

Circular Economy for Plastics Management

Combat Plastic Pollution
Create Solution

Implementation by UN Environment

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Famous dugong dies after eating plastic

🕒 17 August 2019



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PROBLEM STATEMENT

8.3 billion tonnes of plastic have been produced, using 17 million barrels oil each year

80% remains in landfills or the environment, 100 years for plastic to degrade in the environment, 13 million tonnes of plastic enter ocean each year

1 million plastic bottles, 10 million plastic bags bought every minute

50% of consumer plastics are single use, and 10% of all human-generated waste is plastic

100,000 marine animals killed by plastics each year

90% of bottled water found to contain plastic particles, 83% of tap water

Taj Mahal

95 m

8.3 Billion Tonnes
of Plastic

1,818 m

PROBLEM STATEMENT

Marine litter: A mammoth challenge for our oceans

By 2050, an estimated

99%

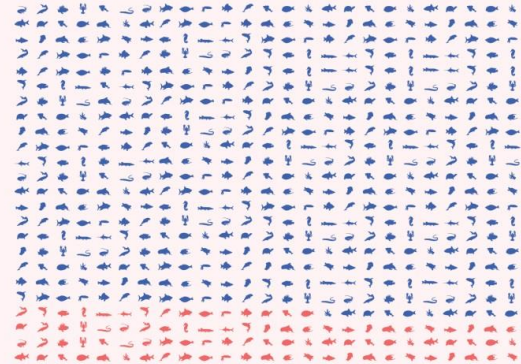
of seabirds will have
ingested plastic



Marine litter harms over

600

marine species



15%

of species affected by
ingestion & entanglement
from marine litter are
endangered



By 2050, **99% of seabirds** will have
ingested plastic

Marine litter harms over
600 marine species

15% of species affected
by ingestion & entanglement
from marine litter are
endangered

CHANGING SCENARIO....



Growing population

from 7 billion today
to 9 billion by 2050



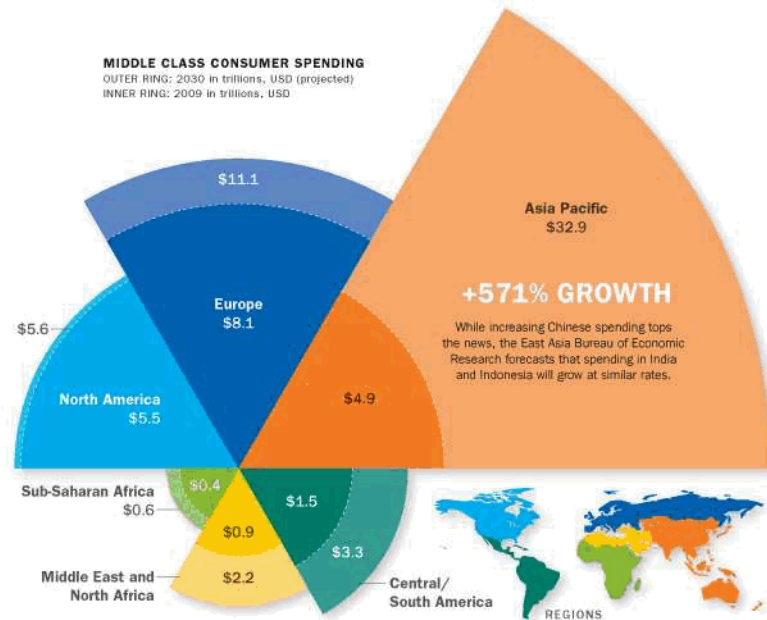
**Economic develop-
ment** and increasing
global trade



Growing middle-class
with **changing con-
sumption patterns**



Increasing
consumption
of biomass

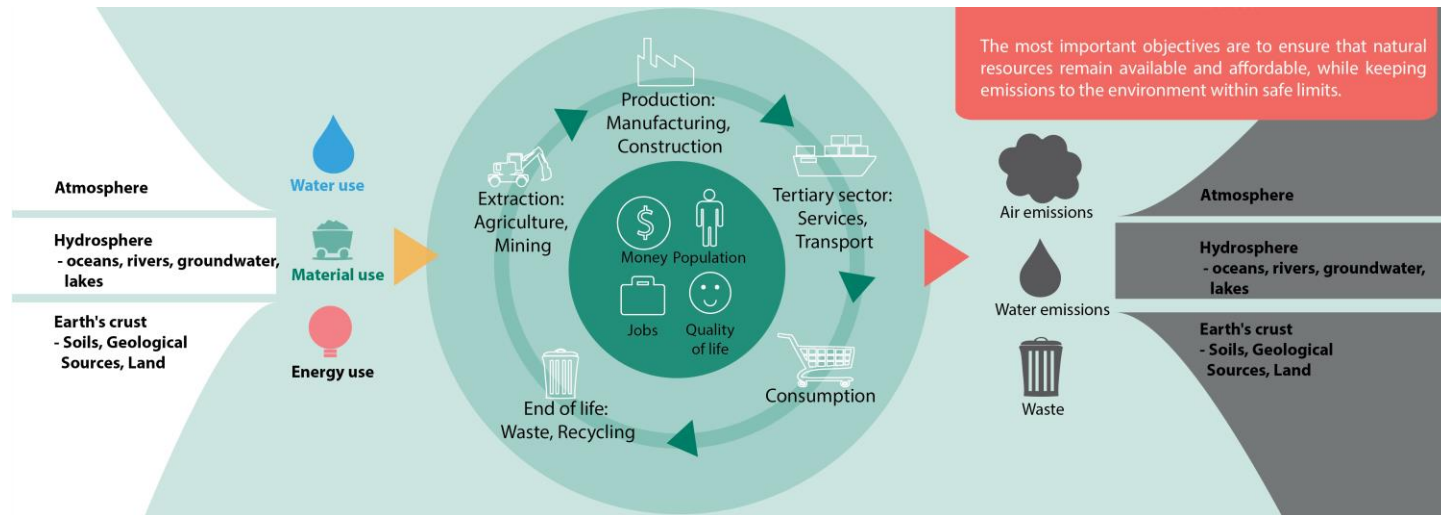


CONVENTIONAL MODEL

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

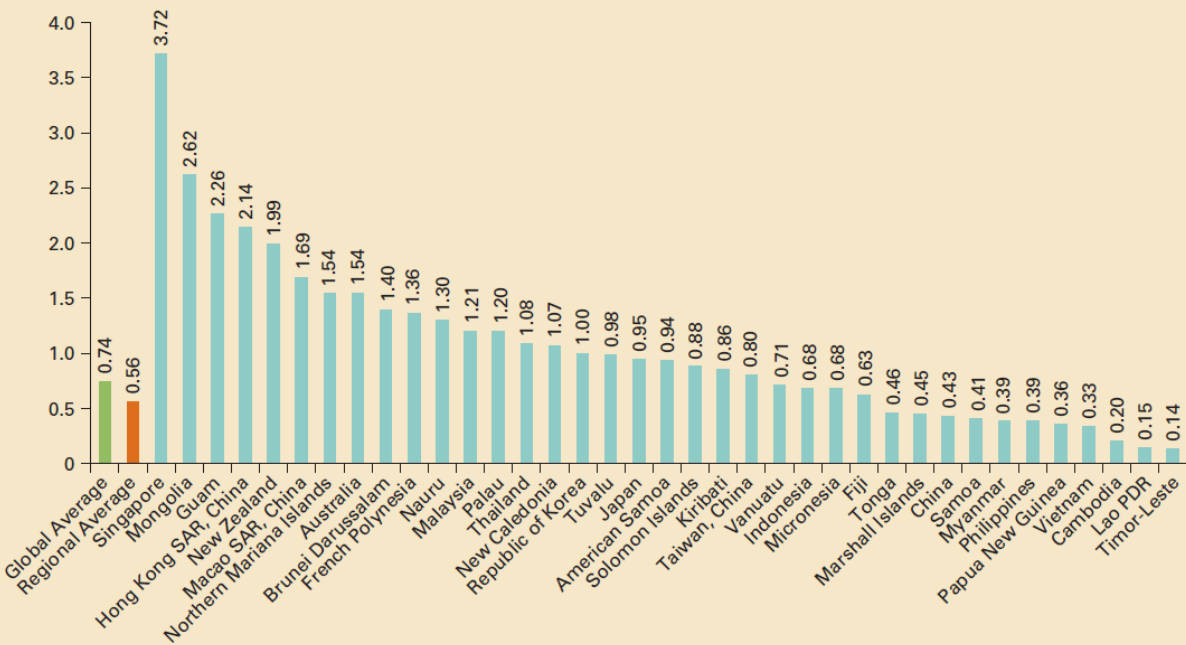
Asia Pacific home
to
**< 4.2 billion
people**

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



Waste data (example of Southeast Asia & Pacific)

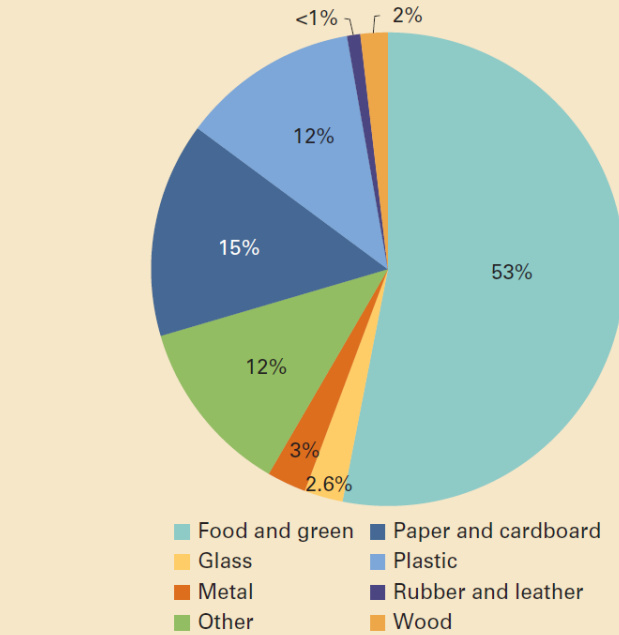
Figure 3.1 Waste Generation Rates: East Asia and Pacific Region
kg/capita/day



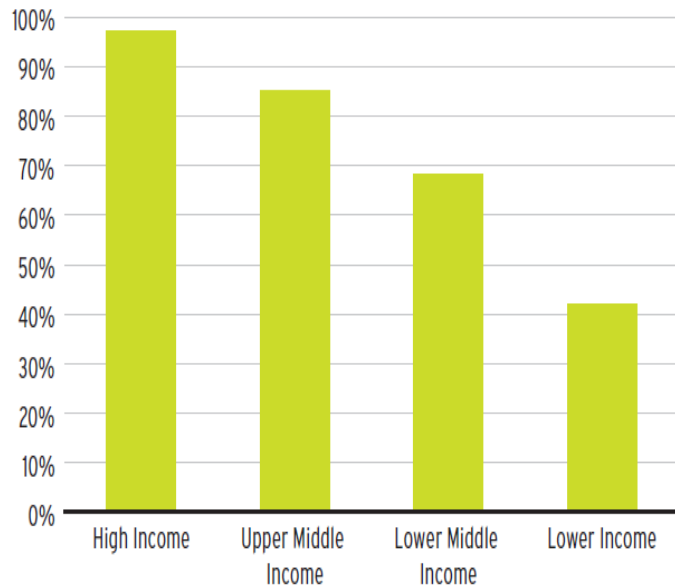
Note: Data adjusted to 2016 as described in box 2.1; kg = kilogram.

Source: The World Bank 2018
What a Waste: A Global Snapshot of Global Municipal Waste to 2050

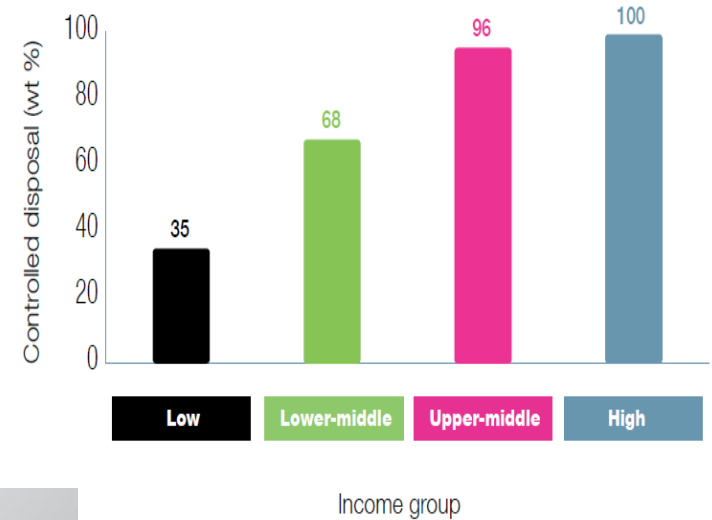
Figure 3.2 Waste Composition in East Asia and Pacific
percent



WASTE MANAGEMENT IS EXPENSIVE



Waste Collection Rates by Income, World Bank (2012)



SOLUTION STATEMENT

Generating circular economy for plastics to reduce plastics pollution and increase resource efficiency:

- goods (plastics and plastic containing),
- services (catering, waste management,),

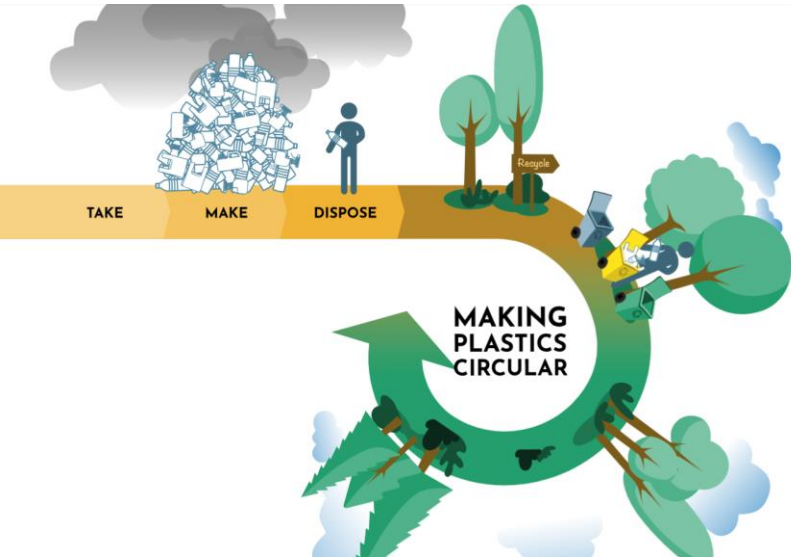


FIGURE 1: THE WASTE HIERARCHY (Directive 2008/98/EC)

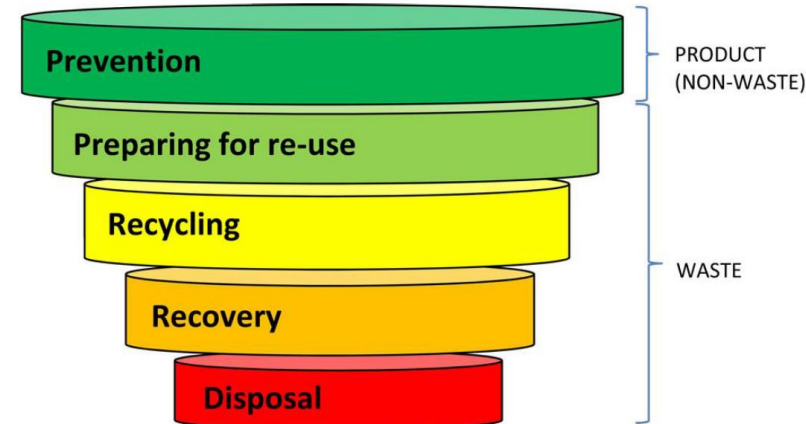
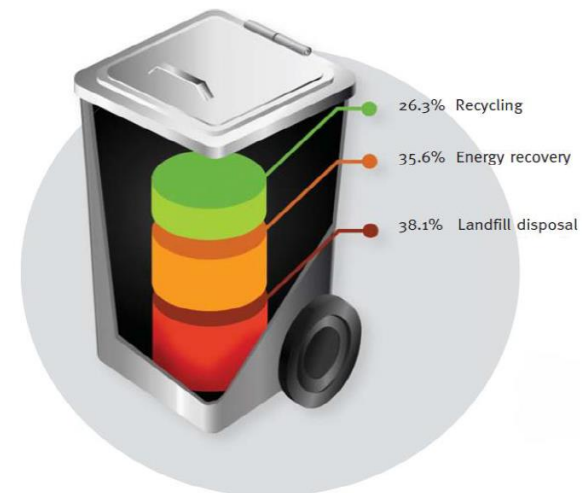


FIGURE 2.

DISTRIBUTION OF RECYCLING, ENERGY RECOVERY AND LANDFILL DISPOSAL OF POST-CONSUMER PLASTICS IN 2012 FOR EUROPE (PlasticsEurope, 2013).



Circular Economy is paradigm shift from Waste Management to Resource Management

20th CENTURY

WASTE MANAGEMENT

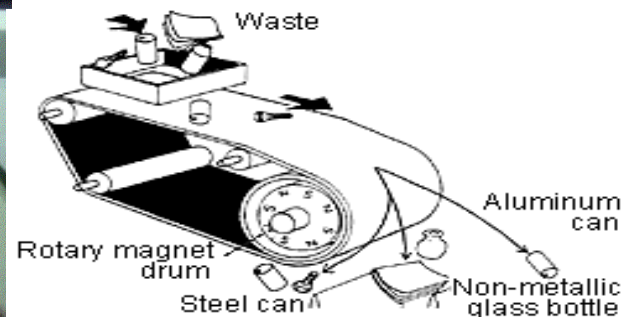
“How do we get rid of our waste efficiently with minimum damage to public health and the environment?”



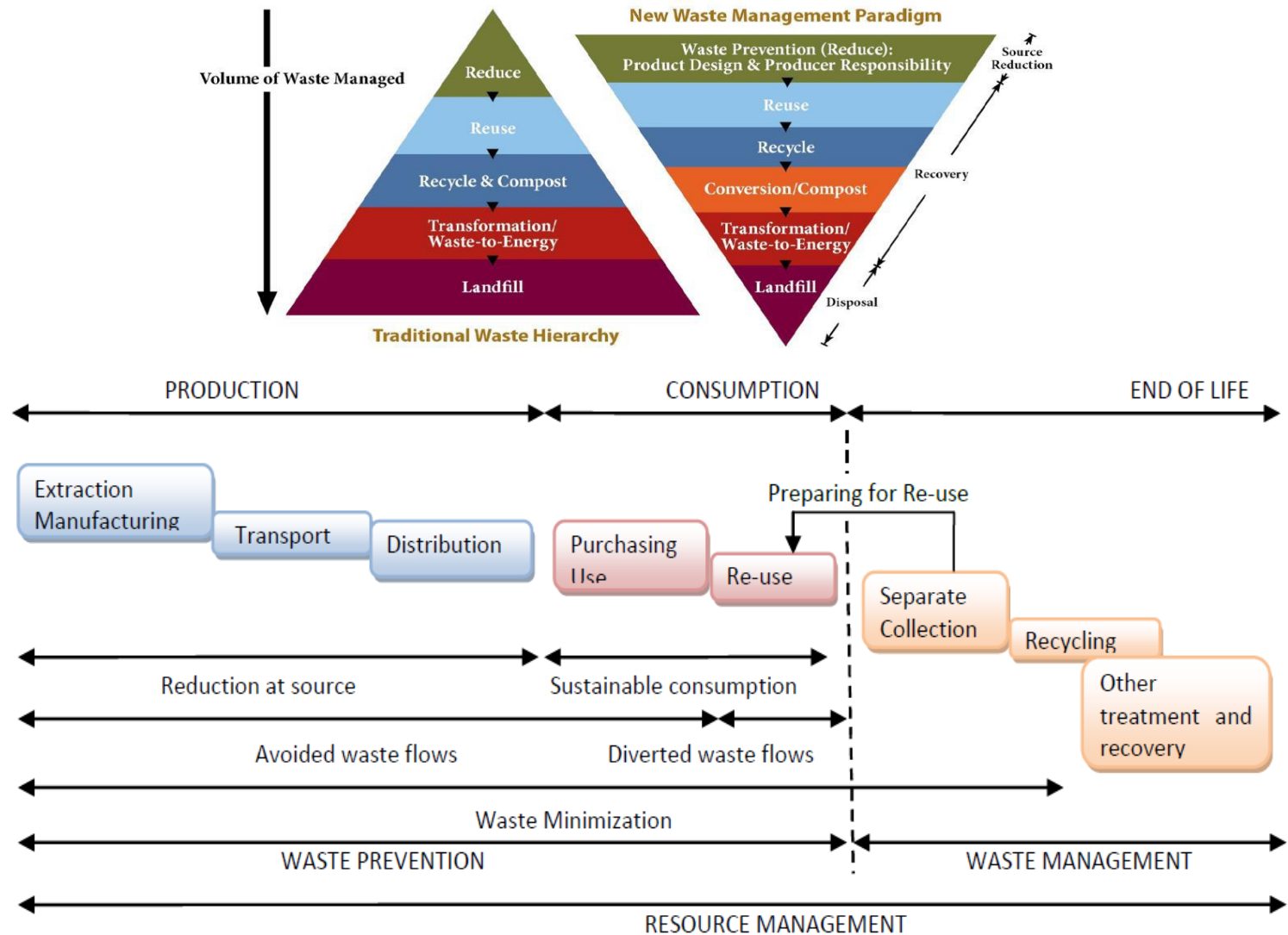
21st CENTURY

RESOURCE MANAGEMENT

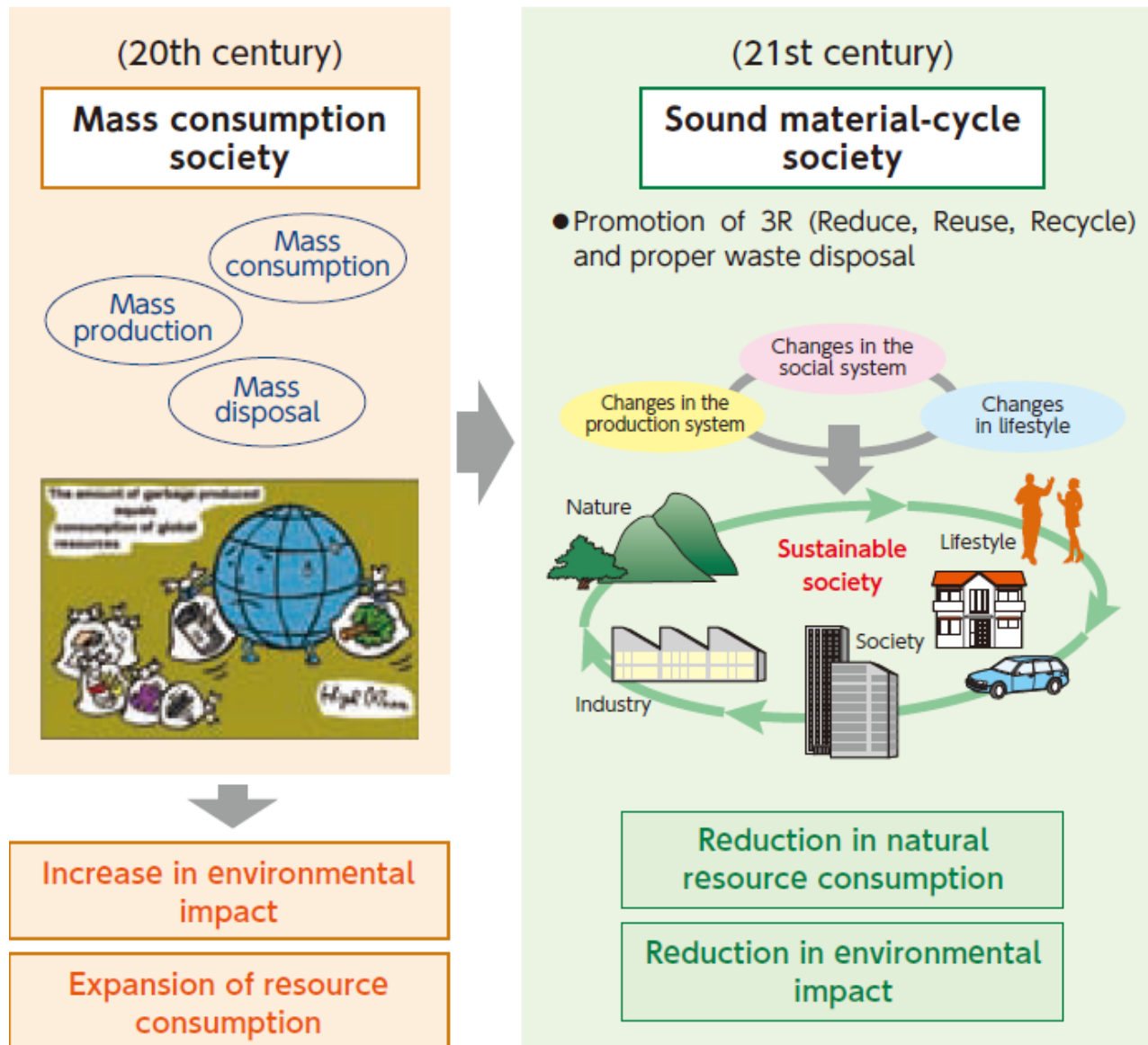
“How do we handle our discarded resources in ways which do not deprive future generations of some, if not all, of their value?”



Resource Management



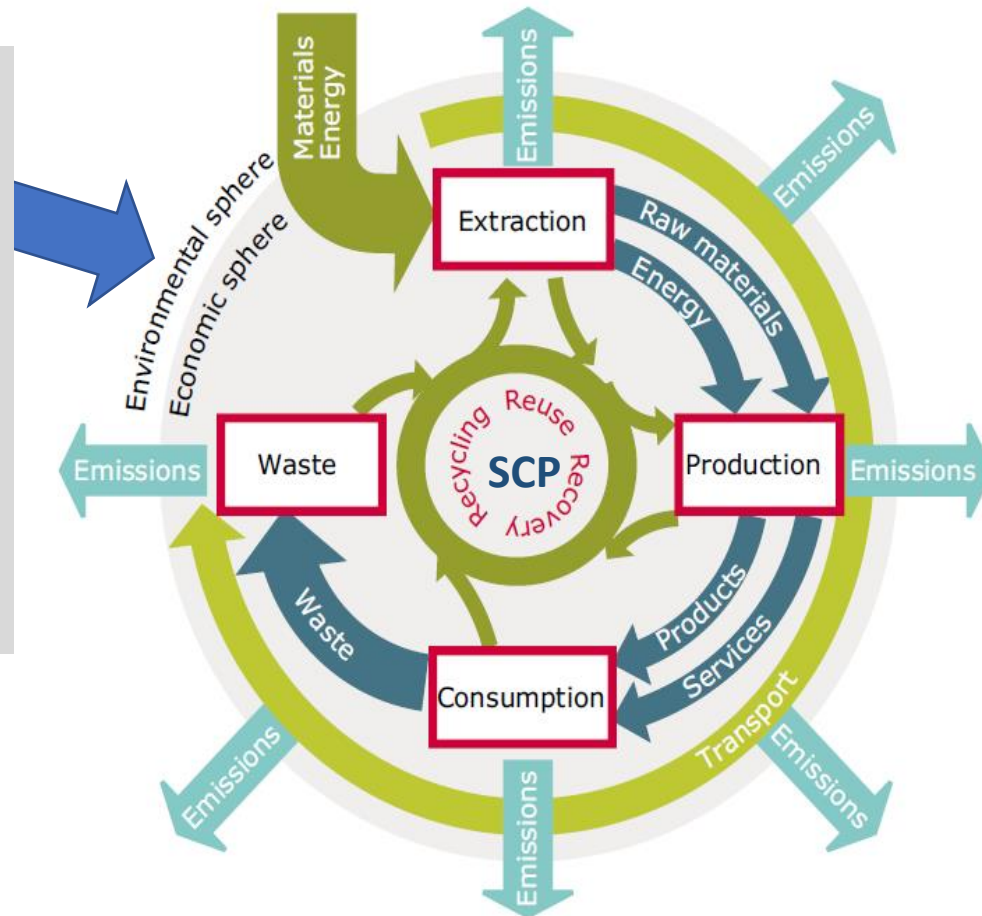
Moving towards Resource Management



Sustainable Consumption and Production: A tool for design circular economy

Enabling Environment

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

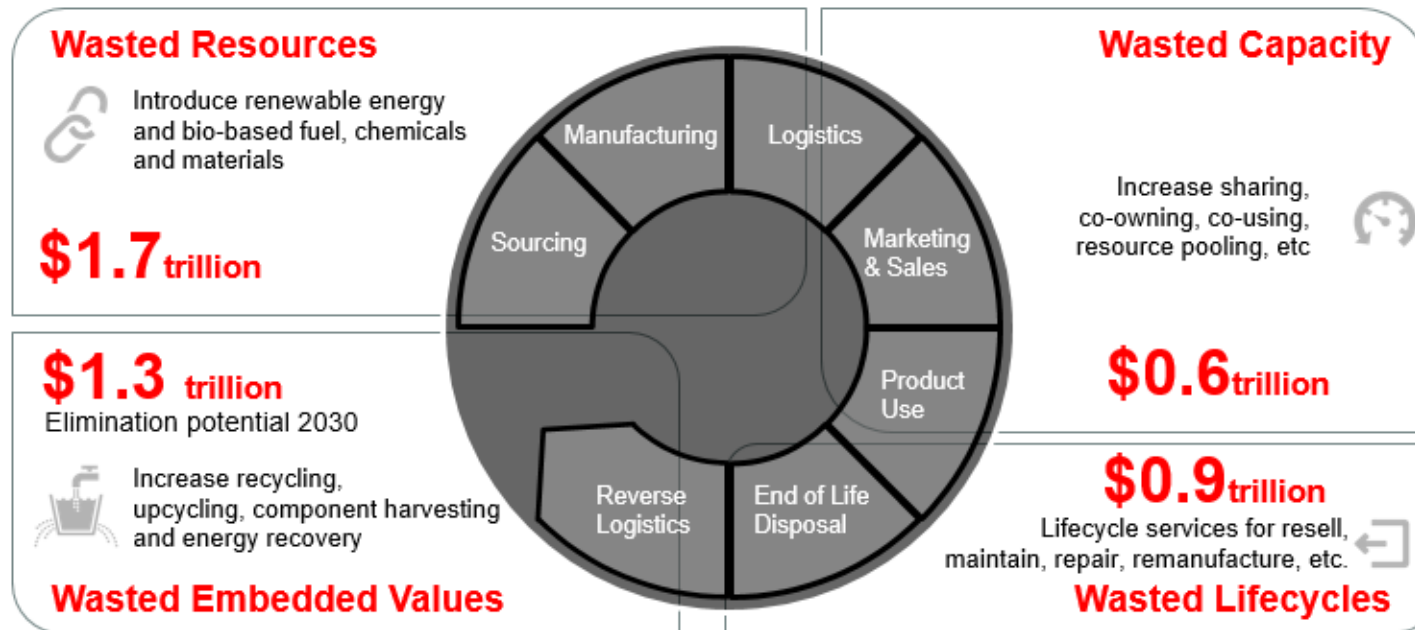


Creating Enabling Environment

- 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



Estimated Benefits of Circular Economy in India

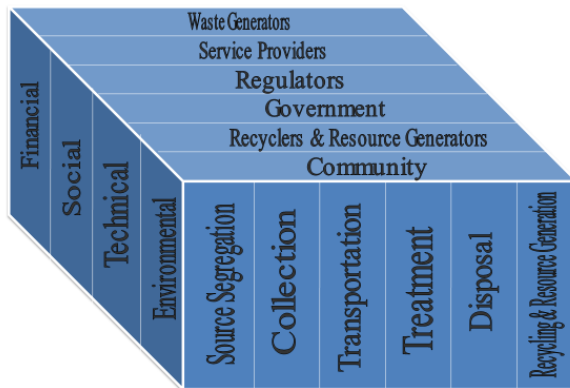


- **Wasted resources** are materials and energy that cannot be continually regenerated, but instead are consumed and forever gone when used.
- Products with **wasted lifecycles** have artificially short working lives or are disposed of even if there is still demand for them from other users.
- Product 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.

UNEP SUPPORT ON WASTE MANAGEMENT SYSTEM

- UNEP produced guidelines and training materials with pilot support to assess the waste management system and gaps there in for regulations, financing, technology, institutionalisation, and stakeholders' roles and engagement for integrated waste management and for major waste streams including municipal waste, waste plastics, E-waste, and waste agricultural biomass.
- For pilot cities, capacity were built on waste data, assessment of waste management system, target setting, stakeholders' concerns for achieving targets and formulating integrated waste management plan to strengthen current waste management system.
- Major lessons learned from UNEP's capacity building and pilot projects including (1) political will, (2) stakeholder engagement, (3) raising awareness on health and environment impacts of waste, (4) waste management shall be based on polluter pay principle, (5) waste is not a resource worthy of generating but to manage waste efficiently, it has to be treated as a resource, and (6) closing the loop as local as possible to reduce negative impacts of even recycling.

Roles and Responsibilities



EU-FUNDED SWITCH-ASIA RPAC

Policy Advocacy Component

To strengthen the dialogue at regional, sub-regional and national policies on Sustainable Consumption and Production in selected Asian countries, thereby contributing to green growth and reduction of poverty in these countries.

Activity areas

- Advocacy of SCP-related regulatory framework at regional, sub-regional and national fora.
- Demonstration of SCP policy instruments.
- Support the uptake and reporting of SDG 12 and related SDG targets across the 2030 Agenda.

DELIVERY

**Reducing marine
litter by addressing
the management of
the plastic value
chain in Southeast
Asia**



SWITCH-ASIA (EU Funded) for Sustainable Consumption and Production - Green Public

Pro Environmental problems

When combusted post-consumer plastics generate **CO₂ emissions** from fossil fuels

Post-consumer plastics at EU level suffer from suboptimal waste management practices, indicating **inefficient use of natural resources**

Additives to plastics may contain **harmful substances** that complicate recycling processes

GPP Approach

Procurement of products containing plastics should include requirements for:

1. Reparability, reusability and for recycled plastics whenever feasible.
2. Avoiding composite materials and plastics with black/near black color as these complicate recycling processes, except when made from recycled plastics
3. Excluding plastics exceeding certain threshold levels of harmful substances and/or mixtures.

Objectives

Increasing demand for recycled plastic

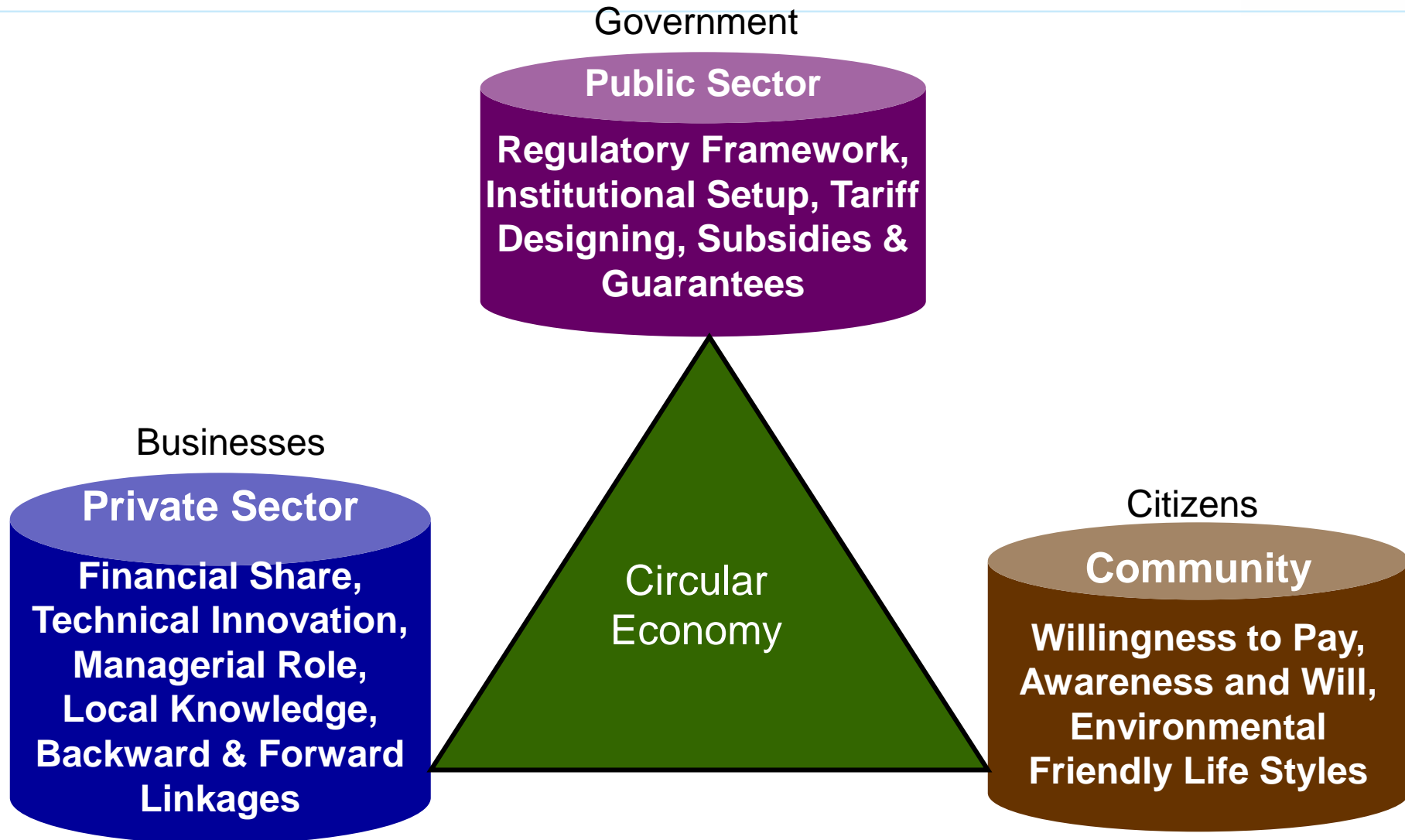
Increasing recyclability

Reducing use of harmful substances

PARTNERSHIPS

- The European Union funded SWITCH-Asia (Regional Policy Advocacy Component by UN Environment) for sustainable consumption and production in Asia
- Government of Sweden supported project in Southeast Asia
- Government of Japan supported project in Mekong sub region and India
- Government of Japan supported project on sustainable lifestyles
- Government of Republic of Korea support on green public procurement

WAY FORWARD



Thank you!

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<https://www.unenvironment.org/regions/asia-and-pacific>