

CHARTING A PATH

TOWARDS THE SUSTAINABLE DEVELOPMENT GOALS IN GERMANY

The Fridays for Future movement has intensified the debate about the effects of our consumption behavior and lifestyle on the environment and the climate.

Industrialized countries, like Germany, are called on to assume their global responsibility for the future development of the planet. Germany has made some progress in this regard, but still has some way to go towards achieving its climate-related sustainable development goals (SDGs). To account for the finite resources of our planet, a bio-based transformation of the German economy is required.

Where do we stand?

To align its efforts with the SDGs, Germany revised its sustainability strategy in 2016 and laid down a set of indicators to monitor its progress towards achieving the SDGs. A look at progress to date reveals a substantial backlog, in particular with regard to the climate-relevant goals (SDGs 7, 11, 12 and 13). To accomplish its goals, Germany needs to reduce greenhouse gas emissions, achieve sustainable and efficient resource management, and improve waste management. In addition, the sustainability strategy lacks ambitious goals to achieve a resource-saving transformation of production processes and consumption behavior.

Towards a bio-based economy

One piece of the puzzle is the shift from a carbon-based economy to a sustainable bio-based circular economy. The Bioeconomy makes use of biological principles and processes to produce goods and services. Examples are bio-based production materials, such as bioplastic, and biotechnology for processing to replace energy intensive processing methods. This transition needs to be demand- and technology-driven. The German Bioeconomy Council has called on governments to facilitate the implementation of technological innovations in society and industry and thereby make use of synergies with climate and environmental protection. Professor Joachim von Braun, Co-Chair of the Council and Director of ZEF's Department of Economic and Technological Change, insists that such a shift will be essential to combat biodiversity loss and reconcile global production and consumption patterns with nature.

A bio-based economy also requires changes in consumption to less resource-intensive products, for instance from meat to alternative sources of proteins such as insects, algae and legumes. These substitutes have the potential to halve greenhouse gas emissions generated by the food system and thereby reduce global emissions by a quarter by 2050. At the same time, reduced meat consumption will decrease water demands and mortality rates. Such alternatives are already important protein sources in parts of Africa and Asia. However, it is difficult to make general global dietary recommendation as eating habits differ across cultures and agro-ecological systems.

Current studies on consumer preferences in Germany suggest that the chances of wide adoption of meat alternatives are limited.

A fair distribution of the costs

It cannot be denied that the bio-based and resource-saving transformation of the German economy will be costly. Eco-certified products are more expensive, infant bio-based industries are not yet competitive, renewable energy sources need support and investments in research and development are essential. To finance the transformation and to change consumption behavior, politics can alter the relative prices of resource-intensive and less resource-intensive products through taxation or subsidies, thereby internalizing the costs of consumption for future generations.

However, this will hurt poor people much more than wealthier households. Poorer households usually spend a higher share of their income on food and transport. A carbon tax requires compensation for these households and the population whose livelihood is affected by higher energy prices, such as commuters. A tax reform could decrease the tax burden on those with low and middle incomes.

Besides carbon pricing, other incentives to induce behavioral changes towards sustainable consumption need to be tested, such as awareness campaigns. The Wissenschaftsplattform Nachhaltigkeit (Scientific Platform for Sustainability) is currently developing potential solutions in this area.

Outlook

The SDGs are relevant indicators for industrialized countries like Germany. To assume their global responsibility, industrialized countries need to realize the transition from fossil energy resources to renewable and clean energy, but also change production processes and their populations' consumption habits.

Restrictions on consumption behavior are unlikely to gain consensus in society unless they include participatory approaches, for instance locally restricted experiments, to lead the population along the path towards a sustainable economy. This needs to be accompanied by intensified research activities in the area of bio-based products and production processes.

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