential of SMEs for climate change mitigation by adopting appropriate BCG technologies and practices.

Given the growing emphasis on sustainability and the pivotal role of SMEs in shifting towards BCG economy, Asian and Pacific Centre for Transfer of Technology (APCTT) of the United Nations Economic and Social Commission for Asia and the Pacific (ESCAP), Ministry of Higher Education, Science, Research and Innovation (MHESI), and Thailand Institute of Scientific and Technological Research (TISTR) are well placed to organize an International Conference Bio-Circular-Green Economy and Technology Transfer for SMEs. The event will provide platform for knowledge and experiences sharing on the BCG model for sustainability, climate change mitigation and adaptation and the ways to support SMEs in taking up inclusive BCG technologies in the ASEAN region.

#### **Objectives**

- Create awareness on the concepts and strategies of Circular economy, with specific focus on Bio economy and Green Economy; and role of transfer and commercialization of technologies for BCG Economy
- Facilitate sharing of best practices and policy options to advance Circular economy and technology transfer
- Identify strategies to empower SMEs to develop, adopt and adapt technologies for Circular economy
- Facilitate regional cooperation among member countries to advance technology transfer for Circular economy.

#### **Target Audience**

Government officials, research scientists, private sector representatives, technology intermediaries, SMEs and other relevant stakeholders involved in BCG economy and technology transfers.

#### **Expected Outputs/Outcomes**

- Enhanced awareness on the role of Circular economy model for climate change mitigation and adaptation
- Increased awareness on best practices to advance technology transfers for Circular Economy and regional and global perspectives
- Increased understanding on inclusive innovation for Circular Economy and the strategies to empower SMEs

#### **Tentative Agenda**

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0900-0920	Registration	
	Inaugural Session	
0920-1000	Welcome Remarks	Dr. Aparat Mahakhant Deputy Governor of Research & Development Group for Sustainable Development, Thailand Institute of Scientific and Technological Research (TISTR)
	Opening Remarks	Mr. Kaveh Zahedi Deputy Executive Secretary United Nations Economic and Social Commission for Asia and the Pacific (UNESCAP)
	Remarks	Ms. Michiko Enomoto Head, Asian and Pacific Centre for Transfer of Technology (APCTT), ESCAP
	Keynote Speech  Group Photo	Dr. Aparat Mahakhant Deputy Governor of Research & Development Group for Sustainable Development, Thailand Institute of Scientific and Technological Research (TISTR)

#### Technical Session I – Shifting to BCG Economy

Designing and adopting strategies for BCG Economy can play a major role in achievement of SDGs in the ASEAN region. This session will deliberate on the concept of BCG economy, policies, best practices to advance BCG economy and BCG technology transfers.

#### Moderator: Ms. Michiko Enomoto, Head, APCTT-ESCAP

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1000-1020	Circular and Green Economy: Same or different?	<b>Dr. Stefanos Fotiou</b> Director, Environment and Development Division, ESCAP
1020-1040	Adoption of BCG economy related policies and practices from ASEAN / Asia-Pacific Region	Prof. Sivanappan Kumar Department of Energy, Environment, and Climate Change, School of Environment, Resources and Development, Asian Institute of Technology, Thailand
1040-1100	BCG technologies towards supporting the Sustainable Development Goals (SDGs) – Imperatives for Asia Pacific	Ms. Michiko Enomoto Head, APCTT-ESCAP
1100-1110	Discussion	
1110-1130	Coffee break	

#### **Panel Discussion I**

#### Moderator: Prof. Dr. Mohd Sobri Takriff

1130-1200	Best practices and strategies to promote BCG technologies - role of regional cooperation	Panelists:  Dr. Aparat Mahakhant, Deputy Governor of Research & Development Group for Sustainable Development, Thailand Institute of Scientific and Technological Research (TISTR)  Prof. Dr. Mohd Sobri Takriff, Centre for Sustainable Process Technology, Universiti Kebangsaan Malaysia  Dr. Nam Hoang Nguyen Project Coordinator Mobilizing private sector resources toward GHG mitigation project, Vietnam
1200-1315	Lunch	

## Technical Session II – Inclusive Bio, Circular and Green innovations for Small and Medium Sized Enterprises (SMEs)

SMEs form an important part of the economy of the ASEAN community while they are adversely affected by climate change. There is a need to enhance their adaptive capacity and to promote inclusive BCG innovations. This session aims to deliberate the current status of impacts of climate change particularly on SMEs. It will also discuss on how inclusive BCG technologies would support vulnerable SMEs and to help them to adapt impacts of climate changes

Moderator: Mr. Deepak Krishnan, WRI

1315-1335	Climate Change Impacts on ASEAN community	Asst.Prof. Dr. Jerasorn
		Santisirisomboon
		Director of University Center of
		Regional Climate Change and
		Renewable Energy (RU-CORE),
		Ramkhamheang University, Thailand
1335-1355	ASEAN and Climate Change: Awareness and	Dr. Pongvipa Lohsomboon
	Response from SME Sector	Deputy Executive Director of
		Thailand Greenhouse Gas
		Management Organization, Thailand
		(Public Organization), TGO
1355-1415	Renewable Energy Technologies for Climate	Mr. Deepak Krishnan
	Change Mitigation and Adaptation – example	Associate Director, World Resources
	of adoption by SMEs	Institute (WRI), India
1415-1430	Discussion	
1430-1450	Coffee break	

### Technical Session II - Inclusive Bio, Circular and Green innovations for Small and Medium Sized Enterprises and policy recommendations (SMEs)

Moderator: Dr. Aparat Mahakhant, TISTR, Thailand

1450-1510	Ignite SMEs in commercializing inclusive BCG	Mr. Sanjoy Sanyal
	Innovations	Founder, Regain Paradise
1510-1530	How can SMEs in Thailand adapt and mitigate	Dr. Kanjana Tuantet
	Climate Change impacts through BCG	Research Officer, Thailand Institute
	technologies; study results and experiences	of Scientific and Technological
		Research (TISTR), Thailand
1530-1550	Business Continuity Management: Survival	Asst. Prof. Dr. Natt Leelawat
	Strategy for SME	Department of Industrial
		Engineering, Faculty of Engineering,
		Chulalongkorn University, Thailand
1550-1610	Overview of Policy Recommendations	Mr. Deepak Krishnan
		Associate Director, World Resources
		Institute (WRI), India
1610-1620	Policy Recommendations for ASEAN Context	Ms. Cheong Lee Sing
		Former Head of Science and
		Technology Division
		ASEAN Secretariat

1620-1635	Discussion	
1635-1650	Closing Remarks	Dr. Aparat Mahakhant Deputy Governor, Thailand Institute of Scientific and Technological Research, Thailand
		Ms. Michiko Enomoto Head, APCTT-ESCAP