

Report of the Expert Panel on Environmental Charging and Other Measures: **Recommendations on Single-use Disposable Beverage Cups**

July 2019



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Foreword



Dame Sue Bruce
Chair
Expert Panel on Environmental Charging and
Other Measures

When I began my role as Chair of the Expert Panel I was very much looking forward to working on this important and fascinating area and noted these are global issues that can be addressed using a focused local approach.

In the year that the Panel has been working, there has been a continued realisation and shock at the harm of plastic pollution in our seas, in our country and throughout the world with actions now being taken by many countries. The world is very much waking up to the harm that our throwaway culture is causing our planet.

We have seen unprecedented action by young people around the world, raising their voices and demanding action. As a former chair of Young Scot, I welcome the leadership shown by Scotland's young people who are responsibly voicing their concerns over the future of the planet and demanding that change happens here.

Over the first year the Panel has focused its attentions on single-use disposable beverage cups. We have discovered that there are many complex issues to tackle and a myriad of factors that must be considered. We have asked questions about what we can do together in Scotland – as consumers, communities, producers, retailers and government – to radically change our attitudes and our use of single-use items.

We have recommended a range of measures from charging separately for disposable cups to developing pilots to promote reusable cups. We have made every effort to ensure that no-one will feel discriminated against because of our recommendations and have kept equality at the forefront of our thoughts. Our overarching message is that social marketing and raising availability and awareness of the alternatives to single-use are vital. There needs to be a move away from single-use disposable beverage cups completely and not just to an improved model for recycling.

I would like to thank all of the Panel members for their commitment, experience, knowledge and insights. Developing these recommendations has been a lengthy process which I think demonstrates the complexities of the issues. I would also like to thank the stakeholders who participated in our stakeholder events in May and Professor Wouter Poortinga from the University of Cardiff for his literature review and for joining us at a Panel meeting to discuss the work he prepared for us. His insights were thought provoking and extremely useful. Finally I would like to thank the Panel Advisors and Secretariat for their support.

I am pleased to submit this Report making recommendations on single-use disposable beverage cups to Scottish Ministers.

Introduction

This is the first Report of the Expert Panel for Environmental Charging and Other Measures and sets out its recommendations to tackle the dependence on, and environmental impact of single-use disposable beverage cups¹ in Scotland. It is envisaged that the measures set out below apply primarily to single-use disposable beverage cups made from cardboard lined with plastic, noting that these should in future and/or subject to consultation also be extended to include other types of single-use disposable beverage cups.

The Panel

In the Programme for Government 2017/18, the First Minister announced her intention to take the circular economy to the next level through a number of measures, including appointing an Expert Panel on Environmental Charges and Other Measures. The Panel's remit is to examine how to reduce demand for single-use items. Importantly they are also looking to advise on the use of charges, similar to the successful single-use carrier bag charge, with the goal of encouraging long-term and sustainable changes in consumer behaviour.

In May 2018, the Cabinet Secretary for the Environment, Climate Change and Land Reform announced the membership of the Panel and indicated that it would consider the issues around plastic pollution, including a focus on disposable cups and plastic straws. The Expert Panel first met in June 2018. Its purpose is to identify bold actions and provide advice to Scottish Ministers on charges or other measures which may be adopted in Scotland, with the goal of encouraging the long-term and sustainable changes in consumer and producer behaviour

required to tackle our throwaway culture and move towards a circular economy.

The Panel has an initial working life of two years, over which time it will deliver a rolling programme of advice on priority items, starting with single-use disposable beverage cups.

Details of the Panel membership can be found in Annex A.

The Panel's Approach

The Expert Panel has agreed a set of guiding principles to underpin its way of working; and to provide a reference point to guide and inform its consideration of key issues and assessment of potential options and recommendations. These principles are:

- **Outcomes focused and evidence informed:** Focus on the difference that measures can make to address Scotland's throwaway culture. Base recommendations on best available evidence on key issues and impact of different options, and consider unintended consequences of measures.

¹ Note that the agreed term used by the Panel in this Report is single-use disposable beverage cups and this would, in the Panel's view, be defined as widely as possible and include the lids commonly provided with these cups.

- **Targeting:** Prioritise preventing single-use materials being used, before looking at reuse, recycle and recovery options. Take into account the different lifecycle impacts of specific materials. Consider how measures add up and impact groups differently.
- **Proportionality:** Only propose additional measures when necessary. Solutions should be proportionate to the problem and the potential costs of implementation. Consider all options for achieving objectives, prescriptive actions as well as educational measures.
- **Transparency, integrity and accountability:** Explain clearly how and why recommendations are made. Be open to public scrutiny and publish summaries of discussions. Clear line of accountability to Scottish Ministers, and regularly review and report on progress.
- **Consistency, coherence and context:** Consider whether existing policy measures work together in a joined-up way. Identify opportunities to strengthen co-ordination and coherence to maximise impact. Take account of the wider context.

To ensure a robust evaluation of best available evidence, the Panel commissioned an independent review of existing literature, spanning both academic and grey literature, which was carried out by researchers at the University of Cardiff and focused primarily on price-based interventions and supporting other measures to reduce the use of disposable coffee cups (DCCs), as well as the wider implications of introducing a charge. In particular, it considered the evidence around

four key issues. The *primary aim* of the rapid review concerned: **1) the effectiveness of DCC charges** (including the conditions under which charges are more or less likely to be effective in changing consumer behaviour). Three additional *secondary aims* of the review were to consider; **2) economic aspects of DCC charges** (including the optimal level of charge required to establish meaningful behavioural change); **3) the effectiveness of charges on other disposable products** (such as carrier bags and other single-use plastic items); and **4) other measures to reduce the consumption of DCCs** (including discounts, cup rental schemes, bans on single-use products, and initiatives to increase recycling).

The Panel also drew on an extensive knowledge account collated by analysts from Scottish Government and Zero Waste Scotland; and a range of other supporting papers. Details of the main evidence considered by the Panel is contained in Annex B. The Panel hosted two stakeholder engagement events to test and refine its emerging propositions and identify outstanding issues. The Panel would like to thank all stakeholders who attended the events and recognises that participation in the stakeholder events should not be seen as an endorsement of, or agreement with, the Panel's recommendations.

More information on the Panel and its work is available on its webpages: <https://www.gov.scot/groups/expert-panel-on-environmental-charging-and-other-measures/>. The Panel will also, where practical, publish material that it has collated or commissioned and used as evidence that informs its recommendations. These can be found on the Scottish Government's website.

Wider context

The Panel's considerations have coincided with significant policy developments at EU and UK level, including involvement in the UK wide Plastics pact led by WRAP. The EU Single-use Plastics Directive outlines a number of areas of action for EU member states, including banning certain items, encouraging reduced consumption of others and new targets to meet. The Scottish Government has indicated that it intends to continue to match the pace envisioned by the EU Directive post EU-Exit and the Expert Panel has been asked to advise on how we can go above and beyond the requirements of the EU Directive to tackle Scotland's throwaway culture. The Panel also noted the potential impact of UK wide consultation on proposed reform of packaging producer responsibility arrangements which, if pursued, will require businesses to take greater responsibility for the environmental impact of their products and for the costs of managing packaging at end of life. These and other external developments have been considered and noted throughout the development of the Panel's recommendations.

Why Action Is Needed

Scene Setting

The problem with disposable beverage cups

In recent years there has been a significant increase in the use of single-use disposable beverage cups for consuming tea, coffee and other drinks. Around 2.5 billion single-use disposable beverage cups are consumed in the UK each year, with around 200 million of those likely to be used in Scotland, and this is projected to increase to 310 million by 2025². The growing dependence on single-use packaging associated with our on the go and throwaway culture has increased the volume of waste generated. According to calculations by Zero Waste Scotland, single-use disposable beverage cups generate circa 4,000 tonnes of waste in Scotland each year. Many disposable cups are made of paper with a waterproof plastic lining, and are difficult to recycle unless they are collected separately from other recyclable material and taken to specialist recycling facilities. As a result they are often incinerated or go to landfill, creating carbon emissions and contributing to climate change.

Carbon emissions

The CO₂e emissions associated with producing and disposing of a disposable cup are approximately 1.5 times the weight of the cup itself, with more than half of this coming from the plastic lid. Disposable beverage cups in Scotland produce an estimated 5,900 tonnes of CO₂e per year³.

Plastic pollution

In addition to the carbon emissions, an estimated 40,000 disposable cups are littered in Scotland each year, making them one of the most commonly littered items. As disposable cups are relatively large and easy to spot, they act as 'beacons of litter which makes a place look untidy and attracts more litter, increasing overall plastic pollution⁴.

Current model of consumption

Disposable cups are mostly used on the go, for example when people buy a drink on the way to work or on their lunchbreak and take it with them. The purpose of the cup is to be portable and disposable and when the cup is disposed of it may be at a different location from the purchase point and not at a retail venue. This makes it hard to capture the cups for recycling, despite some retailers offering cup recycling facilities, as there may not be specialised cup recycling bins at the end location. Single-use disposable beverage cups are not suitable for disposal in most mixed dry recycling bins so even when disposable cups can be recycled it is not a straightforward action.

² [House of Commons Environmental Audit Committee \(2018\) Disposable Packaging: Coffee cups. Second Report of Session 2017-19](#)

³ According to calculations by Zero Waste Scotland

⁴ [Keep Britain Tidy \(2017\) Written evidence to the House of Commons Environmental Audit Committee](#)

Recommendations

Ambition

The Panel agrees that the following ambition should be at the core of the Scotland’s action on single-use disposable beverage cups:

Scotland has a sustainable model of consumption by 2025 which includes the majority of beverages being sold in reusable cups.

Recognising the complexity and on the go nature of drinks consumption, the Panel emphasises that there is no single solution to reduce the prevalence of single-use disposable beverage cups. Instead, a portfolio of measures and interventions is required, and the Panel has developed a suite of measures that would, if implemented, make significant impact on the use of single-use disposable beverage cups.

The recommendations relate to 5 key themes:

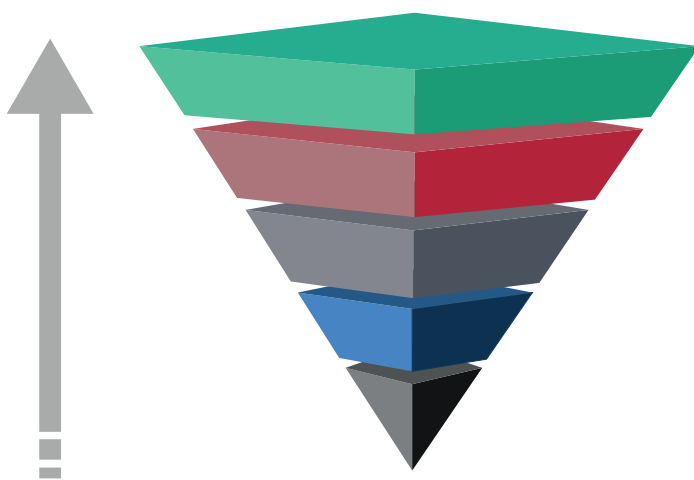
-  Culture of sustainability
-  Prevention
-  Promoting reuse
-  Recycling
-  Evidence and analysis



The Expert Panel had an initial remit referring to ‘coffee cups’ as a priority item relating to tackling Scotland’s throwaway culture. As such the range of recommendations refer to typical takeaway hot beverage cups found in retail outlets. Where any recommendation could be expanded to cover other types of disposable cups, it is highlighted in the body of the text.

Recommendations on the single-use disposable beverage cups.

The Panel has used the model set out in the Waste Hierarchy⁵, when developing their recommendations. The Hierarchy, as set out below, sets out to categorise the best courses of action to reduce waste creation, from prevention being the best option through reuse; recycle; recover other value and disposal.



Prevention

If you can't prevent, then...

Prepare for reuse

If you can't prepare for reuse, then...

Recycle

If you can't recycle, then...

Recover other value (e.g. energy)

If you can't recover value, then...

Disposal

Landfill if no alternative available.

⁵ <http://ec.europa.eu/environment/waste/framework/>

Culture of Sustainability

The evidence considered by the Panel indicates that significant changes in social norms, consumer behaviour and business practices are required by retailers and customers in order to realise a widespread shift from single-use disposable beverage cups to reusable cups. This will require a major change in existing on the go service models and the way consumers behave and make choices.

Specifically the Panel has noted evidence that:

- Around 200 million single-use disposable beverage cups are consumed each year in Scotland and, without intervention, this is projected to increase to 310 million by 2025⁶.
- The growing dependence on single-use packaging associated with our on the go and throwaway culture has increased the volume of waste generated. Single-use disposable beverage cups generate circa 4,000 tonnes of waste in Scotland each year; and single-use disposable beverage cups production and waste generates ~5,900 tonnes of CO₂e/year in Scotland. Around 40,000 single-use disposable beverage cup are littered in Scotland annually.

Interaction with stakeholders indicated that there is significant enthusiasm particularly among young people for government interventions to support and drive forward sustainable behaviour on the part of consumers, producers and businesses. The young people who attended the stakeholder group were especially keen to see Scotland become a world leader in developing a sustainable approach.

On the specific measures proposed, social marketing measures were considered to be a key supporting action that, although they may not be transformative on their own, would be critical in communicating and normalising the desired behaviour changes from any measures taken, in particular price-based interventions.

Consistent messaging and labelling were seen as an important step, with particular gaps being identified around communicating a cascade of desired behaviour.

⁶ [House of Commons Environmental Audit Committee \(2018\) Disposable Packaging: Coffee cups. Second Report of Session 2017-19](#)

Recommendation

Concerted action is needed at national and local level to promote sustainable production and consumption and tackle Scotland's throwaway culture, to prevent single-use disposable beverage cup consumption and to help make reusable options more accessible and acceptable as the default mode of consumption.

Promoting cultural and behavioural change is critical and will underpin the success of the other measures the Panel is recommending. The Panel considers that a range of social marketing measures are required to raise awareness of the need for change and to support and enable individual and organisational change. The Panel is keen to emphasise that social marketing is a key supportive measure, and the interventions set out in this Report will only be effective if aligned with effective communication.

The Panel is clear that moving towards a culture of sustainability is essential and that social marketing and a clear direction of travel are needed to support this.

Designing and delivering social marketing measures will be needed to 'shift the paradigm' so that unsustainable consumption becomes socially unacceptable and ensure sustainable consumption becomes the new social norm, and to raise awareness of the environmental impact of single-use disposable beverage cups.

The Panel recommends the following measures:

1. Using Scotland-wide social marketing measures to promote sustainable consumption and help make unsustainable consumption socially unacceptable.

Outstanding issues for Scottish Ministers to consider

A more detailed understanding of barriers and drivers to changing consumer behaviour on single-use disposable beverage cups is required to inform future social marketing strategies. In particular the drivers and

symbolic motivations fuelling on the go consumption would need to be better understood in order to deliver targeted behaviour change.

Prevention



Evidence considered by the Panel highlighted that moving away from a dependence on single-use disposable beverage cups is a vital component in reducing throwaway culture and promoting sustainable consumption. The independent literature review demonstrated the effectiveness of charging separately for a cup as an intervention that can act as a ‘habit disruptor’ to reset consumer behaviour.

The academic literature review commissioned on behalf of the Panel and carried out by the University of Cardiff⁷ highlighted evidence suggesting that:

- Charges are more effective than discounts in reducing the use of single-use disposable beverage cups.
- Clear messaging and social marketing tools can help boost the effect of a charge.
- A minimum charge of £0.20 would be needed to change behaviour of 49% of the population.
- Charges are unlikely to substantially affect hot drink sales where they can be implemented in a cost-neutral way⁸.
- While charging is considered effective, the use of single-use disposable beverage cups is more resistant to behaviour change interventions than, for example, single-use carrier bags.

The stakeholder engagement events highlighted divergence on the impact and acceptability of charges. Feedback from industry and retailers suggested a preference for focusing on recycling rather than prevention measures, such as charges.

In addition, concerns raised by business representatives stressed the need for a level playing field to address any competitive disadvantage that might arise from, for instance, exemptions from any mandatory charges or voluntary charging for single-use disposable beverage cups. This could be addressed by putting the requirement to charge for a single-use disposable beverage cup on a national and mandatory footing.

Among non-governmental organisations (NGOs) and youth groups there was strong support for a charge, with young people calling for an accelerated timescale (within the calendar year) for the introduction of a charge, accompanied by a widespread awareness and social media campaign. There was concern among young people that any form of charging for single-use disposable beverage cups would be used by retailers to mask a price increase, which would have to be addressed through clear communication in the lead up to any future introduction of a charge.

⁷ Poortinga, W. (2019) EPECOM Rapid Review of Charging for Disposable Coffee Cups and other Waste Minimisation Measures – Full Report.

⁸ Cost-neutral in this instance meaning: demonstrating a clear separate charge for the cup and the beverage without raising the overall price of the consumption.

The Panel considered the opportunity presented to set a target to focus on a reduction in the consumption of single-use disposable beverage cups and reflected on the current move across a range of countries to deliver a reduction in the use of single-use items and that there was scope to recommend a target that reflects the Panel's ambition. The Panel is aware that other countries are proposing the introduction of a charge for disposable cups or measures that would reduce the consumption of single-use disposable beverage cups and would want to see any action in Scotland demonstrate a

strong and determined approach that suits the Scottish context to develop a Scottish target that would, at least, match the ambitions being made elsewhere.

As part of their role, the Panel has considered the proposal to ban sales of expanded polystyrene/PVC beverage cups by 2021 which is in line with EU Single-use Plastic Directive ambitions. The Panel agreed that the ban would not be controversial as it would have a limited effect on overall reduction in single-use disposable beverage cups but would remove them from the waste stream.

Recommendation

Environmental charges, notably price based interventions, have been shown to be effective at reducing consumption and should be considered in tandem with other preventative measures. The Panel believes that a charge is more effective at reducing consumption and increasing reusable cup use than a disposable cup discount.

The Panel considers that there is strong evidence that a separate charge for single-use disposable beverage cups should be put in place in Scotland.

Furthermore, the Panel notes that separate minimum, mandatory pricing for cup and drink should be introduced at a national level to effectively change behaviour, ensure consistent messages to the consumer, and create a level playing field for retail and businesses.

The Panel considers that retailers should move to introduce voluntary separate pricing as soon as possible and in advance of any regulatory action by government.

In addition, to help communicate aspirations and drive positive change, the Panel considers that Scotland should set ambitious targets for the coming years in relation to the consumption reduction of single-use disposable beverage cups.

The Panel supports the commitment within the EU Single-use Plastic Directive to ban expanded polystyrene/PVC beverage cups by 2021.

The Panel recommends the following measures:

2. The introduction of a national, mandatory requirement to sell beverages and disposable cups separately, including an initial minimum price of between 20-25p⁹ per cup¹⁰.
3. Retailers and businesses should, in anticipation of future regulation, be supported and encouraged to put in place voluntary separate pricing (of beverage and cup) to promote behaviour change.
4. The Scottish Government should consider introducing an ambitious national consumption reduction ambition or target for single-use disposable beverage cups.
5. Banning sale of non-recyclable expanded polystyrene/PVC beverage cups, in line with EU Single-use Plastics Directive by 2021.

Outstanding issues for Scottish Ministers to consider

The Panel recognises that further analysis and consultation will be required on these measures, notably to develop a mandatory minimum price cup charge that is separate from the price of the beverage. Consideration would need to be given to the impacts on business, in particular SMEs, alongside exploring whether the proposed charge should be implemented in a cost-neutral manner; equalities impact of any charge on single-use disposable beverage cups also need further careful consideration. However, the Panel is keen that the needs of business and consumer groups are weighed against the current climate emergency. It is recognised that there is a need to take radical and immediate action to minimise the effects of climate change.

Further engagement with stakeholders would be needed to determine the optimal timing of any charge, especially with regards to how a charge would fit in with other changes in the landscape, particularly Extended Producer

Responsibility (EPR) and Deposit Return Scheme (DRS). Any future implementation of a charge would benefit from an independent cost-benefit analysis of its economic and environmental impacts, including a Life Cycle Analysis (LCA). The Panel considers that this further analysis and consultation can best be done by the Scottish Government. The Panel notes that formal consultation by Scottish Government on any future proposals, business and equality impact assessments would also be conducted.

In considering an appropriate target for Scotland in terms of a reduction of the number of single-use disposable beverage cups used in Scotland, research would be needed to develop a baseline for the target and to ensure there that the target was ambitious and SMART (Specific, Measureable, Achievable, Realistic and Time-bound) and would have maximum impact. Further assessments and engagement would need to be undertaken to ensure that all equality issues were fully considered.

⁹ Based on evidence cited in the independent literature review that a minimum of 20p charge would be needed to change the behaviour of 49% of consumers, among other considerations.

¹⁰ Including the lid

Promoting Reuse

Evidence considered by the Panel has highlighted that in order to deliver a significant reduction in the prevalence of single-use disposable beverage cups, a significant increase in the acceptability and adoption of reusable cups is needed. The Panel recognises that this is not straightforward so recommend a number of trials or pilots to develop experience and enhance the knowledge base of how this could work in practice. In a closed setting, such as a workplace, there is a strong case to ban using single-use disposable beverage cups as a means of driving this change.

The Panel has noted the leadership already shown by some public and private sector organisations to date on single-use disposable beverage cups, for example certain retailers, Scottish Government and NHS Scotland, and considers there is a clear case for scaling up approaches that have been shown to be effective in suitable settings and sharing learning. The Panel has asked for a case study of the Scottish Government's ban on single-use hot drinks cups to be published to provide a starting point for any organisations seeking to replicate it.

The Panel's review of available evidence has also highlighted:

- Despite voluntary measures by retailers to promote reuse, reuse rates among major retailers are consistently around just 1-2% of sales¹¹, suggesting significant scope to increase reusable cup use rates at point of sale.
- Initial evidence regarding Scottish Government's decision in summer 2018 to remove all single-use disposable beverage cup from its estates and a trial by NHS Scotland which promoted reuse alongside implementation of a cost-neutral single-use disposable cup charge, both proved highly effective in reducing consumption of single-use disposable beverage cups.
- There are already examples of large scale reusable cup schemes, including deposit based schemes such as RECUP scheme in Germany.

Feedback from the Youth and Equalities sessions suggested support for all types of interventions (charging, bans and cup rental schemes), while recognising that not all settings are suitable to all interventions. Cup rental schemes were seen as an exciting way to potentially address some of the difficulties associated with the on the go nature and convenience of single-use disposable beverage cup consumption. It was recognised that this would probably be easier to implement on a localised scale, for example in cities, during events and festivals, or even on trains.

Withdrawal of single-use disposable beverage cups were considered to be more effective in office settings than for on the go consumption. Feedback from the Industry and NGO events was that 'closed loop settings' was too vague and while there was interest in the opportunities that adopting this approach could bring there would need to be further exploration to establish which areas or types of locations would be suitable for this approach.

¹¹ [House of Commons Environmental Audit Committee Report \(2018\) Disposable Packaging: Coffee cups. Second Report of Session 2017-19](#)

Recommendation

As well as making single-use disposable beverage cups less desirable, the accessibility and convenience of reusable cups must also be improved as part of the paradigm shift towards a culture of sustainability. Uptake of reusable cups should be encouraged by promoting reuse at point of sale in commercial outlets, banning single-use disposable beverage cups in settings where this is feasible, and taking steps to increase availability of reusable cups.

The Panel recommends the following measures

6. Demonstrate the viability of reusable cup rental schemes for a range of hot or cold drink types at a local or national level by establishing ambitious replicable trials in significant parts of Scotland as soon as possible, potentially by the end of 2019, with a view to these being quickly assessed and rolled out to other areas. These should draw on learning from other countries.
7. Issuing best practice guidance to support better promotion of available reuse options by retailers at point of sale, including a duty to provide, facilitate and accept reuse options alongside separate charging and communicating assurances that 'Bring you own' (BYO) reusable cups will be accepted at point of sale.
8. Developing reuse options which eliminate a range of single-use cups types for both hot and cold drinks across a wide range of 'closed loop' settings¹², for example: offices, events, festival venues etc. Changes to legislation should be introduced to ensure this is delivered and it should be supported by:
 - Sharing best practice guidance to demonstrate viability of the approach and encourage more trials.
 - Using public sector leadership to encourage adoption of reuse in closed loop settings more widely.

Outstanding issues for Scottish Ministers to consider

More work would be needed to identify the range of appropriate settings suitable for organisational bans on single-use disposable beverage cups and to more actively promote or require reuse measures. In particular, what constitutes a 'closed loop setting' would need to be better articulated.

Consideration would also need to be given to the appropriate scale for rolling out cup

rental schemes. No national scheme exists to date, but there would be significant value in conducting urgent trials on a localised scale.

Finally, the business and equalities impacts of any requirements would need to be considered, in particular how the needs of people with disabilities can be met in reusable coffee cup design and provision.

¹² A closed setting is defined for this Report as a relatively closed environment where consumers are predominantly based on that site and where it is less practical to purchase beverages elsewhere.

Recycling

Evidence considered by the Panel confirms that, consistent with waste hierarchy principles, reducing the dependence on single-use items and switching to reusable cups would have the most significant impact in tackling Scotland's waste and becoming a more sustainable society; but that improved recycling of single-use disposable beverage cups is needed to manage this waste stream in the short-term.

During its considerations, the Panel has:

- Welcomed concerted efforts across the UK to increase capture and recycling rates, including the recently launched Glasgow Cup Movement which offers the potential to test out a system and city-wide approach to collecting and recycling single-use disposable beverage cups.
- Noted actions by some coffee retailers to expand in-store recycling infrastructure in tandem with a voluntary producer responsibility scheme to support sustainable collection arrangements.
- Concluded that this will have limited impact given the proportion of beverages sold on an on the go basis which will require off-site disposal.

- Noted estimates produced by the paper cup industry of the proportion of cups collected and recycled across the UK and future projections of recycling trends; and highlighted the need for robust Scotland-specific data.
- Concluded that pursuing recycling as the main or only focus of improving sustainability will provide limited impact.

The stakeholder engagement sessions reaffirmed the considerable efforts underway in this area by business leaders, highlighting that there are some powerful success stories here and a platform to drive further development.

At the events it was also reinforced by both NGOs and young people that while recycling efforts are important, they are not the key to solving the problem of single-use disposable beverage cups, and that the emphasis of efforts and resources should go to measures delivering prevention and promoting reuse.

It was noted by all stakeholders that careful consideration would need to be given to the timeline of implementing any measures and how EPR reform sits with the work of the Panel.

Recommendation

Whilst the Panel considers that prevention is paramount, it accepts that it will take time to shift the on the go convenience culture and establish reuse as the social norm. Therefore, while preventive measures are key, it is important in the short term to increase accessibility and uptake of recycling options, where prevention or reuse is not yet possible. To effectively capture cups for recycling, consumers must have reasonable access to, and be inclined to use, suitable recycling facilities at the point their cup is ready for disposal. This is both an infrastructural and behavioural challenge.

The Panel welcomes the proposed reform of extended producer responsibility arrangements across the UK and considers that this presents a critical opportunity to drive positive change in relation to disposable beverage cups by incentivising design/materials that are easier to recycle and ensuring full costs of recycling and recovering waste from single-use disposable beverage cups are met by producers, with the opportunity to deliver improved collection arrangements.

The Panel recommends the following measures

9. Promoting the uptake of recycling where reuse is not yet possible by:
 - Innovation in disposable cup design to move to a position where they are more readily and widely recyclable and can be recycled through existing collection infrastructure.
 - Ensuring clearer consumer messaging and labelling, to avoid confusion about recyclability of cups, especially those made of biodegradable or compostable materials, and signal desired behaviour.
 - Building on future implementation of changes to packaging producer responsibility schemes to support further improvements in recyclability of cups and collection arrangements, including on the go recycling infrastructure.

Evidence and Analysis

The Panel agrees that the work they have undertaken on single-use disposable beverage cups has allowed them to access as much evidence as there is currently available to make their recommendations, and will publish the commissioned research alongside a knowledge account collated for the Panel with this Report. However, there is a strong case to build on this evidence base as work is undertaken to implement these recommendations and this will be essential in demonstrating how interventions can be

made effectively and inspire others to make changes to be a more sustainable society.

Evidence-based policy is the cornerstone of responsible policy making. The Panel has noted that there is a limited suite of evidence setting out clear findings on the full range of interventions to prevent consumption and promote reuse and recycling of single-use disposable beverage cups within a Scottish context.

Recommendation

The evidence base on measures to prevent and address the impact of single-use disposable beverage cup consumption within a Scottish context should be strengthened and expanded.

It is imperative to strengthen and expand available evidence to inform policy development and implementation of measures, and to enable shared learning, while noting that undertaking analytical exercises should not delay the vital decisive action that needs to be taken on this issue.

The Panel recommends the following measures

10. Developing, synthesising, and learning from evidence from Scotland and more widely by Scottish Government, Zero Waste Scotland and academic institutes to inform policy development and promote behaviour change, especially on expanding the drivers of responsible consumption.
11. Embedding robust analysis and evaluation of tests of change within a Scottish context.
 - Publish/share the lessons learned and encouraging sharing knowledge from the private sector to enable and support change.

Key Enablers

The Panel consider that the following key enablers are vital to delivering change.

- System change and transformational leadership will be required from both public sector and commercial bodies to achieve sustainable cultural, organisational and individual behavioural change, building on voluntary measures already underway.
- Proportionate, targeted legislation and regulatory frameworks should be utilised, where appropriate, to drive further positive change.
- Existing levers, including licensing regimes and procurement and performance frameworks, should be used to embed the importance of waste prevention and sustainable consumption and to drive change.

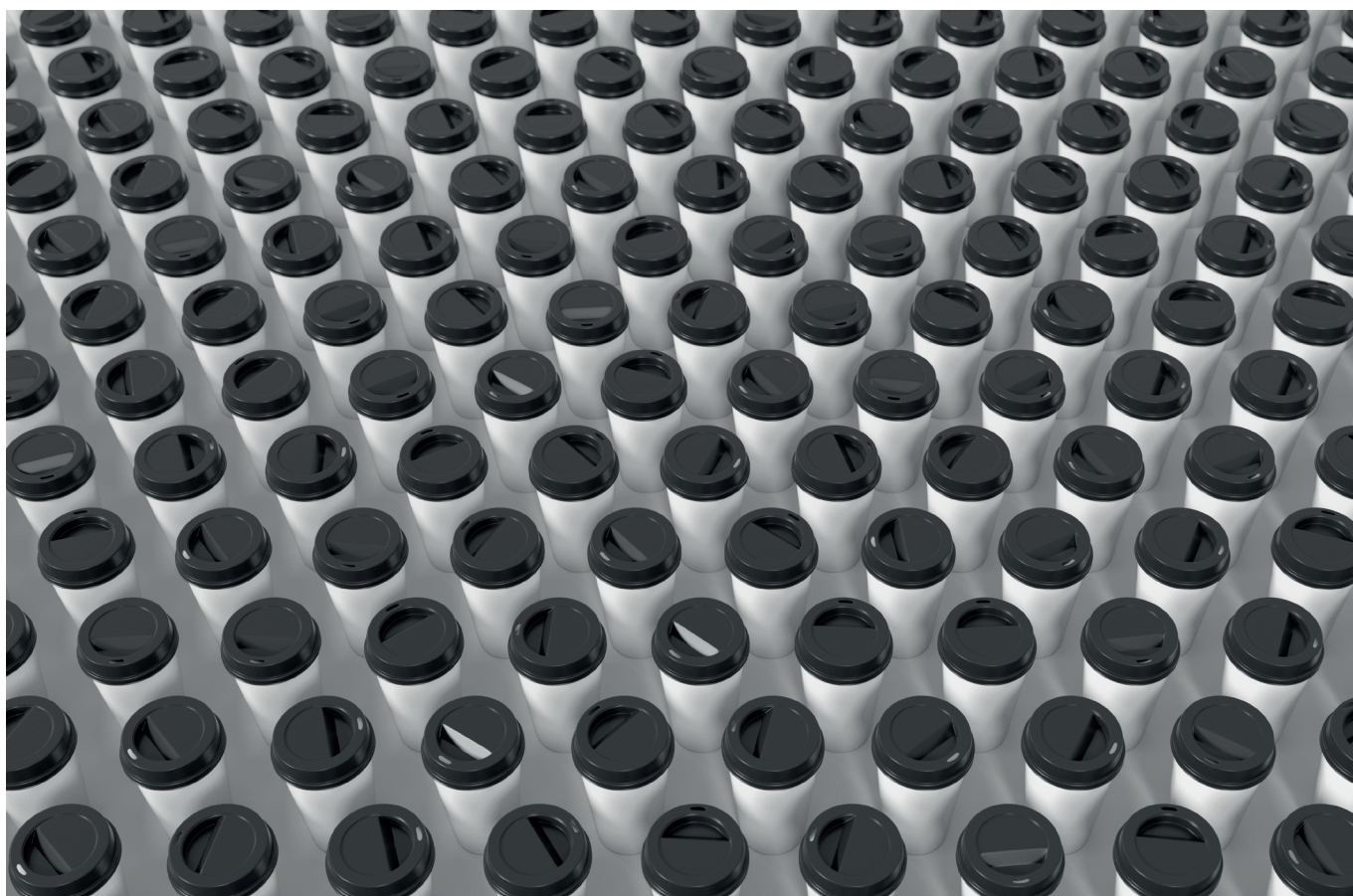
Conclusion

The measures developed by the Panel are varied but are interlinked and would make the most impact if implemented together.

The Panel believes that, with a strong commitment from government, the public sector and business, the measures set out in this Report could reduce the number of single-use disposable beverage cups used in Scotland significantly. The Panel would look favourably on an ambitious target that focusses efforts immediately. In some settings, as demonstrated by the Scottish Government's ban of single-use disposable beverage cups, the reduction can be significant and there is a range of settings where the reliance on single-use disposable beverage cups could be decreased by 100% and happen very rapidly.

The Panel considers that an initial commitment or pledge to the ambition set out in this Report could be used to encourage a range of sectors to take action. This could be something that public sector organisations, industry and retailers could sign up to, demonstrating their backing and recognition of the need to move towards a sustainable model of consumption.

Finally, the Panel is clear that its focus on single-use disposable beverage cups is to be seen as a starting point rather than an end-point both for their own activities and in a broader sense. These recommendations address one item that is used and discarded many thousands of times each day across Scotland. The Panel is hopeful that their recommendations on cups act as a spur for action in other areas and will generate greater public awareness to reduce reliance on single-use items and the need to reduce plastic waste more generally.



Biographies of Panel Members

Dame Sue Bruce (Chair)

Sue Bruce served in Local Government for almost 40 years, finishing in 2015. Sue is now retired but has a number of roles, including: a non-executive director with SSE PLC; Chair of Royal Scottish National Orchestra (RSNO); a Deputy Lieutenant of the City of Edinburgh; and a member of the Audit Committee of the University of Strathclyde.

Professor Margaret Bates

Professor of Sustainable Wastes Management at the University of Northampton.

Professor Liam Delaney

Professor of Economics at University College Dublin and Visiting Professor of Economics at Stirling University.

Roger Kilburn

Appointed CEO of IBioIC in January 2014. His background is within the chemical and fine chemicals sectors. Roger sits on a number of steering groups/boards and is a guest lecturer at Heriot Watt University.

Professor Kate Sang

Professor of Gender and Employment Studies at Heriot Watt University.

Professor Aileen McHarg

Professor of Public Law at the University of Strathclyde since 2012.

Professor Dame Theresa Marteau

Director of the Behaviour and Health Research Unit in the Clinical School at the University of Cambridge, and Director of Studies in Psychological and Behavioural Sciences at Christ's College, Cambridge.

Gemma Stenhouse

Gemma is currently an Advanced Supply Chain Manager with APUC and a member of the 2050 Climate Group.

Supporting Documents

Knowledge Account on single-use disposable beverage cups.

Rapid review of charging for disposable coffee cups and other waste minimisation measure: Full literature review (University of Cardiff, 2019).

Case Study of Scottish Government ban of single-use disposable cups.



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