REDUCING CARBON EMISSIONS IN EVERYDAY LIFE

When it comes to protecting the climate, the focus is usually on business and industry. Less well-known is the fact that more than half of the total annual carbon footprint per person (11 tons) is the direct or indirect product of private households.

By Dr. Nicola Schuldt-Baumgart and Dr. Immanuel Stieß

Successful climate protection is often linked to technological innovation. Research has shown, however, that everyday behavior also plays a crucial role in carbon emissions. To this end, researchers on the "KlimaAlltag" project, led by the Institute for Social-Ecological Research (ISOE) in Frankfurt am Main, examined how to change everyday routines and encourage climate-friendly lifestyles.

"More than half of those surveyed were basically ready to make changes in their behavior," stresses project leader Immanuel Stieß. This means more potential to protect the climate, without any sacrifice in quality of life. "Indeed, with moderate changes to everyday habits, for example by choosing green energy, buying seasonal and regional food, and using buses and trains more often, we could cut down on CO_2 by 10 to 15 percent," says Stieß.

Most CO_2 emissions come from everyday activities

A substantial portion of CO_2 emissions are created from the daily necessities of private households. With some 15 percent of total direct emissions, private households are currently the third-largest source of global emissions: Only the energy and transportation industries emit more. If we add in the activities required to manufacture and dispose of goods and services used inside the home, the emissions percentage from private households rises even further.

In addition to consumption, the areas of heating and energy (25 percent), mobility (23 percent), and food (14 percent) contribute significantly to the total. Mobility examples that are especially CO_2-intensive include the number of long-distance trips taken, necessary flights, the distances driven in automobiles, and the fuel consumption of cars. Where diet is concerned, the consumption of meat is a considerable factor, and the purchase of organic foods reduces the carbon footprint substantially.

Climate protection is not a question of income

The ISOE research team has identified nine distinct "climate types": "The biggest surprise to us was the high percentage of climate-conscious actors who had below-average incomes," notes Stieß. "Contrary to the frequently formulated assumption that protecting the climate is only for higher earners, we were able to observe that it is precisely those people who have to be careful about money who have a lower carbon footprint." People from more elevated social strata had a stronger awareness of climate issues on the whole, as well as higher incomes that allowed them to purchase organic products or more energy-efficient household appliances. People with comparatively smaller household incomes improved their carbon footprint by neither owning their own cars, traveling by air, nor engaging in mass consumption.

Communities and citizens – Partners in protecting the climate

This behaviorist look at climate types puts the focus on the motives and morals of individuals. It is a way of developing a more personalized climate policy. At the municipal level, for example, local authorities can encourage climate-friendly behavior through an ample variety of measures, for example supporting renters, homeowners, and low-income households.

Energy Food Mobility

An overview of climate personality types

How much influence do different lifestyles and social strata have on everyday climate sensitivities? The KlimaAlltag research team developed a system for distinguishing nine different climate types on the basis of empirical surveys. The spectrum of behavior ranges from comprehensively climate-friendly to consistently climate-harmful.

Type 1: Comprehensively climate-friendly

The "comprehensively climate-friendly" group comprises 21 percent of those surveyed, with women being a majority in this group. The level of education in this group is higher than average, but incomes are only average. Some 40 percent of those surveyed for this climate type reported having to be frugal about their finances. The group has a pronounced climate awareness, a strong orientation toward health, and is well-informed about the effects of their own consumption on the climate. Climate-friendly behavior is comparatively pronounced in all three spheres of action. These actors exhibit the smallest carbon footprint of all climate types.

Type 2: Selectively climate-friendly in the energy sphere

Members of this group (12 percent of those surveyed) have a slightly above-average level of education and incomes that are distinctly above the comparison groups. On the whole, the group has high climate-awareness and is rather well-informed about climate-friendly daily routines. This group is especially climate-friendly in its use of energy. Energy-saving routines such as switching devices off from standby mode are implemented consistently. Half of the actors are consumers of green energy. The striking aspect of members of this group is that they spend an above-average amount of time traveling, so more improvements are possible in the mobility field.

Type 3: Selectively climate-friendly in the food sphere

When it comes to the subject of food, this group (4 percent of those surveyed) is already engaging in conscious and climate-friendly behavior every day. For example, they buy an above-average amount of regional, seasonal, and organic foods. The overwhelming majority of them eat vegetarian several days a week. People in this climate type usually belong to higher social strata: Those surveyed have the highest incomes of all groups and have more advanced degrees than the average. About half of them own their own homes. Women tend to

be overrepresented in this group, whereas those under 30 are underrepresented. But their mobility habits have a strong effect on the climate: This climate type uses a car far more than the average. Anyone wishing to change this will encounter strong resistance.

Type 4: Selectively climate-friendly in the mobility sphere

About 10 percent of those surveyed fall under this climate type. The social demographics of this group are markedly distinct from the other types: People from the lower and middle social classes are strongly and disproportionately represented. Their incomes are substantially lower than average. Many of them are unemployed or pensioners. Most of them live alone. Those surveyed considered their own opportunities for action to be strongly limited by their restrictive financial circumstances. About one out of every two people in this group reported that they had to live frugally. The members of this group are very climate-friendly in their mobility behavior. The primary reason for this is their rare use of automobiles; many have no car of their own.

Type 5: Moderately climate-friendly

The "moderately climate-friendly" group comprises 16 percent of those surveyed. People with more advanced degrees are slightly overrepresented in this group. Incomes are somewhat higher than average, and households of three or more people are slightly overrepresented. Members of this group are basically open to improving their daily routines regarding climate. An above-average number of those surveyed were prepared to buy seasonal fruits and vegetables more often. This group also found purchasing energy-efficient appliances to be an attractive option for reducing their own carbon footprints.

Type 6: Selectively climate-harmful in the energy sphere

This group includes a markedly above-average number of women over 60 years of age, as well as single-person households. Incomes are substantially higher than average, as are homeownership and size of home. On the whole, their climate awareness and concomitant knowledge of climate protection is rather weak, with status concerns predominating instead, along with a need for exclusivity and comfort. This group was generally rather critical of local climate-protection measures. Many rejected efficient energy use and energy conservation in their own behavior, considering it too involved. This group is the most likely to be willing to buy energy-efficient appliances.

Type 7: Selectively climate-harmful in the food sphere

This group has the lowest average age and the highest percentage of individuals under 30. Overrepresented in this group are men and people with migration backgrounds, less advanced degrees, or low incomes. They have comparatively little knowledge of the effects of their food choices on the climate. Many do not know how to make choices that would be less harmful to the climate. Characteristic of the members of this group is a meat-intensive diet that is strongly anchored in the idea that "meat is just the right thing to eat." These individuals are the most likely to be willing to alter their own household behaviors as far as energy and home appliance use are concerned. They are also willing to take short-distance public transport more often, whereas they are relatively likely to reject more climate-friendly diets (e.g., less meat, more organic products).

Type 8: Selectively climate-harmful in the mobility sphere

This group has a comparatively high average age. Women and pensioners are strongly represented. This group is well-situated economically: They frequently own their own homes, home size is large, and incomes are good. But the level of education is below the average. The pronounced harm to the climate comes from their above-average use of their own cars: People in this group travel more than 10,000 km per year in their own vehicles. One fundamental reason for their frequent car use has to do with their living situations: Their distance from the closest bus stop is markedly higher than that of other groups. Accordingly, their willingness to curtail car use is low.

Type 9: Comprehensively climate-harmful

Two-thirds of those in this group are men. The median age of 30 to 39 years is strongly overrepresented, as are people with migration backgrounds and/or lower-level degrees. Only a few of them own their own homes, and larger households are overrepresented. These groups place a priority on exclusivity and fun. The motivation to do something to protect the climate is at its lowest in this group. The willingness to do something to change this is very low.

The research project

The KlimaAlltag project is led by the ISOE. Partners include the Verbraucherzentrale Nordrhein-Westfalen, the Institute for Ecological Economic Research, and the University of Graz. In the first half of the project, the research team carried out a field study in Cologne in which more than 80 households committed to reduce CO_2 emissions from their everyday activities. Members of the households received advice from climate consultants from the VZ NRW for six months. The course and results of the field study were carried out and evaluated under scientific supervision. The possibilities and effectiveness of municipal climate protection measures were examined through a representative survey of 1,000 interviews in Frankfurt am Main and Munich. The project, which ended in December 2013, was funded by the German Federal Ministry of Education and Research. ■

More on this subject can be found at:
The KlimaAlltag Project: www.klima-alltag.de

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