Event Report

Behavioural Change for Climate Action and Policy

Ashling Hotel, Dublin

4th November 2025

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1. Summary

The Climate Change Advisory Council held an in-person event at the Ashling Hotel in Dublin on 4th November 2025, focusing on the topic of behavioural change for climate action and policy.

The keynote speaker for the event was Professor Lorraine Whitmarsh who is a leading environmental psychologist specialising in perceptions and behaviour in relation to climate change, energy and transport. Professor Whitmarsh was the co-author of the UK CCC's 2023 report on 'The implications of behavioural science for effective climate policy'[1]. The event was chaired by Professor Liam Delaney and included presentations with question and answer discussions from international speakers, an expert panel discussion session and a subsequent focused session involving the presenters, experts from relevant institutions, Climate Change Advisory Council members, Adaptation Committee members and Secretariat. There were a range of attendees including representatives from several government departments, public bodies and many Local Authorities as well as academics and researchers working in energy, climate and economics. Presentation slides are available for anyone who wants to look at the underlying data.

The cross-agency approach and buy-in to behavioural change is evident in Ireland as seen by the attendance and engaged audience of this event. A strong ecosystem has emerged in this area and the approach Ireland is taking was recognised as world-class with lessons of interest beyond Ireland. Behavioural change is fundamental to climate action and deliberate and targeted approaches are needed to make behavioural research more practical and influential in the uptake of climate action solutions.

A non-exhaustive list of opportunities identified during the event include:

- **Strengthen the Behavioural Science Ecosystem:** Build on existing behavioural science units, address gaps at local government level and establish a formal coordination mechanism or national strategy.
- **Local Authority Capacity for Behavioural Change:** Climate Action Officers need practical tools and training to embed behavioural science in their work as they are at the interface of policy into climate action.
- **Research and Data Gaps:** Improve data availability in key sectors, analyse best practices for Ireland and raise the profile of social science research.
- **Embed Behavioural Science in Policy:** Involve behavioural scientists early in policy design, use citizen panels/assemblies to test policies and provide civil service training on behavioural frameworks for better integration of behavioural science into strategy development and target setting.
- **KPIs and Metrics for Behavioural Change:** Clear KPIs and metrics are essential to measure behavioural change impact. The Department of Transport is working on this but broader adoption is needed.
- **Leverage Moments of Change:** Target life transitions such as moving home, purchase of first home, first car or driving license and farm succession with well-timed incentives.

[1] https://www.theccc.org.uk/publication/the-implications-of-behavioural-science-for-effective-climate-policy-cast/

- **Address Public Engagement and Misinformation**: Monitor information sources, counter misinformation on social media, and maintain public support for climate action.
- **Improve Biodiversity Awareness:** Include biodiversity questions in the national surveys and expand research on behavioural interventions for nature restoration.
- **Adopt Targeted and Fair Approaches:** Segment audiences for interventions, ensure fairness and collect Irish-specific lifestyle emissions data.

2. Overview of Presentations

3.1. Keynote on the importance of behavioural change in informing climate policy

Professor Lorraine Whitmarsh, University of Bath delivered the keynote presentation on the importance of behavioural change in informing climate policy. This was a wide-ranging presentation that focused mainly on the following issues:

There is a clear need for consumer behaviour change as well as technological change in climate action. It was noted that one-third of emissions come from consumers and that limited progress has been made on tackling demand in a range of areas. Behavioural change is needed to accelerate progress towards targets.

Changing behavioural practices and consumption is most needed in the global north. Income level is the biggest predictor of carbon footprints and per capita CO_{2eq} should be at 1.1 tonnes per year for targets to be achieved. In Ireland, average per capita emissions of CO_{2eq} are around 10 tonnes per person.

Different types of behaviours needed to change for climate action were highlighted. These included car-free travel, use of EVs and public transport and dietary choices. It was noted that recycling does not have significant impacts on emissions reduction and that this is often misunderstood. It was emphasised that broader systems and other actors such as institutions, companies and those in leadership positions also have an important role to play.

Findings from the EPA research on Climate Change in the Irish Mind was summarised and it was highlighted that most people are worried about climate change and that younger people are more concerned and climate anxiety is becoming problematic.

The COM-B behavioural model was presented and it was summarised that behaviour is a result of three factors (i) capability – knowledge and skills (ii) opportunity – physical and social environment (iii) motivation – reflective and automative drives. It was noted that behaviour itself can also influence these factors. The need to look at which factors are barriers and design interventions accordingly was emphasised.

Interventions could be downstream (use of information, advertising, education etc. to influence individual choices) and/or upstream (incentives, regulation, changes to products etc. to influence the context/situation of action). Downstream measures cannot be relied on only as they do not tackle structural barriers and may reinforce pre-existing inequalities. Multiple levers are needed in most cases and sticks are most effective to disrupt negative behaviour.

Knowledge gaps are evident among the public. Research conducted has shown an interesting set of misperceptions – effective actions to reduce emissions such as dietary change and reduced consumption are commonly thought to be less effective than actions such as recycling which has minimal impact.

Downstream approaches are needed to address knowledge gaps and to solve the challenge of pluralistic ignorance. It was found that people underestimate concern in society for climate change. This is known as pluralistic ignorance and affects people's decision-making via hopelessness and the feeling that their actions will not make a difference as others will not do the same. Providing only information will not work to address pluralistic ignorance. This is because mass media and social media are people's main sources of information and these types of media are already filtered through biases.

In the UK, Net Zero commitments are receiving increasing backlash. A pivot towards adaptation messaging is seen as a potential alternative. This is considered a less threatening message but the need to disaggregate and segment audiences was also highlighted. It was generally considered useful to emphasise messaging that shows climate action as possible, positive and normal and to translate the broader vision into something that has local benefits. A particular angle to focus on is that measures on the demand side reduce emissions but also have multiple co-benefits for quality of life and improving biodiversity and health and reducing inequality.

The importance of the timing of messaging was highlighted. Existing habits are difficult to change but habits are known to weaken at certain individual moments of change such as moving house, retirement, changing job and parenthood. People are known to be more receptive to change in such situations and this is the most opportune time for targeted interventions. Some moments of change can also be exogenous and societal such as the financial crisis, natural disasters and the Covid pandemic. The impact of natural disasters on people can be difficult to interpret and experiencing an extreme event does not guarantee that a person becomes more concerned about climate change or that they would change their behaviour.

Fairness was identified as the best predictor of climate policy acceptance. Approaches that make polluters pay, protect disadvantaged groups and encourage participatory decision-making were noted to be seen as fair.

Questions and Answers

The following issues were raised and discussed in the questions and answers:

- **The risk of the perception that the world is giving up on climate mitigation:** although the scientific consensus is that the 1.5 ℃ temperature increase is going to be exceeded, it does not mean that mitigation activities should cease. The need to correct the overshoot and bring the average global temperature back down as quickly as possible after it is exceeded requires even more urgent and far-reaching action on mitigation.
- **Moments of change:** it was discussed that there are many different ways of disaggregating moments of change. There can be societal versus individual moments of change and predictable versus unpredictable moments. It was noted that societal moments of change tend to be more unplanned while individual ones tend to be planned.

The importance of planning and timing behavioural change interventions around moments of change was emphasised.

- **Downstream versus upstream interventions for farmers:** it was queried whether the COM-B approach can be applied to farmers and what the best approach is in this area. In the UK, it was reported that mostly downstream approaches had been applied for farmers and that there were relatively few cases of upstream (incentives and disincentives). It was noted that there are some useful insights from this UK CCC report[2].
- **Alignment with the increasing security agenda at EU level:** there was discussion on whether there is an opportunity to align the EU's increasing energy and technological security agenda with climate action. It was considered that energy security is potentially a good message but there is a need to think of multiple benefits and what may resonate with different audiences.
- **Permanency of behavioural change:** this was identified as a challenging area as the permanency of behavioural change is not often measured. Research normally only takes place soon after interventions and it is not always clear if behavioural change is sustained over the medium and longer term. However, research does show that upstream measures are generally more effective over the longer term and have a more durable impact than downstream measures.
- **Polarisation within political debate:** there was discussion on the increasing pullback on climate commitments observed from Governments and political parties around the world. It was queried whether this polarisation is being observed in data and the implications of this for behavioural change initiatives. The climate barometer in the UK was identified as being very useful in identifying trends in attitudes and behaviour. There is still a positive view of climate change and that citizens in countries such as the USA continue to be concerned by it in spite of the political situation. This is particularly the case around adaptation and there are high levels of support for renewable energy although commitment to net-zero has become more polarised. The need to root messaging around behavioural change in tangible and wider benefits was identified as being most important in leading to buy-in across different sectors.

3.2. Environmental Protection Agency Behavioural Insights Unit: Program overview and collaborations

Dr Desmond O'Mahony, Scientific Officer in the EPA's Behavioural Insights Unit, presented an overview of the activities of the behavioural insights unit of the Environmental Protection Agency.

- Comparing results from 2021 and 2023, and even with an energy crisis between surveys, public buy-in on climate change remained strong. Recent weather events (e.g., heatwaves, storms) are becoming increasingly associated with climate change.
- Results from the surveys also revealed that outlook didn't differ based on income. There is a durable belief in climate change across income groups.
- While there is a strong belief in climate change, climate literacy remains a challenge. A disconnect between believed and actual impact of lifestyle actions was noted. Many highlight

[2] The implications of behavioural science for effective climate policy (CAST) - Climate Change Committee

recycling as overly important, while significantly underestimating the significance of removing/reducing meat from diet.
- Geographical data is key. Showing county breakdown will be important in understanding buy-in for adaptation measures after localised events e.g., Middleton flooding in Cork.

3.3. Behavioural science research to support demand flexibility and the uptake of smart energy services

Dr. Hannah Julienne, Programme Manager for Behavioural Economics at SEAI's Data & Insights Department, Research & Policy Insight Directorate, provided a summary of research undertaken by the SEAI to support demand flexibility and the uptake of smart energy services.

- Work has been done by SEAI to understand Irish people's everyday energy use via a monthly behavioural energy & travel tracker survey. A result from this survey revealed that consumers with a day-night tariff effectively shift their use away from the 4-7pm peak, while those on a time of use (ToU) tariff do not. It was noted however that the survey results were based on 2023, close to when ToU was becoming more popular (not well understood) while day-night tariffs were well understood.
- Another study from SEAI showed that giving people information on the benefits of smart energy and demand flexibility led to a slight backfire effect where consumers were less willing to reduce peak use by reducing their overall demand, highlighting the importance to retain messaging about reducing energy use alongside tips about time shifting. Perceived fairness was the factor most strongly related to people's intentions to engage in flexibility.
- The recommendations from SEAI's behavioural change studies included consumer tools with automation to reduce cognitive burden on consumers and increasing public understanding that shifting the peak is beneficial for the environment and is important for behaviour change.

3.4. Behaviour change research, pilots and national surveys for climate action and sustainable mobility

Robert Cazaciuc, Assistant Principal in the Department of Transport's Climate Engagement & Governance Division, presented on the behavioural change research, pilots and national surveys for climate action and sustainable mobility undertaken by the Department of Transport. The Department of Transport has a behavioural research programme with the ESRI and employs behavioural science in three main areas of its work:

- Major policy developments based on the avoid, shift and improve framework, which require a significant level of behavioural change.
- Behavioural change pilots and programmes aimed at understanding and overcoming motivational barriers.
- Embedding behavioural science in programme delivery including design and evaluation principles.

- Within the Avoid-Shift-Improve framework, avoid and shift measures lead to most significant behavioural change for people. Improve is more closely related to technological change (e.g. shift to EVs).
- Overall, there is a lack of willingness to make many lifestyle changes. There is a disconnect between public perception of effectiveness and actual emissions outcomes. EVs, for example, are shown to have low willingness to adopt and low importance in public perception but this change is actually one of the most effective in terms of GHG reductions.
- Currently, the Department of Transport is building an evidence base of what is working within their initiatives. Some of the initiatives that are currently ongoing from their public engagement pilots are free public travel cards for companies (with review after 6-months), and free coaches for hire on matchdays for sports clubs.

3.5. Supporting farmers for climate action: Insights from behavioural change research

Dr Lorraine Balaine, Senior Research Officer in the Agricultural Economics and Farm Surveys Department at Teagasc, presented on behavioural change insight for farmer climate action.

- The uniqueness of the agricultural sector was highlighted, particularly its heterogeneity, the family-farming model, the age demographics and the implicit intertwining of the household with business. These factors lead to behaviours that factor in lifestyle strongly and mean that profits are not the sole objective. As a result, a blanket, or one size fits all approach to policy and supports will not work.
- Farmers themselves are shown to have high-levels of awareness surrounding climate issues and the sector's vulnerability to it but are believed to be often misrepresented in media leading to an us-and-them mentality.
- The difference in clarity surrounding mitigation and adaptation measures was highlighted, with mitigation measures perceived as clearer and supported by more robust information, while adaptation measures were less clear, not just in Ireland but in EU too, leading to a lack of data on adaptation measures as they are not always labelled as climate change actions. Additionally, there is limited information on adaptation measures that are easily accessible for farmers.
- However, mitigation measures are also being adopted too slowly, making current actions insufficient to meet GHG reduction targets and are often offset by market trends. The correlation between awareness and willingness to adopt specific mitigation actions was highlighted, as while it is measure dependent, high awareness and low willingness to implement was commonly reported.
- There needs to be a behavioural insights approach taken to understand barriers that farmers are facing in implementing mitigation and adaptation measures, adaptation strategy needs to be strengthened as it is behind mitigation and the messaging that farmers receive needs to be consistent. Additionally, the trade-offs and synergies between mitigation and adaptation measures are currently not well understood.

3.6. Addressing the Climate and Environmental Emergency on psychology for sustainable behaviours and practices across communities, local authorities and organisations

Dr Marica Cassarino, lecturer in the School of Applied Psychology and Sustainability Institute, University College Cork, presented a summary of the work of Special Interest Group within the Psychological Society of Ireland for addressing the climate change and ongoing UCC projects focusing on organisations as agents of behavioural change.

- The importance of recognising psychological and social barriers, such as the "5 Ds of inaction," when designing climate and environmental policies was highlighted. These factors shape how people interpret climate risks and respond to interventions and are therefore essential considerations for national communication and engagement strategies.
- The need to build behavioural-science capacity within local authorities to support the effective delivery of national climate and adaptation measures was conveyed. Her work demonstrated that structured behavioural approaches, training and organisational support can strengthen implementation at local level and efforts to co-develop micro-credential courses on behavioural change and best-practice approaches for Local Authorities in Ireland was noted.
- The value of interdisciplinary behavioural approaches for policy design and delivery was discussed. Collaboration between psychology, planning, transport and sustainability professionals can improve the effectiveness and public acceptability of climate interventions.

3. Panel Discussion Summary

The presenters took part in a panel discussion that involved questions and comments from the audience. The following topics in bold were raised by the audience:

- **Day night electricity tariffs versus ToU tariffs:** It was noted that day night tariffs for electricity usage had a greater impact than ToU tariffs in terms of the SEAI research. The reason is unclear however day-night tariffs were considered easier to understand and have been around for longer. It was noted that the research data was from 2023 and that the 2025 results could be different as customers may increasingly be getting used to time of use tariffs.
- **Lack of knowledge of adaptation among individual farmers:** It was considered that adaptive practices were used by many farmers but that the farmers themselves do not recognise this as climate change adaptation. It was further noted that farmers do adapt to extreme weather events but that this can be reactive and that there is a lack of medium and long term planning to prepare for these events. It was highlighted that attention on adaptation was increasing in the agricultural sector and was a priority of focus for both the Department and Teagasc.
- **Embedding behavioural change in the work of Local Authority Climate Action Officers:** There was a discussion on governance systems for behavioural change and whether behavioural change units are better placed in Government departments or local authorities or both. It was noted that there is potential for climate action officers at local authority level to bring behavioural science into their work but that they are unsure where to start. Bringing behavioural models such as COM-B in at the design of projects and schemes was recommended. It was felt that accredited courses on behavioural change are needed for local

authority staff. The establishment of a peer-to-peer platform on behavioural change for local authorities was identified as being needed.

- **Importance of KPIs and metrics:** The importance of KPIs and metrics in behavioural change was emphasised and is something the Department of Transport is looking at developing.
- **Nurturing and sustaining the existing ecosystem for behavioural change science:** Several speakers commended that an "ecosystem" of behavioural science units that has been set up within several Government departments and agencies as well as academic institutions. There was a discussion on how this ecosystem can be further built on. The need to further embed behavioural scientists in institutions and the design of projects and the initial stage of policy and strategy development was identified. It was noted that it is easier to petition for a behavioural science unit in an agency when the operational impact can be demonstrated. There is an increased interest in behavioural change due to the slow uptake of a range of technological solutions to the challenges and targets we have set for ourselves. However, there is only a small pool of expertise in this area in Ireland.
- **Biodiversity:** The possibility of extending the conservation around behavioural change to biodiversity was raised given that targets for nature restoration are also currently under development and that there is need for considerable behavioural change in this area. The EPA is doing research on biodiversity loss and further work and the cascading risks of climate change to biodiversity loss and vice versa were noted. Biodiversity protection is very important in the agriculture sector and the need to do more work on identifying synergies and trade-offs between climate, biodiversity and water quality interventions was highlighted.
- **Moments of Change:** The importance of moments of change and targeting the timing of projects and messaging for behavioural change around these moments was discussed. The imminent generational change and succession of farms was mentioned as a possible moment of change and opportunity to capitalise on the adoption of approaches at farm level to benefit climate, biodiversity and water quality. The purchase of a first car, first driving license and purchase of a first home were identified as other important decision-making moments of change in the Irish context. The need to focus interventions and supports on children and young adults was identified as this would lead to generational impacts.

4. Focused Session

The focused session included all expert speakers, Council members and secretariat, Adaptation Committee members, the ESRI and a UK CCC representative. Participants were requested to provide their broad reflections on the event with focus on the gaps and barriers to the improved use of behavioural science and suggestions on how to overcome these challenges. The encouraging ongoing work to-date across Government departments, agencies and academia was noted. Council members present would like to see these good examples built on and behavioural science used more effectively to accelerate actions that are positive for climate and biodiversity. Ireland is seen to be at a good starting off point in terms of how behavioural science is being used to further climate action. It was observed that there is considerable engagement with consumer and producer groups and that there could be less resistance to climate action in Ireland than in other countries.

Nurturing and sustaining the behavioural science ecosystem

An aspect to build on is the behavioural science "ecosystem" that has been built up in Ireland with dedicated behavioural scientist units and expertise established in different government departments such as the Department of Transport and government agencies such as the EPA, ESRI and SEAI as well as in academic institutions. The lack of behavioural scientists employed at local government level was identified as a critical gap that needs to be addressed given their importance in fostering positive climate action at local level. It was noted that there is also a network of Irish behavioural scientists but that this is not funded and operating more at the level of information sharing. It was suggested that a formal coordination mechanism for bringing together actors in behavioural science and climate and biodiversity action was needed. This could look at amongst others strategic priorities, improved coordination of efforts and monitoring of interventions. Other options suggested were to establish a working group responsible for behavioural science and climate and biodiversity action and the possible development of a national strategy on behavioural science.

Research Gaps

There was a discussion on research gaps relating to behavioural change. It was considered that behavioural research is credible and a useful input into climate action efforts. The good ongoing work across academia, agencies, departments and international collaborations was welcomed. There is need to build on this and that there is an appetite for better interaction to raise awareness of the work and approaches being deployed in this field. Other options to embed behavioural science in Government departments were discussed such as policy fellowships and the secondment of academic experts in Government departments. An analysis of best practices in promoting positive behavioural change and how these practices could be applied in Ireland was a potential outcome.

Sources of information

There was a discussion on the issue of misinformation and polarisation of views in the Irish context. In terms of public engagement on climate change, it was considered that the public is broadly engaged and supportive of policy and the need for climate action. It is important that policy makers should not lose sight of this and not take this for granted as this can shift quickly and that polarisation could further increase. Whilst there are some indications from national surveys where the Irish public are learning about and accessing information related to climate issues, there remains a gap in understanding some sources in a detailed manner. It was noted that the evidence suggests a shift to social media as a major source of information about climate change. There is a risk that social media platforms are easily manipulated by vested interests and may propagate misinformation. Understanding of social media communities and how they form, interact and influence was considered a potential gap. An additional challenge is how to engage with social media communities to convey positive messages and encourage collaboration rather than creating divisions was noted as essential.

Moments of Change

The notion of moments of change was revisited in the closed session and the timing of messages and schemes to effect behavioural change. It was suggested that this was a real opportunity for local authorities and other agencies to pilot different initiatives such as supports for active travel to serve new housing developments. The change in ownership of farms (around 30-40% of farms

are expected to change hands in the next 10-15 years due to the age profile of current farmers) was also considered a major opportunity to promote the greater adoption of farming practices with greater benefits for climate, biodiversity and water quality. In this context, there was a need to carefully target incentives with appropriate timescales.

Biodiversity Considerations

Knowledge of the public on issues of biodiversity and nature was noted as a significant gap. It was recommended that the EPA should integrate questions on the public perception of biodiversity into the Climate Change in the Irish Mind survey. On a broader level, it was felt that there is very little research being undertaken on nature and that society may not be well-informed on behavioural change interventions relating to biodiversity.

Embedding Behavioural Science in Policy

A common concern was expressed that behavioural scientists were not engaged or consulted in the policy development process. Perceptions around the credibility of social science were identified as a challenge and that there is a need to increase attention on the importance of social science research. It was discussed that Government policies/strategies were often not strategic in nature but a patchwork of different actions. The failure to engage behavioural scientists in policy development was also considered to be a risk as agreed targets were often unrealistic to achieve and that this had the effect of discouraging action. The Citizen's Assembly process in Ireland was held up as an example to follow in terms of engaging a representative selection of the public in matters of national interest. It was suggested that a citizen's panel type process was a possible option to better engage the public in all policy development and could also be used to road test all policies under development. This was emphasised as a possible approach to reduce polarisation and to promote greater transparency and accountability in the policy making process. A training programme for civil servants when developing and appraising policies such as on the APPEASE framework was also considered as a possible option. An annual event such as a symposium or conference on the role of behavioural science in climate and biodiversity action was suggested to bring together relevant stakeholders, including policy makers, local authority officials and behavioural scientists.

Data Gaps and Evidence Base

Suggestions and recommendations on the adoption of behavioural change needs to be evidence-based but this is not always the case due to lack of data. Specific discussion was had on gaps and challenges in accessing data in the context of agriculture, forestry and land use change. In these sectors, it was considered that there are a lot of known technical measures that work but there were barriers to adoption. Some of the targets such as those relating to afforestation were not considered practical and some of the measures and targets require greater analysis from the acceptability perspective. An example was given of the re-wetting and restoration of peatland soils under agriculture and that there is a lack of understanding of who these farmers are and the barriers they may face. A separate point made was that farmers are increasingly overburdened with consultations and calls for engagement. Therefore, farmers are beginning to disengage from these evidence gathering exercises.

Good practice in behavioural change

The need for better segmentation of approaches was emphasised. It was stated that stakeholders are not homogenous and that targeting smaller groups of higher emitters was likely to be more successful rather than using a one-size fits all approach to engendering behavioural change. Ensuring fairness was also considered essential for any successful approach as well as the need to frame messaging around positive multiple benefits. It was noted that there is not Irish-specific data on life-style emissions across the income distribution.