

# Science Technology and Innovation for Sustainable Consumption and Production (*STI for SCP*)

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*National Science and Technology Development Agency (NSTDA)  
and Secretary General, Thai SCP Network*



@ Convention Center CC-404, Thailand Science Park. 26 March 2019



# Topic: STI for SCP

## Organized by:

1. National Science and Technology Development Agency (NSTDA)
2. Thailand Network on Sustainable Consumption and Production (ThaiSCPnet)
3. Knowledge Network Institute of Thailand (KNIT)
4. Thailand Academy of Science and Technology (TAST)

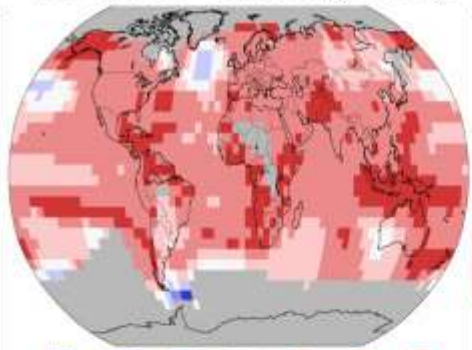
## Agenda:

- 09.10-10.30 The Role of STI in SDGs (*in English*)
- 10.45-12.00 The STI as driven tool for SCP (*in Thai*)
- 13.30-16.00 Training Workshop: STI for SCP (*in Thai*)
- Sustainable Industry
  - Sustainable Agriculture & Food
  - Sustainable Tourism & Service

# Sustainable Development Goals (SDGs)

## SD in Thailand Context (Sufficiency Economy Philosophy: SEP)

2016 is the warmest in 137-year record  
(0.94°C above 20<sup>th</sup> century average of 13.9°C)



Record Coldest Much Cooler than Average Cooler than Average Near Average Warmer than Average Much Warmer than Average Record Warmest

Source: National Centers for Environmental Information, NASA GISS, CO2Now.com (Temp. percentiles Jan-Dec 2016)  
2017 is the warmest (without El Nino)

**1 Paris Agreement** (196 members)  
global av. T rise  $\leq 2^\circ\text{C}$   
(CO<sub>2</sub>  $\leq 450$  ppm).... 12/15, 11/16  
(Thailand: 20-25% GHGs by 2030)



NSTDA



Source: footprintnetwork.org

**Major Drivers for Action Now**

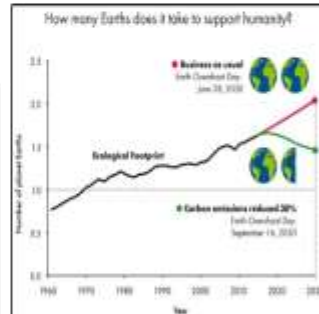
**Unsustainable Earth**

**and 2 Global Agreements**  
(2030 Agenda for SD)



Global Footprint = -0.9 gha/capita  
(biocapacity - ecological footprint)

**2 Global SD Goals** (193 members)  
17 goals, 169 targets  
(2016-2030).... 25 Sep. 2015  
(Thailand: National SDGs committee)



**SEP for SDGs** Sufficiency for Sustainability  
Sufficiency Economy Philosophy for Sustainable Development Goals

Philosophy of Sufficiency Economy

The Middle Path

Moderation

Reasonableness

Self-immunity

3 loops + 2 conditions

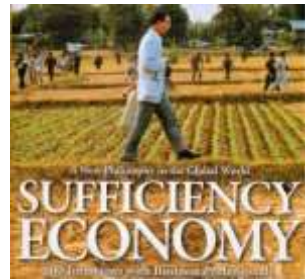
Knowledge condition (know, prudence, care)

Integrity condition (honesty, diligent, conscious, sharing, perseverance)

Lead to

life / economy / social / environment

progress in balance, stable and sustainable way



His Majesty the Late King Bhumibol Adulyadej





# Position of NSTDA on STI for SDGs

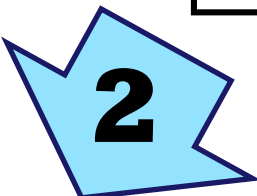


**National target:**  
30% RE by 2036 &  
**Commitment:**  
20-25% GHGs↓ by 2030



**“STI for SDGs”:**  
help support **National target & Global commitment**

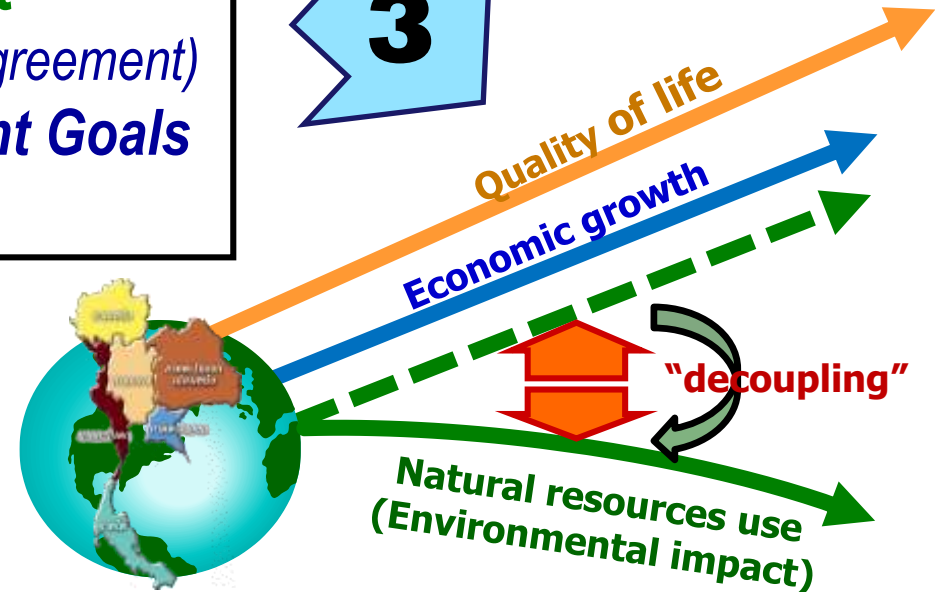
1. *GHGs reduction (Paris Agreement)*
2. *Sustainable Development Goals*
3. *Decoupling*



## Sustainable Development Goals 2030



Support at least 7 out of 17 SDGs (2030)



**4. Can be scaled-up & open for partnership!**  
**Thailand → ASEAN → Global**

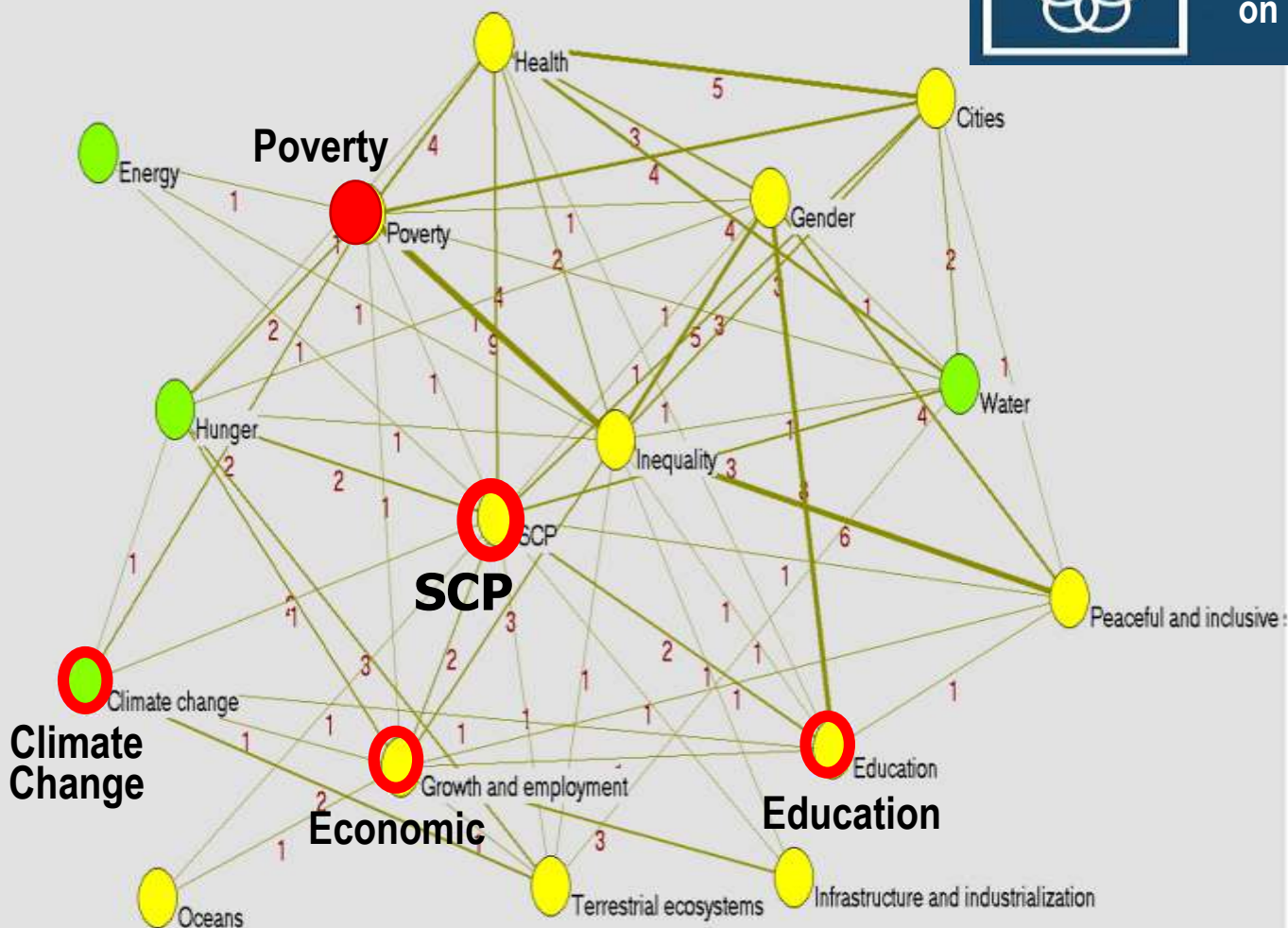
# Linkages between the SDG12 (SCP) with other SDGs



17 PARTNERSHIPS FOR THE GOALS



SDG  
17.6 - 17.8  
on STI

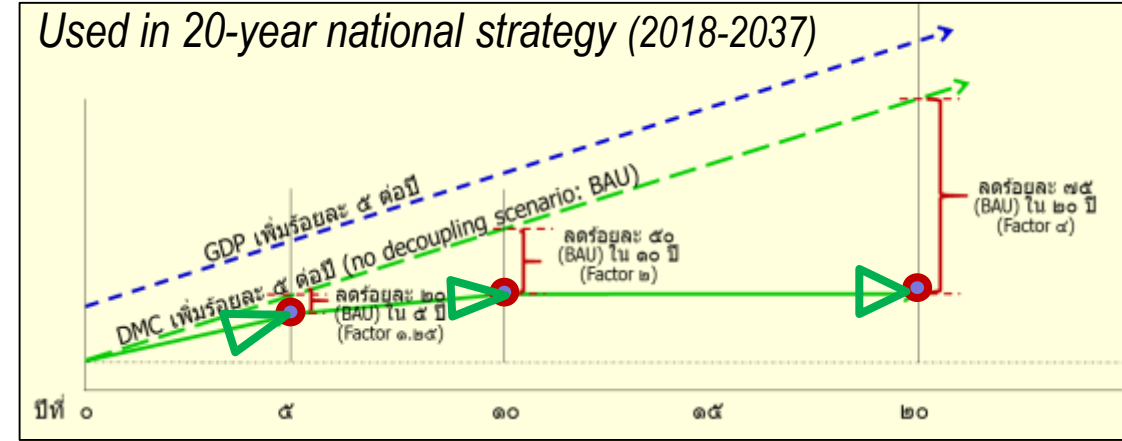
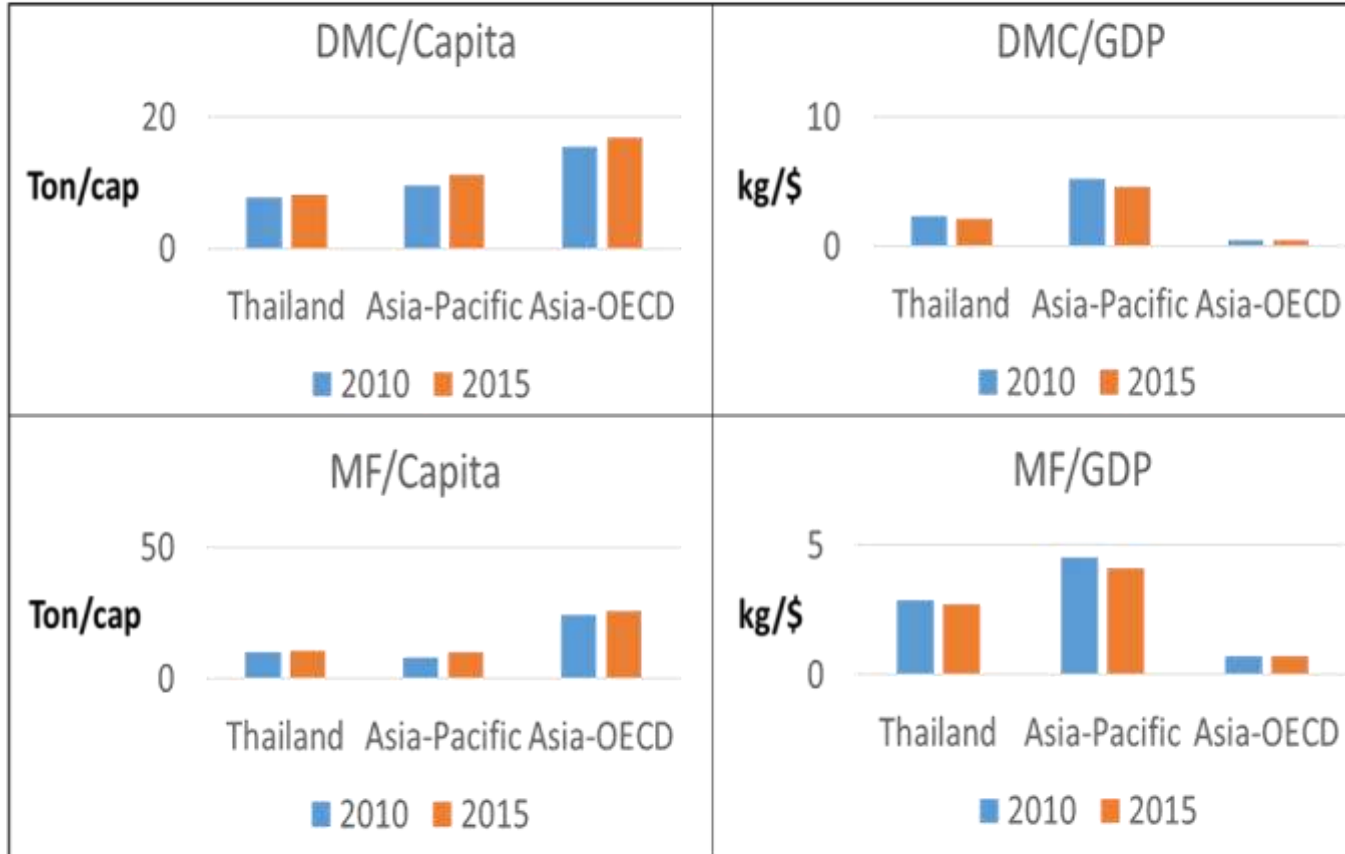


- WEF:** Top 3 SDGs selected by global CEOs
- ❖ SDG8: Decent work and economic growth
  - ❖ **SDG12: SCP**
  - ❖ SDG13: Climate Action



# Case Studies: STI support on national baseline data for **SDGs 12.2/ 8.4, 9.4, 12.3, 12.b (NSTDA & partner orgs.)**

## Case Study **SDGs Indicators Baseline Data & Improvement** (SDG 12.2.2 Domestic Material Consumption and SDG 12.2.1 Material Footprint)



Other SDGs Indicators Baseline Data for Thailand are under studied at NSTDA & partner organizations:

1. **SDG 12.2.1** (=8.4.1), **12.2.2** (=8.4.2).. with UN Environment
2. **SDG 9.4.1** GHG emissions (consumption-based accounting) per unit of value added... with UNIDO
3. **SDG 12.3.1** Food Losses Index.... with FAO
4. **SDG 12.b** Sustainable Tourism: using SEEA (System of environmental and economic account) with TSA (Tourism satellite account)... with Ministry of Tourism & Sport

From baseline data → **Benchmarking + Hotspots for improvement**



**MOU between ONEP and NSTDA on 22 March 2018 to "Support STI for SDG12"**



## STI for SDGs (implemented at the **Regional & International Level**)

Will illustrate the STI for SDGs at the Regional & International Level with the following 4 case studies:

- ① **Thai Academy of Science and Technology (TAST) with AASSA and IAP on STI for SDGs**
- ② Thailand with Indonesia, Japan, UNESCAP, APRSCP and partners on SCP at HLPF 2018
- ③ NSTDA with UN environment on Global LCA Data Access Network (GLAD)
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Thai Academy of  
Science and Technology



Association of Academies and  
Societies of Sciences in Asia



InterAcademy  
Partnership  
(>130 members)

***“S&T have a profound impact on the society and nation as a whole”***

### 1. **STI-SD: Policy and Knowledge Dissemination:**

1.1 Policy: **Past President** → ex-Minister of S&T

**Current President** → a member of “National Research and Innovation Policy Council”

1.2 Public Seminar related to SDGs: for examples

- ❑ **“Thai SD Perspective on Food Loss and Waste” (SDG 12.3)** in 2017
- ❑ **“Aging Well in Thailand 4.0” (SDG 3)** on 26 January 2018

1.3 Books & Reports: for examples

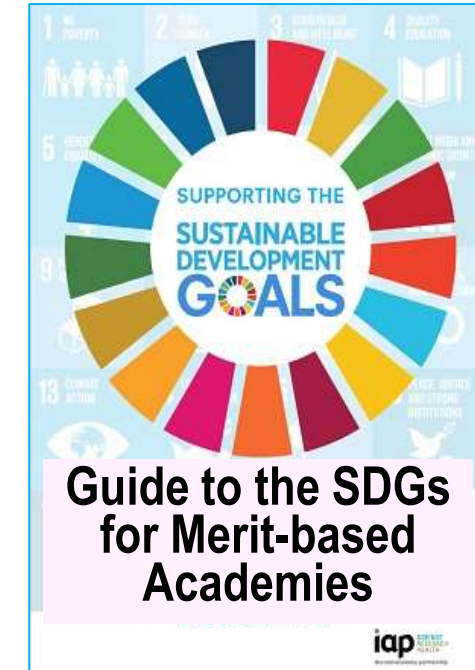
- ❑ Report on **“Food and Nutrition Security and Agriculture in ASEAN” (SDGs 2, 3, 12)** published in 2016 as part of the IAP’s project 3.5 years (Nov 2015 – June 2018)
- ❑ Book on **“Sustainable Energy Development for Thailand” (SDG 7)** published in April 2007

1.4 SD information on Website:

- ❑ Link to several SDGs information sources in Thailand

### 2. **STI-SD Policy & Implementation:**

TAST participated in **STI for SDGs**, both **Policy support & Baseline data development** for Thailand





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**NSTDA** (a representative of Thailand) participated as a speaker in the side event of **HLPF 2018**:

**“SCP in Asia and the Pacific for Accelerated Achievement of SDGs”** on 18 July 2018 in NY

(co-organized by Governments of Indonesia, Japan, Thailand, UNESCAP, APRSCP, **PECoP-Asia** and IGES)

Participants: ~ 100 persons (government policy makers and agencies, international agencies and other relevant stakeholders)

Presentation topic of Thailand: **“Announcing an initiative for SCP and sufficiency economy”**

**INVITATION**  
Sustainable Consumption and Production (SCP)  
in Asia and the Pacific for accelerated achievement of the SDGs

A Side-Event for the 2018 ECOSOC  
High Level Political Forum on Sustainable Development

18 July 2018 | 06:30 pm - 08:00 pm  
at the Conference Room B, UNHQ

With the participation of:  
H.E. Yasuo Takahashi - Vice Minister for Global Environmental Affairs, Ministry of Environment, Japan  
Dr. Agus Justianto - Director General, Research, Development and Innovation Agency, Ministry of Environment and Forestry, Indonesia  
Mr. Kaveh Zahedi - Deputy Executive Secretary for Sustainable Development, UNESCAP  
Mr. Noer Adi Wardaja - Head, Environment and Forestry Standards, MoEF, Indonesia, President of the Board, Asia Pacific Roundtable on SCP  
Dr. Jiri Mungthaisri - Acting Chair on Science, Technology and Innovation of Thai SCP Network, Ministry of Science and Technology (MNST), Thailand  
Mr. Lewis Akemi - Director, Sustainable Consumption and Production Institute of Global Environmental Strategies (IGES)  
Dr. Tomohiro Yasahi - National Institute for Environmental Studies/Leader, Theme 2 PECoP-Asia Project, 5-16 Research Group

**Issues to be discussed:**

- Strategic relevance of SCP policies to the Asia-Pacific Region
- Using SCP as a driver for integrated planning and policy resources
- Interlinkages between SDG 12 and other SDGs
- Upscaling and replicating good practices

Co-hosted by the Governments of the Republic of Indonesia, Japan, and the Kingdom of Thailand, with the support of United Nations Economic and Social Commission for Asia and the Pacific (UNESCAP), Asia Pacific Roundtable for Sustainable Consumption and Production (APRSCP), Institute of Global Environmental Strategies (IGES), and Policy Design and Evaluation to Ensure Sustainable Consumption and Production Patterns in Asian Region (PECoP-Asia)

For Further Information and RSVP, Please Email: [csypindonesia@indonesiamission-ny.org](mailto:csypindonesia@indonesiamission-ny.org)  
LIGHT SNACKS AND BEVERAGES WILL BE SERVED



### Reconfiguring Consumption and Production in Asia and the Pacific

12 Opportunities for Accelerated Achievement of SDG 12

**About this Policy Brief**

This policy brief presents four directions and 12 opportunities for SCP (Sustainable Consumption and Production) policy-making in Asia and the Pacific put forward by the Asia Pacific Roundtable for Sustainable Consumption and Production (APRSCP) and PECoP-Asia (Asian academic research consortium-led project; refer to the last page). It reflects their Asian views on SCP policy in line with Agenda2030.

The brief addresses the idea that delivery of SDG 12 should largely depend on taking advantage of emerging forces in Asia including new business models, drivers of wealth, wellbeing and human development, urbanisation, disruptive technologies, and digitalisation. SCP innovations are therefore crucial to ensure that these forces do not divert the Asian region away from sustainable development. All of the 12 opportunities presented in this brief indicate promising entry points for SCP policy development and implementation in the era of the Paris Agreement and SDGs.

**12 Opportunities for SCP**

**Four SCP policy directions**

**12 Opportunities for Accelerated Achievement of SDG 12**

**Opportunity 12: Enhancing collaboration**  
Opportunity 11: Indigenous wisdom  
Opportunity 10: Fair rules  
Opportunity 9: Opportunities for SCP  
Opportunity 8: Sharing  
Opportunity 7: Digitalize technology  
Opportunity 6: Design for good models  
Opportunity 5: Digitalized information production  
Opportunity 4: Circular economy  
Opportunity 3: Environmental policy transfer  
Opportunity 2: Restore wealth  
Opportunity 1: Experience matters



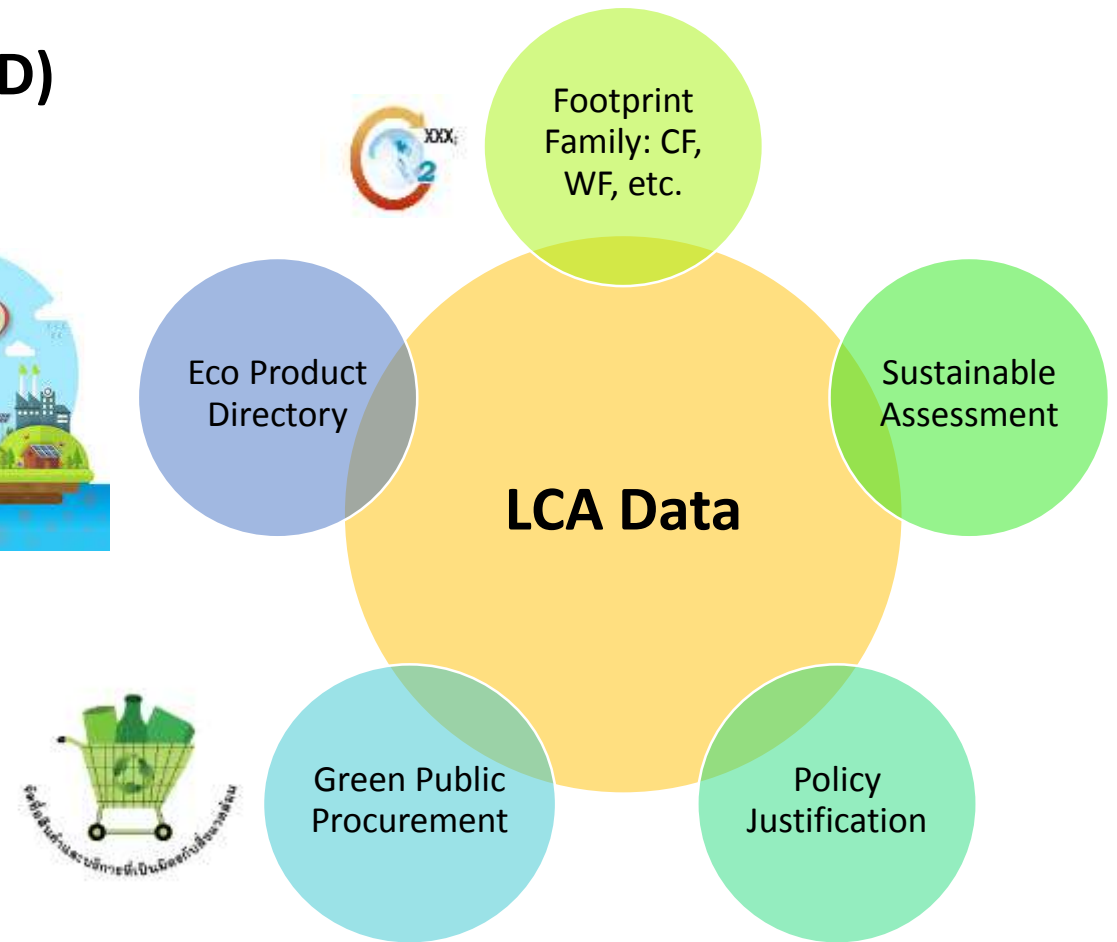
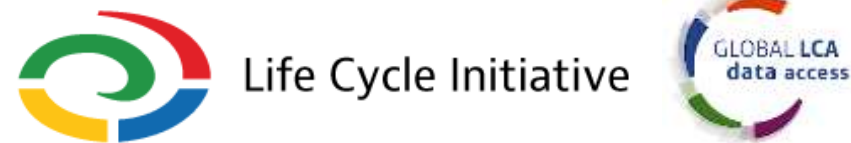
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## Thailand joins the **Global LCA Data network (GLAD)** with UN Environment (SDGs 12 and others)



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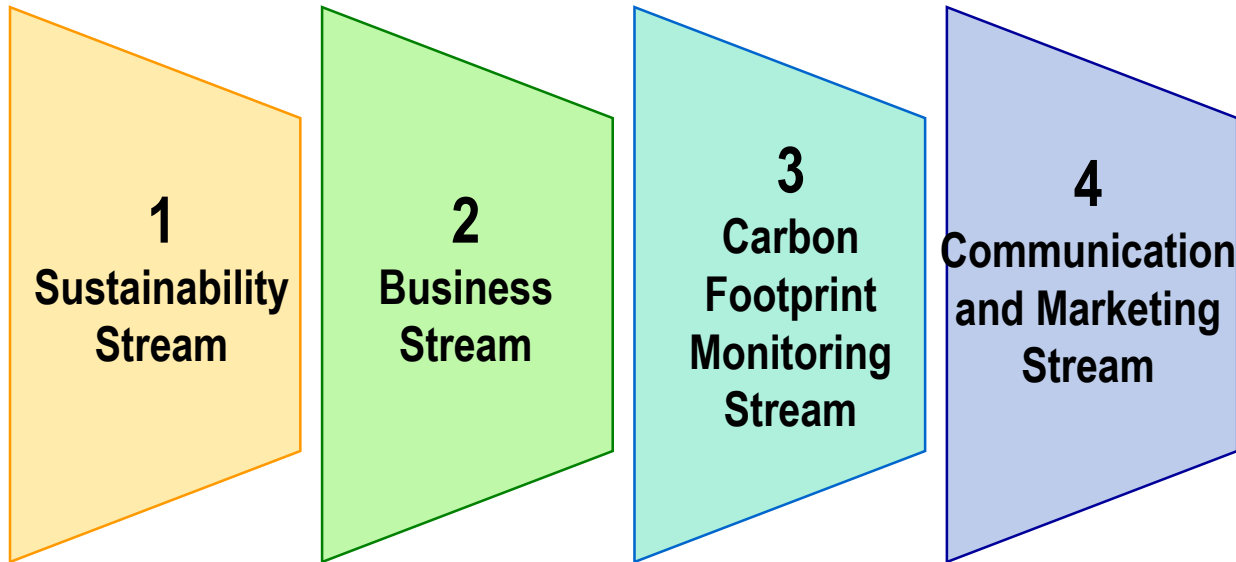
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## Asia Pacific Low Carbon Lifestyles Challenge for young startups contest (SDG 12.8)

MTEC/NSTDA provided LC data support under the REAL project, funded by the Japanese Govt.



Regional Office for  
Asia and the Pacific



## "Lookie Waste": Mobile App for reducing food waste (SDG 12.3)

Developed by MTEC/NSTDA under the REAL project, funded by the European Commission

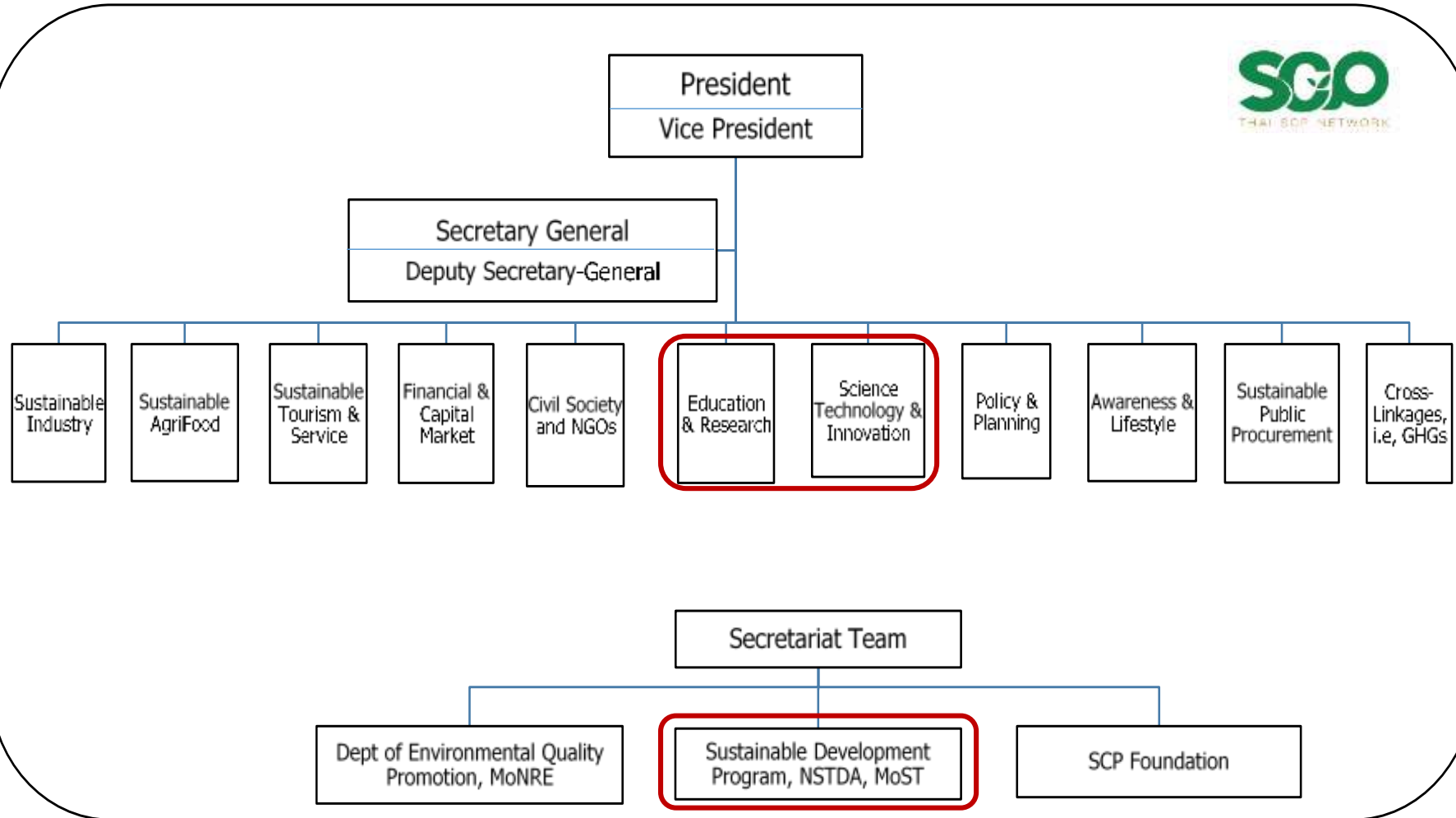


REAL = Resource Efficiency through Application of LCT



# Latest Update on STI for SDGs- focusing on SDG12 (SCP)

## Thai Sustainable Consumption and Production Network (ThaiSCPnet)



Established since 25 September 2018

- Coordinate SCP activities (awareness, training, implementation) within the country
- Produce Annual SCP Status/ Progress Report

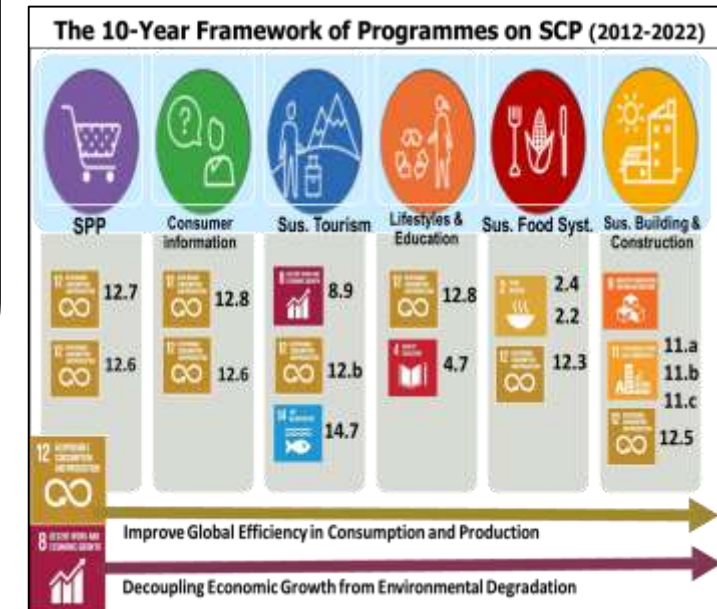
see: [www.ThaiSCP.net](http://www.ThaiSCP.net)

**SDG12/ SCP linkage**

**Thai → ASEAN → Global**



**Global Network: 10YFP**



# Session 1: The Role of STI in SDGs

**09.10-10.30 The Role of STI in SDGs (*in English*)**

## Invited Speakers:

1. **Janet Salem**, *UN Environment*
2. **Sooksiri Chamsuk**, *UNIDO*
3. **Puja Sawhney**, *EU SWITCH-Asia SCP Facility*
4. **Prof. Masahiko Hirao**, *PECoP-Asia SCP Research Group & University of Tokyo*