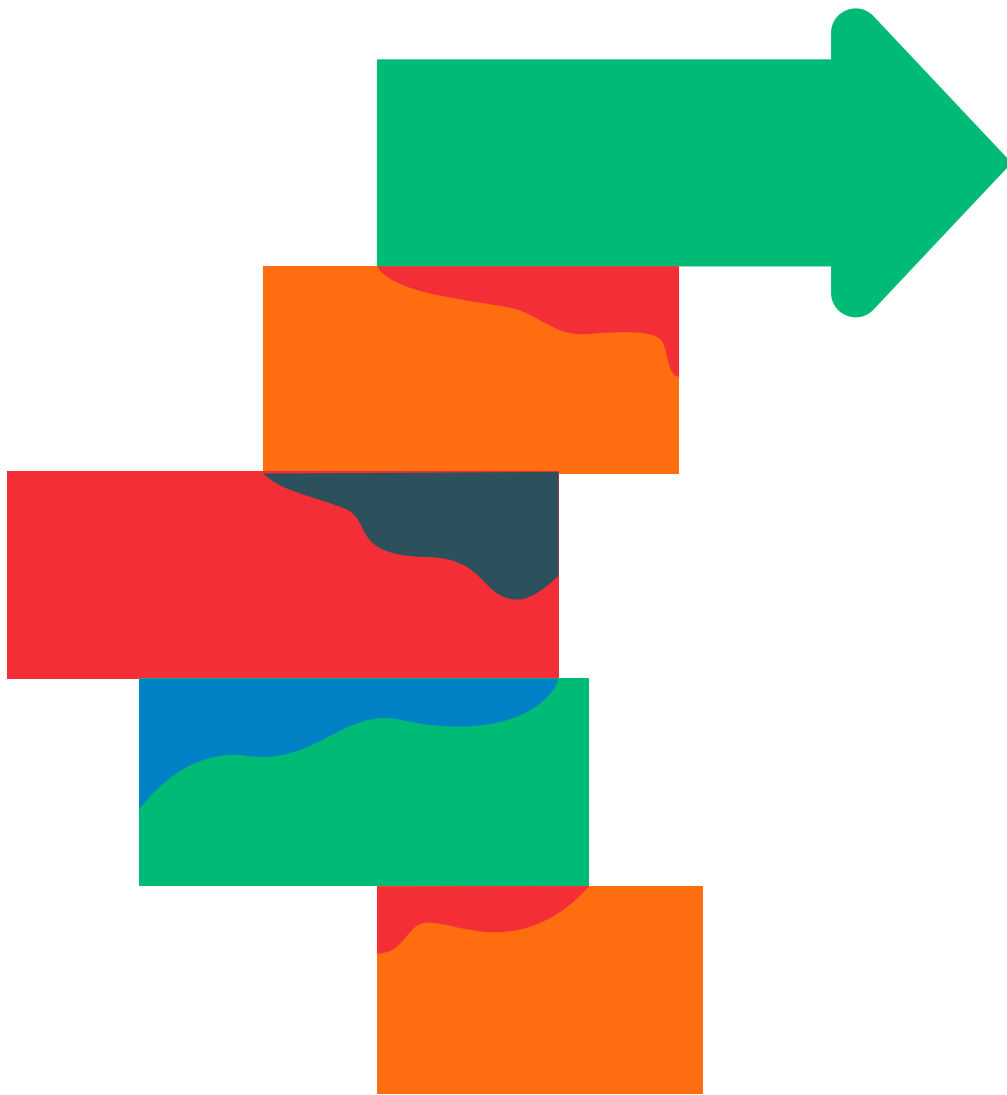


Dealing with Ripple Effects

Fact Sheet



MyFairShare

Dealing with ripple effects from mobility budgets

To avoid simply shifting problems to other sectors, mobility budgets need to be carefully designed. For example, loopholes such as having items delivered to reduce one's own trips to the store should be closed.

Therefore clear **system boundaries** are required, which define the spatial, temporal, modal, and physical dimensions of the mobility budget. These boundaries clarify which human activities and GHG emissions are to be covered, while indicating the proper accounting methods for quantifying GHG mitigation efforts.

The globally accepted Greenhouse Gas (GHG) Protocol defines **3 scopes**:

Scope 1 includes direct emissions, e.g. fuels used in vehicles.

Scope 2 covers emissions occurring during energy supply, e.g. from electricity generation.

Scope 3 includes all indirect emissions that occur along global supply chains.

An example for mobility budgets

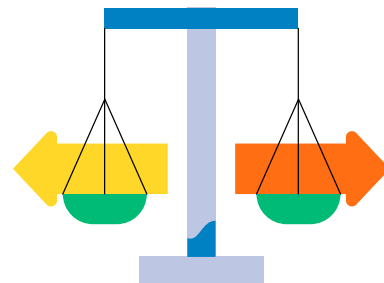
Mobility budgets for individuals in Austria, per month, in greenhouse gas emissions per passenger km for all modes of transport, are calculated as scope 1+2+3 consumption-based GHG/carbon footprints.

The focus of mobility budgets on individuals and their mobility makes it easy to clearly communicate and monitor the important goal of reducing GHG emissions of personal mobility. At the same time, it is essential to avoid unintended ripple effects.

Importantly, changing everyday mobility practices requires adequate infrastructure, cultural meanings and individual capabilities. Mobility budgets should be supported by additional measures aimed at social justice and climate mitigation in order to accelerate the uptake of low-/no-carbon mobility modes.

In a nutshell

- Carbon footprints of everyday life need to be reduced to stop global warming.
- Mobility Budgets help to reduce personal carbon footprints by defining targets and benchmarks which are easy to communicate, and which are transparent and fair.
- Reducing mobility carbon footprints must not result in causing more emissions with other activities. Their ripple effects need to be addressed proactively.
- Changing the structural conditions for everyday life across all activities, i.e. mobility, housing, food, work, care, and leisure, is crucial for achieving internationally agreed upon climate protection targets.
- Individual carbon budgets for mobility as well as other domains can improve communication, inform specific measures, monitor progress, and address concerns of fairness and justice.



Other domains

Carbon budgets can also be developed for other domains, such as buildings and housing, consumer goods, and food

It is crucial to ensure high quality service provisioning, appropriate infrastructure, positive health effects, and time wealth, for a good life for all!

What is a ripple effect?

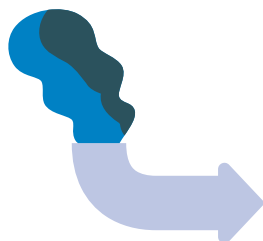
The concept of ripple effects summarises several specific issues, including rebound effects, spillovers, moral licensing, and burden-shifting.

'**Rebound effects**' occur due to the individual re-allocation of money and time saved because of certain improvements. For example, more fuel-efficient car engines can result in more car driving (direct rebound), the money saved on fuel might also be spent on air travel, as well as other goods and services ('indirect rebound').

'**Spillover effects**' can be positive, when environmental-friendly behaviour spills over to other areas of consumption. They can also be negative when people calm their conscience

with environmentally friendly behavior in one area, and because they have 'done their part' engage in more energy-intensive consumption behaviour in other areas. For example, because someone achieved car-free everyday mobility, they might say that holiday travel by airplane is okay.

'**Burden shift effect**' occurs when solving one environmental burden creates other, or even new environmental problems. For example, more stringent social and environmental standards in one country can result in increased production and exports in other countries with lower standards.



... in personal mobility?

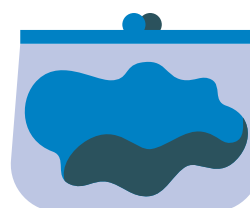
Energy-efficient vehicles can increase car usage with 30-80% of the emissions reductions from efficiency improvements eventually lost.

Teleworking reduces work-related commuting, but potentially results in **overall longer distances travelled**. Rebound effects could reduce potential savings of 300 kt CO₂-equ./yr by 30%.

Spending of financial savings from car sharing can result in **other consumption sectors**.

'**Moral licencing**' describes how people rationalise that certain activities with known high climate impacts are okay, because of some other climate-friendly activity. For example, going on holidays by airplane might be justified because of a vegan diet.

Carbon budgets in other areas of activities are needed to avoid the **increase in online shopping, food delivery, and demand for technical equipment** that could result from the adoption of a mobility carbon budget.



MyFairShare is a pan-European research project that builds on the sufficiency principles to change mobility habits through individual mobility budgets.

Project partners



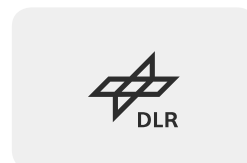
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MyFairShare is a JPI Urban Europe project selected within the ERA-NET Cofund Urban Accessibility and Connectivity (ENUAC) call. The ENUAC call aims at creating and testing new solutions and approaches for sustainable urban mobility.



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Imprint

This publication supports the dissemination of results of the project „MyFairShare - Individual Mobility Budgets as a Foundation for Social and Ethical Carbon Reduction“. The authorship lies with the MyFairShare project consortium, represented by project lead AIT Austrian Institute of Technology

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