Households make choices in their everyday life. Every choice has an impact on their carbon footprint. If the HOPE project allows them to simulate these choices for their future life, it is also interesting to analyse WHY households chose them. Understanding the underlying reasons, i.e. the barriers and motivators that drive household mitigation actions was an integral part of HOPE. To do so, we linked the quantitative results of household preferences to qualitative analysis from in-depth interviews of carefully sampled households. Households did not only focus on their carbon footprint, health, or financial aspects, but considered factors from a complex reality, including personal values and external structural factors. Overall, households are less willing to implement measures which ask for greater changes in consumption behavior.
Households are less willing to implement measures which ask for greater changes in consumption behavior

Mitigation actions can be sorted along the easy lines of changing the patterns or levels of household consumption behavior. Changing patterns of consumptions occurs when improving the efficiency of the same behavior (e.g. drive a more eco-friendly car) or when substituting one behavior for another (e.g. use public transport instead of private car).

When changing levels of consumption, one can reduce a certain behavior (e.g. reduce intercontinental flights by 50%) or one can renounce it (e.g. stop eating meat).

Households preferred changing patterns of consumption over changing levels of consumption as shown in the Figure 1.

**Figure 1: Willingness to change patterns vs. levels of consumption**

<table>
<thead>
<tr>
<th>Change of consumption patterns</th>
<th>Change of consumption levels</th>
</tr>
</thead>
<tbody>
<tr>
<td>Improve Efficiency</td>
<td>Substitute</td>
</tr>
<tr>
<td>1</td>
<td>2</td>
</tr>
<tr>
<td>3</td>
<td>4</td>
</tr>
<tr>
<td>4</td>
<td>5</td>
</tr>
<tr>
<td>5</td>
<td></td>
</tr>
</tbody>
</table>

Willingness to implement mitigation actions was assessed using a five point Likert-Scale. Households were rather willing to implement actions rated above 3 (improve efficiency and substitute) and rather unwilling to implement actions rated below three (reduce and renounce).

The economic impact is not the main driver of household preferences

Households preferred to change patterns of consumption, although actions in this group on average cost money. They disliked to change levels of consumption although these actions saved money. We did not consider the rebound effect in our study.

**Figure 2: Average economic impacts of mitigation actions in groups on monthly budget**

The results show that financial incentives would be adequate for the actions which require investments, but for many others actions, others instruments are needed to in order to promote climate friendly lifestyles.

The figure shows the average monthly costs or savings from actions in the indicated action groups (improve efficiency, substitute, reduce, renounce) in Euro per consumption unit (CU, equals per capita). Some of mitigation actions, especially the renounce ones, as give up cars, flights or meat, offered households great savings opportunities, up to 160€/month in average.
Households’ choices on average had no effect on household’s finances in the voluntary scenario: They saved money if they reduced their emissions by 50%

Even though a majority of our actions provided savings to households, the economic impact is rarely a major driver of household choices. Most of the housing actions require investments like housing insulation, switching of heating systems or appliances, so they often require large up-front investments even though they lower the energy bill. Notice that more than one third of the panel are renters and they have little opportunity to improve the energy efficiency of their housing. While buying organic or local products is more expensive than normal products, half of the food actions procure savings, e.g. reducing meat consumption and giving up ready-made meals. Households save money if they try to reduce their carbon footprint by 50%. Savings of Mobility options did not convince households to implement them.

Figure 3: Economic impact of actions on average

For each of the main categories, we observe differences between the economic potential of actions of the two scenarios. The mobility shows large potential cost reduction and this is the main reason why household save money during the forced scenario.

Instead of basing decisions only on economic reasons, households consider factors from a complex reality

Important perceived barriers were personal values (i.e. want to travel, see other cultures, “I have the right to choose”), time constraints (takes time to live climate friendly), traditions and comfort (do as we always have), economic limitations and structural issues (lack of infrastructure) make it hard to live climate friendly.

Main perceived motivators at an individual household level were ethical considerations, concerns about the future and children, as well as inconsistencies between intentions and real action. At a structural level it was the increased specific knowledge that is “valuable for us” and getting decision support for more climate friendly private consumption. Policy actions were asked for to support behavioral change; such as good transportation networks and financial help for selected key actions (i.e. energy efficient housing).

Households are neither ready nor able to perform radical or profound mitigation actions without policy support.

Picture: discussions with the households often led to passionate debates about barriers and motivators they encounter.
Reconciling sustainability with mobility in a globalised world is challenging for households

In the Mobility sector, common themes underlying unsustainable mobility were keeping in touch with friends and relative sand caring for the family. Moreover, households looked for experiences of natural and cultural diversity. Alternatives of public transport were often perceived as too time-consuming or not feasible at all.

Households were prepared to act on climate change provided that all others do and they know that what they do matters in a global context

Political decision is needed and frequently asked for. Households want decision support, an appropriate urban environment (adequate urbanism, public transport network, local food production, etc.) and a targeted climate communication both in the private, public and professional spaces (especially positive one), especially in the educational sector. Promoting a change of perceptions of normal consumption may increase the pace of households’ greenhouse gas reductions.

One reason for Food actions’ popularity was that sustainable choices were often associated with other positive values people supported such as animal welfare and environmental protection, e.g. through less fertilizer use. Yet consuming local, organic or vegetarian food to a great extent (60% or more) was often seen to be unfeasible due to the unavailability of products.

Contact and Further Details
Germany: Rainer Sauerborn, rainer.sauerborn@urz.uni-heidelberg.de
France: Ghislain Dubois, dubois.ghislain@tec-conseil.com
Norway: Carlo Aall, caa@vestforsk.no
Sweden: Maria Nilsson, maria.nilsson@umu.se
For more information, visit our website www.hope-project.net