

## Section 2

# Green Economy Related Concepts

# 9

## Learning Unit

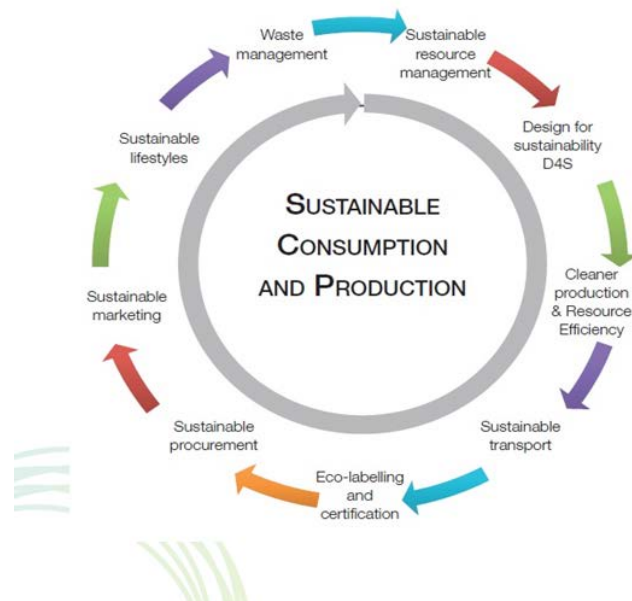
# Sustainable Consumption and Production

The way we consume and produce has major consequences for well-being, social development and the environment. In this unit, the concept of Sustainable Consumption and Production, life-cycle thinking and related strategies are introduced.

PAGE Green Economy Introductory Learning Materials



# What is SCP?



SCP is a holistic approach to minimizing the negative environmental impacts from consumption and production systems while promoting quality of life for all

UNEP 2011

## Speaker's Notes:

- This slide provides a definition of the concept of Sustainable Consumption and Production (SCP). The figure illustrates the various sectoral applications of SCP, ranging from waste management, to cleaner production, and sustainable lifestyles.
- The concept of SCP is not new – definition has been provided as early as 1994 at the Oslo symposium, but it has evolved and deepened in recent years.
- The concept of Sustainable Consumption and Production (SCP) has emerged in order to develop effective responses to the need for environmental protection and improved human well-being (UNEP, 2008) and is considered key for designing and implementing policies and measures that can achieve both development and environmental sustainability.
- In the new Post-2015 Development Agenda, SCP takes up an important pace as a self-standing Sustainable Development Goal (SDG).

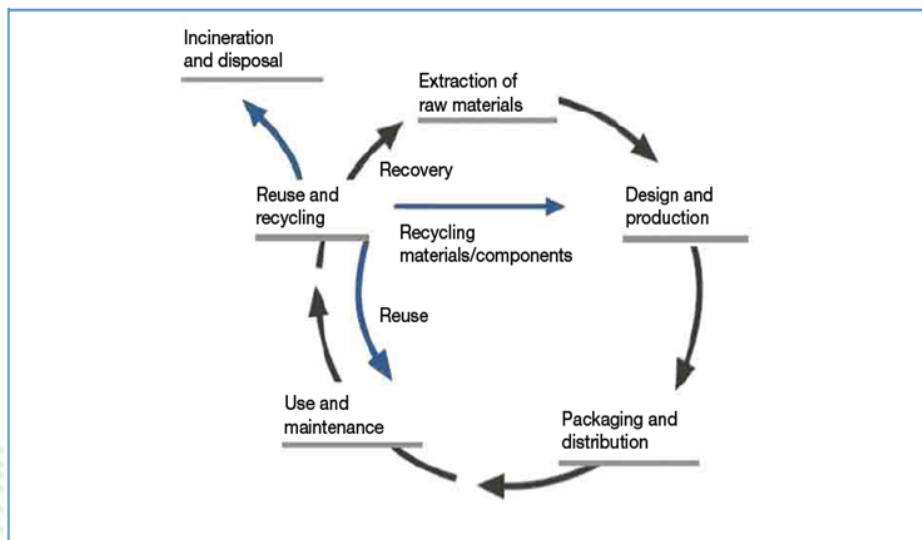
## **Key Message**

- SCP is a holistic approach, which aims at the minimization of the negative environmental impacts from consumption and production systems, while in the same time improving human well-being and promoting quality of life for all (UNEP, 2011).

## Further Reading:

- UNEP, 2012, SCP Handbook for Policy Makers, <http://archive.switch-asia.eu/switch-asia-learn/scp-handbook-for-policy-makers.html>

# Applying Life-Cycle Thinking to Sustainable Production and Consumption



UNEP, 2011

## Speaker's Notes:

- The graph in this slide provides a schematic representation of the life-cycle of products.
- Each product's life-cycle can be divided into five major stages: raw materials extraction, design and production, packaging and distribution, use, and end-of-life.
- A life-cycle thinking approach takes into account resource use and environmental impact across all relevant life-cycle stages.
- In the case of a laptop computer, for example, large amounts of resources are consumed during the production stages – in fact, many times more than the weight of the computer itself. During its use phase the laptops consumes a certain amount of energy. If recycling is not done properly there could be significant harm to humans and the environment, in addition to the depletion of already scarce metals.
- Applying the concept of life-cycle thinking and taking a systems approach to SCP policy making helps policy makers assess and evaluate not only the environmental footprint of individual products and production processes, but also, more broadly, the environmental and socio-economic impacts from the production and consumptions of various goods and services.

## **Key Message**

- In a green economy, a life-cycle approach that takes resource use and waste disposal at each of the product life-cycle stages into account needs to be employed.

## Further Reading:

- UNEP, 2012, SCP Handbook for Policy Makers, <http://archive.switch-asia.eu/switch-asia-learn/scp-handbook-for-policy-makers.html>
- UNEP (2011). Resource Efficiency: Economics and Outlook for Asia and the Pacific. Bangkok: UNEP



## Product Innovation in the Pulp Industry in China

Greening the production cycle of pulp using new technology, which:

- ➔ Allows for 0% discharge of black liquor,
- ➔ Can be implemented at the level of SMEs,
- ➔ Allows for tax exemption in China  
Reduces CO<sub>2</sub> by 420,000 tons per year.



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### Speaker's Notes:

- This slide shows how SCP can be advanced by improvements in production process, by taking an example from the pulp industry in China.
- The pulp and paper industry has traditionally caused significant environmental impacts, including from black liquor, a side-product of the pulping process. Untreated liquor is highly toxic to humans and animals in case of ingestion, skin and eye contact, and inhalation, and it is proven to be very harmful to aquatic life forms.
- China's pulp and paper making process has become greener thanks to the efforts of the company Giant Hemu Technology Co. Ltd.
- The firm was able to gather support from domestic and foreign investors (ADB, ICF, & others) in selling a technology that removes harmful side-products such as untreated black liquor from the processes of pulp and paper making.
- This change alone has been estimated to have reduced carbon dioxide emissions by 420,000 tons per year.
- The company currently benefits from a tax exemption measure for developing environmentally-friendly technologies, and has a patented technology for clean pulping and the comprehensive use of renewable resources in papermaking.
- This technology allows for clean production in pulp preparation, as well as producing a multi-element organic compound fertiliser from the recovered substances. This fertilizer can be used, for example, to combat desertification and in agriculture.
- The company plans to export its technology to neighbouring Asian countries.

### **Key Message**

- Sustainability innovation in production methods can be beneficial for the environment, as well as for businesses.

### Further Reading:

- OECD, 2008, Business, Eco-innovation and Globalisation, Policy Brief, <http://www.oecd.org/greengrowth/consumption-innovation/41105608.pdf>

# Sustainable Consumption and Behavioral Change



Consumers' Challenges in Asia (SWITCH-Asia NF, 2014)

## Speaker's Notes:

- This slide sums up some of the sustainable consumption challenges, which are responsible for influencing the decisions and behavior of consumers in Asia.
- Making customers aware of the social and environmental impact of products can significantly influence their preferences; the way products are used, and discarded.
- In the same time, to advance Sustainable Consumption (SC), policy-makers can go beyond policies that aim at changing individual behavior, and construct measures which target the systemic social conditions underpinning unsustainable consumption.
- All groups of society, e.g. the business, the media, community groups and citizens, have a role to play in transforming lifestyles and consumption patterns. Governments are uniquely situated to act as principal change agents, as any transformation would be impossible without strong leadership and investments.
- The policy mix to catalyze lifestyle change and break old, unsustainable patterns of consumption comprises of a broad range of policies designed to:
  - Enable access to environmental choice
  - Encourage people by providing clear signals to consumers
  - Engage stakeholders and communities
  - Exemplify the desired change within Government's own policies and practices
- The three key pre-conditions for enabling a lasting transition towards SC can be referred to as (Akenji, 2014):
  - The right attitude by all stakeholders
  - A facilitating system, which translates attitudes into actions
  - Availability of sustainable infrastructure and products

## **Key Message**

- Policies can influence consumers' behavior, including the way products are bought, used, and discarded. Sustainable consumption patterns are equally important for advancing SCP as innovation in products design and industrial processes.

### Further Reading:

- UNEP, 2012, SCP Handbook for Policy Makers, <http://archive.switch-asia.eu/switch-asia-learn/scp-handbook-for-policy-makers.html> (p. 101- 123)
- SWITCH-Asia Network Facility (2014a), Mainstreaming Consumption in Asia: The Challenges (Part One) <http://www.switch-asia.eu/publications/mainstreaming-consumption-in-asia-part-one/>

## Example: The China Dream Initiative



The “**China Dream**” Initiative seeks to:

- ➔ Reimagine prosperity and reshape consumerism in China
- ➔ Activate new social norms and sustainable lifestyle
- ➔ Involves key social leaders in a multi-channel process

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### Speaker’s Notes:

- This slide presents the vision and objectives of the China Dream Initiative.
- The initiative aims to reshape social norms, lifestyles, and consumerism in China.
- Encouraging positive media campaign aims at promoting more sustainable consumer choices and behaviour.
- Messages promoting sustainable living and consumption are presented as something desirable; something that people can identify with, and would willingly choose.
- The China Dream project, attempts to create such positive, environmentally conscientious Chinese society.
- The goal of the project is to catalyse a new aspirational lifestyle that is innately sustainable for the emergent middle class in China. Activating new social norms is a multi-channel process, involving government, media, brands, academic institutions, etc.

### *Key Message*

- Fostering sustainable lifestyles, especially in developing and emerging economies (i.e. China), can improve the well-being of citizens, conserve natural capital, and help economies avoid the pitfalls of industrialization.

### Further Reading:

- JUCCE China Dream Initiative: <http://jucce.org/chinadream>