

E-WASTE MANAGEMENT

CIRCULAR ECONOMY

Resource Efficient and Pollution Free Asia Pacific

February 2021

Mushtaq Ahmed Memon, Ph.D.
Regional Coordinator Resource Efficiency
Project Manager, Regional Policy Advocacy, EU-funded SWITCH-Asia
United Nations Environment Programme- Asia and the Pacific Office
memon@un.org

Sustainable Development Goals

1 NO POVERTY 	2 NO HUNGER 	3 GOOD HEALTH 	4 QUALITY EDUCATION 	5 GENDER EQUALITY 	6 CLEAN WATER AND SANITATION 
7 RENEWABLE ENERGY 	8 GOOD JOBS AND ECONOMIC GROWTH 	9 INNOVATION AND INFRASTRUCTURE 	10 REDUCED INEQUALITIES 	11 SUSTAINABLE CITIES AND COMMUNITIES 	12 RESPONSIBLE CONSUMPTION 
13 CLIMATE ACTION 	14 LIFE BELOW WATER 	15 LIFE ON LAND 	16 PEACE AND JUSTICE 	17 PARTNERSHIPS FOR THE GOALS 	 THE GLOBAL GOALS For Sustainable Development

Impact on Resources and Environment

80 billion tonnes of global extraction of natural resources if consumption stays at current developed country rates.

60% of ecosystems damaged or being used unsustainably



Two-thirds of the global middle class will be residents in Asia-Pacific by 2030

3°C or more rise in Temperature by the end of the century, due to doubling of GHG Emissions by 2050 (BAU)

Rapidly Changing Scenario in the Region



Growing population

from 7 billion today to 9 billion by 2050



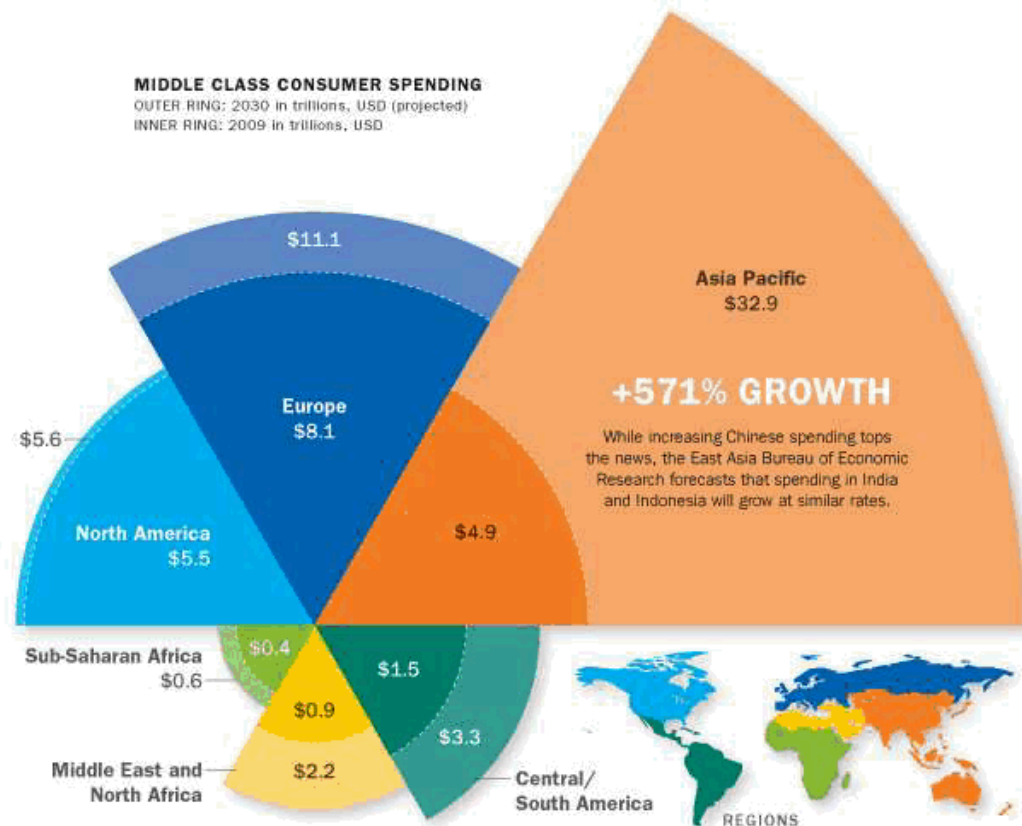
Economic development and increasing global trade



Growing middle-class with **changing consumption patterns**



Increasing **consumption of biomass**



Impacts!



Increasing
resource extraction



Greenhouse gas
emissions



Increasing
resource scarcity



Land degradation



Price increases
and volatility



Water pollution



Loss of
biodiversity



Air pollution

Impacts on



human health

EEE in Asia Pacific



Introduction

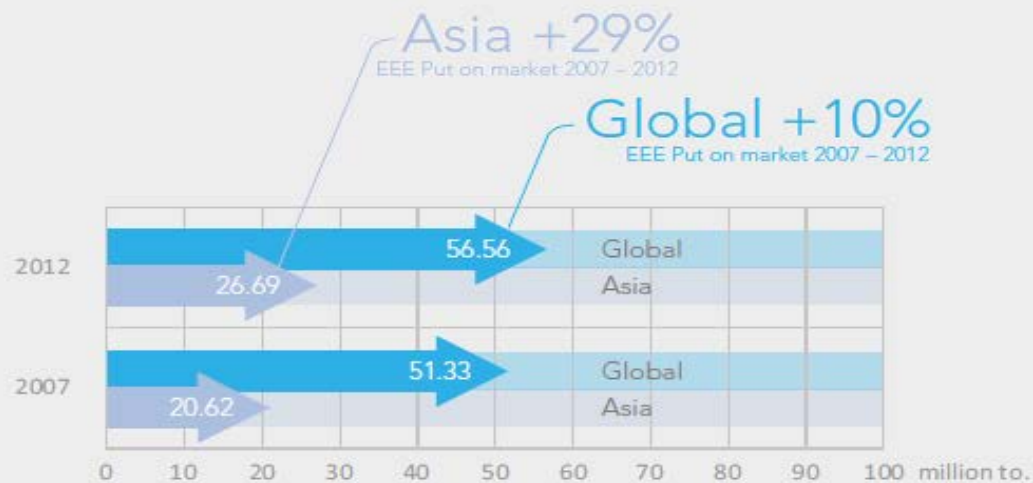


Figure 2: Global EEE Put on Market [per cent]

E-waste in Asia Pacific!

Global E-waste Generation in 2014 [million tonnes]

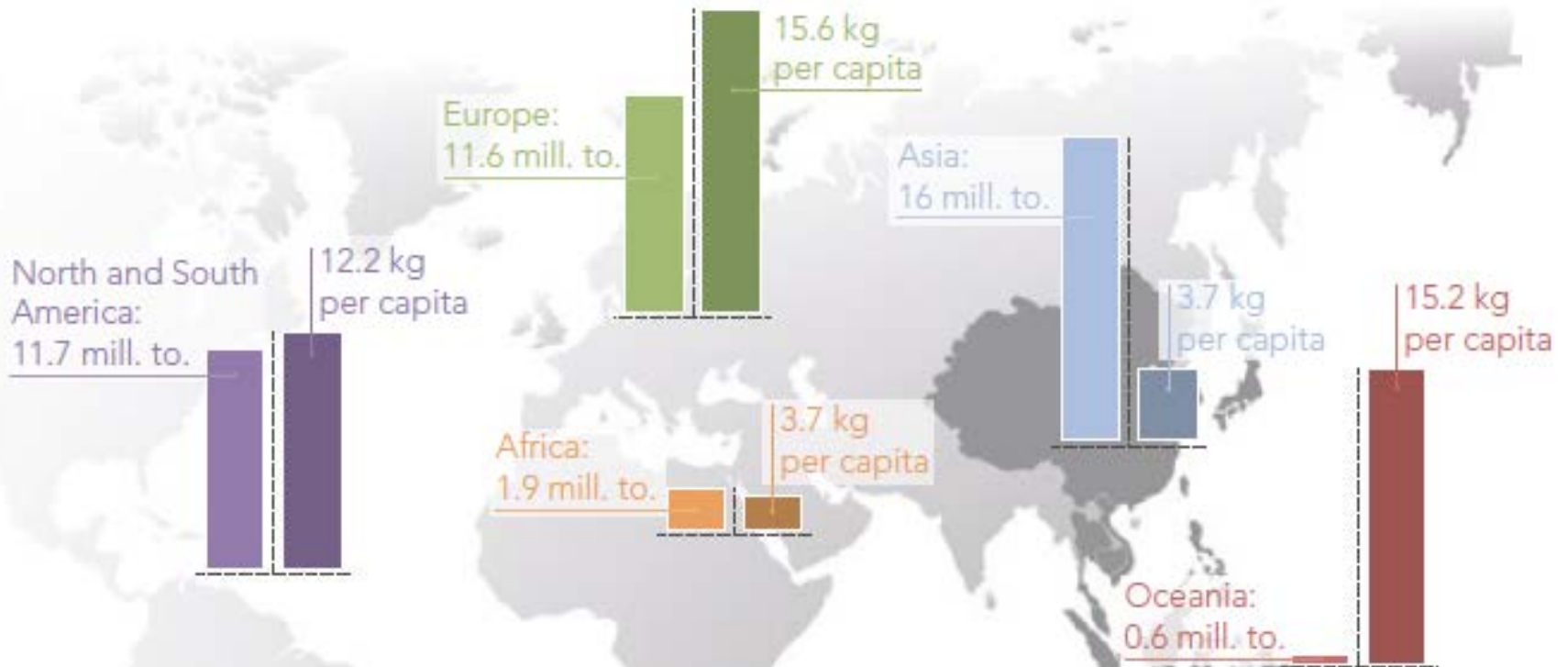


Figure 3: Global E-waste arising [million tonnes] and per capita [kg/inh]

Source: Baldé, C.P., Wang, F., Kuehr, R., Huisman, J. (2015), The global e-waste monitor – 2014, United Nations University, IAS – SCYCLE, Bonn, Germany

E-waste in ASEAN Countries

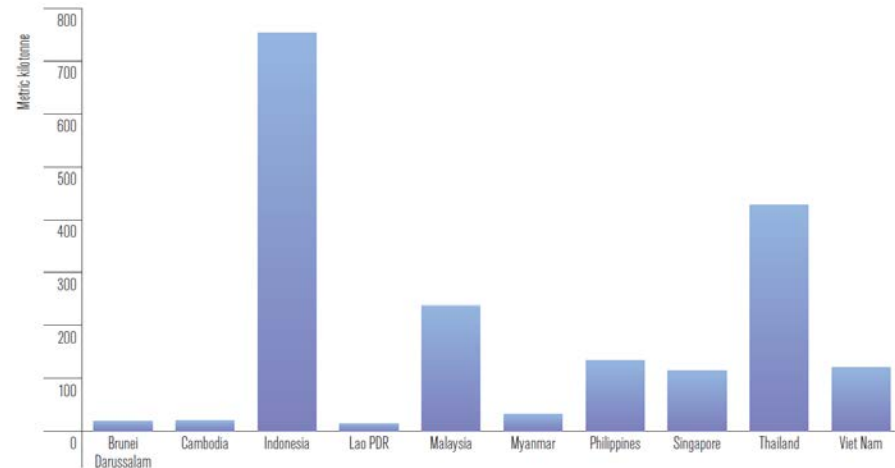
Table 2 Amount of E-Waste Generated in ASEAN Countries

Country	Per Inhabitant Generation (In Kg/Inh.)	Amount of E-Waste generated annually (In Metric Kilotons)
Brunei Darussalam	18.1	7.00
Cambodia	1	16.00
Indonesia	3	745.00
Lao PDR	1.2	8.00
Malaysia	7.6	232.00
Myanmar	0.4	29.00
Philippines	1.3	127.00
Singapore	19.6	110.00
Thailand	6.4	419.00
Viet Nam	1.3	116.00



Source: UNU-IAS, 2014.

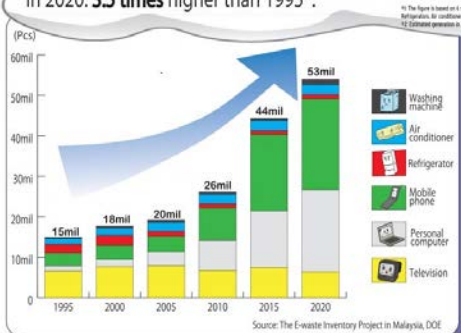
Annual E-Waste Generated in ASEAN Countries



How much Household E-waste are generated?



Estimation shows Malaysia generates **53 million pieces of E-waste** in 2020. **3.5 times higher than 1995***.



COVID-19 and E-waste

Blancco, Joensuu, Finland, which helps organizations safely erase data and keep current data secure, has released its new report, "[The Rising Tide of E-Waste](#)," which shows the impacts the COVID-19 pandemic has had on electronic scrap.

The study also shows that 97 percent of companies surveyed had to buy laptops, and 77 percent of American respondents say they also had to buy a new device to handle working from home more.

Blancco partnered with Coleman Parkes on the study to explore enterprise perspectives on end-of-life electronics. The study highlights the e-scrap and sustainability challenges and opportunities the COVID-19 pandemic has created.

More than 53 metric tons of e-scrap were produced in 2019, Blancco states in its study. Purchasing new technology to facilitate employees' transition to remote work during the pandemic has sparked data security and e-scrap fears as businesses increase the volumes of devices they own and ultimately the amount of data that resides on them.

Blancco's study showed that nearly 75 percent of respondents bought devices brand new to deal with the move from traditional offices to home office environments.

Home schooling, entertainment, healthcare support at home has also increased in the amount of e-waste including batteries.

Turning Challenges into Opportunities

20th CENTURY

WASTE
MANAGEMENT

“How do we get rid of our waste efficiently with minimum damage to public health and the environment?”



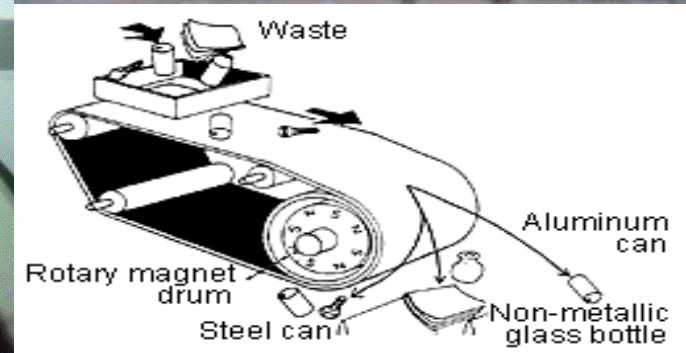
21st CENTURY

RESOURCE
MANAGEMENT

“How do we handle our discarded resources in ways which do not deprive future generations of some, if not all, of their value?”



Source: Dr. Paul Connett, Zero Waste, Power Point



Normative support



SUMMARY REPORT

E-WASTE VOLUME I

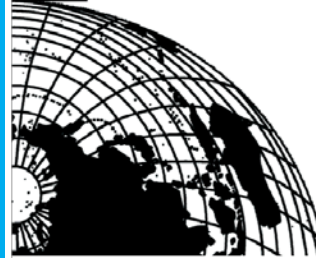
http://www.unep.or.jp/ietc/Publications/spc/EWasteManual_Vol1.pdf
http://www.unep.or.jp/ietc/Publications/spc/EWasteManual_Vol2.pdf

E-WASTE VOLUME II

Inventory Assessment Manual E-waste Management Manual



Manual 3: WEEE / E-waste "Take Back System"



Disclaimer

1. This document is being prepared for the sole use to provide training (educational purposes).
2. UNEP does not claim any responsibility for the data and information presented in the document – However, comments and feedback

http://www.unep.or.jp/IETC/SPC/news-jul11/UNEP_Ewaste_Manual3_TakeBackSystem.pdf

1. corrections in next draft.
2. This is a draft document

Case studies:
experiences/lessons learned

Compendium of technologies



United Nations System-wide Response to Tackling E-waste

Challenges

1. Behavioural & Social change
2. Policy and regulations
3. Technical
4. Financial
5. Social
6. Institutional



What do you need to do?

Ask your parents to help you collect recyclable material instead of throwing it away

No lids 

Flatten cardboard 

Rinse containers 

Bring your bag of recyclables to school on this day:

Integrated Solid Waste Management Plan (ISWMP)

Maseru LEC Primary School Recycling Project



Recycling saves money and the environment, because resources are getting scarce

Recyclables should not be mixed with waste. Waste makes us sick.

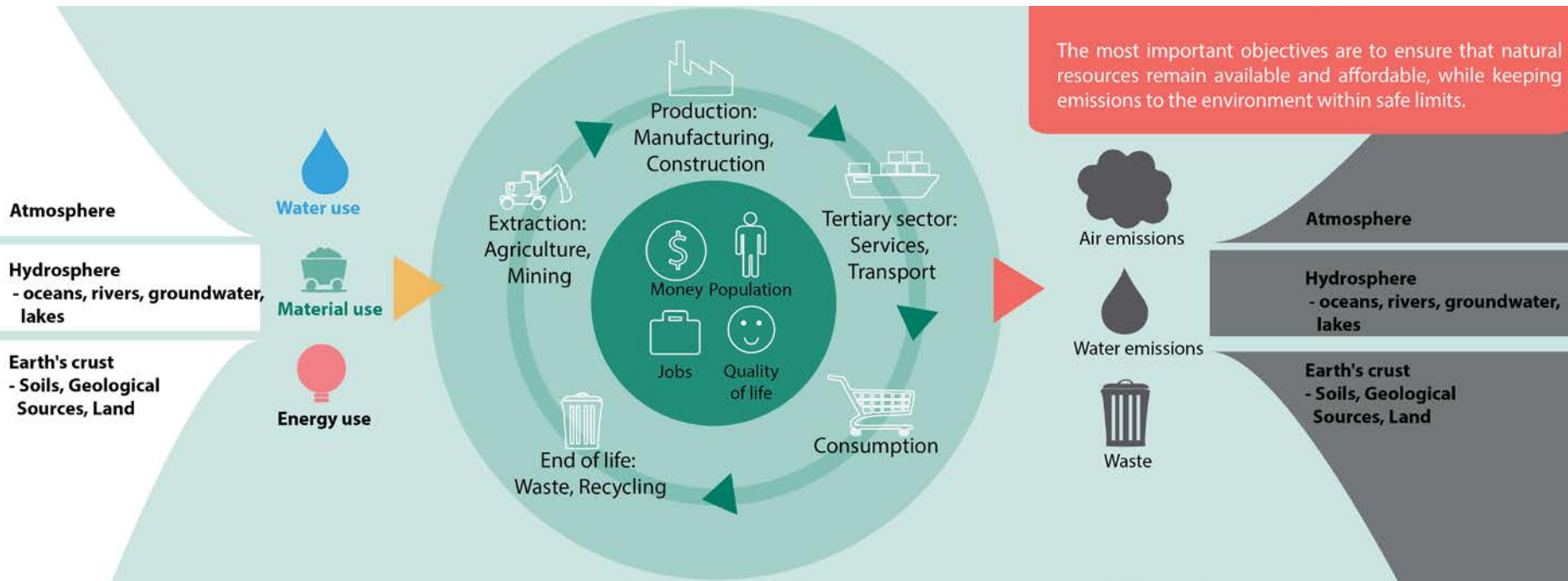


Circular Economy & Asia and the Pacific

Asia Pacific home to **16 of 28 megacities**

Asia Pacific home to **< 4.2 billion people**

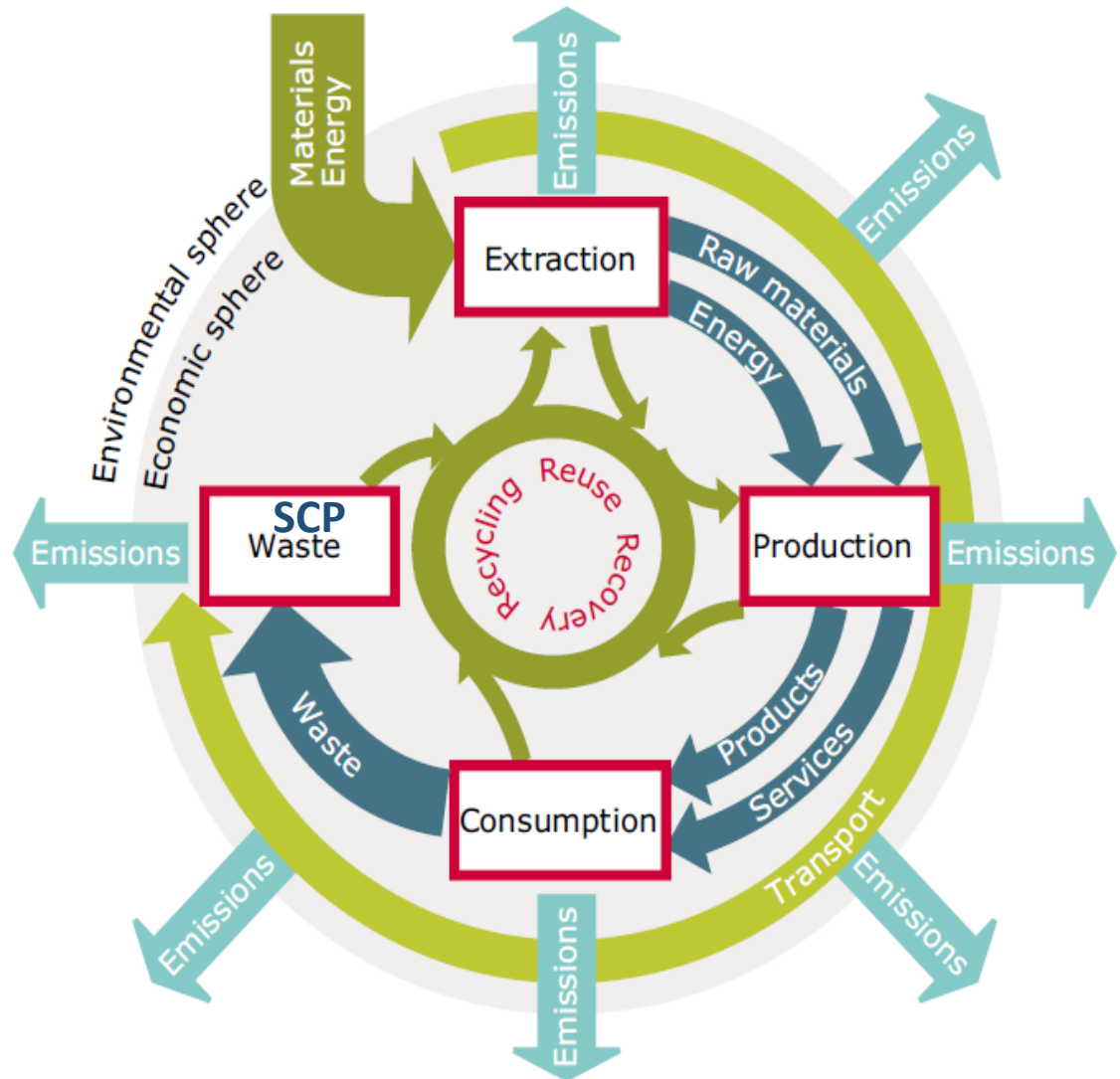
The region's share of global gross domestic product (at purchasing power parity) rose from 30.1% in 2000 to 42.6% in 2017,



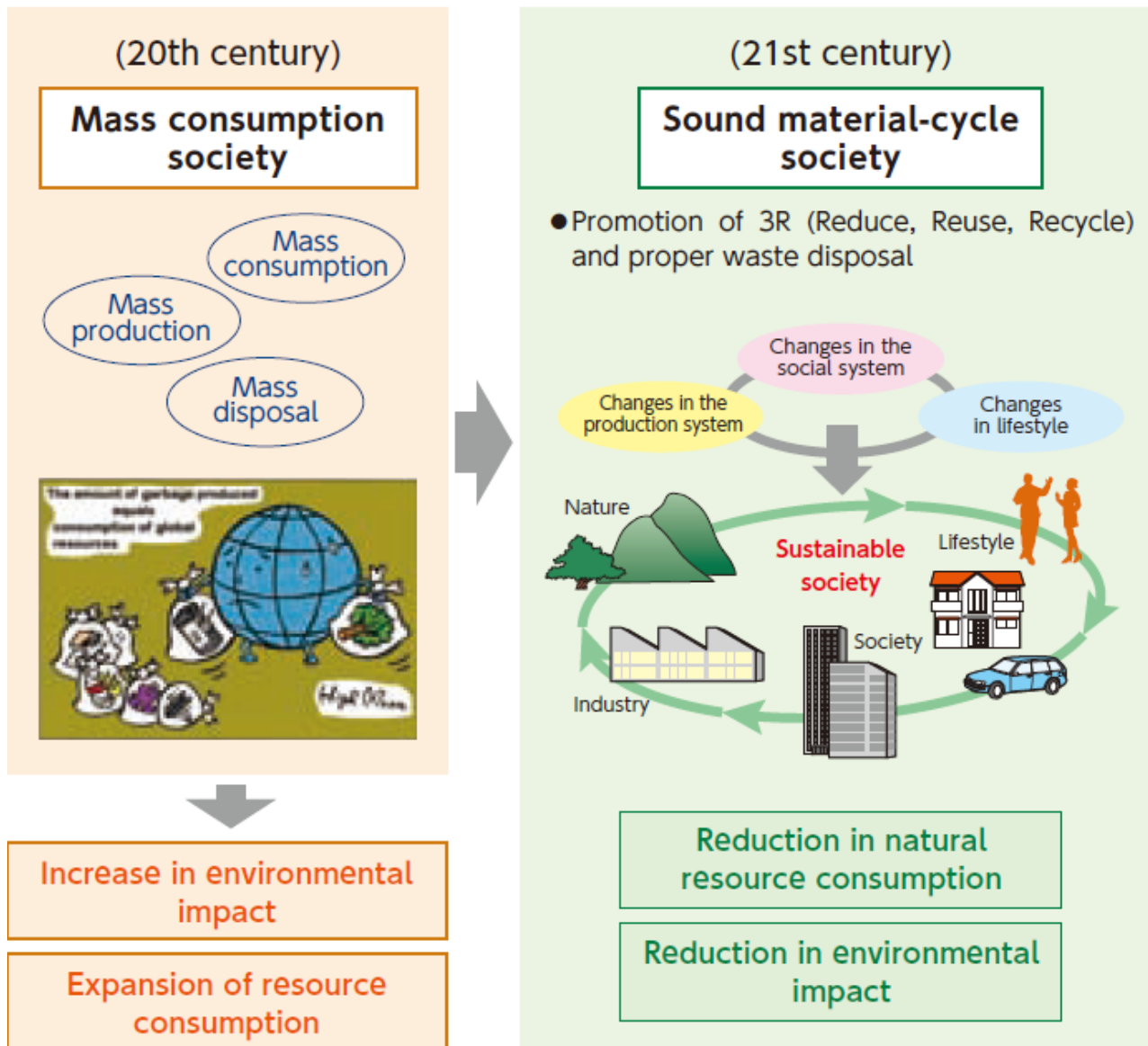
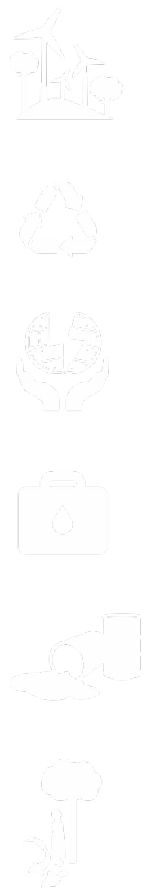
Sustainable Consumption and Production (SCP)

Enabling Environment

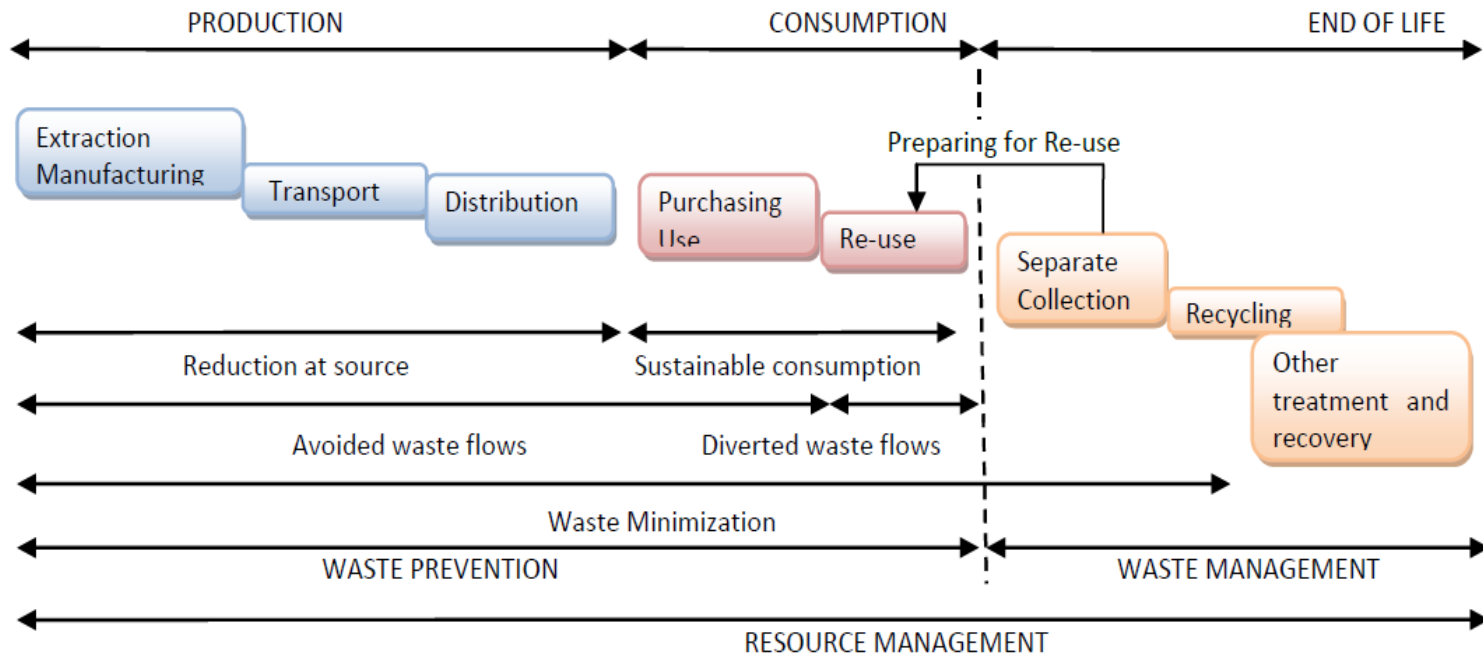
- Policy
- Technology
- Standards
- MEPS
- Regulations
- Incentives
- Private sector engagement
- Access to finance



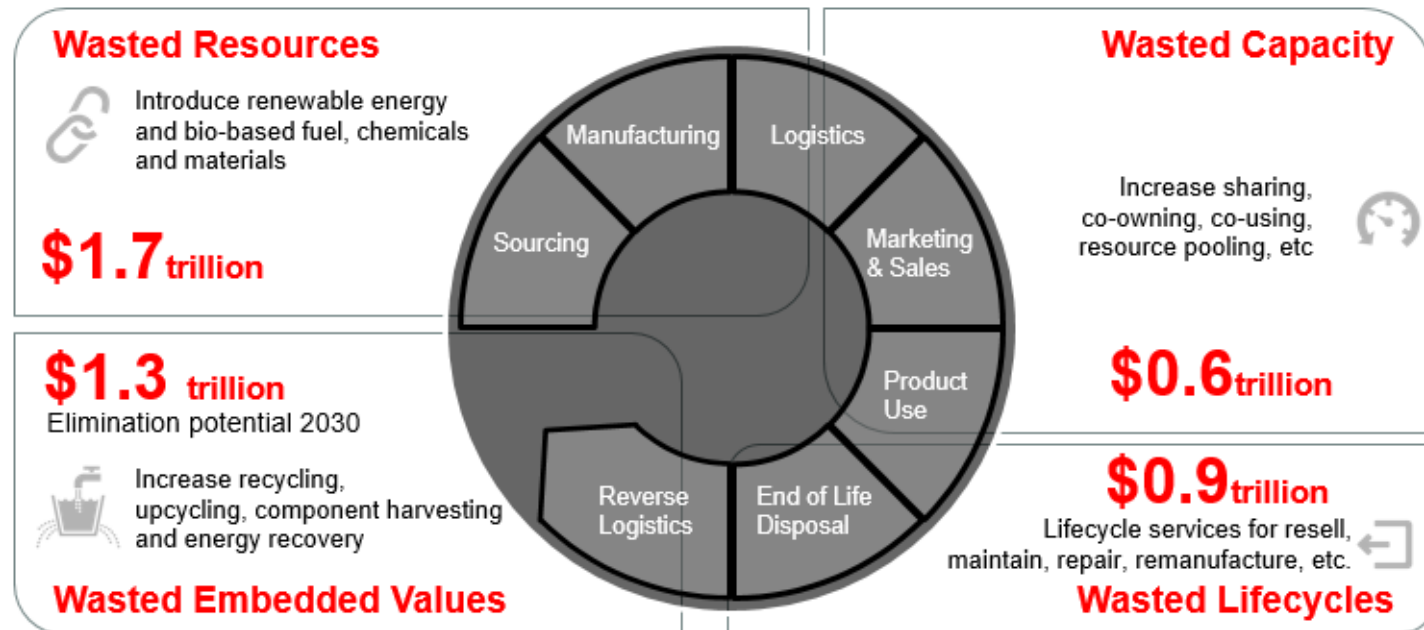
Turning Linear into Circular Economy



System Approach to the Circular Economy



Measuring the Economic Benefits








- **Wasted resources** are materials and energy that cannot be continually regenerated, but instead are consumed and forever gone when used.
- Products with **wasted lifecycles** have artificially short working lives or are disposed of even if there is still demand for them from other users.
- Product with **wasted capacity** sit idle unnecessarily; for instance, cars typically sit unused for 90% of their lives.
- **Wasted embedded values** are components, materials, and energy that are not recovered from disposed products and put back into use.

Support Mechanism

- To bring member states on common “**definitions**” and “**understanding**” for all the aspects of waste management chain covering all the waste streams
- To assist member states in identification of **gaps** and **solutions** for sound waste management focusing on SMM
- To build regional and national capacity on **legislative framework** and **financing mechanisms** for supporting **trade and investments** across countries or within countries in waste management services and technologies
- Assist in developing B2B (business to business), B2C (business to consumer) and B2G (Business to Government) partnerships leading to build effective and efficient waste management service sector



Major Components

Business model	Description	Illustration
Circular Supply Chain 	Provide renewable energy, bio-based-or-fully recyclable input materials to replace single life-cycle inputs	BASF is replacing finite fossil resources with sustainably produced renewable resources through its innovative production Verbund Biomass Balance approach
Recovery & Recycling 	Recover useful resources / energy from disposed products or by-products	Nike reuses and recycles footwear manufacturing scrap and post-consumer shoe wastage, converting it into raw material for other sports equipment manufacturing players
Product Life Extension 	Extend working lifecycle of products and components by repairing, upgrading and reselling	Patagonia launched an online store where customers trade-in their used clothing in return for store credit, thereby extending the life of products
Sharing Platform 	Enable increased utilization rate of products by making possible shared use, access or ownership	Airbnb operates as an online marketplace for people to lease or rent short-term lodging, facilitate tourist experiences or make restaurant reservations
Product as a Service 	Offer product access and retain ownership to internalize benefits of circular resource productivity	Philips offers lighting as a service, wherein users are required to pay for the consumed intensity (rather than for the product)

Capacity Building on the Circular Economy

	Policies and Regulatory Framework	Institutional Arrangements including Private Sector	Financing Mechanisms including PPP, EPR, CSR	Technology Support & Capacity Building	Innovations and Business Models	Awareness-raising for Stakeholder Engagement and Behaviour Changes
Eco-Design						
Green Supply Chain						
Sharing Platforms						
Extended Product Life & Product Use						
Product as a Service						
Green Recycling & Recovery						

Working Together!

Government

Public Sector

**Regulatory Framework,
Institutional Setup, Tariff
Designing, Subsidies &
Guarantees**

Businesses

Private Sector

**Financial Share,
Technical Innovation,
Managerial Role,
Local Knowledge,
Backward & Forward
Linkages**

Citizens

Community

**Willingness to Pay,
Awareness and Will,
Environmentally
Friendly Lifestyles**

Circular Economy



Activities in 2020!

A webinar to launch a series of policy dialogue on sustainable lifestyles in Asia and an offline course on Circular Economy



Flash Report

SWITCH-Asia Leadership Academy 2020

Communicating Circular Economy for Behavioural Change



Dialogue on Sustainable Lifestyles Focusing on Tourism
SUSTAINABLE CONSUMPTION AND PRODUCTION (SCP) IN TOURISM OPPORTUNITIES AND CHALLENGES WITH COVID-19

8 October 2020, Thursday | 02.00 PM
Bangkok Time ICT (Indochina time) UTC/GMT +7 hours

PROGRAM

- 14.00-14.10 Welcome and Introduction
Ms. Tunnie Srisakulchairak
Programme Management Officer,
SWITCH-Asia RPAC
Ms. Helena Rey
Programme Officer, UNEP
- 14.10-14.25 COVID-19 and Tourism: Uncertain future with opportunities and challenges for Sustainable Lifestyles
[Video Presentation]
Dr. Vilas Nitvattananon
Associate Professor of Urban Environmental Management, AIT
- 14.25-14.45 Impact of COVID-19 on Tourism Consumption and Production Patterns in Future: A case study from experts
Mr. Naphol Techaphangam
Founder & CEO, normom
Mr. Tomohiro Hamakawa
Co-Founder, Mana Earthly Paradise
- 14.45-15.00 Prospects and Challenges of Bali Tourism in the Era of COVID-19 Pandemic
Dr. Agung Suryawan Wiranatha
Head of Centre of Excellence in Tourism, Udayana University, Bali
- 15.00-15.15 Community-based tourism and SMEs for adapting to the new normal
Dr. Vilas Nitvattananon
- 15.15-15.25 Q & A
- 15.25-15.30 Closing remarks
Ms. Tunnie Srisakulchairak

BACKGROUND

Although programmes for addressing behaviour change in and around the home are well developed, there has been significantly less attention paid to tourism activities, and its implications of consumption choices for leisure and travel. The tourism sector is one of the hardest hit sectors from Covid-19 and the global lockdown. As international travel has plummeted, tourism has suffered one of the largest downturns and resulted in significant changes in consumer behaviours and sustainable lifestyles. Has this challenge emerged as an opportunity for us to incorporate Sustainable Consumption and Production patterns to build back better the tourism sector post-COVID19, or will the industries return to business as usual?

The webinar will elaborate on the three aspects:

1. Key COVID-19 Impacts, challenges, and opportunities for tourism
2. SCP opportunities to build back better and improve resilience of the tourism post COVID-19
3. The need to build circular models for production and consumption of food, and plastics in the tourism

All these three facets are cross-cutting and would reflect the Sustainable Lifestyles Approaches for SCP in Tourism. We aim to reflect upon the resilience and the mobilization of adaptive capabilities with the case studies and good practices.

Register Here

<https://forms.gle/94qz2SpkxWmUGy99>

CONTACT
Dr. Mushtaq Ahmed Memon
Regional Coordinator for Resource Efficiency
UN Environment Programme, Regional Office for Asia and the Pacific
Project Manager
Regional Policy Advocacy Component
(SWITCH-Asia – the European Union funded programme)
Email: mamem@un.org



Date: September 2, 2020, 10.00 AM to 11.30 AM ICT

Venue: Live Broadcasting from United Nations Conference Centre (UNCC)



Sustainable Public Procurement for Practitioners



Date: 14 – 18 December 2020, 10.00 AM to 05:00 PM ICT

Venue: Online webinar (Zoom Platform)

Disclaimer

This publication was produced with the financial support of the European Union. Its contents are the sole responsibility of the SWITCH-Asia Regional Policy Advocacy Component and do not necessarily reflect the views of the European Union.



Workshop on Sustainable Public Procurement

(note: No group photo due to the online event)

Date: November 25, 2020, 14.30 PM to 16.00 PM (IST)

Venue: Virtual workshop

Activities in 2020!

Regional Dialogue on Driving Mechanisms for Eco-design Implementation in Asia



Date: Wednesday 9 December 2020, 1000-1200 AM
Venue: Bangkok, Thailand

The Policy Dialogue on How Sustainable Consumption Contributes to Circular Economy in China



中国可持续消费现状调研和分析报告

Analysis of the Current Situation on Sustainable Consumption in China

Businesses Accelerating Inclusive Green Economies – Leaving No One Behind

Tuesday, 11 June 2019, Bangkok, Thailand

Flash Report

Name: Businesses Accelerating Inclusive Green Economies – Leaving No One Behind (Side Event of Responsible Business and Human Rights Forum)

Date: Tuesday, 11 June 2019

Venue: UN Conference Center-Meeting Room MR G, Bangkok, Thailand

October 13, 2020, 14:30 PM - 16:30 PM Beijing Time, Online via Tencent

Meeting Link: <https://meeting.tencent.com/s/rQUcvtztM3P1>, Meeting ID: 462 807 519



Regional Policy Dialogue Focusing on Packaging

SUSTAINABLE LIFESTYLES FOR SCP FOCUSING ON PACKAGING WITH AN ADDITIONAL FOCUS ON COVID-19

19 November 2020, Thursday | 14.00 hrs
Bangkok Time ICT (Indochina time) UTC/GMT +7 hours

Activities in 2020!

Regional Policy Dialogue on Circular Economy

“Moving Towards Circular Economy for Plastic Waste Management”



Date: October 20, 2020, 14:00 hrs. (Bangkok Time)



Sustainability Reporting – Thinking Circular Economy by Businesses



Activities in 2020!

**Supporting decision making
on SCP through training
on Sustainable Procurement**



**Life Cycle Costing and Life Cycle Assessment for
Sustainable Public Procurement and Circular Economy**

Role of Digital Technologies for Circular Economy

**Combating Plastic Pollution and Marine Litter through
Sustainable Public Procurement and Circular Economy**

Activities in 2020!



A webinar to launch a series of policy dialogue on sustainable lifestyles in Asia and an offline course on Circular Economy



Date: September 2, 2020, 10.00 AM to 11.30 AM ICT

Venue: Live Broadcasting from United Nations Conference Centre (UNCC)



Sustainable Public Procurement for Practitioners



Workshop on Sustainable Public Procurement

(note: No group photo due to the online event)

Date: November 25, 2020, 14.30 PM to 16.00 PM (IST)

Venue: Virtual workshop

Regional Policy Dialogue on Circular Cities

RAPID URBANIZATION AND NEW MODELS OF CIRCULAR ECONOMY SUSTAINABLE CITIES

4 December 2020, Friday | 14.00 hrs
Bangkok Time ICT (Indochina time) UTC/GMT +7 hours

BACKGROUND

The cities are growing rapidly in number and in size as the economic activities, education, health, recreation, and basic amenities are stimulating urbanization. However, the environmental footprints of the cities are alarmingly high in terms of extraction of natural resources to sustain socioeconomic activities in the cities and also in terms of pollution, green house gases and waste coming out of the cities. This is creating a vicious circle for the cities in obtaining the natural resources as well as to provide quality of life and basic amenities to their citizens. The depletion of natural resources due to over extraction and over exploitation as well as due to contamination due to the pollution coming out of the cities has created an urgency to support the cities in doing the business differently.

Circular economy approach, by closing the loop as local as possible and by increasing the resource efficiency at local level, could help cities transformation to be sustainable with happier and healthier citizens. The concept of "Circular Cities" is to reduce the intake of natural resources and to reduce the pollution and negative environmental impacts through resource efficiency is the focus of this dialogue. Sustainable consumption and production practices based on lifecycle assessment approach could provide basis for circular economy utilizing various aspects and focusing on various actors within the cities.

PROGRAM

14.00-14.10	Opening and Moderation <i>Dr. Mushtaq Memon</i> Regional Coordinator Resource Efficiency in Asia Pacific United Nations Environment Programme (UNEP)
14.10-14.20	SWITCH-Asia Experiences <i>Ms. Beatriz Maroto Izquierdo</i> Mongolia Country Director of the NGO Green and Switch EU Project Coordinator
14.20-14.30	Role of Urban Planning <i>Associate Prof. Dr. Ali Gul Qureshi</i> Associate Professor, Department of Urban Management, Graduate School of Engineering Kyoto University
14.30-14.40	Socioeconomic Aspects Including Gender <i>Prof. Kyoko Kusakabe</i> Professor, Department Head Department of Development and Sustainability
14.40-14.50	Penang City's Efforts, Malaysia <i>Ms. Josephine Tan (Jo)</i> General Manager, Penang Green Council, Malaysia
14.50-15.10	Keynote Speech - Experiences of Cities in Finland <i>Mr. Heikki Karhu</i> Deputy Head of Mission, Embassy of Finland in Thailand
15.10-15.25	Q & A
15.25-15.30	Closing and Next Steps <i>Dr. Mushtaq Memon</i>

Register Here

<https://forms.gle/6nCPbxUJVSUV1v7w8>

CONTACT

Dr. Mushtaq Ahmed Memon
Regional Coordinator for Resource Efficiency
UN Environment Programme, Regional Office for Asia and the Pacific
Project Manager
Regional Policy Advocacy Component
(SWITCH-Asia - the European Union funded programme)
[Email: Ememon@un.org](mailto:Ememon@un.org)

Activities in 2020!



Flash Report

SWITCH-Asia Leadership Academy 2020

Communicating Circular Economy for Behavioural Change



Date: 14 – 18 December 2020, 10.00 AM to 05:00 PM ICT

Venue: Online webinar (Zoom Platform)

Disclaimer

This publication was produced with the financial support of the European Union. Its contents are the sole responsibility of the SWITCH-Asia Regional Policy Advocacy Component and do not necessarily reflect the views of the European Union.



OBJECTIVE

To identify the pathways in accelerating innovations for circular economy. The pathways include the enabling environment and capacity building for green startups, innovative policies and financing mechanisms, and creating demand for innovations sustainable consumption as a result of sustainable lifestyles.

TARGET AUDIENCE

- ⇒ Students/ Teachers
- ⇒ Entrepreneurs/ Startups
- ⇒ Government/ Development Agencies
- ⇒ Anyone who wants to start a 'green' business

PROGRAM

<p>14.00-14.05</p> <p>Opening and Moderation Dr. Mushtaq Ahmed Memon <i>Regional Coordinator, Resource Efficiency in Asia Pacific, United Nations Environment Programme</i></p>	<p>14.35-14.45</p> <p>SWITCH-Asia Experiences Dr. Arab Hoballah <i>Team Leader, EU-SWITCH-Asia SCP Facility</i></p>
<p>14.05-14.15</p> <p>Innovation Labs and Startups for Green Innovations Prof. Dieter Trau <i>Dean, AIT School of Engineering and Technology, Director, AIT Entrepreneurship Center</i></p>	<p>14.45-14.55</p> <p>Learning from UNEP Startups, "Low Carbon Lifestyle Challenge"</p> <div style="display: flex; justify-content: space-around;"> <div style="text-align: center;"> <p>Ms. Kai Kai Yang <i>CEO, Dipole</i></p> </div> <div style="text-align: center;"> <p>Ms. Linh Le <i>Founder, Ayacup, Vietnam</i></p> </div> </div>
<p>14.15-14.25</p> <p>Innovative Policies and Financing Mechanisms for Green Innovations and Startups Ms. Nelly Andrade <i>Head of Global Programs, Hult Prize Foundation</i></p>	<p>14.55-15.25</p> <p style="text-align: center;">Q & A</p>
<p>14.25-14.35</p> <p>Creating Demand Through Sustainable Consumption and Sustainable Lifestyles Ms. Moh Suthasiny Sudprasert <i>Co-founder, Happy Grocers, Thailand</i></p>	<p>15.25-15.30</p> <p>Closing and Next Steps Dr. Mushtaq Ahmed Memon</p>



Register Here
<https://bit.ly/3fDk1u>

CONTACT

Dr. Mushtaq Ahmed Memon
Regional Coordinator for Resource Efficiency
UN Environment Programme, Regional Office for Asia and the Pacific
Project Manager
Regional Policy Advocacy Component
(SWITCH-Asia – the European Union funded programme)
Email: memon@un.org

UNEP
The Asia Pacific low carbon lifestyles challenge (2018)

18 - 22 March 2019
 Bangkok, Thailand

Overview Training Agenda Finalists

Mobility



Name: Lathika Chandra Mouri
 Age: 22
 Nationality: Indian
 Category: Mobility
 Project: Powering electric vehicles with solar power using blockchain technology
[View profile](#)



Name: Haqam Uddin
 Age: 22
 Nationality: Pakistani
 Category: Mobility
 Project: Tassan: Sharing the road, Optimizing routes
[View profile](#)



Name: Saethanga De Silva
 Age: 22
 Nationality: Sri Lankan
 Category: Mobility
 Project: Smartifying tuk-tuks
[View profile](#)



Name: Shuting Liu
 Age: 20
 Nationality: Chinese
 Category: Mobility
 Project: Turning gutter oil into sustainable fuel
[View profile](#)

Energy



Name: Deependra Poudel
 Age: 21
 Nationality: Nepalese
 Category: Energy
 Project: Installing smart energy meters in Shunan
[View profile](#)



Name: Mark Anthony Villafra
 Age: 22
 Nationality: Filipino
 Category: Energy
 Project: Sustainable energy for sustainable tourism in the Philippines
[View profile](#)



Name: Manish Kumar Singhpuria
 Age: 21
 Nationality: Indian
 Category: Energy
 Project: Cooling buildings using neural designer
[View profile](#)



Name: Mohammed Saqib
 Age: 22
 Nationality: Pakistani
 Category: Energy
 Project: Energy efficient modular homes for displaced people
[View profile](#)

Plastic Waste



Name: Ichmah Solihin
 Age: 22
 Nationality: Indonesian
 Category: Plastic Waste
 Project: Making biodegradable plastic from waste material
[View profile](#)



Name: Angelita Garcia
 Age: 22
 Nationality: Samoan
 Category: Plastic Waste
 Project: Reducing waste with reusable sanitary pads
[View profile](#)



Name: Bonnie Samanasekharani
 Age: 22
 Nationality: Thai
 Category: Plastic Waste
 Project: Reducing plastics in food delivery
[View profile](#)



Name: Pamela Nicole Mejia
 Age: 22
 Nationality: Filipino
 Category: Plastic Waste
 Project: Making plastic waste fashionable
[View profile](#)

Activities in 2020!

UN environment programme

Who are we ▾ Where we work ▾ What we do ▾ Science & Data

AWARD

The Asia Pacific Low Carbon Lifestyles Challenge

13 November - 31 January 2020

Overview Criteria 2019 Alumni

OVERVIEW

Do you want to make lifestyles more sustainable in Asia and the Pacific?

We are looking for early stage start-ups that make sustainable goods and services more readily available. From low carbon mobility options, to products that reduce plastic waste, to solutions that reduce the carbon footprints of our lifestyles – pitch your solution to us for the chance to win \$10,000, training, production of your very own video, and business mentorship from industry

<p>PLASTIC WASTE</p> <p>RIKESH GURUNG Bhutan THE GREEN ROAD Using plastic waste in place of bitumen in road construction</p>	<p>ENERGY</p> <p>KAIKAI YANG China WATTIME PLATFORM Cheap and reliable platform for renewable energy and energy bill payment</p>	<p>MOBILITY</p> <p>PICHAYANUN BENJABONYAPISUT Thailand KAISER CO Integrating solar powered eVehicle charging stations in to roofs for factory workers</p>
<p>PLASTIC WASTE</p> <p>SISSI CHAO China REMAKEHUB Upcycling marine litter into consumer products</p>	<p>ENERGY</p> <p>OSAMA BIN SHAKEEL Pakistan ENENT INTELLICA Energy efficiency device that stabilises home electricity loads</p>	<p>MOBILITY</p> <p>AJAY SINGH India NIMRAY NETWORK Connecting electric rickshaws to solar powered charging stations</p>
<p>PLASTIC WASTE</p> <p>LINH LE Vietnam AYA CUP Reusable cup share system for takeaways and home delivery</p>	<p>ENERGY</p> <p>TUAN TRAN Vietnam Airiot IoT device to turn off AC when occupants leave home</p>	<p>MOBILITY</p> <p>EARTH CHOCHUT Thailand ETRAN E-bikes for public transport and online delivery</p>

Activities in 2021!

switchasia
REGIONAL POLICY ADVOCACY

AIT
Asian Institute of Technology

UN
environment
programme



WEBINAR: CONTEXTUALIZING THE CIRCULAR ECONOMY FOR ACTION

A FEW PERSPECTIVES FROM ASIAN COUNTRIES

4 February 2021, Thursday | 14.00 hrs

Bangkok Time ICT (Indochina time) UTC/GMT +7 hours

AIT
Asian Institute of Technology

UNEP and AIT WEBINAR Series

COVID-19 & PLASTIC POLLUTION

WHAT DID THE REGION LEARN - A REFLECTION FROM ONE YEAR OF PANDEMIC

Regional Webinar Series #1: South Asia

26 February 2021, Friday, 14:00 - 15:30 hrs (Bangkok time) GMT+7



Background:

COVID-19, a devastating global health challenge of recent times, threatened world's economy and challenged global environmental sustainability. Mobility restriction, physical distancing and heightened care for hygiene and safety as measures to contain COVID-19 brought changes in lifestyles and consumption pattern. A surge in single-use plastic (SUP) usage as healthcare measures - disposable personal protective equipment and lifestyle changes - plastics packaging from E-commerce activities, was noticed during the pandemic. Plastics kept frontline medical professionals and even the general public safe from minimizing the risk of coronavirus exposure and transmission. However, it also resulted in additional medical plastic waste generation from hospitals, quarantine centres, and households. Similarly, a rise in E-commerce activities for daily essentials like food, and a false sense of safety in single-use plastics over reusable, caused a noticeable hike in municipal plastic packaging waste.

Inadequate and mismanagement of both medical and municipal plastic waste due to a dramatic surge in the volume of potentially infectious nature, followed by breakdowns or temporary disruption in the regular collection, treatment, recovery & recycling, and safe disposal aggravated the plastic pollution load into the terrestrial, aquatic and marine environment.

South Asia, where most municipalities and health care institutions already faced the challenge of proper waste management even in pre-COVID times, are further burdened with COVID-19 induced plastic waste. Already over a year, the pandemic is continuing with a looming danger of the second wave. This Webinar thus aims to explore how South Asia tackled and plans to navigate from the 'plastic pandemic' by discussing:

1. **challenges** faced by the region to manage COVID-19 induced plastics and plastic packaging waste
2. **Innovations** adopted by the region (product, technology, financing and business model optimization etc.) for achieving a sustainable plastic and packaging waste management
3. **lessons** learned by the region to tackle a continued surge in plastics in case of continued COVID-19 or future pandemics

Agenda

- | | |
|---------------|--|
| 14:00 - 14:10 | Opening remarks
<i>Kakuko Nagatani-Yoshida</i>
Regional Coordinator for Chemical, Waste and Air Quality, UNEP Regional Office for Asia and the Pacific |
| 14:10 - 14:20 | Assessment of COVID-19 plastic waste flows in South Asia
<i>Amit Jala</i>
Director, IIG-Systems South Asia Pvt. Ltd. |
| 14:20 - 14:30 | Plastic & plastic packaging waste from online food delivery during COVID-19
<i>Ganesh Kollegal</i>
AIF-Government Affairs & Public Policy, Swiggy India |
| 14:30 - 14:40 | Plastic waste management in the health care sector during COVID-19 pandemic in Sri Lanka: Success stories, issues and concerns
<i>Dr. Inoka Suraweera</i>
Technical Head of the Environmental and Occupational Health Unit at the Ministry of Health, Sri Lanka |
| 14:40 - 14:50 | Health care waste management during COVID-19 pandemic - observed trends, challenges and recommendations for policy and practice
<i>Terrence Thompson</i>
Consultant, Environment and Health |
| 14:50 - 15:00 | COVID-19 & E-commerce plastic packaging
<i>Prof. Chettyjeyapalan Visvanathan</i>
Professor, Asian Institute of Technology |
| 15:00 - 15:20 | Q&A Session |
| 15:20 - 15:30 | Wrap Up & Closing remarks
<i>Dr. Mushtaq Ahmed Memon</i>
RC for RE in Asia Pacific, UNEP Regional Office for Asia and the Pacific |

CONTACT

Dr. Mushtaq Ahmed Memon
Regional Coordinator for Resource Efficiency
UNEP Regional Office for Asia and the Pacific
Project Manager
Regional Policy Advocacy Component
(SWITCH-Asia - the European Union funded programme)
Email_memon@unep.org



REGISTER HERE

<https://forms.gle/9Wj6Uj9d4k2a2E>

AIT
Asian Institute of Technology

UN
environment
programme

CIRCULAR ECONOMY OFFLINE COURSE

FOCUSING ON SUSTAINABLE CONSUMPTION AND PRODUCTION TO SUPPORT SDG 12



The offline course is designed to enhance knowledge and understanding of the participants and share practices of the virtuous circle of circular economy and sustainable lifestyles which are fundamental principles of sustainable consumption and production (SCP) and vehicles to achieve overall SDGs particularly SDG 12, Responsible Consumption and Production.

The course provides contents from experienced speakers from their expert field such as policies and regulatory frameworks, R&D, technology, sustainable design, business models and awareness raising campaign for increased stakeholder engagement and behavior changes.

PURPOSE:

To share knowledge and discuss various aspects of circular economy contributing to transform lifestyles into sustainable lifestyles. It going beyond lifestyles transformation and focused on sustainable production



AUDIENCE

Mid-level policymakers & practitioners from private sector, academia & advocacy groups; & enthusiasts



PLATFORM & DURATION

Online and self-paced (via AIT Share)
Self-paced modules of 30 minutes each (Total 6 modules)



ASSESSMENT

Built-in self-assessments within each module to improve self-learning



TECHNICAL SUPPORT

Periodic moderated discussions with invited experts to reply to the questions of the participants which are collected online before hand

Startups for 2021-2022

	Plastics and packaging	Food waste and food loss	Sustainable mobility	Renewable energy	Sustainable housing and construction	Digital technologies
Call						
Selection						
Bootcamp						
Update Technology Business models Marketing						
Investment Forum						
Toolkit and training for wider range of startups						

Partners: 10YFP, Ministry of Environment Japan, IGES?, KEI?, GO4SDGs? ADB? AIT? Mitsui, APRSCP?, MEF...

Thank you!

Mushtaq Ahmed Memon, Ph.D.

Regional Coordinator Resource Efficiency

Project Manager, Regional Policy Advocacy, EU-funded SWITCH-Asia

United Nations Environment Programme- Asia and the Pacific Office

memon@un.org

www.unenvironment.org/regions/asia-and-pacific