

Summary

Sustainable Development Goal (SDG) 12 calls for responsible consumption and production, essentially decoupling economic growth from unsustainable resource use and emissions and improving the management of hazardous substances and waste. In particular it calls for implementation of the 10-Year Framework of Programmes on Sustainable Consumption and Production (SCP), for efficient use of natural resources, for cutting food and other waste, for responsible management of chemicals, for sustainable public procurement and for companies to adopt more sustainable practices.

This study demonstrates the use of a methodology combining literature review with an exploratory expert workshop to identify research needs related to SDG goals and targets, in this case a selection of targets under SDG 12 and a related target from SDG 8 (see table 1). The targets were selected as they pointed most clearly to research questions that could contribute in important ways to the achievement of the SDGs.

Based on the selected targets, we identified three key themes: (i) issues cutting across efforts to advance SCP; (ii) sustainable natural resource management; and (iii) reducing food waste and loss. Although the focus was on the Swedish context, the literature review in particular sought to identify research needs in both developing and developed country contexts.

Given the broad scope of SDG 12 and the field of SCP, this study should be seen more as a proof of concept rather than as a comprehensive list of research needs related to SDG 12.

Findings

Some general challenges were identified, along with specific research needs related to SDG 12 under each of three themes. Below is a selection of these.

General challenges

- The qualitative rather than quantitative nature of SDG 12 makes it difficult for countries to measure their achievements
- The global total and per capita material footprint of consumption continues to increase, although many regions have been successful in reducing domestic material consumption. Political efforts need to shift from increasing efficiency to decreasing overall consumption, and from identifying problems to finding solutions
- Upscaling of good SCP examples has been difficult, and more research is needed on how
- Consumers, businesses and public-sector decision-makers lack knowledge about SCP, and there is need to bridge different actors' knowledge as well as to better bridge science and concrete applications.

Theme 1: Cross-cutting issues

Systemic issues

- Integrating knowledge about the whole supply chain, from production to consumption

SDG 12 targets, and those covered in this study (bold)

SDG 12: Ensure sustainable consumption and production patterns	
12.1	Implement the 10-year framework of programmes on sustainable consumption and production, all countries taking action, with developed countries taking the lead, taking into account the development and capabilities of developing countries
12.2	By 2030, achieve the sustainable management and efficient use of natural resources
12.3	12.3 By 2030, halve per capita global food waste at the retail and consumer levels and reduce food losses along production and supply chains, including post-harvest losses
12.4	By 2020, achieve the environmentally sound management of chemicals and all wastes throughout their life cycle, in accordance with agreed international frameworks, and significantly reduce their release to air, water and soil in order to minimize their adverse impacts on human health and the environment
12.5	By 2030, substantially reduce waste generation through prevention, reduction, recycling and reuse
12.6	Encourage companies, especially large and transnational companies, to adopt sustainable practices and to integrate sustainability information into their reporting cycle
12.7	Promote public procurement practices that are sustainable, in accordance with national policies and priorities
12.8	By 2030, ensure that people everywhere have the relevant information and awareness for sustainable development and lifestyles in harmony with nature
12.a	Support developing countries to strengthen their scientific and technological capacity to move towards more sustainable patterns of consumption and production
12.b	Develop and implement tools to monitor sustainable development impacts for sustainable tourism that creates jobs and promotes local culture and products
12.c	Rationalize inefficient fossil-fuel subsidies that encourage wasteful consumption by removing market distortions, in accordance with national circumstances, including by restructuring taxation and phasing out those harmful subsidies, where they exist, to reflect their environmental impacts, taking fully into account the specific needs and conditions of developing countries and minimizing the possible adverse impacts on their development in a manner that protects the poor and the affected communities
SDG 8: Promote sustained, inclusive and sustainable economic growth, full and productive employment and decent work for all	
8.4	Improve progressively, through 2030, global resource efficiency in consumption and production and endeavour to decouple economic growth from environmental degradation, in accordance with the 10-year framework of programmes on sustainable consumption and production, with developed countries taking the lead

- Limitations imposed by the economic system on sustainability efforts, including by the private sector
- More sustainable business models suited to circular economy.

Consumption and consumer behaviour

- Making it easier for consumers to make more sustainable choices
- Possible impacts of a shift in consumption away from goods and towards services
- Pathways for effective norm diffusion
- Linkages between consumption patterns and health issues, e.g. mental health, diet-related disease
- Those policy instruments and legal frameworks that are most conducive to (and most inimical to) a sustainable consumption transformation
- New marketing practices and the changing media landscapes for cultural and social norm change.

Monitoring and indicators

- Improving institutional and technical capacity to monitor SCP
- More assessment and benchmarking
- More convergence of reporting systems to reduce reporting burden and align global and national indicators.

Theme 2: Natural resources management

- Current trends and future prospects for global resource use and sustainable resource management
- Interactions between climate change mitigation and sustainable resource management
- The socioeconomic implications of transitioning to more resource efficient economies and societies
- Links between sustainable resource management, conflict, security and migration
- Consumption as the main driver of increased material use
- How to act on opportunities and challenges for resilience as an objective of natural resource management in developing countries
- Bridging between natural resource management research, policy and practical needs.

Theme 3: Food waste and loss

- Taking into account the diversity of stakeholders and an integrated whole-supply-chain approach
- How to support action in producer countries through enhancing scientific and technological capacity
- Focus on research for reducing post-harvest losses in developing countries
- Opportunities for productive, profitable, sustainable use of food and crop waste and residues
- Capturing the potential of big data
- Keeping agricultural research up to date with the global, regional and local impacts of climate change, water shortages and other shocks