



Sustainable Behaviour: Everyone speaks about it, nobody practices it, why?

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“Environmentally concerned individuals' often fail to act pro-environmentally, both in the private and public spheres.”, this is an insight from a [paper](#) shared by my colleague and the highlight of the latest [podcast](#) by CAG on resolutions for the new year. These two points made me think why only a few people manage to follow in the steps they have chosen - be it leading a sustainable lifestyle or fulfilling their resolutions. What are the factors that determine this behaviour? Before we go into details, let's see if individuals' behaviour can have an impact on climate change.

The defining global challenge of our time is climate change. Unprecedented changes to the global climate over the past few decades have resulted in widespread impacts on human societies and natural systems. If this continues at the same magnitude, we will have severe and irreversible planetary impacts lasting hundreds of thousands of years, further threatening the people, environment and communities everywhere. A substantial push to limit the global temperature changes over the course of this century is required to lessen the worst of climate impacts. The path to achieving this depends on humankind's ability to reduce the greenhouse gas emissions in a rapid and sustained manner. Doing so demands a transformation of our economy and our systems of production and consumption, from changing how we generate energy and produce food to how we consume goods and services. The common notion is that most of this change often rests at the scale of government and industry, which is true to an extent but the changes that can take place at individuals' level, in households, and within communities are of profoundly greater importance than most people appreciate. Nearly [two-thirds](#) of global emissions are linked to both direct and indirect forms of human consumption. Even the [conservative estimates](#) for the potential of behavioural changes on reduction of natural resource consumption represent an enormous contribution in mitigating climate change, despite what the headlines globally suggest. Now that we know that individuals' behaviour in terms of consumption is also key to mitigating climate change let's have a look at what factors affect this behaviour.

Most of the [literature](#) to understand what determines individuals' behaviour related to sustainable consumption is mainly based (not limited to) on four theories: Theory of Planned Behaviour (TPB), Norm-Activation Model (NAM), Value-Belief-Norm (VBN) and Attitude-Behaviour-external Conditions (ABC) model. I am not going into the details of each model as our main focus is to understand what parameters these models have predicted to understand the parameters that influence the individuals' behaviour. The above theories have categorised the influencing factors driving sustainable consumption into three types: 1) Demographic characteristics, 2) Internal factors and 3) External factors, which are not independent but interact with each other (Fig. 1).



Demographic characteristics

Gender, age, marital status, education, occupation, income, and family size among others are the typical demographic variables. Research has shown that factors such as education, household, income, and age have no significant effect on behavioural intentions but might be related to individuals' carbon dioxide emissions. But one thing that should be noted is that these variables may have mixed effects on internal and external factors. Let us take for example education, the level of education may affect the individuals' attitude (one of the internal factors) towards the environment, because mostly well-educated people may acquire more information related to environmental problems, or they tend to be more interested in low-carbon technologies and products. In the same way, income may help remove the constraints of economic factors (one of the external factors) with high-income individuals being less affected by economic factors such as green goods with high prices and energy costs.

Internal factors

The internal factors ruling the individuals' behaviour are related to personal characteristics, abilities, and subjective willingness. The internal factors are mainly exclusive to the individual themselves and thus have a high influence on the choices of sustainable consumption. These internal factors tend to create greater instability and uncertainty for policy makers and understanding these internal factors can help the decision makers to better frame and adjust the external conditions to more effectively influence the internal factors. Internal factors can be divided into four aspects: attitude, personal norms, [perceived behavioural control \(PBC\)](#), and behavioural habits.

Attitude related factors include values, beliefs, knowledge, and environmental consciousness. It is straightforward that environmental concerns and knowledge are directly proportional to sustainable consumption. Values and beliefs are factors that shape individuals' attitudes. Altruistic and biospheric values raise people's concern for the environment and thus affect their behaviour towards the environment. Personal norms are the expectations of individuals to take actions for sustainable behaviour and these are influenced by the values and beliefs. Personal norms are vulnerable to external factors. For example, when an individual thinks to engage in sustainable consumption, and such behaviour requires a relatively high cost of money or time, the motivation may be reduced to translate personal norms into behaviour.

PBC is defined as an individual ability to overcome obstacles. Resources and opportunities play an important role in the control he or she can exert over his or her own behaviour. Personal resources such as time, money, knowledge, skills, opportunities, and abilities are important for individuals to engage in sustainable behaviour. Even if one wants to engage in a specific behaviour, he/she may not be able to actually do so because he/she lacks the ability to control resources. Moral norms also have a significant influence on behaviour. Individuals with strong moral obligations are willing to overcome obstacles such as time, money, skills, etc. to pursue sustainable consumption. Habit is another important factor affecting behavioural intentions and



gaps. Behaviour is habitual and guided by automated cognitive processes. We see many examples where although people realise that their behaviour has a negative effect on the environment, habitual behaviours related to unsustainable consumption continue to occur because people are unwilling to change their original habits. Effective interventions (external factors) should be designed to change habits, especially to shape, strengthen or develop behaviour habits towards sustainable consumption.

External factors

Promotion or inhibition of sustainable consumption can be affected by the external factors to a certain extent. While the internal factors are relatively hard for the policy makers to control, they are more capable of controlling external factors by formulating effective policies to promote external factors, which, as mentioned earlier, have a positive influence on internal factors. Social norms, economic factors, infrastructure, information, natural resources, geographical location, climatic conditions, quality of government and regional culture are some of the external factors.

Humans are in a social system and their behaviours are strongly influenced by social norms. Social norms can be defined as “Standards of behaviour commonly recognised and followed by people” and include customs, ethics, religious beliefs and laws. The stronger the social norms on sustainable consumption, the stronger the individuals’ intentions for sustainable consumption. In a country like India, economic factors play a huge role in determining how people act. Price and income are important economic factors that have a direct influence on people’s decisions and lifestyle choices along with external economic interventions such as monetary incentives or punishment (fines). For example, an increase in energy prices could effectively spur energy conservation behaviours. Financial incentives have a kind of assorted effects on behaviours. In general, [financial incentives](#) have effectively promoted pro-environmental behaviours, but when incentives are discontinued, motivation to maintain behaviour may decrease.

Infrastructure is another factor which has a significant impact on bridging the gap between intentions and behaviours. The availability and convenience of infrastructure may affect individuals’ motivations and promote environmental behaviours. For example, availability of recycling facilities, the convenience and functionality of public transit systems, and the market supply of low-carbon products at affordable costs can all highly influence the individuals’ intentions and behaviours. The exchange and communication of environmental information have the ability to promote environmental concerns, values, beliefs and attitudes. To achieve these policy makers should disseminate information related to climate change to the public in local languages through various mediums. Individuals usually act wisely, taking into account available information, and consider the meaning of their actions. For example, carbon labelling system on a product which provides information on the carbon footprint, the amount of carbon dioxide equivalent emissions in the entire product life cycle, from raw materials to final disposal, for the products they buy will have an influence on the behaviour. The quality of the government also has a big role to play in deciding individual’s behaviour towards sustainable consumption.



People who are environmentally concerned are more likely to act pro-environmentally, where government institutions are fair, effective and impartial.

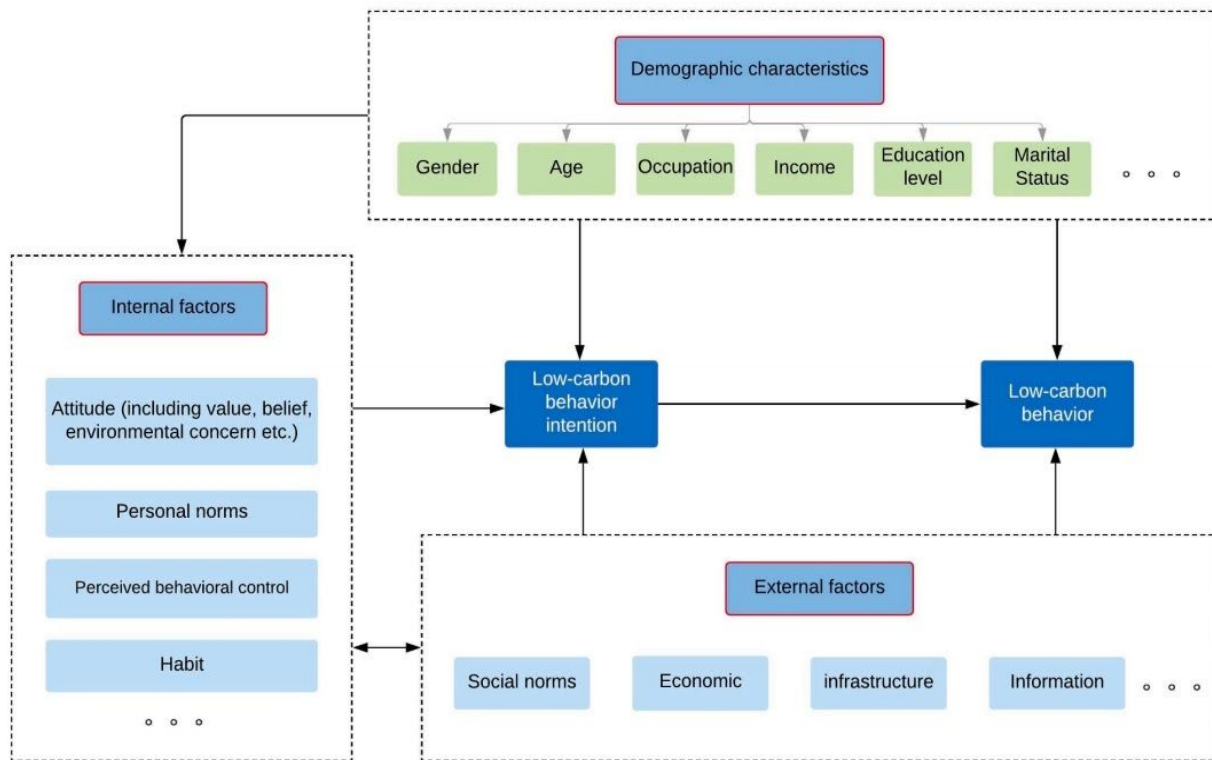


Fig. 1: Influencing factors affecting sustainable behaviour

(Source: <https://www.sciencedirect.com/science/article/abs/pii/S2214629620304199>)

All living things on Earth weigh 550 gigatons and humans comprise a tiny fraction of it which is 0.06 Gt but have disproportionately large impact on the environment. Human behavioural solutions have the ability to reduce emissions of about 19.9 % (Plausible scenario) and 36.8 % (Optimum scenario) from 2020-2050, as per this [latest study](#). While the external factors are not under the control of individuals, the individuals can think of the changes they can make in the internal and demographic factors wherever possible to lead a sustainable lifestyle. On the other hand, the government policies should not be solely based on a taxation/subsidy if it has to achieve the low-carbon behaviours from its citizens and efforts should be made to enhance the citizen-to-citizen and citizen-to-state interplay. Human behaviour is a complex system to understand and it is a difficult task to list out all the influencing factors and then to decide which has a bigger influence than the others. Generally the end of the year is a time to reflect and there's no shortage of things to think about after the year we have had. The change in our behaviours is the need of the hour to have any chance of having a sustainable planet going forward. It is very clear that we need to reboot and do things differently. I would like to sign off with the below quote which summarises human behaviour!

"[Humans] are not thinking machines that feel; rather we are feeling machines that think." - Antonio Damasio