





How to communicate about climate change: A concise guide

  A step-by-step decision chart for more effective, equitable, and fair climate change communication in the context of individual behaviour change



Dr. Fatih Uenal, Laura Pagel, M.Sc., Prof. Tobias Brosch

Consumer Decision & Sustainable Behaviour Lab

Geneva, December 2022

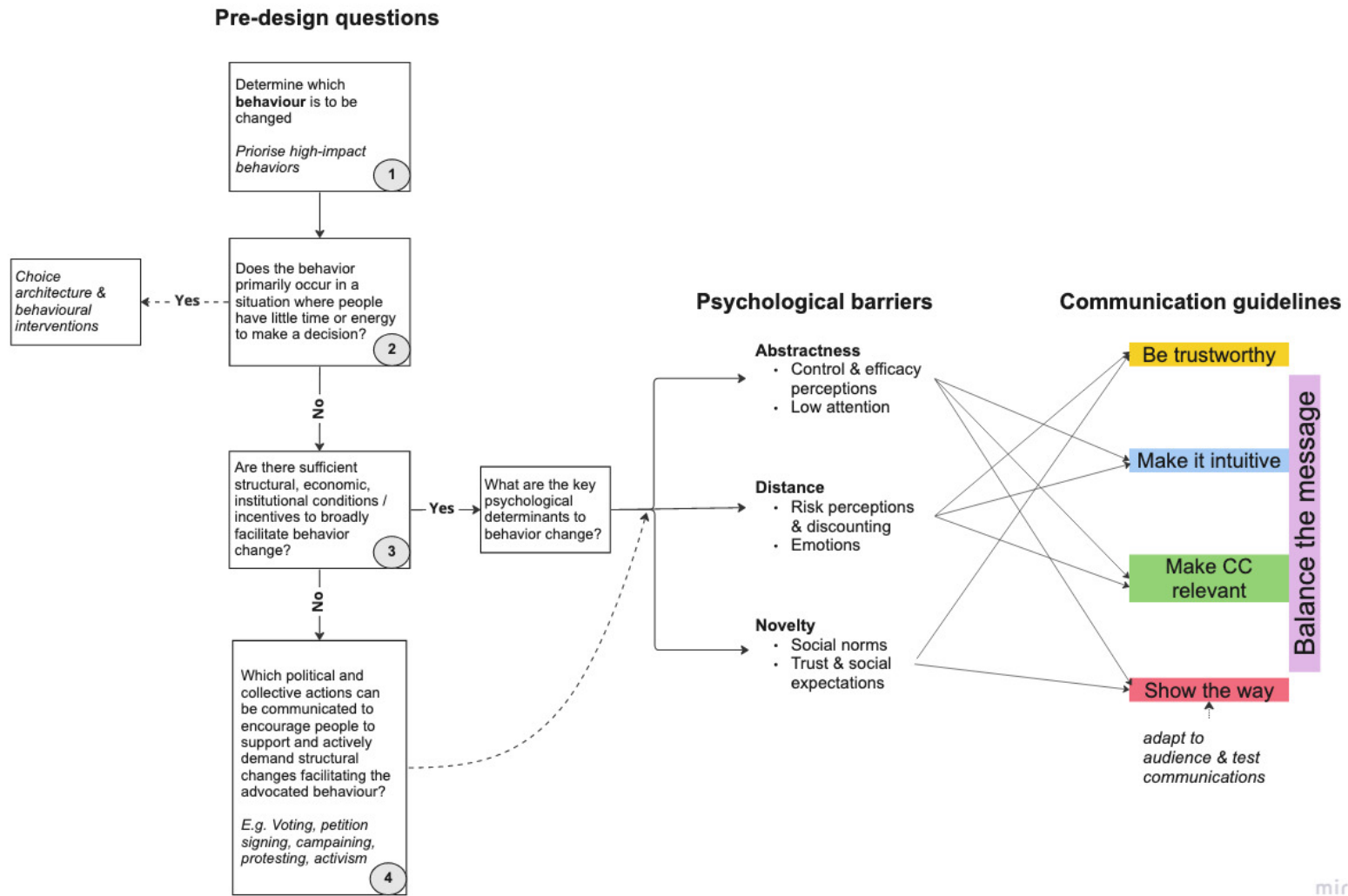


Climate change communication: A step-by-step decision guide

In this brief guide to climate change communication, we provide climate change communicators with a step-by-step decision chart to enable more effective, equitable, and fair climate change communication. The decision chart guides climate change communicators in public and non-public communication domains through an easy-to-follow series of yes-or-no questions which are designed such that the impact of the communication strategy is maximized in regard to choosing the best possible communication strategy currently available.

The following decision chart visualizes our approach for a more effective and equitable climate change communication within the broader context of individual behavioural change (see Figure below). We explain how to use our decision chart by walking the reader through exemplary cases and providing the rationale for each step. Each subsection is designed to comment on the “pre-design section” (i.e., aspects that need to be considered *before* the communication strategy can be designed) of the decision chart and is aimed at helping climate change communicators in their decision process.

By integrating questions around potential situational, structural, economic, and institutional barriers of behavior change in the pre-design phase we aim to make climate change communication more equitable and fair and thus more effective for a broader audience. This guide is conceptualized as a complementary add-on to our main report entitled “Review of Climate Change Communication and Behavioural Intervention Strategies to Maximise Behavioural Impact.”



miro

Procedure to guide climate change communicators within the context of individual behavioural change (adapted from Van Valkengoed et al., 2022 [1])

1. Which behavior to change? [Box 1]

The first step is to decide which specific behavior the communication is to address. The reason to focus on a specific behavior at the beginning of the climate change communication process is manifold. In the following, we list our main arguments as to why a focus on behavior early on in the process is crucial for effective communication.

Firstly, as we have mentioned in the main report, it is crucial for communicators to [start with the question of which behavior to address specifically](#). This is chiefly due to the fact that many studies from the field of behavioral interventions have shown that the effectiveness of behavior change strategies depends largely on which specific behaviors are targeted (please refer to section 7 in the main report for more details). In other words, depending on the specific target behavior chosen, different strategies will be more promising than others.

Secondly, a further reason to start with the question of which behavior to change through communication is that [focusing on one single behavior](#) is more effective than on communicating about many different behaviors simultaneously, as a recent study has shown [2]. Thus, the first step in our decision chart encourages communicators to think about which specific behavior the communication is to address and [not focus on many different behaviors simultaneously](#).

Thirdly, we have illustrated in our main report that the general public lacks an understanding about the relative efficacy of different pro-environmental behaviours [3]. For example, in the Swiss context, a recent study has shown that the mitigation potential of certain behaviours, such as switching to a sustainable diet, was underestimated, while the mitigation potential of other behaviours, such as installing efficient light bulbs, was overestimated [4]. This lack of knowledge has important consequences for individual climate mitigation efforts and communicators alike (*please refer to section 3 and figure 8 in the main report*) [3]. Informing and educating the public on the differential effects of different behaviors is of paramount importance. Thus, one consideration to make at the beginning of a climate change communication campaign might be to focus on the differential impact of various behaviors rather than pushing for behavior change in one specific behavioral domain (e.g., mobility, consumption, conservation). Informing the public about the different levels of impact associated with different types of behaviors is crucial to increase willingness to adopt pro-environmental behaviors because the effectiveness of behaviors is important for people to adopt such behaviors.

Lastly, given the differential impact of different behaviours, one relatively straightforward strategy to maximise effective climate change communication can be by simply focusing on high-impact behaviors rather than on low-impact behaviors. In this sense, it is possible for communicators to increase the impact of their communication efforts by primarily focusing on large-scale, systemic, and [high-impact behaviours from the start](#). This focus pertains to changes in individual lifestyles including carbon-footprint reduction via decreased flying and car-driving, or meat consumption, instead of low-impact, single, and easy behaviours (e.g., recycling).

2. In what context does the behavior occur in primarily? [Box 2]

After deciding which behavior the communication campaign will focus on, communicators are well advised to consider the specific circumstances and contexts in which the chosen behavior primarily occurs in. Let us assume that the choice of behavior is recycling, a behavior which often occurs in situations where people have little time and low energy to make a pro-environmental decision. For this and similar types of behavior taking place in low-time, low-energy contexts,, techniques and tools from the behavioral interventions literature are worth considering (*please refer to section 7 in the main report*). Continuing with the recycling example, instead or in addition to a public communication campaign highlighting the benefits of recycling over non-recycling, one could also adopt a strategy to change the material environment in which the behavior happens more directly. An excellent example of how to facilitate this is to alter the behavioral environment by placing the recycling bins closer to where the recycling materials are actually produced. By altering the specific environment, the task of recycling is made more convenient and thus likelier to happen. Another example of a behavior occurring in low-time and low-energy contexts is present in the consumption behavior domain. Consider the following situation in which a person is deciding to buy a product or service (either online or in a store). In these situations, making the default option of a product or service the environmentally beneficial one could lead to more pro-environmental choices (opt-in default). These forms of behavioral interventions are called choice architecture designs in which the space of possible decisions is structured such that the likelihood of a desired decision is more likely to occur. In our main report we provide ample examples of other behaviors and associated behavioral interventions which might be interesting to consider for communicators to consider when developing their strategies. These specific interventions are particularly relevant considering when the target audience of the communication is an institution and organization which is able

to alter environments or decision spaces in which decisions happen, usually in a short timeframe.

3. Consider structural, economic, and institutional barriers [Box 3]

After deciding which behavior to choose and considering the specific contexts in which a chosen behavior usually takes place in, the next question in our decision chart pertains to a crucial question which is often left out in climate change communication efforts: Are there sufficient structural, economic, and institutional conditions and incentives to broadly facilitate behavior change? Depending on the given type of behavior which is chosen in the first step of our decision chart, it is worthwhile thinking about the accessibility and affordability of such a behavior for the overall public. Let us consider the examples of buying and installing solar panels or switching from a combustion engine vehicle to an electric vehicle. These are behaviors which may be associated with significant economic and structural barriers which, in turn, make them largely irrelevant to consider for a large number of people in the general public: To install a solar panel, one needs property to install the panel on to start with (structural barrier) and a considerable amount of financial resources (economic barrier). Similarly, buying an electric vehicle might not be an economically rational choice due to missing monetary incentives (governmental subsidies) or a lack of necessary charging infrastructure (structural barrier) to make the electric vehicle a feasible investment. Another example of a behavior change relates to switching from cars to other modes of transportation such as (electric) bicycles or public transportation. Even these relatively small changes might be associated with structural and economic barriers, such as missing bike lanes or access to a well-developed public transportation system. Another example to consider, in some cases, choosing the train option for international travel under 6 hours might still be more expensive than flying, thus from a purely economic perspective, choosing the flight instead of the train option might be reasonable.

In contrast, consider a dietary change away from meat products to non-meat products. Reducing the intake of meat and conversely increasing the intake of non-meat products is a high-impact behavior change which faces neither significant structural, economic, or institutional barriers. In the case of dietary changes, the most important, and maybe only barriers are purely psychological and cultural. In case of behavior change associated with low structural and economical barriers, such as dietary changes, we provide several general rules to design communication campaigns in great detail in the main report. In contrast, in case of

behavior changes which might be associated with structural and economic barriers such as the examples provided above, we encourage to consider political and public behavior change campaigns (see next section) alongside direct behavior change communication which target the specific behavior directly.

The table below illustrates a number of behaviours with regards to their potential impact and the presence of contextual and structural/economic/institutional barriers in the Swiss context. It aims at better orienting communicators in their strategy to facilitate low-carbon behaviours.

Examples of climate behaviours in the Swiss context with regards to their potential impact and existing barriers

Behaviour	Impact level ¹	Structural, economic & institutional conditions (examples)	Motivational conditions in the behaviour context (examples)
Mobility (switch from thermic car to bike and public transportation)	High impact	Public transportation is largely available but is not largely affordable, lack of cycle lanes in certain areas	Time and effort required is still high compared to individual vehicle but information and choice options are easily available
Mobility (switch from conventional to electric/hybrid vehicle)	Moderate impact	Electric vehicles may face barriers in certain areas of Switzerland (e.g., low charging infrastructure)	Electric vehicles become increasingly a default option
Long distance mobility (avoid flying)	High impact	Alternative structures such as international night trains are lacking and not economically affordable by the general population, it remains economically irrational to take the train or the car compared to flying.	Information and social norms increasingly motivates alternative choices, but perceived effort and time is still high
Food (low meat diets)	High impact	Vegetarian food is less expensive and increasingly an option on public restaurant settings, institutional settings support availability of vegetarian options in public settings	Choice of low-meat options is increasingly facilitated in public settings but not a comprehensive default option
Waste (recycle, avoid foodwaste)	Moderate impact	Waste management infrastructure is well established in Switzerland, both in public and private settings, only food waste in public settings lack of favorable institutional incentives and infrastructure	Recycling options are largely available and encouraged and designed to be user-friendly. Foodwaste reduction maybe improved by more compost options
Waste (reduce plastic through reusable items and less packaging)	Low impact	Institutional conditions support the exclusion of single use plastic products but does not support the reduction of packaging in buying contexts	Plastic packaging remains largely the default option
Energy use (reduce warm water use in showers and laundry)	Moderate impact	Behaviour that does not necessarily require structural and institutional conditions, reduce economic costs	Low control over people's decision context, no default settings or systematic stickers to orient choice

¹ Indications of impact are retrieved from Wynes et al. (2020)

Above, we have provided some examples to exemplify how behavior change might be associated with non-psychological barriers (economic, structural). But why is it important to consider these non-psychological barriers from a communications perspective? There are several arguments as to why contemplating and integrating potential structural, economic, and institutional barriers is advisable for communicators.

Firstly, as public communicators, an important issue to consider is that asking for voluntary behavior change requires trust. In turn, communicators can build trust by signaling that they did indeed consider aspects of justice, fairness, and equity as part of their messaging. Ultimately, not every behavior change communicated will be affordable, accessible, and therefore relevant to everybody in a given audience. However, as previous research has shown, aspects of equity, effectiveness, and fairness are at the heart of people supporting behavior changes and public policy (*please refer to pages 35 and 45 in the main report*). Thus, explicitly contextualizing behavior change in respect to their broad accessibility and affordability has the advantage of reaching people who might be interested in changing their individual lifestyles in general, but currently lack the necessary means or structural and economic support to go through with the behavior change.

Secondly, communicating about potential economic, structural, and institutional barriers to adopt behavior change opens up interesting and important alternative routes to increase pro-environmental behaviors: public and political behaviors. Most of the literature on individual behavior change focuses on non-political individual behavior change such as consumption, mobility, and conservation behaviors. However, mitigating the climate change crisis will require significant changes on the structural and economic levels as well. Moreover, as mentioned further above, even individual behavior change in domains of consumption, mobility, and conservation might also face significant economic and structural barriers today. Thus, climate change communicators could focus on how individuals can be more pro-environmental in their behavior by focusing on political behaviors such as voting, protesting, and campaigning with the goal of changing the structural and economic circumstances which would allow for more people to adopt pro-environmental behaviors in their daily lives. Communicating the necessary structural and economic changes needed and showing how individuals can contribute to said changes by their political agency can increase feelings of efficacy and can further strengthen environmental citizenry. Thus in addition to increasing pro-environmental behaviors in the classical domains of everyday behavior, climate change communication can increase its

effectiveness and scope by informing the public about political behaviors and their impact on the broader public, providing a more accurate picture of societal change in a given context. Particularly in the Swiss context, with its direct democracy and votations, political behaviors can be a powerful way to maximize the impact of communication.

To summarize, for behaviors which face little or no structural, economic, and institutional barriers (e.g., dietary change), our decision chart points to the general guidelines of communication as we lay out in our main report (*please refer to section 5-6 in the main report*). For these kinds of behaviors, we recommend to consult our general guidelines directly. On the other hand, for behaviors which are associated with significant structural, economic, and institutional barriers, we suggest to consider communicating about political behaviors as a means of addressing said barriers as an *additional* communication strategy.

4. Individual behavior change: political behaviors [Box 4]

A further important and potentially highly effective way to facilitate behavior change more broadly is to demand systematic and structural changes in areas which might currently hinder effective behavior changes. In this section, we explain how communication can increase its impact to facilitate behavior change, by focusing on a particular set of behaviors: political behaviors. By political behaviors we refer to any form of (individual or collective) involvement in the political process, or any activity which has political consequences in relation to government and policy. This broad definition embraces both more traditional forms of political participation (such as voting in elections, activism in interest groups, or social movements) as well as non-traditional forms of political activities (including protest, strikes, and civil disobedience actions).

As we have laid out in the previous sections, many of the desirable behavior changes advocated in behavior change campaigns (mobility, consumption, conservation etc.) might face structural, economic, and systemic barriers which can not be changed in a direct manner. As such, climate change communication which does not account for existing non-psychological barriers is only going to be effective to the extent that the advocated behavior changes are affordable (economic rationality) and accessible (resource rationality) for a significant number of individuals in a given audience. However, communication does not have to stop at this point only because of the existence of these barriers. Instead, communication can actively push for behavior change in the political domain by showing how individuals can be actively involved in removing such barriers. Concretely, when communicating about behaviors which face

economic or structural barriers, these barriers can be highlighted and ways to overcome them can be communicated. The focus of these communication efforts then would be to discuss a given desired behavior change, such as flying and driving less and using public transportation or bikes more, by highlighting the potential how the more environmentally friendly behaviors could be made more accessible and affordable through policy changes and showing the way for policy change through voting, activism, and social movements for example. Our guidelines for climate change communication for non-political behaviors largely also applies for political behaviors and can thus be used in communication campaigns focusing on political behaviors as well.

References

1. van Valkengoed, A. M., Abrahamse, W., & Steg, L. (2022). To select effective interventions for pro-environmental behaviour change, we need to consider determinants of behaviour. *Nature Human Behaviour*, 6(11), 1482-1492.
<https://doi.org/10.1038/s41562-022-01473-w>
2. Andrews, T. M., Kline, R., Krupnikov, Y., & Ryan, J. B. (2022). Too many ways to help: How to promote climate change mitigation behaviors. *Journal of Environmental Psychology*, 81, 101806. <https://doi.org/10.1016/j.jenvp.2022.101806>
3. Wynes, S., Zhao, J., & Donner, S. D. (2020). How well do people understand the climate impact of individual actions? *Climatic Change*, 162(3), 1521-1534.
<https://doi.org/10.1007/s10584-020-02811-5>
4. Cologna, V., Berthold, A., & Siegrist, M. (2022). Knowledge, perceived potential and trust as determinants of low- and high-impact pro-environmental behaviours. *Journal of Environmental Psychology*, 79, 101741. <https://doi.org/10.1016/j.jenvp.2021.101741>