



79th International Short Course on Resource Efficiency: Circular Economy and Waste Management (SC79) | 18.11. - 11.12. 2019

Motivation

The use of limited natural resources has increased significantly around the globe during the last decades – and so has waste generation. This kind of resource consumption, as well as the production, management, treatment and disposal of waste, contribute to the degradation of land and water resources and endanger human health as well as the functionality of ecosystems. Moreover, the careless handling of limited resources is restricting economic growth in its present form as well as sustainable development. This course aims to demonstrate ways for achieving resource efficiency as well as more sustainable forms of production and consumption.

The concept of a circular economy addresses the importance of enhancing resource use efficiency, thereby drastically reducing the introduction of new raw materials and minimising the disposal of non-usable residue. This can be achieved, for example, by creating products and systems that enable longer lifespans and optimal use, by reusing and recycling. Waste produced by one resource sector can become raw material for another resource sector. Many UN member states view the circular economy concept as a mechanism to support the Agenda 2030 with its 17 integrated and indivisible Sustainable Development Goals. Therefore, this course looks also into how a transition to sustainability along with the imperative restructuring can be achieved, on the basis of a social contract for innovation.

Embedded in the concepts of green economy and circular economy, cleaner production through conserving resources, reuse and recycling is geared towards the reduction of pollution and waste production per unit output. At the same time, competitiveness and productivity increase. In this manner, the course approaches a goal crucial for sustainable development: to uncouple economic and social development from increasing resource consumption and progressive environmental degradation.

Waste, which we cannot avoid, should be considered as a resource and should be used with as few adverse effects as possible. In this course, waste management encompasses management of all processes and resources for proper handling of waste materials: from facilities to transport, dump and treat waste to related health codes and environmental regulations. The course covers strategic approaches as well as specific mechanical and biological treatment steps to recover recyclables as well as waste-to-energy technologies.

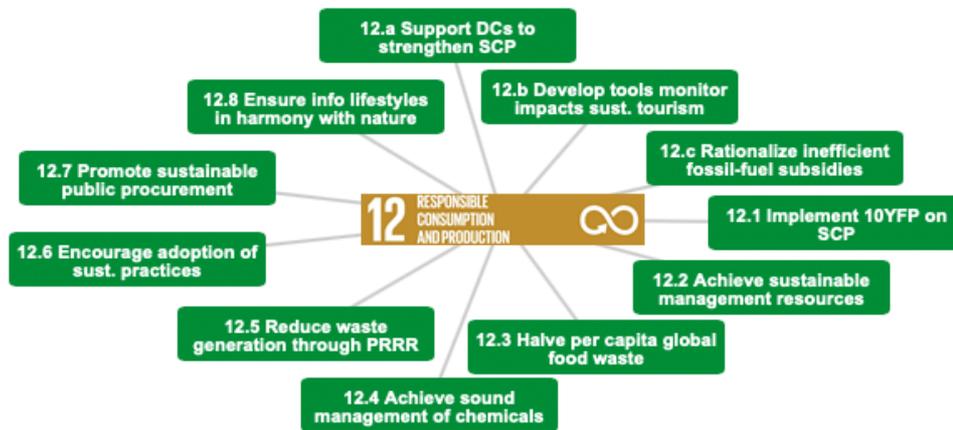


Fig. 1: The Sustainable Development Goal 12 of the United Nations captures many vital dimensions of resource efficiency (Quelle: UN Environment)

This interdisciplinary short course provides a solid background knowledge combined with workshops, participatory teaching methods and on-site inspections. The participants receive an overview of the social, economic and technical aspects of a circular economy and sustainable waste management.

Objectives

After completion of the course, the participants will be better able to consider “waste” as a raw material and contribute actively to the development or advancement of sustainable resource management in their home countries. The entire production process and life cycle of products are taken into account to reduce consumption of raw material, reuse and recycle (3Rs).



Fig. 2: During site visits to a cardboard recycling facility and to the think-tank and public policy consultancy adelphi with participants of the 73rd UNEP/UNESCO/BMUB International Short Course on Resource Efficiency - Cleaner Production and Waste Management

This interdisciplinary training offers solid background knowledge combined with workshops, participatory teaching methods and site visits. Participants receive an overview of the social, economic and technical aspects of a circular economy and sustainable waste management. The course will cover technical-scientific knowledge but also policies and institutional frameworks as well as awareness raising and professional education.

Participants also develop an action plan for a challenge in their field of work, applying the course contents and taking into consideration inspiration received from facilitators and fellows during the course. This plan shall be implemented autonomously upon return and thus facilitate the transfer of the newly acquired knowledge into the day-to-day activities.

Target groups

This course is suited for experts on a managerial level and decision makers with tasks in environmental-related planning, coordination and management in ministries, authorities, local government and non-governmental institutions of developing countries, including newly industrialised economies. A first university degree (BA, BSc, e.g.), adequate communication skills in English language and the nomination by the delegating institution are mandatory.

Application and participation

Qualified professionals are welcome to apply for this training between 18 March and 29 April 2019 on CIPSEM's online application portal.

Our International Steering Committee selects the 21 participants of this course by August 2019. Participants stay in our comfortable private studio apartments and receive a stipend to cover basic living expenses. Flights, health insurance etc. will be provided. Our course office provides further manifold assistance. Participants successfully completing this course will be awarded a Certificate of Proficiency in Resource Efficiency – Circular Economy and Waste Management.

For more information, please visit www.tu-dresden/cipsem

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