Scottish Government call for evidence: tackling consumption of single-use food containers and other commonly littered or problematic single-use items - summary of responses

AGRICULTURE, ENVIRONMENT AND MARINE

social research

Contents

Executive Summary

1. A call for evidence on tackling consumption of single-use food containers and other commonly littered or problematic single-use items (bowls, trays and platters; incontinence and period products; sachets; tobacco filters; and fruit and vegetable packaging) was released in April 2022. It received 69 responses, including 26 individual and 43 organisation responses. Organisation responses included: charities, non-governmental organisations (NGOs), community groups, local authorities, businesses and industry bodies.

2. A wide range of evidence was presented by respondents about the environmental, economic and social issues associated with single-use plastic items and products. This included scientific and industry reports, surveys, government reports, community action and volunteering-based evidence, and personal observations.

3. Key themes that emerged from this call for evidence included: litter and the environmental damage littering of single-use plastics can cause; the large and complex market associated with single-use plastics and the range of industry and business interests at stake; that environmentally-friendly alternative products are available but there are a range of negative impacts and challenges associated with these; that barriers to change include consumer behaviours, business costs and the complexity of policy and regulations. Responses also pointed to a need to consider inequalities in society and how those who experience socio-economic disadvantage and those with protected characteristics may be impacted by policy development in this area.

4. The analysis suggested that there may be a lack of data and evidence available across a number of items and topic areas and further analysis may be needed. Some of the issues raised by respondents such as litter, harm to wildlife, smoking or access to incontinence and period products, clearly are emotive and sensitive topics and this points to a need for policy to consider a range of evidence types – from scientific reports to market and consumer research to individual interests, values and experiences.

5. The Scottish Government will review the evidence from this call and use this to shape future policy development on single-use plastics, in line with upcoming developments in the Circular Economy (Scotland) Bill, Circular Economy and Waste Route Map and Climate Change Plan.

Background to Call for Evidence

6. Material consumption and waste are the primary drivers of nearly every environmental problem we currently face, from water scarcity to habitat and species loss. Plastic waste, much of it single-use, is not only wasteful but generates litter that is hugely damaging for our oceans, rivers and ecosystems. Every year, hundreds of millions of pieces of single-use plastic are wasted in Scotland. They litter our coasts, pollute our oceans and contribute to the climate emergency. That is why, as part of our target to reach net-zero by 2045 and tackle the nature crisis, the Scottish Government is taking action to reduce the environmental impact of single-use plastic products.

7. One key strand of our work in this area has been to enact the *Environmental Protection (Single-use Plastic Products) (Scotland) Regulations 2021* to reduce the impact of a number of environmentally-damaging products. The regulations banned the sale, and some cases the manufacture, of a number of single-use products including plastic straws, cutlery and expanded polystyrene cups and food containers. The Scottish Government has since committed to expanding the scope of policy activity and regulations to other single-use plastic items in order to protect the environment and further support a transition to a greener, fairer economy. To support future policy direction in this area and build a solid evidence base for any future intervention, a [call for evidence on single-use plastic items and products](#) was released in April 2022.

8. This call for evidence had a focus on single-use plastic food containers as well as other single-use (non-plastic) food containers. It also called for evidence on a range of other items including: bowls, trays and platters; period and incontinence products; sachets; tobacco filters; and fruit and vegetable packaging. The call for evidence invited the public (individuals and organisations) to submit evidence on any or each of these items based on a number of key themes, which were:

    - the environmental impact of these single-use items
    - the size and nature of the market for these items in Scotland
    - effective actions taken to reduce consumption of these items
    - barriers to implementing policy measures (e.g. bans, regulations) to reduce consumption of these items
    - potential impacts of policy measures on businesses
    - potential impacts of policy measures on people with protected characteristics or who experience socio-economic disadvantage

Overview of Responses

9. The call for evidence opened on 7 April 2022 and closed on 30 June 2022. 67 responses were received online via Citizen Space. Responses to the call for evidence, where permission for publication was granted, can be found on [Citizen Space](). Of these responses, 26 were from individuals and 41 were from organisations (including individuals responding on behalf of organisations). Of the organisations that responded this included: charities, NGOs, community groups, local authorities, businesses and industry bodies. Two organisation responses were received separately, not via Citizen Space.

10. There were 41 core questions, with 6 questions on food containers and 7 questions on each of the other items. All questions were open-ended (free text) questions.

11. Out of the 69 that responded, not all responded to all 41 questions, and there was variation in response numbers and the level of detail and evidence provided. For each question covered in the report, a count of substantive responses is provided, split by individual and organisation response numbers. This is a simple count to illustrate where there was more engagement (and in some cases more evidence provided) across the questions. The count excludes responses such as 'n/a', 'no comment', 'see other responses' and 'none'. Some responses are campaign-style ('co-ordinated') responses that consist of similar or the same content and information – these have been treated as individual/separate responses for the purposes of the count here for simplicity.

Approach to Analysis

12. The analysis was undertaken by Scottish Government analysts in the Rural & Environmental Science and Analytical Services division.

13. Responses to each question were reviewed and coded into different themes, based on the nature and content of the evidence, opinion or arguments provided. This involved: i) reading through the responses; ii) labelling individual responses to questions according to themes; iii) reviewing areas of agreement or disagreement among these themes and drawing out the key points; and iv) writing a summary of the responses for each question.

14. The analysis is divided into sections based on the item under review, with commentary against each of the questions and themes raised for that item/product. The question numbers are there for ease of reference for reading this report. The original call for evidence had a different ordering of questions, with 6 questions on food containers covered first, and then

questions by theme (environmental impact, size and nature of the market, effective actions etc.) for the other items. The report has been structured by item so that each item can be considered separately and to allow policy development to be aligned to the specific issues and concerns raised in each case. It is recognised that further analysis could be undertaken to explore the themes in more detail or explore the evidence through particular lenses (e.g. by respondent type).

15. The analysis and commentary presented here reports on the nature and content of the responses and the evidence provided. It does not make any assessment of the quality or validity of the evidence, opinions and arguments. All responses were reviewed and the vast majority of the external evidence and references provided in the responses (that were accessible at the time of analysis) have been referred to in the analysis and recorded in the reference list – regardless of the type, quality or any perceived credibility associated with the evidence (also see notes on p.60). Where figures and statistics were used by respondents, these were quoted and referenced where appropriate. They were not independently checked or verified beyond some general spot checks of the sources for quality assurance purposes. The report does not comment on the quality or accuracy of those figures and statistics and this would require further review and validation.

16. Some of the evidence was reviewed briefly to help understand the context or potential reasons that respondents may have cited such evidence and (as above) in order to cross-check that the numbers or information was cited correctly. In some cases assumptions and interpretations were made as to what the key message of the response was and what the context or logic of the response may have been.

17. The analysis did not aim to quantify in any detailed way how many responses mentioned particular themes or how many respondents provided evidence. Instead, a more general framing has been used to illustrate who responded and what was expressed and whether responses were reflective of the views of other respondents across the total dataset. The phrasing used in the analysis includes: 'one response', 'some responses', 'a number of responses raised this theme', 'a small number of responses mentioned', or 'one co-ordinated response noted this'. This phrasing has been used to broadly indicate whether one or multiple respondents mentioned a particular idea or theme. In some cases reference is made to whether the response was from an individual or organisation, and in some cases, where it is relevant for context, and where permissions were provided by the respondent, specific organisation names are included. The main focus of this analysis was to present the evidence, arguments and opinions provided, and the implications this may have for policy.

Analysis of Responses

Food Containers

Question 1: Do you have any evidence of the environmental impact of single-use (plastic or non-plastic) food containers?

This question had 49 responses (Individuals = 23, Organisations = 26)

Key themes:
- food containers are littered across a range of environments and spaces and this can have negative social and economic impacts
- negative impacts on wildlife and the environment
- varying views on how packaging materials, recycling and policy associated with food packaging can reduce environmental impact

Litter issues and concerns:

18. The littering of single-use plastic food containers and other forms of litter was a notable concern across many responses. For example, some responses noted the presence of food container litter on beaches and the negative social and environmental impacts this can have. Views here seemed to be based either on personal observation (e.g. walking on beaches) or based on voluntary litter-picking work. Responses also raised the issue of food-related litter in other public spaces such as rivers, roadsides, streets, schools and community spaces. One response noted that litter thrown from vehicles by drivers is a significant contributing factor to this issue, while a number of responses suggested that overflowing bins is a problem.

19. Another response among these noted the potential negative impact litter has for tourism and coastal economies, referring to an ENCAMS (the environmental charity) article[1] and a publication on beach economies[2] to support this view. Another response, from a school teacher, noted that 'all of our children's lunches are in plastic/paper boxes and tubs, wrapped in plastic, with plastic cutlery, all of which is single use'. This response went on to say that '[t]he bins are heaving, the plastics are strewn all over floors, in the playground and the garden'. Similarly, the response from the organisation Plastic Free Helensburgh commented on the way litter is connected to particular spaces and settings, particularly around takeaway locations and more popular local/tourist areas. As above, this response also noted the issue of overflowing bins and discarded food related items ending up on beaches, based on their community work in the area.

20. Within this theme, a few responses referred to enforcement as a factor influencing litter and littering, noting that greater enforcement could act as a barrier, while others noted that 'education' may support litter reduction and increase environmental awareness.

21. Keep Scotland Beautiful's response provided links to litter reports from Keep Scotland Beautiful[3] and Keep Wales Tidy[4]. Specifically they noted that Keep Scotland Beautiful's Local Environmental Audit and Management System (LEAMS) data shows that 'over 50% of sites surveyed in Scotland in 20/21 have food and drink litter present'; and that 'Keep Wales Tidy LEAMS data […] shows that in 21/22 'on-the-go' single-use food and drink litter was recorded on 64.2% of streets across Wales'. The response argued that single-use plastics and convenience foods and a lack of recycling are contributing to a 'litter emergency'.

22. One of the co-ordinated responses suggested that litter is an issue regardless of what packaging materials are used. This response also refers to 2020 Keep Britain Tidy Litter Composition Data[5] that suggests cigarettes may be a larger source of litter than food containers. This response noted that Keep Scotland Beautiful have some litter data relating to food containers but this may be limited due to this data being grouped under broader categories of packaging.

Impact of litter on wildlife and the environment:
23. While litter is identified as an issue across a range of responses, many responses referred to how food containers, food-related packaging and litter in general can have negative impacts on wildlife and the environment. As was the case across many of the questions, some responses indicated a general awareness of these issues, or expressed concern about environmental impacts, rather than presenting specific evidence on the impacts. Others however pointed to specific evidence or referred to insights drawn from academic literature and scientific reports.

24. One of the more detailed responses, for example, pointed to a range of evidence and arguments. This included reference to 2021 Marine Conservation Society beach survey data, indicating the presence of single-use plastic food containers on beaches, as well as wider litter trends. This response also commented on national pledges and priority areas in relation to the EU Marine Strategy Framework Directive, making reference to an EU paper on threshold levels and assessment methods for marine litter[6] and an EU news report on commitments to limiting marine litter beneath certain thresholds[7]. It also noted the monitoring work and data provided under OSPAR (the Oslo-Paris Convention, which protects the marine environment of the North-East Atlantic) referring to high litter presence across Scottish beaches[8]. References were also made to a World Economic Forum, Ellen MacArthur Foundation and McKinsey and Company report on

global plastics recycling rates[9], an article on plastics production and disposal trends[10] and an article on degradation and recycling qualities in plastics[11]. This response also referred to a Marine Scotland (Scottish Government) publication on the nature and scale of marine litter across Scotland[12].

25. Another response provided several academic references including: a paper on marine litter in Scotland and its geographical source and distribution[13]; a paper on issues of ingestion by and entanglement of marine species[14]; a reference relating to the link between litter and hazardous chemicals[15] and reference relating to the link between pollutants and potential harm to marine life[16]. This response also noted the issue of environmental and health issues associated with alternative non-plastic packaging, noting for example how the use of per- and polyfluoroalkyl substances (PFAS) in some alternative packaging can pose environmental and health risks. This response also referred to a Fidra (the environmental charity) webpage on PFAS[17] and a 2020 Fidra report on supermarket and takeaway food packaging[18]. Also on PFAS, the response makes reference to a UK Environment Agency report ('Overview of per- and polyfluoroalkyl substances (PFAS) in the UK')[19] . This response also made reference to a Fidra discussion paper regarding compostable packaging and the challenges such packaging raises[20]. In addition to this, the response made reference to other environmental issues associated with food packaging – for example on water systems[21,22].

26. Another response cited a Guardian article on plastic products contaminating humans as well as wildlife[23], noting that '[t]hrow-away plastic ends up in landfill forever, or ends up in the seas and gets inside fish and other creatures…[and now it has]…been found inside humans'. Similarly, another response noted how '[s]tyrofoam take-away meal boxes are carried by wildlife such as gulls' and end up being digested. This response goes on to note how when '[s]tyrofoam breaks down, it simply seems to become a mass of smaller and more dangerous mess'. Other responses made different observations about wildlife, including making a link between litter and the presence of rats (i.e. vermin), while another refers to litter in school spaces and settings, claiming that such litter is a 'danger to…[..]…small animals and insects, [and can end up] clogging drains…[and]…pipes'.

Packaging materials, recycling and policy:
27. Some of the responses did not address environmental impacts specifically and focussed more on challenges and opportunities to help make this type of packaging more environmentally-friendly. One response for example noted how from personal observation of working in a recycling centre, plastics (not specifically food containers) may not always be recycled due to being mixed with general waste. A local community group response meanwhile made the argument that due to the environmental damage food containers can cause, the government should 'phase out these containers and promote reusable "bring your own" solutions like tiffins' [reusable food containers]. This

response also urged government to 'investigate market restrictions on the plastic windows on single-use food containers such as boxes used for sandwiches, doughnuts etc, noting how this 'form of plastic pollution frequently ends up in the environment'. Reflecting other responses, this response claimed that at present 'compostables and "biodegradable" alternatives are not an eco-friendly solution'.

28. Alternatives to plastic packaging were mentioned by a number of responses. This included one where the respondent expressed a desire for older, more 'old fashioned' types of packaging (brown paper bags, newspaper for fish and chips) to return and expressed frustration that plastic packaging has become so pervasive in society.

29. Another response expressed caution about packaging (e.g. plastic lining) that claims to be compostable or recyclable. Another noted how used takeaway pizza boxes are often not recycled due to oil and grease contents and suggested research should be done into alternative recyclable pizza packaging. A stakeholder representing a restaurant company also suggested that recycling infrastructure is limiting the amount of paper and card based food containers being recycled.

30. One of the co-ordinated responses noted that there is potential for 'green washing' in packaging claims, arguing that we need comprehensive manufacturing and life cycle analysis to assure green credentials are valid. Another co-ordinated response referred to the role of 'extended producer responsibility' (EPR), noting how modulated fees from EPR schemes could be used to support recycling or takeback mechanisms. This response (among others) also noted how some packaging alternatives for food may have a higher (i.e. worse) carbon impact than plastic. The response urged caution around the use of reusables in the food industry/ hospitality in terms of the potential hygiene risks for consumers and the potential associated costs for retailers/outlets. Cost of living pressures in recent years were also mentioned.

31. The response from Plastic Free Helensburgh also acknowledged the economic challenges associated with alternative packaging. Their response made reference to the organisation's own surveying activity of outlets in Helensburgh, and noted that supply issues, and a lack of awareness among businesses, may form barriers to the adoption of more reusable packaging.

32. One response raised the theme of recycling exports, claiming that 'the UK has relied on the export of plastic waste to deal with the increasing amounts produced, without clear oversight of how much is recycled, and ultimately pushing the responsibility of waste created in the UK onto countries with fewer environmental restrictions, leading to increased pollution in those countries'. In making this point, the response referenced a 2019 Global Alliance for Incinerator Alternatives report[24].

33. In relation to public perceptions of food packaging waste, one response cited evidence from a 2019 survey undertaken for the Scottish Youth Parliament[25], which found that '57.1% of young people would support a ban on takeaway containers being made of plastic'. The response also referred to how some young people from the survey felt that some plastic products were unnecessary and could be made more sustainably, and that a ban could encourage manufactures to change.

34. While most responses expressed the more negative impacts of single-use plastic food packaging and plastic packaging in general, a few responses were more positive or nuanced. For example one noted that for (some) disabled people, food and meals that come in single-use plastic packaging are important for accessibility and health reasons. Another organisation response, representing industry, noted that single-use food containers can protect food and help reduce food waste; it also suggested that single-use plastic food containers can be recycled and form part of a circular economy. This response also noted that it is the food itself that can have a greater carbon footprint than the packaging, a point echoed by another respondent. The organisation RECOUP also noted in their response that any packaging alternatives need full impact assessments to ascertain their green credentials, recognising the role of convenience and the importance of hygiene.

35. One response suggested there is not enough evidence (to date) to justify support for a single-use plastics ban and advocated for better industry-led recycling and consumer education. Another echoed this point and noted evidence from Ellipsis on tackling litter[26].

Question 2: Do you have any evidence of the size and nature of the single-use (plastic and non-plastic) food containers market in Scotland?

This question had 31 responses (individuals = 13, organisations = 18)

Key themes:
- a general sense that single-use food containers are widespread in society and are an issue across a range of settings and sectors
- an awareness among some respondents that data and evidence is challenging and not readily available on this topic
- a smaller set of responses that pointed to more direct evidence on the Scottish market or particular elements of it

36. A number of responses showed a general awareness and concern about the large volumes of plastic associated with food and food packaging, drawing from personal (everyday) observations. Specific points from the responses

included: seeing the amount of plastic packaging used in supermarkets, tourist areas, schools, hospitals and hospitality settings; plastic food packaging seen on the streets as litter; the apparent rise in takeaway food (and related packaging); and responses that associated plastic packaging with particular food items (e.g. sweet wrappers, salads etc.).

37. On the issue of takeaway packaging, a response from a community climate-action group referred to survey work they carried out which suggested local cafes and takeaways are 'moving [away] from expanded polystyrene food containers and cups'. While not stated in the response, this may be linked to the banning of those single-use expanded polystyrene items as part of the *Environmental Protection (Single-Use Plastics Products) (Scotland) 2021 Regulations*, noted in the background section above. It was unclear from the response what alternatives are being used.

38. In relation to data and evidence, a few responses suggested that they were not aware of industry data to estimate the size and nature of the market in Scotland, and noted that there is a lot of movement and trade across the UK which makes estimates challenging. One response for example commented that '[a]ny data used to advise this type of policy change would need to consider the variety of different containers that are used and tailored to specific purposes, as well as how many of them are manufactured in, as opposed to simply sold into, Scotland.'

39. One response from The Vending & Automated Retail Association (AVA) noted the availability of data and information regarding vending machines and sales of snacks, food and drinks. The response commented how the 'UK vending & automated retail industry has an annual turnover of £2.1bn, with a turnover in Scotland of approximately £129 [million]'. This response also noted this industry employs '24,500 people directly in the UK with over 2,000 in Scotland', with '420,000 UK vending machines and approximately 35,000 vending machines in Scotland', based on a 2021 AVA census (unreferenced). The response noted that vending machine operators are largely small or medium-sized companies ('often family owned'), with '64 such companies operating in Scotland.' The response noted that single-use plastics are 'essential for the provision of meals from vending machines and micromarkets' and that not all packaging can be easily recycled or composted.

40. Another response noted general trends observed around the growth of convenience foods and the use of single-use food containers. This response cited a 2020 local shop market report to convey how many convenience stores in Scotland have in-store bakeries, hot food counters and food to go options, with percentage figures of market share[27]. This response also referenced a 2022 UK Food To Go Market report, claiming 31.8% forecasted growth in this sector in 2022[28].

41. A different response referred to an expected 9% growth in UK takeaway outlets in 2022 [year assumed, typo in response], citing a Ibis World web report as evidence[29] and a 2021 Edie news article on the uptake of reusable food containers within the takeaway sector[30].

Question 3: Do you have any evidence of effective actions taken in Scotland or other nations to reduce consumption of single-use (plastic or non-plastic) food containers?

This question had 38 responses (individuals = 17, organisations = 21)

Key themes:
- examples of activities to reduce use of plastics at a local scale, for example by local takeaways
- opportunities for regulation in this area, including ways to increase recycling

Local action by takeaways and catering services:
42. A number of responses referred to actions they had seen within local takeaways or catering services to reduce plastic consumption, particularly in terms of reusable food containers.

43. One response referred to Plastic-Free Dalgety Bay (a community group) that are encouraging local takeaways to start using tiffins (reusable food containers) to reduce waste. The response noted how tiffins are good for their 'consistent size and quality', but that the 'environmental impact of the production of the tiffins used would need to be assessed', to ensure these containers are better than plastic ones.

44. Another community group response commented on how local catering businesses are moving away from single-use plastics to non-plastic containers, and (in some cases) using paper wrapping for burgers and baguettes. Another response commented on how local council catering services are also moving away from 'disposables' to more recyclable material in education settings. Another response also mentioned local council activity to reduce plastic use, including incentives (e.g. money off) to encourage use of reusable containers.

45. One response provided examples and links about local initiatives to encourage reusable containers in general, including the 'Shrewsbury Cup'[31] and 'Freiburg Cup'[32] initiatives in Germany for takeaway drinks and the reCIRCLE brand that has introduced reusable food containers across Switzerland[33]. This is a deposit return style scheme working with restaurants ('300 takeaways have participated'). This response also provided a link to a

2019 Ellen MacArther foundation report on developments in reuse and refill schemes[34].

46. Another response within this theme described how a local group 'Surfers Against Sewage' in Wales trialled a reusable container scheme with a village takeaway and this 'worked well for the proprietors and patrons'. This response also mentioned the launch of a scheme in Oban by the GRAB (Group for Recycling in Argyll and Bute) Trust which encourages local takeaways to sign up to the scheme[35]. The project pitch, quoted in the response, states that 'businesses can save over £2,200 by switching to reusables'. Another response referenced the work of Zero Waste Scotland and their 'Ditching Disposables' campaign[36], the GRAB Trust's Waste Free Takeaway Project[37] and reference to 'Ecoeats'[38].

47. While responses primarily reported on reusable and deposit return schemes as examples of effective action, there were a few responses that noted more caution in this area. One response for example suggested that returning a container directly to a store after use may be impractical and pose a 'significant hygiene risk'. It suggested instead food containers should be '[r]eturned, scanned, and sent off for decontamination at a central facility, and the consumer can purchase / hire / borrow another clean container'. Another response noted that '[i]nsufficient attention has been given to health and hygiene implication[s] so at this stage the[ir] impact on public health has yet to be assessed.'

48. Another suggested that 'zero waste' shops are making an impact in this area, while another referred to a 2021 Keep Scotland Beautiful litter report which indicates that 7 out of 10 people surveyed are 'making the effort' to use more reusables[39].

Plastics and Recycling Regulations:
49. Regulation and other policies and practices to reduce consumption and litter were mentioned by a number of respondents. One response, for example, suggested that 'Scotland should focus on the design and implementation of EPR [extended producer responsibility] reforms and ensuring all materials are collected for recycling, which will focus on recyclability and could enable food containers to be collected at kerbside'. Another response suggested that EPR should take precedence over packaging bans, noting that '[l]ocalised EPR schemes are currently being introduced in a number of European countries'.

50. One of the co-ordinated (organisation) responses noted that other countries are making strides in this area, but also that alternative packaging materials may have unintended negative consequences – including higher carbon impacts, added weight and higher costs for businesses. This response also claimed that 'actions in other countries have reduced trade and made some

business activities unviable'. As with a number of responses for this question, no accompanying evidence or examples were provided to support these arguments.

51. Another response argued for more co-ordinated UK-level regulation and 'a holistic approach with new and revised legislation across the whole of the UK, and ideally with European Union Member State equivalents'. It also suggested that a 'Single-Use Plastic policy in Scotland should be consistent with the rest of the UK in terms of scope, implementation, and timing, as suppliers of these items may sell to the market as a whole and seeing a ban implemented in one nation may impact their use in the other nations'. As with some of the responses to Question 1, this response noted the potential for alternative packaging to have greater environmental impacts and that 'clearer labelling' on packaging could help increase recycling (and ensure people used the correct bin) and reduce litter.

52. A small number of responses observed that recycling and proper use of recycling bins can help reduce the impact of consumption and litter, but there was also a suggestion that people do not always use the right bin in the right way. A few other responses also noted that litter picking (i.e. volunteering) can help reduce the environmental impacts of consumption. One of these responses made reference to an international example of action to reduce plastics, where: 'in Switzerland, people are fined for littering the streets and public places, this seems to work very well.'

Question 4: Do you have any evidence of barriers to implementing policy measures to reduce the consumption of single-use food containers?

This question had 38 responses (individuals = 14, organisations = 24)

Key themes:
- a perception that businesses are a barrier to change, but also that there are a range of challenges for businesses transitioning to alternative packaging
- the issue of convenience (and convenience foods more generally) and how there can be a lack of awareness or engagement among consumers about sustainability issues or packaging
- barriers to change which relate to food hygiene and health risks

Businesses as a perceived barrier to change:

53. Several responses noted that changing packaging materials (e.g. from polystyrene to paper or 'bagasse' materials) had cost implications and that there would be resistance from businesses looking to protect their profits. One response for example described how there are 'lobb[yists] for large compan[ies] to keep costs down', while another suggested that 'advertising

and pressure from food manufacturers' encourages consumption. Another response made the argument that the takeaway business model, including the demand for takeaway food and the jobs this creates, represents a barrier for reducing consumption of these items. Some responses also noted that it is local authorities and volunteers that take on the waste recovery and clearance burden (and the associated costs), and that businesses and customers should be prepared to accept higher costs for food to help pay for this service.

54. Some responses were positioned more in defence of business or as noting caution around alternatives. One organisation response suggested that 'recyclable products are far more expensive than previous products we used in the past' and instead urged customers to recycle more. The response also noted an apparent 'lack of available substitute[s]'. Another response claimed that a ban on single-use items 'is not practical, as it would be extremely disruptive', and argued that EPR and better recycling of existing packaging is needed. This response claimed that 'switching to alternatives from plastic packaging could result in 2.7x more greenhouse gas emissions' citing a 2011 denkstatt article published by Plastics Europe[40].

55. Another response made a similar point and referenced a life cycle analysis on using reusables in quick service restaurants, which stated that 'in the context of quick service restaurants reusable options emitted 2.8 x more Co2 and consumed 3.4 x more freshwater than fibre based single use options'[41]. The response warned that a 'levy on certain items will drive the market to the cheapest alternatives, potentially with added shipping footprint, multiple times higher plastic content and less circular economy value.'

56. Similarly another response suggested there are a 'limited number of sealable alternatives that are plastic-free'. It also suggested that chemical leakage and contamination into the environment are key concerns when considering the environmental impact of alternatives. This response also suggested that there are challenges around a lack of available composting facilities for compostable packaging, and that increasing awareness of 'end-of-life' solutions across a range of packaging types will support efforts to reduce environmental impact.

57. One response referred to 2019 data from the 'Pack it up, Pack it in' (reference 25) report on what factors would encourage young people to use alternative packaging. This suggested that one key barrier to the take-up of more environmentally-friendly options for young people is a 'lack of support or encouragement by shops and eating establishments to use alternatives'. They also cited as barriers: the cost of reusable alternatives; availability and visibility of reusable alternatives; and not having somewhere to wash reusable alternatives between uses.

Convenience and Consumer Behaviour:

58. The convenience of food in single-use packaging and containers, the behavioural aspects of consumption and the need to encourage behaviour change were issues raised by a number of respondents. One commented that the 'main barrier is that retailers & shoppers put convenience above the environment', while another suggested that 'laziness or indifference' is part of the problem. Another thought that some people (who litter) 'simply don't care', but also that 'if the packaging was itself more environmentally friendly (e.g. compostable), then the users will have even fewer qualms about disposing of it in our streets and natural areas'.

59. On the issue of behavioural change, one response listed various behavioural barriers, including 'forgetfulness, changes in habit, portion control [and] customer reluctance to change'. Another suggested that reusables need to be 'gradually implemented in[to] people's habits', while another suggested what is needed is a 'huge shift in consumer behaviour, something that policy measures alone are unlikely to fully change'.

60. There were linkages made between consumer behaviour and public awareness (or lack of awareness) of certain issues. One response for example suggested that '[c]onsumers often want low prices but fail to realize the true cost of plastic and other pollution'. Another suggested publicity and education are key barriers preventing consumption reduction, and that on the issue of litter 'figures like footballers and musicians should be encouraged to spread the word that leaving stuff behind is just not acceptable'.

Hygiene and Health Safety:

61. Some responses mentioned hygiene and health safety issues as potential barriers to reducing consumption of these items. Comments primarily centred on risks associated with reusables. One response for example claimed that 're-usable packaging poses increased food health and safety risk by cross contamination from pathogens and allergens' (which can, in turn, reduce food safety and public confidence in the food chain), referring to a 2020 European Paper Packaging Alliance (EPPA) report to support this point[42].

62. The response also quoted from the EPPA report stating that: 'there are many circumstances in which the continued use of single-use packaging and food service ware provide the only feasible option for maintaining adequate food hygiene, public health and consumer safety'. An organisation response noted its support for single-use food containers made of paper or cardboard that are 'fully recyclable', and that are 'safe and hygienic'. The response suggested that banning this such packaging or placing a charge on them would add costs to costumers.

63. On the theme of hygiene, another response referred to Italy where the Ministry for Health has provided guidance on procedures and expectations for cleaning reusable food containers to ensure hygiene standards are met[43].

64. Alongside health and safety concerns, some responses suggested how vended food is an area where alternative packaging may not be suitable. For example, one of the co-ordinated ('campaign-style') responses argued that 'preventing the use of plastic, plates and bowls will prevent those in essential services who work after normal working hours [e.g. logistics and security workers] from having prepared meals that require being reheated in a microwave and are sold through vending machines because canteens are closed'. Meanwhile, AVA's (the vended foods industry body referenced earlier) response noted that vending machines are typically located in places where there are no 'catering facilities', where use of reusables or washing facilities for reusables may not be available.

Question 5: Do you have any evidence related to the impact on businesses (positive or negative) that policy measures to reduce the consumption of single-use food containers could have?

This question had 31 responses (individuals = 10, organisations = 21)

Key theme:
- diverse mix of potential negative and positive impacts and areas of concern for business

65. On the negative side, a number of comments suggested that changing packaging materials, or switching to reusable packaging, will increase costs for businesses, at a time of rising costs and inflation for businesses. One organisation response noted how factors such as Brexit, Covid, labour shortages, increases in the National Living Wage, supply issues and cost of alternatives, are already affecting business costs, and that the introduction of Extended Producer Responsibility and the Plastics Packaging tax will add further to these. One response noted that many businesses are UK-wide, with the implication that new supply chains will need to be established if existing packaging practices are changed. This latter point is echoed in another response, which recommended that any bans should be 'consistent with the rest of the UK'.

66. Other topics included the high demand for fast food and how convenience, consumer behaviours and business costs make this a complex issue to resolve. The idea of a transition period was also raised. For example, one response for example urged the Scottish Government to give retailers time to clear existing stock, find alternative packaging, update business plans, and provide assurance to retailers that a ban would be more environmentally-friendly.

67. One of the co-ordinated responses noted a range of issues and costs related to reusables for businesses, including: food hygiene and safety concerns

(with associated 'liability' risks); the practical barrier of costumers needing to bring reusable containers on nights out and related impacts on demand; and issues relating to supply chains and the sourcing of alternative packaging. In addition, the use of alternative packaging also presents potential issues around their use in dishwashers, their use in vending machines and the potential storage space required. A number of these challenges were echoed by another organisation response, which also suggested that businesses need support in navigating what more environmentally-friendly materials are available.

68. Another response drew comparisons with Ireland and discussions there over charging for single-use coffee cups and related impacts on business[44]. This response also provided examples from various cafes and catering services where staff observed how reusables can be used by customers and then not returned, suggesting that for some businesses reusables may not be in their best interest.

69. Other responses meanwhile noted the positive side of reducing the consumption of single-use food containers. One response suggested that consumers will 'appreciate' not having to use or consume so much plastic. Other responses made reference to customers potentially being interested in the idea of tiffins (reusables) and being motivated to return containers to collect their deposits. Another response, from a community organisation, suggested that customers may be influenced by other customers using reusables which will be good for business.

Question 6: Do you have any evidence of the impact that policy measures to reduce the consumption of single-use food containers might have on people with protected characteristics or who experience socio-economic disadvantage?

This question had 23 responses (individuals = 8, organisations = 15)

Key theme:
- food container packaging may increase costs for consumers and disproportionately impact disadvantaged groups

70. One of the co-ordinated responses, for example, commented that such a change would impact the 'poorest consumers and traders'. Another response argued that 'anything that pushes up price, or requires a certain wealth to buy in to, e.g. deposits, or returnable systems requiring smart phones, data, etc, will penalise those who experience economic disadvantages'.

71. Another response pointed out that some food (salads, meats etc.) that is distributed to care homes, hospitals, schools and to disadvantaged groups is

packaged in single-use plastic to help ensure adequate hygiene and portion control. This response also claimed that disadvantaged people and 'manual traders' [labourers, it might be assumed here] tend to eat more ready meals and takeaways.

72. A few responses noted the potential impact any changes may have on those with health or disability issues. For example, one noted how people with disabilities and certain physical conditions (e.g. arthritis, fibromyalgia etc.) may benefit from single-use plastic packaging for certain foods like fresh fruit, where peeling the fruit presents a challenge. Another response meanwhile noted from personal experience how increasing the use of reusable containers may support people with autism by providing greater consistency and familiarity. Another suggested any policy changes should consider those that may struggle to cook for themselves due to disability or old age, and the cost implications of food preparation and energy bills, for example.

73. Another response suggested that while it is important to consider such issues of diversity and inclusion, any exceptions or exclusions applied to any future ban on these items should not be done in such a way that enables illegal use or allows 'abusing' of the rules.

Bowls, Trays and Platters

Question 7: Do you have any evidence of the environmental impact of the single-use items set out in Part 2 of the call for evidence paper: - a) Single-use plastic bowls, trays and platters?

This question had 36 responses (individuals = 15, organisations = 21)

Key themes:
- litter and the environmental impacts of these items
- environmental and financial issues associated with alternatives
- some responses made specific reference to bowls, trays and platters, others made more general references to plastic and single-use items in relation to food and takeaway packaging

Litter and Environmental Impacts:

74. Littering was noted by a number of responses. One organisation response noted that these items end up as litter and are found on beaches and in rivers. This response suggested that '[convenience] for large scale producers and retailers and busy lives drive this market' and that 'varied packaging, for shelf eye candy and… food preservation renders re-use or recycling very difficult'. Another response commented on seeing these items in 'nets' out at sea, while another warned of these items being consumed by wildlife.

75. One response claims that 'you see them [single-use bowls etc.] everywhere in Scotland. Make something disposable and people will throw it away. Sure there might be a cultural problem in waste disposal but the fundamental problem is still that we use these unsustainable materials'. Another response also referred to their prevalence, noting seeing them in shops and supermarkets.

76. One of the co-ordinated responses referred to the Keep Britain Tidy Compositional data from 2020 (cited above) to note that bowls, trays and platters are not littered much in comparison to other items. This response noted that bowls are made from recycled polyethylene terephthalate (PET). It also claimed that alternative (non-plastic) packaging can have higher carbon impacts and be less effective when stained by oils and sauces in food. It also referred to a news article about compostable packaging's ability to 'capture food scraps'[45]. Another response noted that vended machine packaging of this kind is predominantly used within buildings and is therefore collected by waste collection services rather than littered.

77. Another co-ordinated response argued that there is a double issue of the carbon impact in the manufacturing of these items and in their disposal, with many items ending up in landfill or incineration. Another response made a

similar point, noting that such items add to the 'waste problem' local authorities have to deal with.

Issues with Alternative Packaging:

78. As with responses on food containers, there were some responses that see the value of single-use plastic packaging and the potential negative impact of alternatives. One response for example argued that such packaging can reduce food waste and have a lower carbon impact, referring to a 2021 paper on takeaway packaging to support their point[46]. Another response made similar points, claiming that single-use items support better 'meal portion control, reduction in food waste, sanitation and sterilisation, low environmental impact in terms of production and light-weighting in comparison to other materials'. This response again advocated for life cycle analysis and impact assessments of alternatives prior to any legislative changes.

79. Another response made a similar point, arguing that '[w]ithout a concise definition of the products that could be impacted, there is a danger of unintended consequences. If, for example, large serving bowls were in-scope for any ban it is inevitable suppliers would turn to alternative material types, which could result in a higher carbon footprint...'. This response argued that a 'comprehensive description of the products that could be in-scope would be helpful to industry with stakeholders looking to develop take-back schemes and customer returns'.

80. One organisation response provided a range of evidence to support the argument that single-use plastic often has a lower carbon impact than alternatives. This included:

- a WRAP (Waste and Resources Action Programme) article on alternatives to plastic packaging[47]
- an American Chemistry Council (ACC) article on plastic packaging and substitutes[48]; a link to the ACC's work on plastics
- a denkstatt and Plastics Europe document on greenhouse gas emissions in packaging (reference 40, cited above)
- a life cycle analysis study of food trays carried out by the organisation, comparing plastic trays with alternatives in terms of their carbon footprint (unpublished, available on request)
- a 2019 Journal of Cleaner Production article on food containers[49]
- an European Paper Packaging Alliance (EPPA) webpage and report on quick service restaurants and the environmental problems with reusables[50]
- a 2020 Association of Plastics Recyclers article on plastic and reusable packaging[51]

81. This response also provided a range of claims and references around the environmental properties and issues associated with paper-based food trays. This included a number of Confederation of Paper Industries (CPI) articles[52,53,54,55,56] and reference to the Confederation of European Paper Industries website[57]. The response argued that paper trays cannot be used from recycled materials, in part due to food contamination, and therefore their production does not fit into a circular economy model.

Question 8: Do you have any evidence of the size and nature of the market for the single-use items set out in Part 2 of the call for evidence paper: - a) Single-use plastic bowls, trays and platters?

This question had 10 responses (individuals = 0, organisations = 10)

82. This question did not have many substantive responses. Where there were responses, most indicated that they did not know what evidence is available on these items or that there is a lack of evidence and data available.

83. One of the co-ordinated responses, for example, suggested that they can look up numbers/statistics of products ordered from within their catering services, but the response did not offer evidence or detail here.

84. The Industry Council for Packaging and the Environment (INCPEN) response noted they do not have this data, saying that 'we [do not] think it is regularly available elsewhere owing to businesses' commercial confidentialities in compliance with the law'. The response speculated whether the Office of National Statistics (ONS) might have such data for Scotland or the UK. This sense that data is not easily available was echoed by another response that claimed that 'information typically available on plastic packaging does not extend to this level of detail that would allow itemised information by nation, or for the whole of the UK.' The response from Vegware meanwhile estimated that these items accounted for about one-fifth of 2019-20 sales, but it is unclear if this is just for Scotland or the UK.

85. Data issues were commented on in another response, which suggested that limited UK level data and a lack of regional detail may not provide an accurate picture of the market in Scotland. It also argued that some market size estimates from NGOs may be inaccurate and anecdotal and more accurate figures (either 'scientific or industry-led') are needed to support policy change.

Question 9: Do you have any evidence on what alternatives to single-use items set out in Part 2 of the call for evidence paper are available and any

negative impacts (environmental or other) that increased use of these alternatives could have: - a) Single-use plastic bowls, trays and platters?

This question had 32 responses (individuals = 13, organisations = 19)

86. Responses to this question mainly focussed on either brief descriptions of alternatives (and their potential benefits) or discussing the environmental issues and challenges associated with alternatives. One response claimed that alternatives are recycled more, while other responses referred to how alternatives can be compostable and biodegradable. A few responses noted that carboard could be used instead of plastic for these kind of items, while another noted that 'Bagasse, bamboo and paper are good alternatives which are much less damaging than plastic'.

87. A number of responses raised the same issues noted in previous questions about the issues associated with alternative packaging, including: increased costs, a lack of facilities to accept compostable packaging, contamination from food affecting recycling, issues with per- and polyfluoroalkyl substances (PFAS) and other chemicals (including a science article on wildlife impacts[58]), carbon impacts, difficulties in a vended food environments, supply issues, consumer behaviour, liquid-based foods and labelling. One response also mentioned the problem of 'over-packaging'; and the need to reduce packaging in general.

Question 10: Do you have any evidence of effective action taken to reduce the consumption of the single-use items set out in Part 2 of the call for evidence paper: - a) Single-use plastic bowls, trays and platters?

This question had 17 responses (individuals = 4, organisations = 13)

Key themes:
- efforts to change packaging among takeaways and other catering services
- examples of regulatory measures

88. On the theme of takeaways and catering, one response noted an Edinburgh based takeaway group 'Oscars Group' that are introducing changes in packaging, while other responses noted the potential for reusables and take-back and refill schemes to work. In these cases however bowls, trays and platters are not mentioned specifically. Another response noted anecdotal evidence of reductions in trays and platters, describing how a local butchers are reducing their use of plastic trays and a local deli is using 'reusable' platters for events.

89. Another response noted awareness of 'zero waste' shops putting pressure (or advocating) local strawberry farms to use 'card' instead of plastic for their punnets in Inverurie and Ellon. Another response noted how catering services in primary and nursey settings have also moved away from single-use items.

90. On the policy theme, one response suggested just 'banning' these items 'like the EU'. Another co-ordinated response noted that action has occurred in other countries but (as above) this has led to increased business costs. Another response noted that the 'SUPD' (the EU's Single-use Plastic Directive) has been difficult to understand and costly in terms of legal advice to comply. Echoing responses to the questions on food containers, another response mentions that '[t]he introduction of the Plastic Packaging Tax together with the introduction of EPR and modulated fees is driving developments in this area'.

Question 11: Do you have any evidence related to barriers to implementing policy measures to reduce the consumption of the single-use items set out in Part 2 of the call for evidence paper: - a) Single-use plastic bowls, trays and platters?

This question had 18 responses (individuals = 3, organisations = 15)

Key themes:
- cost for business and consumer impacts
- health and hygiene
- wider policy issues

91. One response mentioned the social (behavioural) context of picnics and barbeques and the throwaway culture that businesses are based on. Outdoor catering was also mentioned by a further response, which suggested that cost and transport of used packaging may be barriers, but also that there could be cost savings from greater use of reusables over time.

92. Increased costs are mentioned by a number of responses as a barrier. Further barriers noted by one response include things like: increased carbon and weight of packaging (for alternatives), increased food waste and a sense that policy measures to restrict these type of products may not always be practical or appropriate in particular circumstances.

93. Another response relayed a number of concerns relating to food hygiene and health and safety concerns and provides several sources of evidence of potential barriers to alternative packaging, including issues around allergens and food contamination:

- a Packaging Europe article on how to deal with potential allergens in packaging[59]
- a blog article on food packaging and allergens[60]
- a recommendation that Scottish Government consult with Allergy UK[61] and the British Society for Allergy & Clinical Immunology[62] when considering packaging changes
- a Packaging Today article on oil migration in food packaging and contamination[63]
- a Food Drink Europe article on mineral oil contamination[64]
- an Environmental Defense Fund article on PFAS in food containers[65]
- a Centres for Disease Control and Prevention article on PFAS[66]

94. As with other questions, it was not always clear within the responses to this question if the arguments made and evidence provided were referring specifically to bowls, trays and platters or wider (single-use) plastic packaging.

Question 12: Do you have any evidence related to the impact on businesses (positive or negative) of policy measures to reduce the consumption of the single-use items set out in Part 2 of the call for evidence paper: - a) Single-use plastic bowls, trays and platters?

This question had 19 responses (individuals = 4, organisations = 15)

Key theme:
- mix of positive and negative impacts on businesses

95. A few indicated that there is potential for positive impacts for businesses, with one response suggesting that policy will cause businesses to adopt more sustainable practices, while another noted that there is an industry supporting new reusable packaging and that business can build on this. Another response mentioned how 'mindsets' will change and that such change (to more sustainable packaging) will become more and more mainstream.

96. Other responses repeated previously discussed issues around added costs and practical challenges for businesses moving to reusables. One response specifically argued that '[t]he greatest challenge is for smaller businesses who do not have facilities currently for washing reusables. For example street food stalls and kiosks including those in transport hubs.' The value of vended food and the service this provides to certain groups (including those that work in the National Health Service (NHS), for example) was also mentioned by one respondent.

97. One organisation response referred to survey results that indicated a strong appetite among young people for businesses to make it easy and accessible for people to recycle their packaging and use reusables, citing the Scottish Youth Parliament's Manifesto 2021-2026[67]. Another response urged Scottish Government to engage with the convenience store sector when considering change, and suggested 18 months lead-in time may be helpful in helping businesses adapt.

Question 13: Do you have any evidence of the impact that policy measures to reduce the consumption of the single-use items set out in Part 2 might have on people with protected characteristics or who experience socio-economic disadvantage of the call for evidence paper: - a) Single-use plastic bowls, trays and platters?

This question had 16 responses (individuals = 3, organisations = 13)

Key themes:
- impacts for those who experience socio-economic disadvantage
- impacts for other specific demographic groups

98. On the first theme, a number of responses commented on how potential cost increases will affect the poorest communities the most. One response commented that policy measures may impact the poorest consumers and traders, particularly in the context of the 'cost-of-living crisis'. Another also noted that socio-economically disadvantaged groups will suffer the impacts of any price increases. This response also claimed that socio-economically disadvantaged groups, and people that work in nursing or care contexts, and manual labourers, are groups that consume this kind of plastic-packaged food more often.

99. Another response provided sector evidence of cost increases associated with other forms of packaging including paper and aluminium and how costs compare to plastic. This response cited evidence from sector groups Euwid Pulp and Paper[68] and Wood MacKenzie's commodity market reports[69]. The implication is that higher costs could impact those with who are economically disadvantaged.

100. Another response repeated a point raised previously about food containers, in terms of advocating that packaging should be supportive to those with disabilities including arthritis. This response again pointed to the need to find suitable, accessible (alternative) packaging for fruit and vegetables. Another response made the more general point that any policy change should be inclusive for individuals and groups with particular needs and that this needs to be integrated into a circular economy model.

101. Another response discussed how young people and children need consideration in relation to packaging and environmental policy. This response advocated for young people's right to a 'clean environment', referring to a Scottish Youth Parliament response to a December 2020 Scottish Government consultation on single-use plastics market restrictions[70]. Echoing points raised above, the response referred to the 'Pack it up, Pack it in' survey to suggest that making alternative packaging affordable and accessible is important for young people. This response also noted the impact of the pandemic and the need for policy to consider the impact that this had on young people and urged Scottish Government to actively engage with and involve children and young people in any decision making. It also recommended the Scottish Government ' review the 'Independent Children's Rights Impact Assessment on the Response to COVID-19 in Scotland', published by the Children and Young People's Commissioner Scotland in July 2020[71] …and to commit to taking a child and young person rights based approach to recovery from the pandemic (recognised by the responses as being increasingly important due to the cost of living crisis).

Period and Incontinence Products

Question 14: Do you have any evidence of the environmental impact of the single-use items set out in Part 2 of the call for evidence paper: - b) Single-use plastic period and incontinence products?

This question had 21 responses (individuals = 8, organisations = 13)

Key themes:
- these items end up as litter on beaches and in the sea, affecting wildlife
- issues with sewage systems

102. One response noted these items are littered on beaches and in other environments. Another organisation response, representing local environmental organisations claimed that menstrual products are the 5th most common item found on beaches in Europe' (although no supporting evidence was provided). Another response referenced the Marine Conservation Society's Beach Watch Survey, claiming that of all sewage related debris found, this included '6% [were] sanitary products and backing strips, 3% [were] plastic tampon applicators and 1% [were] other sanitary products' (no link provided). The Keep Scotland Beautiful response noted one of their own 2021/22 research projects which found that period products were a common form of litter found along the River Tay[72].

103. In terms of impacts on wildlife, one response noted how plastics and micro-plastics can enter the marine environment and be ingested by wild animals. This can cause problems such as causing animals to starve because their stomachs are filled with plastic. This response commented on how crabs can mistake plastic applicators for shells, crawl inside them, get trapped and die as a result. This response also suggested such products have a high carbon footprint over the course of a year and that the litter associated with them can have a detrimental impact on coastal economies.

104. In terms of wider environmental impacts, one response noted that evidence on period/incontinence products and their environmental impact can be found via organisations like Women's Environmental Network, Zero Waste Scotland and Bloody Good Period. This response referenced a 2021 life cycle assessment report from the UN on menstrual products[73] and referred to work in this area by Amy Hait and Sarah Powers[74]. The respondent also uploaded a paper on incontinence underwear and the relative environmental impacts of reusable cloth underwear and disposable products[75].

105. Sewage and draining issues are noted by a few responses. One organisation response suggested that '[i]n 2020 there were around 36,000 blockages within the public wastewater network (costing around £7 million to clear),

over 80% of which were due to inappropriate disposal of items such as period and incontinence products. This response provided a link to a Royal Society of Chemistry web article on the plastic content in period products[76] and suggested that all toiletry products should have better labelling to help prevent these products entering the sewage system – labelling specifically in line with EU (2020) regulations[77]. Another organisation response also noted how sanitary items are flushed down the toilet and end up in the seas and oceans. Another response supported efforts to reduce the environmental impact of these items, but also noted that 'policy intervention in Scotland might be better focused on educating consumers about ways to reduce their environmental impact and correct disposal methods rather than restricting choice.'

106. One individual response suggested that '[p]eople need to be made aware that disposable sanitary products are harmful, not only for the environment but also for their bodies (carcinogens have been found in some tampons, for instance)'. No evidence was provided to support this claim.

Question 15: Do you have any evidence of the size and nature of the market for the single-use items set out in Part 2 of the call for evidence paper: - b) Single-use plastic period and incontinence products?

This question had 4 responses (individuals = 1, organisations = 3)

107. Responses to this question noted the scale of demand for these products, what products are available and a range of figures and references connected with market size and usage.

108. One response for example made reference to a Scottish Parliament debate on incontinence, where the debate reported that one in three women and one in nine men suffer incontinence, resulting in a high level of product use each day. Another (individual) response noted that women may use up to 200,000 tonnes of single-use products and that 'the market' for menstrual products is worth up to '$45 billion' per year (no supporting references provided). Another response noted that Zero Waste Scotland (ZWS) ran the 'Trial Period' campaign, which reported 427.5 million period products are disposed of in Scotland per year[78].

109. Another response – from the Absorbent Hygiene Products Manufacturers Association (AHPMA) and EDANA (both trade bodies) – commented on free (government-funded) period products, and the mix of market and NHS-supplied incontinence products available. This response also referenced the NHS England Excellence in Continence Care (2018) report[79], noting how it is 'estimated that 14 million men, women, young people and children of all ages are living with bladder problems' and '61% of men in the general population

experience lower urinary tract symptoms (LUTS) and around 34% of women are living with urinary incontinence'. This response also noted '900,000 children and young people suffer from bladder and bowel dysfunction' and that '[b]owel and bladder problems have more impact than almost any other medical condition on children's self-esteem, education and social relationships, and effective treatment can change children's lives'. Reference was made here to the work of Dr Eve Fleming of the ERIC Trust (The Children's Bowel and Bladder Charity)[80]. Other statistics noted in this response include: '6.5 million adults in the UK suffer with some form of bowel problem'; '1 in 10 of the population are affected by faecal incontinence, with over half a million adults suffering from faecal incontinence, with a negative impact on their lives'; and that potentially '0.5-1% of adults experience regular faecal incontinence that affects their quality of life'.

Question 16: Do you have any evidence on what alternatives to single-use items set out in Part 2 of the call for evidence paper are available and any negative impacts (environmental or other) that increased use of these alternatives could have: - b) Single-use plastic period and incontinence products?

This question had 16 responses (individuals = 6, organisations = 10)

Key themes:
- range and types of products available
- the advantages and disadvantages of alternative products
- importance of choice and recognising different needs

110. A number of responses noted that reusable and washable alternatives are available for these kinds of products. One response listed examples: reusable plastic-free pads; single-use plastic-free pads; menstrual cups; reusable tampon applicators used alongside plastic-free tampons and plastic-free tampons without applicators (or with cardboard applicators). One response noted how the above mentioned 'Trial Period' campaign by ZWS provides information and public support for these kinds of alternatives. A few responses noted these may have higher costs, while one suggested they might be a 'good investment' in the long term. Another response noted how a lack of familiarity with alternative products and their design may be a barrier for some people, and recommended that Extended Producer Responsibility be reviewed as part of any developments in this space (referring to a 2019 Scottish Government publication on menstrual products produced by Resource Futures[81]).

111. Another response commented on how single-use products 'have a place' in certain situations, but acknowledged that removing plastic may have positive

environmental impacts. This response also noted that incontinence pads are available that are washable and reusable, and that their use should be considered in the context of care homes and caring for the elderly and the particular challenges associated with care. The response also noted that such products have a production and landfill cost.

112. Another response claimed that no life cycle analysis (LCA) exists to compare the environmental impact of reusable period and incontinence products with single-use options. Nevertheless the response speculated that single-use products can be associated with landfill or incineration and reusables can be associated with greater water, detergent and energy use. As part of this, the response noted that washing temperatures should be high to protect hygiene and skin health, but that energy costs may be a concern. The response noted that ultimately personal choice and individual needs are important in terms of which type of product to use and when.

113. One response referred to the previously cited Pack it up, Pack it in (2019) report to discuss the views on this subject among young people. Based on the report, it is suggested young people perceive certain (more familiar) plastic products as supporting hygiene, safety, comfort and access for vulnerable groups, and that alternatives may not be as effective or as affordable. The response also referred to a response provided to the Scottish Parliament's 'call for views on the Period Products (Free Provision) (Scotland) Bill (November 2019)'[82]. In reference to that, the response noted how personal choice, affordability, awareness raising, reducing stigma, environmental impact and comfort using the products are all important when considering a move to reusable products. The response also suggested consideration be made for those with allergies (e.g. silicon) and people with endometriosis.

114. An organisation response noted the environmental benefits of alternatives, but argued that better public facilities and infrastructure are needed to support this transition. Offering brand choice, recognising personal preference, diverse bodies and needs and raising awareness were also recognised as important. This response made reference to the organisation's own survey of 120 people which showed a majority of those surveyed support and value public washing facilities and their associated benefits. There was, from the survey, also support for the idea that such facilities should be a legal requirement. No specific reference was provided.

115. One response pointed to issues of costs for alternatives and health and hygiene concerns. The response commented how their organisation have 'been told by some manufacturers that they cannot remove plastic coatings on their tampons due to the increased risk to women's health if they were to do so'. The response suggested there is a lack of guidance to support people using reusables (e.g. washing conditions) and a wider lack of research and regulation in this area, particular in relation to health. This response also

made reference to the Scottish Government supporting an 'ISO Technical Committee specifically looking at international standards for menstrual products' and linkages with the 'British Standards Committee' to support health and environmental outcomes in this area.

Question 17: Do you have any evidence of effective action taken to reduce the consumption of the single-use items set out in Part 2 of the call for evidence paper: - b) Single-use plastic period and incontinence products?

This question had 14 responses (individuals = 3, organisations = 11)

Key themes:
- free provision of alternative products
- awareness raising campaigns and policy-related developments in this area

116. A number of responses mentioned the availability of reusable products (e.g. tampons without plastic applicators), including free provision via chemists or local councils. A number of responses also mentioned awareness raising campaigns to support more environmentally-friendly alternatives (e.g. ZWS's Trial Period, Scottish Water's 'Nature Calls' campaign, free reusables offered in schools, NHS provision and the 'plastic free period movement').

117. One of the co-ordinated responses noted the work of the organisation City to Sea and their work on behaviour change and promoting the use of reusables. However it made the point that manufacturers are primarily responsible for enacting change and that market restrictions will support this. The response referenced a Welsh Government commitment to funding eco-friendly period products, whereby 'at least 50% of period dignity funding across Wales must be [toward] eco-friendly [products]' and that 100% of funded products should be plastic-free by 2026. While urging the Scottish Government to make similar commitments, it noted how 'the Period Products (Free Provision) (Scotland) Act 2021 does not state that period products containing plastic must be provided as one of the alternatives, it only states that there should be a "reasonable choice" of different types of product'. Other ways of supporting more eco-friendly products noted in the response include education and introducing such products at an early age, and including vouchers in mothers' 'baby boxes' (albeit recognising that disposable menstrual products may still be needed or preferred by women post-birth). Further points made in this response include a lack of research about the potential health implications of plastic-free products, the importance of dignity and choice and the need to have 'do not flush' labelling on products.

118. Another response also referred to the Welsh Government commitments noted above and provided a link to the Welsh Government's Period Dignity Strategic Action Plan[83]. It also recommended further research on barriers and

issues associated with plastic-free alternatives. This response also referred to the Grab Trusts work on period products 'Be Part of the Cycle'[84] and ZWS's Trial Period campaign (cited earlier).

119. Another response by Plastic Free Helensburgh made reference to free period products offered by Argyll and Bute council, including reusable products[85]. The response made the general point that Scottish Government should mandate councils to provide easy access to plastic-free products and 'remove funding from plastic content alternatives unless there is a strong medical reason'.

120. One response noted how design and performance improvements led by industry has helped reduce consumption and the impacts of consumption. This response urged Scottish Government to consider the 'Boys Need Bins' campaign, led by an All Party Parliamentary Group for Bladder and Bowel Continence Care. This concerns the provision of sanitary bins in public toilets and men's experience of incontinence when outside of the home. It also mentioned training for NHS staff around incontinence management to support appropriate use of products and promotion of free period products through local councils and ZWS.

Question 18: Do you have any evidence related to barriers to implementing policy measures to reduce the consumption of the single-use items set out in Part 2 of the call for evidence paper: - b) Single-use plastic period and incontinence products?

This question had 8 responses (individuals = 1, organisations = 7)

121. This questions only received a few substantial responses, primarily themed around cost and infrastructure related barriers and some comments on awareness raising.

122. One co-ordinated response noted that costs of alternatives and having appropriate washing facilities for reusables may act as barriers, and that a 'lack of awareness or education on eco-friendly and reusable products and, crucially, why it is important to switch to them, can be a barrier'. The response made reference to educational PowerPoint slides developed by Plastic-Free Fife that have been used to increase awareness in schools of alternative products. The response commented that (at present) companies that use plastic in their products provide schools with free samples and this may reduce awareness or familiarity with alternatives. The response also suggested there may be confusion over terms like "reusable", "eco-friendly" and "plastic-free" which policy needs to consider. The response argued that free provision of alternative products through local councils and in education settings is needed. It also suggested that people need to have a range of

alternative products to choose from and that more eco-friendly single-use products may still be valuable in the short-term.

123. Another response echoed the value of education in schools and suggested that there needs to be wider awareness around materials used in incontinence products, how they are disposed and the impact of consumption. Another response suggested that better equipment for carrying used incontinence products when people are out of the home is needed to help people use more reusables.

124. Another response raised a point about awareness campaigns often being time limited and targeted to specific groups. It noted that the wide age range of people using period products makes it challenging to get messages out. This response also noted that retro-fitting sinks in toilets to support washing reusable products is challenging. Health and hygiene concerns are also noted, particularly around dropping products in and around toilets, and the respondent mentions their own survey of menstrual cup product users, some of whom reported having dropped such products in and around toilets. The response argued that better facilities are needed and that this should be either a legal obligation or recommended as best practice via the British Standards Institute.

125. The response from the Absorbent Hygiene Products Manufacturers Association and EDANA noted barriers in terms of national policy differences - for example in terms of labelling requirements and the cost for businesses. It noted 'in Ireland and [Northern Ireland] there has been delisting of some period products due to the new requirements for EU SUP shelf-ready packaging labelling'. The Internal Market Act and the potential trading and logistics costs this might entail were also mentioned as barriers.

Question 19: Do you have any evidence related to the impact on businesses (positive or negative) of policy measures to reduce the consumption of the single-use items set out in Part 2 of the call for evidence paper: - b) Single-use plastic period and incontinence products?

This question had 5 responses (individuals = 2, organisations = 3)

126. This question had only a few substantive responses, primarily themed around the positive and negative implications of policy measures for business. For example, one response noted while there is engagement from business in things like free period product provision, overall policy change specifically aimed at business is needed to facilitate the transition to more green provision in this area. The response also mentioned that some businesses have signed up to the Bloody Good Employer scheme but that this can cost time and money. Another response noted the potential positive impact policy

could have for businesses, in terms of opening up new products, while another response urged business to consider 'solutions' that support users of these products, carers who support people and the environment. In terms of negative implications, one response echoed points raised in previous questions around different national or international policies impacting on business and the associated costs and challenges.

Question 20: Do you have any evidence of the impact that policy measures to reduce the consumption of the single-use items set out in Part 2 might have on people with protected characteristics or who experience socio-economic disadvantage of the call for evidence paper: - b) Single-use plastic period and incontinence products?

This question had responses 5 (individuals = 0, organisations = 5)

Key themes:
- policy measures could have potential impacts for a range of demographic groups, including people with protected characteristics or those who experience socio-economic advantage
- cost, health and individual needs are important across a range of contexts

127. A number of responses raised the issue of cost (and the wider cost of living crisis) and availability of products for those that experience socio-economic disadvantage. The broad theme of period poverty is mentioned by a number of responses, including a response from the company Boots which also makes reference to wider 'hygiene poverty'. The response reported that 'due to the growing societal problem of hygiene poverty, Boots is partnering with The Hygiene Bank to distribute essential personal care and hygiene products such as sanitary products, tampons and pads etc., to people on low incomes who otherwise might not be able to afford these items'.

128. Another response made the point that banning single-use items is not appropriate in the context of period poverty, arguing that reusables may be more expensive and that single-use items play a role in supporting health, hygiene and general welfare. The health risks and healthcare implications of changing usage (or products associated with) incontinence pads was also noted. The response argued that banning single-use items could add a further burden for healthcare providers and pose a health risk to those that need these items.

129. The response from the Absorbent Hygiene Products Manufacturers Association and EDANA noted similar points and a range of other points. The response argued that any policy developments need to respond to individual needs, particular medical conditions and a healthcare environment that supports 'hygiene, health, dignity, convenience, quality of life and

independence'. Consideration of bowel and bladder problems among children and young people and the mental health and wellbeing implications of this was also noted as important. Costs associated with washing (higher temperatures, detergents etc.) and the cost of energy were also noted as factors affecting particular groups. Referencing UK government guidance on period product provision in schools, the response referred to how schools need to recognise that some parents and carers may object to particular products, and that schools need to 'consider the views of girls and women and parents or carers from all religious and cultural backgrounds when ordering products'. Individual needs and preferences are important to consider, the response adds. Here it is noted that applicator tampons are needed by some women to enable tampons to be inserted correctly and hygienically – particularly where people have issues with dexterity.

130. One response recognised that there may be a range of barriers for particular groups accessing and using alternative products and that more research is needed to understand this. This response argued that market exemptions may be needed to mitigate the negative impacts of policy change for particular groups. Similarly, another response urges Scottish Government to engage in life cycle analyses of sanitary products to ensure environmental benefits align with user needs. In particular, on the issue of incontinence, it notes '[f]or those suffering daily incontinence, the lightweight nature of incontinence pads mean that several small highly absorbent pads can be easily carried and regularly changed thus preventing hygiene and infection problems. Individuals may require multiple pads a day, so a reuse option (more bulky and less absorbent) is not practical for those suffering incontinence whilst maintaining a job and active lifestyle'.

Sachets

Question 21: Do you have any evidence of the environmental impact of the single-use items set out in Part 2 of the call for evidence paper: - c) Single-use plastic sachets?

This question had responses 32 (individuals = 13, organisations =19)

Key themes:
- litter and other environmental impacts associated with sachets
- issues of definition and scope
- issues of waste and recycling
- other comments about the positive qualities of sachets

131. Litter was a common theme, with a few responses noting that such litter appears close to takeaway outlets, while others made reference to seeing litter on campsites, roadsides and beaches. One response noted how sachets are difficult to pick up with litter-pickers and as a result remain in the environment. Another response connected littering of sachets to negative impacts on wildlife, suggesting that '[if] they end up in estuaries or coastal waters they break down and are consumed by sea life'. A few responses mentioned how sachets are often wasted and not used.

132. Another co-ordinated response remarked how the CEO (Chief Executive Officer) of Unilever has suggested that these items are not 'economical' for recycling and should be banned. This response provided links to: a Pew Charitable Trusts and SYSTEMIQ 2020 publication 'Breaking the Plastic Wave'[86], a Youtube video of the launch of this report[87] and the above referenced Marine Conservation Society Beach Clean data from 2021, again noting the presence of plastic packaging on beaches in Scotland. Another response echoed the point about sachets being difficult to recycle due to the materials used in packaging, while other responses suggested contamination is an issue for recycling sachets.

133. On the wider theme of environmental impact, one response commented on how sachets can get washed into drains and enter the sewer system, whereafter they are either screened at treatment works, sent to landfill or released into the water environment.

134. In contrast, one of the co-ordinated responses claimed that sachets are not found in litter survey data, including Keep Britain Tidy's 2020 Litter Composition data. This response suggested that the carbon impact of sachets is predominantly from the manufacturing and consumption of the product rather than the packaging. It also suggested that sachets offer portion control and environmental (health) benefits in healthcare settings,

referencing their use during Covid. Another response echoed this point about portion control and suggested sachets help reduce waste. It suggested clearer definitions on sachets, and the kind of products and packaging this entails, is needed. The response claimed that sachets represent a small proportion of overall packaging and that EPR and consumer return models would be more effective than a ban on these items.

135. An organisation response commented on the sale of energy gels and noted that while they can be commercially recycled, local authorities typically cannot take these items for recycling. This response made similar points to the response above about EPR and encouraging industry to improve the recyclability of materials used for energy gel packaging, rather than banning such items. Another response, representing the cosmetics, toiletry and perfume sector, argued for more research to be done on the environmental impact of plastic in sachets relative to their value and use. It claimed that '[e]vidence of a problem with sachets used for personal care and cosmetic products in the UK is not clear'.

136. Another response commented that sachets needs clearer definition and scope and suggested there may be alignment issues with the EU's Single Use Plastics Directive. The response mentioned benefits of sachets in terms of preventing damage, increasing shelf life and preventing contamination. The response provided evidence links relating to life cycle analyses, including studies from Flexible Packaging Europe. This included one on flexible pouches in food packaging and their environmental qualities[88] and another on flexible packaging and how it compares with alternatives[89]. The response included a link to 2020 industry guidance on sustainable food packaging by ecoplus, BOKU, denkstatt and OFI[90] and two webpages from the British Plastics Federation on the value and environmental qualities of plastic packaging[91,92].

Question 22: Do you have any evidence of the size and nature of the market for the single-use items set out in Part 2 of the call for evidence paper: - c) Single-use plastic sachets?

This question had 3 responses (individuals = 1, organisations = 2)

137. This question had very few responses or evidence presented. One response made reference to general product data being available about the cosmetics market via the Cosmetic, Toiletry and Perfumery Association, but noted that sachet data may be challenging to get or not available.

Question 23: Do you have any evidence on what alternatives to single-use items set out in Part 2 of the call for evidence paper are available and any

negative impacts (environmental or other) that increased use of these alternatives could have: - c) Single-use plastic sachets?

This question had 32 responses (individuals = 9, organisations = 13)

Key themes:
- refillable and alternative material packaging is available
- hygiene and food safety are concerns
- mixed evidence about recycling

138. A number of responses noted that bottles, dishes and cups/saucers and other public (refillable) dispensers can be used instead of sachets. One response noted that 'PLA' (polylactic acid) portion pots and bagasse portion pots can be used. This response provided a link to a Vegware webpage reporting on the University of Glasgow's action in this area in a halls of residence[93]. Another response makes reference to how Uniliver and Plastic Planet are working on paper alternatives to sachets.

139. One co-ordinated response noted that food protection and being able to display ingredient and allergen information is a key consideration for alternatives. The response suggests costs could be higher for business, and suggests some refillable products may not always work in certain settings – hotels offering refillable jars of coffee (for example) may not work for hygiene or costs reasons. The responses called for clear evidence to be gathered about the efficacy of compostable packaging and alternative packaging in general.

140. In reference to cosmetic products one response noted that small tubes, bottles and jars are available but these may have higher carbon impacts and be less hygienic than sachets. According to the response life cycle assessments have shown sachets to be more environmentally friendly than alternatives. This response also pointed out that 'PP [polypropylene] laminates, classed as polyolefins, are now also recyclable through front of store collection and the recycling of films and flexible plastic. The response went on to say that the 'many [Cosmetic, Toiletry and Perfumery Association] members operate in-store collection or 'take-back' schemes, [some of] which include sachets, and…[that]…members have been working with WRAP's Recycle Now Recycling Locator Tool[94]' to support the rollout.

Question 24: Do you have any evidence of effective action taken to reduce the consumption of the single-use items set out in Part 2 of the call for evidence paper: - c) Single-use plastic sachets?

This question had 18 responses (individuals = 3, organisations = 15)

141. This question raised similar responses to those raised above. Some responses mentioned general-use (public) product dispensers as a solution to single-use sachets. One co-ordinated response argued that refillable bottles may not work in the context of meal delivery or collection and reiterated points about the value of sachets for food hygiene and labelling. This organisation response and another organisation both commented that in general they were not aware of activities or measures to reduce consumption of single-use plastic sachets.

Question 25: Do you have any evidence related to barriers to implementing policy measures to reduce the consumption of the single-use items set out in Part 2 of the call for evidence paper: - c) Single-use plastic sachets?

This question had 12 responses (individuals = 1, organisations = 11)

142. Responses to this question raised issues about hygiene, business costs and other issues with alternative products. One of the co-ordinated responses repeated points raised earlier about food hygiene and safety (including food contact information on labels) being potential barriers to change in this area, particularly in public settings such as hospitals, restaurants etc.

143. One response noted that JustEat and Notpla have trialled seaweed-based sachets which have been successful in reducing sachet plastic consumption, but will add costs to business and is currently not 'scalable'. The response argued that if there are any bans or regulations that get put in place for these items that the timeframe for implementation should be staggered – with larger companies being asked to comply first. Another organisation response noted the potentially higher carbon impacts of alternatives and commented that some products are designed to be single dosage and protected against oxidation (e.g. shampoo) and sachets deliver this well. Another response made similar points, listing barriers such as costs to retailers, increased carbon impact and packaging weight and some products not being suited to other packaging forms. Another response echoed this point about design and purpose, providing the example of supermarket pre-made sandwiches, sushi and takeaway sauce options, but recognises that in other instances (e.g. burger joints) a general public dispenser of sauce is practical. Another response suggested that greater awareness of the environmental impact of these products is needed.

Question 26: Do you have any evidence related to the impact on businesses (positive or negative) of policy measures to reduce the consumption of the

single-use items set out in Part 2 of the call for evidence paper: - c) Single-use plastic sachets?

This question had 14 responses (individuals = 3, organisations = 11)

144. This question raised similar themes to the questions above, in terms of potential positive and negative impacts and challenges for business. A co-ordinated response noted that for takeaways with collection or home delivery options, customers will not be able to take away and apply their own condiments, while food stalls and kiosks may have issues with their offer. Transporting heavier bottles may also be an issue. The response also argued that any policy change should encompass sachets across a range of sectors (e.g. cosmetics, groceries, DIY etc.). Another response noted that unless there are scalable, low-cost alternatives, any policy change such as a ban may impact negatively on the restaurant sector (which is already under pressure). In contrast a different response suggested that a ban on such items would be preferable to a charge, as it would put businesses on an equal playing field and keep costs lower for customers.

145. Another response argued that there needs to be harmonisation of policy across the devolved nations in this area. It argued for 'businesses to [be able to] operate freely without excessive administrative burden, to transport products to maximise efficiency and to reduce the cost of the supply chain'. This response cited the context of Brexit, Covid and issues around disposing of current products, urging the Scottish Government to consider broad implementation times to support any change.

Question 27: Do you have any evidence of the impact that policy measures to reduce the consumption of the single-use items set out in Part 2 might have on people with protected characteristics or who experience socio-economic disadvantage of the call for evidence paper: - c) Single-use plastic sachets?

This question had 11 responses (individuals = 3, organisations = 8)

146. This question had very few substantive responses. One of the co-ordinated responses commented that any increase in costs will impact the poorest consumers and traders. This was noted by others, alongside cost-of-living and inflation pressures. Another response argued that there is an economic and social aspect to using sachets as 'trial products' in terms of making products accessible and affordable. This response echoed previous points about sachets being hygienic and helpful for printing clear information on sensitivities and allergens. Another response noted that those with arthritis or other disabilities may struggle to open sachets.

Tobacco Filters

Question 28: Do you have any evidence of the environmental impact of the single-use items set out in Part 2 of the call for evidence paper: - d) Single-use plastic tobacco filters?

This question had 32 responses (individuals = 8, organisations = 24)

Key themes:
- litter and environmental impacts of cigarette filters
- smoking regulations and alternative products
- compared to many other questions, responses contained a much larger and diverse range of evidence

Litter and Environmental Impacts:

147. On the issue of litter, a wide range of respondents commented that tobacco filters are littered and can be seen 'everywhere', including on streets and beaches. One response commented on how '60%' of litter in litter surveys relates to tobacco litter (no reference provided) and that there is potential environmental harm caused by the micro plastics contained in filters. Based on observations from beach clean-ups, one co-ordinated response also made to reference to how tobacco filters ('butts') are discarded as litter on beaches and that some of this litter ends up in the marine environment. Other issues noted within this response included the long time it takes for these items to degrade, the issue of microplastics and harmful chemicals entering oceans and the harmful impacts such items can have on wildlife. The response noted that the clean-up costs of dealing with cigarette litter are £34m per year in Scotland, according to data from Keep Scotland Beautiful[95]. Another response also referenced this evidence, and noted other figures on the tonnage in weight of smoking related litter and the percentage of streets with smoking litter.

148. Echoing other responses, this response also referred to tobacco filters (and the nicotine contained in them) being harmful to wildlife and their potential to enter water systems and the environment. The response noted that it can take '12 years' for cellulose filters to biodegrade (reference for this was unclear) and cited a Tobacco Asia article[96] on issues with cellulose acetate tow (CAT) filter materials and potential alternatives. Supporting market restrictions on tobacco filters in general, the response also referred to the littering issues associated with vaping and increasing numbers of e-cigarette users[97].

149. These points were echoed by another response which commented on the environmental and visual impacts of littered filters, including 'harmful toxins'

entering the environment. The response commented that part of the problem is that many people are not aware of the plastic content of these items and do not always regard dropping filters as a form of littering. Better highlighting of the problem of cigarette litter, finding better waste disposal solutions and encouraging people to stop smoking or smoke less were supported by a number of responses.

150. One response commented on the environmental impacts of filters and references a National Geographic article about banning these products[98]. The response noted that alternative products in this area may also pose problems in terms of taking a long time to degrade and contaminating environments, referencing a research article on the decomposition of cellulose and plastic filters[99].

151. One response made reference to 2020 campaigning work '#BinYourButt' that took place in a number of UK cities including Edinburgh and Glasgow to encourage correct disposal. This response, in contrast to some responses, noted how studies have shown that cellulose acetate used for cigarette butts has a relatively ordinary environmental impact (on par with paper and less impactful than materials considered 'hazardous', the response says). It goes on to suggest that such items can be dealt with by normal waste management systems (no evidence was provided on this point). This point about seeing cigarette filters in proportion to other forms of litter was echoed by another response which commented that above-cited Keep Britain Tidy's Litter Composition Analysis (2020) report shows that 'cigarette filters accounted for 66% of littered items by count, [but] they only made up 0.2% of overall litter volume'. The response also makes the point that while cellulose acetate and filter papers used in cigarettes may take months or years to biodegrade, other plastics (e.g. PET), used in water bottles, can take a lot longer (>450 years) to biodegrade. The response referred here to a New Hampshire Department of Environmental Services webpage on biodegrading[100]. The response also noted that in some jurisdictions the cellulose acetate used for filters is not a petroleum-based plastic and where instead filter materials are derived from wood pulp.

152. The point raised above about seeing tobacco filter litter in proportion is also raised by another response. This response also references the Keep Britain Tidy composition data regarding the relatively low volume of this litter within their litter surveys. This response makes the broader point that the focus of policy and regulations to reduce single-use plastics consumption and litter in general should focus on the highest littered items by volume not by count. Another response references an article on the methodological issues of measuring cigarette litter[101].

153. Raising similar issues, one response provided a range of evidence of the environmental impacts of these items. This included:

- a research article on the time it takes for different filters to degrade and their environmental impact (reference 99, cited above)
- a research article on the decomposition, chemical and eco-toxicity effects of filters[102]
- a research article on the environmental impacts of cigarette litter, including toxicity affects and impact on wildlife[103]
- reference to a National Center for Biotechnology Information paper on the toxic effects of cigarette litter on fish (title unknown)
- a research article on the effects of cigarette filters on blue mussels and micro-organisms, which the response notes is methodologically important in terms of its focus on dynamic water environments[104]
- reference to BioMed Central public health research on cigarettes (title unknown)
- a joint statement from ASH Scotland, Keep Scotland Beautiful and the Marne Conservation Society on the health and environmental impacts of cigarette filters[105]
- a Keep Britain Tidy webpage on cigarette litter, with survey statistics showing a lack of awareness about litter issues among smokers[106]
- data from the Marine Conservation Society Beach Clean 2021. The response cites 9.4 cigarette butts were found per 100m of beach surveyed in Scotland (original source of this not found)[107]

154. Another response provided very similar evidence links. It also noted Keep Scotland Beautiful survey data suggesting that cigarette filters have been observed across 63% of surveyed sites (see reference 105). It also cited a 2022 article by the Global Center for Good Governance in Tobacco Control (GGTC) on toxic plastics associated with cigarettes[108] and claims that globally the littering of cigarettes has cost approximately $186 billion in ecosystem losses in the past 10 years. The response also says that the GGTC have estimated that it costs £548M per year to manage tobacco waste. The response offered several links on the environmental impacts of e-cigarettes ('vaping')[109,110].

155. Another response by Keep Scotland Beautiful provided a range of evidence links relating to the environmental impacts of tobacco filters. This included:

- a research article on the materials associated with cigarette filters and their environmental harm[111]
- a research article on young people's perceptions about the environmental impacts of cigarette filters and related behaviours[112]
- a research article about filters and the environmental harm associated with microplastics[113]
- data from Keep Scotland Beautiful's (2021) LEAMS surveys, noting that '53% of all counted litter items in 21/22 were cigarette related, and in 20/21 smoking related litter was found in 2 out of 3 sites, the highest proportion recorded in over ten years' (see reference 3)

- data from Keep Scotland Beautiful's Upstream Battle report on river-based litter along the River Tay, which reports cigarette litter was the most common litter item found in the study area (see reference 72)
- data from Keep Wales Tidy (2021/2022), which found that smoking litter was found on 74.6% of surveyed streets across Wales (see reference 4)
- a Marine Conservation Society article on single-use plastic cigarette filters[114]

156. Another organisation response suggested that for each cigarette, the unsmoked tobacco and the filter each represent environmental problems. Based on recent studies (not cited directly in the response), the response described how the filter is unbiodegradable and is a source of microplastic that ends up in marine environments. The response also noted that cellulose acetate can be a conduit for transporting hazardous chemicals and compounds (e.g. arsenic, manganese, cadmium, and lead) and polycyclic aromatic hydrocarbons (PAHs), phthalates, nicotine and volatile organic compounds. This leaching of chemicals into soil and aquatic environments can take place over a long period of time, leading to harm for plants and animals. No direct evidence or sources were provided.

Policy and Regulation:

157. In terms of policy and regulation, a number of responses again supported Extended Producer Responsibility (EPR) as a way to support better waste control. One of the co-ordinated responses argued that action to manage tobacco filters should be prioritised over other plastic items. Another organisation response suggested different elements of change are required to reduce smoking, reduce littering and increase the sustainability of products. The response raised the point that the EU Directives in this area (Directives 8 and 10) relate more to waste management than reducing consumption. One response, in contrast to most others, argued that regulations on smoking in general will anger smokers and potentially cause social unrest.

Question 29: Do you have any evidence of the size and nature of the market for the single-use items set out in Part 2 of the call for evidence paper: - d) Single-use plastic tobacco filters?

This question had responses 10 (individuals = 1, organisations = 9)

Key themes:
- smoking data and trends in Scotland and the UK
- responses commenting on the general scale of the issue and concerns around smoking and the litter

158. One response for example noted that the organisation Action on Smoking estimated that in 2021 17% of adults in Scotland were smokers, which is higher than England and Wales (no direct reference provided). It also noted that those who experience socio-economic disadvantage have higher rates of smoking. The response also made reference to Keep Scotland Beautiful's LEAMS survey work (cited earlier), noting how in 2021 64% of sites had cigarette litter, and this is higher (86%) in cities and towns.

159. Another response referred to ASH (Action on Smoking and Health) Smoking Statistics (2021) referring to how smoking in Great Britain has declined in recent decades[115]. Another response noted that 17% of adults (16+) smoked in Scotland, according to the Scottish Health Survey[116] (based on 2019 results).

160. Providing further detail on smoking population statistics from the 2019 Scottish Health Survey, another response reported that smokers in Scotland smoke an average of 12.2 cigarettes per day, equating to an estimated c.3.4 billion cigarettes a year. This response pointed to significant progress in reducing smoking rates in recent years (citing 22% in 2014, versus 17% in 2019) and cited National Records of Scotland population projection figures[117] and Scottish Government data[118]. However it notes gains may have slowed down in recent years. The response also makes reference to a Cancer Research UK 2020 report on smoking prevalence and the potential for Scotland to miss its targets to reduce smoking[119]. This response noted that Philip Morris International-commissioned research from Frontier Economics on smoking targets in Scotland is available on request.

161. Another response made reference to a public health research article about smoking and people's perceptions about filters[120]. It also claimed that 3.65 billion cigarettes are smoked in Scotland each year but no reference is provided. The response provides a number of links regarding trends in e-cigarettes[121,122].

Question 30: Do you have any evidence on what alternatives to single-use items set out in Part 2 of the call for evidence paper are available and any negative impacts (environmental or other) that increased use of these alternatives could have: - d) Single-use plastic tobacco filters?

This question had responses 13 (individuals = 3, organisations = 10)

162. Responses to this question primarily commented on non-plastic alternative filters that are available and the range of issues and considerations needed to understand their impact.

163. A few responses noted that alternatives to single-use plastic tobacco filters are available, including non-plastic, hemp, wood pulp, natural starch and cotton-based. One organisation response noted that studies in this area are limited and show mixed results. According to the response, one study has shown that cellulose plastic and cellulose (biodegradable) can both have negative environmental impacts, while another study showed that plastic-based filters can harm wildlife (no references provided). This response called for more research into the long-term of effects of these different materials used in filters.

164. Another organisation response referred to 'extensive research' into alternative materials for filters, with trials of paper filters taking place in Germany and Austria. The response noted that alternative materials involve a range of considerations around environmental impact, scalability, how they are disposed and consumer buy-in. The carbon footprint of paper based filters could be up to 35% lower based on life cycle analysis carried out by industry, the response claims (no evidence provided). Another organisation argued for consideration to be given to alternative ('smoke-free') smoking options, including 'heat-not-burn' options. It argued that conversion to alternatives among smokers can help encourage pro-environmental behaviours. The response provided a link to research on product eco-design and circularity by Philip Morris International[123].

165. Another response claimed that there is no alternative that exists with the same filtration performance as cellulose acetate and (in contrast to a number of responses) suggested that there is no evidence that current tobacco filters are damaging to the environment. Another response noted that there may be differences in whether the plastic used in existing filters is virgin plastic or recycled plastic and that sourcing sufficient paper for raw materials may be a challenge for industry. Another response echoed this point of caution – similar to that made on food containers – about the extent to which alternative filters are environmentally-friendly or biodegradable.

Question 31: Do you have any evidence of effective action taken to reduce the consumption of the single-use items set out in Part 2 of the call for evidence paper: - d) Single-use plastic tobacco filters?

This question had 12 responses (individuals = 0, organisations = 12)

Key themes:
- measures to reduce smoking-related litter and the environmental impact of plastic filters
- alternative options – including e-cigarettes, regulatory measures around tobacco control and Extended Producer Responsibility (EPR)

166. One response suggested there needs to be more awareness-raising about the environmental impacts of plastic filters and the health costs associated with them. Alongside support for market restrictions on plastic filters, the response also called for more research on whether other filter materials are effective in terms of being biodegradable or compostable. Another response also suggested that restrictive policies on filters may reduce quality and choice and increase prices for consumers, particularly in light of economic pressures caused by Covid and inflation.

167. One response noted that Cleanstreets Community Interest Company was undertaking (industry-funded) research and campaign work to reduce smoking-related litter in 2022. According to other responses, who also mentioned this work, campaign work of this kind in Scotland was scheduled to be taking place in 2023 and the results and impacts of the campaign should be used as evidence to inform future policy action.

168. Another response suggested that education and awareness raising can be more effective for litter reduction than EPR schemes, referring to research on household waste behaviours in China[124] and an evidence review of pro-environmental behaviours[125]. The response also noted the role of fines for littering, referencing a Keep Britain Tidy article[126] and research from Singapore[127]. The response also noted the role of signage in reducing litter and referred to research that has looked at waste management activity at a Californian university[128]. Research and awareness raising activity on smoking-related litter in Italy, led by NGO Marevivo, was also referenced by the respondent as a good example of local government and community-led action[129]. Regarding reducing smoking consumption in general the response argued that switching to e-cigarettes and alternatives is needed along with regulations that support responsible marketing, better awareness of support for smokers and better information and guidance about health risks. The response mentioned its response to a 2022 consultation on 'Tightening rules on advertising and promoting vaping products'.

169. In relation to regulatory measures, one response commented that EU 'SUP Directive, Article 7' requires, according to the response, that cigarette packaging contains markings that the product contains plastic to increase awareness for consumers. The response also referenced a Keep Scotland Beautiful campaign on reducing cigarette litter in Edinburgh[130].

170. Another response referred to research on EPR and its potential to make an impact on marine pollution, with the response suggesting that other measures (beyond EPR) are needed[131]. Another response suggested e-cigarettes/vapes require their own regulatory action given their environmental impact.

Another response noted a range of evidence, including:

- several research articles on the harms of smoking and filters[132],[133],[134],[135];
- the Scottish Government's 2013 Tobacco Control Strategy[136]
- the UK Government's Environment Act which provides provisions for EPR[137]
- a World Health Organisation (WHO) framework for tobacco control, in particular its commitment to not shape policy toward vested interests[138]. Reference was also made to implementation guidance from WHO on regulating tobacco companies[139]
- an All Parliamentary Group report on tobacco control. The response referred here to how profits in this industry could be used to pay for or reduce the impacts of smoking[140]
- reference to a 2019 consultation response by ASH Scotland and Breathe2025 which claims that £300+ million is needed to support proper tobacco control across the UK
- a Cancer Research UK article about the importance of setting up a tobacco control ('smoke free') fund and stakeholder views about it[141]

171. Another response appeared more in favour of EPR measures, citing a European Commission article on implementing measures like EPR to reduce litter and the environmental impacts of filters[142]. It also noted the UK's progress on reducing smoking rates and people switching to less harmful alternatives, including e-cigarettes. It cited NatCen[143] and King's College London/Public Health England[144] articles as related evidence. It also called for regulatory frameworks and independent assessments of alternative filters and their potential for harm reduction.

Question 32: Do you have any evidence related to barriers to implementing policy measures to reduce the consumption of the single-use items set out in Part 2 of the call for evidence paper: - d) Single-use plastic tobacco filters?

This question had responses 6 (individuals = 0, organisations = 6)

172. From the small number of responses provided, the main themes for this question were policy and regulation, behaviour change and issues with alternatives. One response noted that UK-wide policy on this is needed to reduce barriers, including arrangements for EPR. It also mentioned local infrastructure, including bins and portable ashtrays, being important and the need for accurate and consistent data on litter clear up costs across local councils.

173. Another co-ordinated response suggested that a barrier is that filters are a key protective (health-related) component of a cigarette, with risks if there are plans to remove them. It placed emphasis on behaviour change and

penalties for littering. This response cited a EU impact assessment on single-use plastics about littering and its link to uncivil behaviour[145].

174. Another response noted how any potential restrictions on alternatives to cigarettes (e.g. vapes) could act as a barrier to reducing consumption of traditional cigarettes (and thereby filters). As such, it suggested that the alternative (regulated) market needs to be accessible for consumers in ways that support more healthy choices. Similarly, another organisation made the point that more information about the options, regulations and environmental impact of alternatives is needed. The response cited a Smoking in Scotland webpage[146] on e-cigarette harm perceptions and suggested that there are many who think that e-cigarettes are as harmful for health as traditional cigarettes, even though NHS Health Scotland (now under Public Health Scotland) have stated they are less harmful[147].

Question 33: Do you have any evidence related to the impact on businesses (positive or negative) of policy measures to reduce the consumption of the single-use items set out in Part 2 of the call for evidence paper: - d) Single-use plastic tobacco filters?

This question had responses 4 (individuals = 1, organisations = 3)

175. This question had very few substantive responses. One response suggested that new businesses may emerge selling new products, as a result of the policy measures. Another response noted that policy measures may have a range of impacts on business, but this may be less impactful for some companies that are owned or operate outside Scotland or outside the UK. This response noted that reducing smoking can reduce illness and deaths and save costs in terms of healthcare and cleaning up smoking-related litter. Another response also noted potential savings made on general litter clearing costs.

Question 34: Do you have any evidence of the impact that policy measures to reduce the consumption of the single-use items set out in Part 2 might have on people with protected characteristics or who experience socio-economic disadvantage of the call for evidence paper: - d) Single-use plastic tobacco filters?

This question had 5 responses (individuals = 1, organisations = 4)

Key themes:
- linkages between smoking and health inequalities
- linkages between smoking and deprivation

176. Responses raised a range of complex issues. One response appeared to suggest that measures to restrict filters may increase cancer, Covid and deaths related to smoking if people start 'moving to roach' (i.e. unfiltered cigarettes) (no evidence was provided here). Another response suggested smoking is linked to health inequalities and reducing smoking will reduce health inequalities. This was echoed by another response, which provided a range of evidence, including:

- a reference to the Scottish Health Survey 2019 statistics noting that smoking rates are higher in areas of higher deprivation (reference 116)
- a reference to the Smoking in Scotland webpage[148] reporting data that indicates manual workers have higher smoking rates than those in clerical or professional occupations
- a Smoking in Scotland reference on perceptions about e-cigarettes (reference 146)
- a research article on smoking and mental health, suggesting those with higher mental distress may have different perceptions of the harm of cigarettes and e-cigarettes compared to those with lower mental distress[149]
- a research article on the benefits of e-cigarettes for smoking cessation[150]
- a reference to Scottish Government figures on e-cigarette uptake[151]

177. Another response also noted that smoking rates are higher in areas of socio-economic deprivation, referencing ASH Scotland figures that suggest the gap in rates between the most deprived and least deprived areas has increased from 18% in 2017 to 26% (year in reference here not clear, no specific reference provided). The response provided a link to a WRAP report on the costs of packaging litter and smoking-related litter[152].

178. Another response noted that changes in policy could increase costs for consumers which would impact those who experience disadvantage the most, particularly during a cost of living crisis. The response provided a link to Cancer Research UK, whose website notes the relatively low costs of vaping compared to smoking[153].

Food and Vegetable Packaging

Question 35: Do you have any evidence of the environmental impact of the single-use items set out in Part 2 of the call for evidence paper: - e) Single-use plastic packaging on fruit and vegetables?

This question had 31 responses (individuals = 17, organisations = 14)

Key theme:
- packaging can be unnecessary and causes environmental damage
- some support for this type of packaging

180. There were a number of responses that expressed the view that this type of packaging is unnecessary. Some of these responses acknowledged that this type of packaging may help keep fruit and vegetables fresh, but still believe such packaging is unnecessary. One response noted how such packaging (including nets used for bundles of fruit) is bad for the environment and creates food waste as people end up buying more than they need or use. Another response cited the example of France and Spain where some forms of restrictions on such packaging are in place. It claimed that the widespread use of plastic packaging is being driven by an economic model of importing fruit and vegetables long distances so they are available all year round. It also argued that plastic netting used for fruit and vegetables can (if littered) be harmful to wildlife (including marine animals) if they get entangled. This was point was echoed in other responses).

181. Another issue raised within these responses is that the plastic packaging may not be recyclable. However one response noted that supermarkets in England are starting to collect soft plastics for recycling. Another response suggested that more biodegradable packaging could be better for the environment.

182. In contrast, other responses noted the value of this kind of packaging, suggesting that it can increase the shelf life of food and vegetables and prevent food waste. One of the co-ordinated responses noted that there is a higher carbon footprint from the fruit and vegetable production itself and claims that in France, who have restricted this type of packaging, more food is being wasted as a result.

183. One response, in support of plastic packaging provided a range of evidence, including:

- a Wall Street Journal article on the role of plastic packaging to keep fruit and vegetables fresh[154]

- a German Industry slidepack about food stores and their use of packaging to protect food[155]
- a reference to sustainable food packaging guidance for industry (reference 90). The response reproduces graphs from this reference on food-related greenhouse gas emissions and the percentage contributions of various factors across the whole food system
- a Plastic Europe article on the value of plastic packaging and disparities across countries[156]
- a web article from KM Packaging on supermarkets supporting soft plastic recycling[157]
- an article from Turn2Us[158] discussing how many households do not have basic household appliances (fridges, freezers) to keep food fresh
- an Association of Manufactures of Domestic Appliances (the trade association) article on household appliances[159]

Question 36: Do you have any evidence of the size and nature of the market for the single-use items set out in Part 2 of the call for evidence paper: - e) Single-use plastic packaging on fruit and vegetables?

This question had 8 responses (individuals = 5, organisations = 3)

184. There was not much data and evidence in the responses for this question. A few responses observed that this type of plastic packaging is seen regularly in supermarkets. One organisation response noted that data on plastics at this level of detail is not typically (or easily) available. Meanwhile, a response from the National Farmers Union of Scotland (NFUS) commented that retailers and supermarkets have contracts with suppliers and some contracts require high quality plastic packaging to be used. Packaging that ensures food safety is a key consideration and that alternative packaging may pose food safety risks and be more expensive for suppliers. The response also suggested that farmers and suppliers should not be penalised by any ban in this area.

Question 37: Do you have any evidence on what alternatives to single-use items set out in Part 2 of the call for evidence paper are available and any negative impacts (environmental or other) that increased use of these alternatives could have: - e) Single-use plastic packaging on fruit and vegetables?

This question had 21 responses (individuals = 13, organisations = 8)

185. The main theme for this question was the range of alternatives available and their environmental qualities and issues. A number of alternative packaging

materials were mentioned by respondents including biodegradable plastic, cardboard, paper and more specific company packaging like Tipa and Sphere film. Another response noted that there are reusable mesh bags available. Alongside this, a number of responses noted that buying fruit and vegetable 'loose' without packaging should be encouraged, as it can support portion control and reduce food and packaging waste.

186. One co-ordinated response also suggested that removing packaging wherever possible is the priority. It noted that compostable packaging may not be a good solution due to a lack of facilities for composting, referencing here a Plastic Waste Innovation Hub web article[160]. Computer-assisted sorting for compostables in waste management systems is also mentioned as an area for possible innovation.

187. Another response noted that life cycle assessments are needed on alternative packaging materials to understand their carbon impact. It also suggested that there are primary and secondary packaging stages to consider across the supply chain. The NFUS response noted that one of its members had trialled a recyclable alternative fruit packaging made out of cardboard sleeves and cellulose compostable film – it noted that the producer found the packaging to be damaging to the fruit and reduced freshness. Another example is noted about cardboard and pulp board packaging being used, and the response noted how they were concerns about carbon impact, while using plastic also allows customers to see the produce more easily. Another response also noted the potential for alternatives to have higher global warming potential (no evidence provided).

Question 38: Do you have any evidence of effective action taken to reduce the consumption of the single-use items set out in Part 2 of the call for evidence paper: - e) Single-use plastic packaging on fruit and vegetables?

This question had 17 responses (individuals = 8, organisations = 9)

188. This question raised similar themes to the above question, with some responses re-stating the alternatives available (noted above). Other responses stated that shops (including supermarkets and zero-waste shops) are taking action to reduce plastic, primarily through selling fruit and vegetables loose, without packaging. One organisation response noted that return and reuse schemes for packaging are operating in some shops, where the shop cleans the packaging (more information on this is available on request, the response noted). Another noted that suppliers are shifting toward using less packaging for goods.

189. One response cited recommendations from WRAP about how to reduce consumption of plastic packaging used for fruit and vegetables[161]. The main

recommendations stated in the response included: selling items loose or individually, removing 'sell by' dates and providing guidance on storage.

190. As above, countries like France, Spain and Keyna were mentioned in relation to restricting this kind of packaging, with one response recommending that lessons can be learned from these countries. One organisation commented that 'the French Government estimate that the regulation will eliminate around [1] billion items of plastic waste per year'.

191. Another response mentioned how improving recycling infrastructure can support this area, with eco-design playing a role.

Question 39: Do you have any evidence related to barriers to implementing policy measures to reduce the consumption of the single-use items set out in Part 2 of the call for evidence paper: - e) Single-use plastic packaging on fruit and vegetables?

This question had 7 responses (individuals = 1, organisations = 6)

192. Responses to this question noted a range of barriers including convenience, cost, food hygiene and regulations. One response, for example, suggested that shops may prioritise 'convenience' above reducing environmental impact, while other responses noted cost as a barrier. Another response also mentioned costs and warned that alternatives may be worse for the environment and thus a barrier to implementation (no evidence is provided).

193. Another co-ordinated response, in favour of restricting such packaging, suggested that there is a misconception that food that is sold 'loose' and unpackaged is unhygienic. This response suggested that particularly since Covid, washing fruit and vegetables is important regardless of whether the fruit and vegetables are loose or wrapped in packaging.

194. The NFUS response noted that one potential barrier for introducing biodegradable or compostable packaging is that it may cost suppliers in terms of its inclusion in EPR or plastic packaging taxes. Other barriers noted in the response reiterated issues and concerns raised earlier on other items, including: food hygiene concerns, market compliance, regulations with the rest of the UK (e.g. Internal Markets Act), sourcing alternative packaging materials, Brexit and Covid.

Question 40: Do you have any evidence related to the impact on businesses (positive or negative) of policy measures to reduce the consumption of the

single-use items set out in Part 2 of the call for evidence paper: - e) Single-use plastic packaging on fruit and vegetables?

This question had 5 responses (individuals = 2, organisations = 3)

195. Responses were limited and very little evidence was provided for this question. On the negative side, one response thought that packaging companies '[won't] like it'. Another response reiterated points made above about increased costs for business if bans on this type of packaging were in place, including costs and uncertainties around supply chains and trading across different markets. The response argued that freshness of produce may be compromised without packaging and that additional costs may be passed on to consumers. One organisation, drawing on industry insights from wholesalers, also noted that protecting the freshness and shelf life of fruit and vegetables is a key issue for packaging in this sector, and that suitable alternatives are needed. This response noted broad support in the sector for making packaging and operations more environmentally-sustainable in general, but makes the point that businesses need support in understanding the evidence and benefits of alternative materials and sourcing these.

196. On the positive side a few responses noted that there may be opportunities for businesses to embrace change in this area, and make their environmental credentials a selling point for consumers.

Question 41: Do you have any evidence of the impact that policy measures to reduce the consumption of the single-use items set out in Part 2 might have on people with protected characteristics or who experience socio-economic disadvantage of the call for evidence paper: - e) Single-use plastic packaging on fruit and vegetables?

197. This question received no substantive responses. One response pointed to previous answers to indicate that socio-economic disadvantage is an important consideration.

Conclusion

198. This summary of responses to the call for evidence on tackling consumption of single-use food containers and other commonly littered or problematic single-use items raises a wide range of environmental, social and economic issues and challenges associated with these products and available alternatives. Out of the items included in this call, food containers, cigarette filters and incontinence and period products elicited a greater response and more detailed evidence, but there was still a range of views and evidence given for sachets, bowls, trays and platters and fruit and vegetable packaging. Clearly there is interest across public, community, business and industry stakeholders to engage with debates on single-use plastics and a message that progressive measures are needed to drive better environmental and economic outcomes, particularly for products that play a significant role in everyday life.

199. Each specific item in this call for evidence raised specific issues, challenges and opportunities. For example, the evidence and views on food containers presented a range of challenges and opportunities for takeaway and hospitality businesses, including the use of reusable food containers and the food hygiene concerns this raises; meanwhile, the evidence and views on cigarette filters presented challenges and opportunities around alternative filter materials, waste disposal costs and the health debates surrounding smoking and e-cigarettes. The responses suggested that a range of (at times conflicting) public and business interests are at stake across each of the items and the evidence provided by respondents reflected that.

200. Despite this complexity, there were a range of cross-cutting themes and issues that were shared across the single-use plastics items covered in this call. This included: litter and the environmental damage that littering of single-use plastics can cause; the large and complex market for these items and the range of industry and business interests at stake; that environmentally-friendly alternatives are available but there are a range of negative impacts and challenges associated with these; that barriers to change include consumer behaviours and norms, business costs and the complexity of policy and regulations. Responses also demonstrated a general need to consider inequalities in society and how those who experience socio-economic disadvantage and those with protected characteristics may be impacted by policy development.

201. This summary of responses has reported on the evidence provided by respondents, reporting on the type and nature of the evidence provided. It did not analyse and report on the evidence itself which forms a critical next stage for supporting policy development on single-use plastics. The analysis demonstrated that single-use plastics is a dynamic and complex policy area,

and that reviewing up to date evidence beyond this publication (from 2023 onwards) and from a wide range of evidence sources and stakeholder groups will be needed to ensure the latest evidence and a diversity of views are captured. Consulting other key stakeholders and experts will also help identify gaps in evidence and areas of uncertainty and dispute. Drawing together different types of evidence, including science, international policy comparisons, market research, industry and business insights, local government case studies and research on consumer behaviours will be important for future analysis.

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