



Department
for Environment
Food & Rural Affairs

Consultation on proposals to ban the distribution and/or sale of plastic straws, plastic- stemmed cotton buds and plastic drink stirrers in England

**Summary of consultation responses and
government's response.**

May 2019



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1.1 Introduction

1.2 A ban on the distribution and/or sale of plastic straws, plastic drinks stirrers and plastic-stemmed cotton buds in England (subject to a consultation) was announced by the Prime Minister at the Commonwealth Heads of Government Summit held in April 2018. The Prime Minister stated that the proposed ban would include necessary exemptions to ensure plastic straws remained accessible for medical or accessibility purposes. After stakeholder engagement, a consultation was launched on 22 October 2018 and closed on 03 December 2018. The purpose of the consultation was to gather views from stakeholders on our policy proposals which aim to further protect the environment from the urgent problem of plastic pollution, while ensuring that people who depended on using plastic straws for disability or accessibility purposes were still able to access them.

1.3 Single use plastics, including plastic-stemmed cotton buds, plastic drinking straws and plastic drinks stirrers, are associated with negative effects on the environment if they are littered or discarded incorrectly after their use. Not only do single use plastics damage terrestrial and marine life, there are costs associated with their clean-up and externality costs imposed on the tourism and fishing industries.

1.4 Recently, there has been extraordinary levels of public interest in the issue of plastic waste and litter. We would like to thank each and every person who took the time to participate in this consultation by either writing to us or meeting with us. A total of **1602** responses were received comprising public bodies (88), non-governmental organisation (90), retail industry (26), manufacturing industry (28), members of the general public (1213) and other (157). Responses were submitted through a variety of channels including the online consultation tool, by email and by post. Those who responded as “other” include academia, animal charities, beach cleaning groups, cafe/bar owners, carers, catering industry, community environmental groups, conservation charities, disability groups / activists, hospitality industry, packaging trade associations, scientists, small businesses, students, think tanks, waste management and water industry.

1.5 As well as hearing from so many members of the public, we received responses from representatives of various diverse organisations, such as manufacturers, environmental groups, academia, local authorities, local government, retailers, and recyclers. The evidence we have received reflects their passion, and the wealth and breadth of their knowledge and expertise. We would also like to thank disability groups such as Scope UK, Merton Centre for Independent Living, Disability Rights UK, Spinal Injuries Association, Muscular Dystrophy UK, Trailblazers and others for working with us during the consultation period.

1.6 This document is divided into three parts: Part A: plastic drinking straws; Part B: plastic-stemmed cotton buds and Part C: plastic drink stirrers.

1.7 Plastic drinking straws: The government will introduce a ban with exemptions on the supply of plastic drinking straws to the end user in England. There will be exemptions designed to cater for medical / accessibility needs: the supply of single use plastic straws to the end user will be permitted in registered pharmacies (in store and online) and in catering establishments (including health, educational and care settings). In commercial catering establishments, it will be a requirement for plastic straws to be kept behind the counter and be available to customers on demand only. This means that catering establishments will be prohibited from actively offering plastic straws to customers. The ban with exemptions is planned to come into force in April 2020. A ban on beverage carton straws will come into force in line with the Single Use Plastics Directive implementation timetable; this is to allow industry time to develop alternatives and full scale industrialisation.

1.8 Plastic stemmed cotton buds: The government will ban the supply of plastic stemmed cotton buds to the end user in England. There will be exemptions for use in medical practice, scientific research and forensic purposes to support criminal investigations. The ban with exemptions for the supply of plastic-stemmed cotton buds is planned to come into force in England in April 2020.

1.9 Plastic stirrers: The government will ban the supply of plastic drink stirrers to the end user in England. The ban for the supply of plastic drink stirrers is planned to come into force in England in April 2020.

1.10 Annex A is a list of all the organisations that responded to the consultation.

Part A: Plastic drinking straws

2.0 Question 1: Do you support the proposal to introduce a ban on the distribution and/or sale of plastic drinking straws in England?

- Yes / No
- Please give reasons

2.1 A total of 1537 responses were received through the online consultation form, with 1309 people adding reasons why they support or oppose the ban. Those who added additional comments comprised of 1018 members of the public, and 291 other 'organisations' including NGOs, manufacturers, retailers and the public sector.

2.2 Key responses from organisations included Muller UK&I, Nestlé UK, Slush Puppie Ltd, Natural England, Keep Britain Tidy, Dairy UK, the Marine Conservation Society, UK Hospitality, the National Pharmacy Association, the Bio based and Biodegradable Industries Association, Palagan Limited, and the Chartered Institute of Waste Management. Some organisations did not provide an answer to the yes/no section of this question, but did provide details in their reasons.

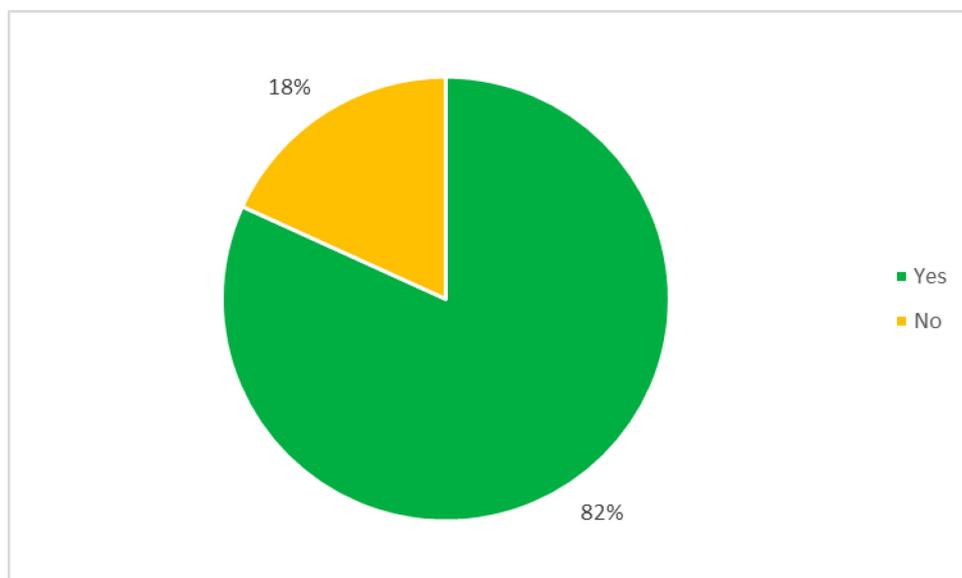


Figure 1: Members of the Public Responses to Question 1

2.3 **The large majority** of members of the public supported a ban on plastic drinking straws (Figure 1). This was largely driven by environmental concerns. A range of views were presented in support of a proposed ban. Many noted that straws damage wildlife and marine ecosystems. A small minority of members of the public said they frequently found straws on beaches. Many believed that plastic straws were an unnecessary product and

should be banned for this reason. A small minority stated that alternative materials were available, and plastic straws could be easily replaced. Paper straws were mentioned, and a minority mentioned biodegradable plastic alternatives.

2.4 Of members of the public that did not support the ban on plastic drinking straws, the predominant view was that plastic straws were essential for those who have physical impairments or disabilities, and that banning them would have a negative effect on their users' quality and length of life. Some respondents mentioned that people had been recommended straws by medical professionals, because they were more hygienic and allowed more independence.

2.5 Some responses from members of the public provided further reasons against the banning of plastic drinking straws. These included:

- Plastic straws are a negligible part of a greater environmental problem
- Other alternatives are more costly to the consumer
- The government should focus on behavioural change to address littering to reduce the problem, rather than banning straws.

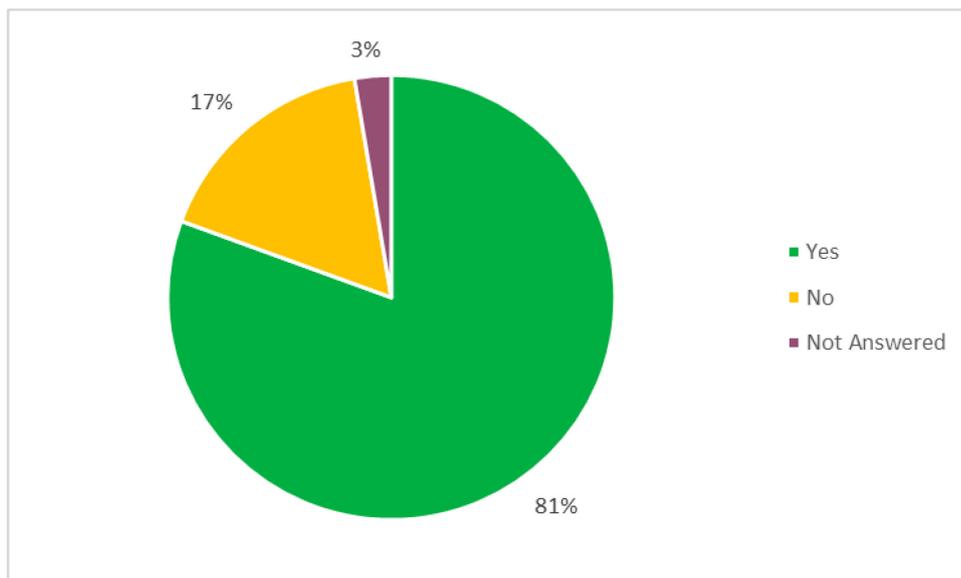


Figure 2: Organisations Responses to Question 1

2.6 The **majority** of organisations supported the ban (Figure 2) on the basis of environmental concerns. The Marine Conservation Society and Natural England both referenced ecological studies which have shown the effect of marine plastic pollution on wildlife including seals and birds. Most stated straws were unrecyclable and frequently littered. Many also mentioned that alternative materials were already available, including a small group who mentioned biodegradable plastics. McDonald's UK stated that it has already moved to phase out plastic straws across its restaurants in 2019. Other reasons organisations supported the ban are listed below:

- Many stated the opinion that straws were unnecessary, and people could just drink from glasses.

- A small group noted that straws should be banned with a caveat that this should not negatively affect those who need straws for medical reasons.

Another small group mentioned that cost effective, non-plastic alternatives and reusable solutions exist.

2.7 In the latter category, the Chartered Institute of Waste Management (CIWM) added that “Alternatives such as paper and wood, could be used in place of plastics, however the rates of biodegradation in the environment in a ‘manufactured format’ would warrant investigation before placing these products on the market.” The same organisation also recommends that further research and careful wording of the legislation is important to make sure a ban does not cause unintended environmental consequences over the life cycle.

2.8 Of the organisations who did not support the ban, the **majority** of these stated that it would negatively impact those who needed straws for medical purposes. These organisations included the Foodservice Packaging Association and the National Pharmacy Association.

2.9 Other small groups also provided different reasons for rejecting the proposed ban on plastic drinking straws:

- One small group of responses including the British Specialist Nutrition Association Ltd. agreed to a ban, but with exceptions for people with disabilities, accessibility requirements and/or medical needs.
- Another group suggested alternatives to the ban, such as increased education on littering, or an additional tax on plastic products. This included the Bio-Based and Biodegradable Industries Association (BBIA) which stated that a blanket ban on all straws would not be appropriate.
- Palagan Limited stated they were wary of the unintended consequences of an outright ban, including increased carbon emissions by moving to more energy intensive replacements.
- UK Hospitality added that “Banning plastic straws when a greener alternative is not fully available or affordable would hurt businesses in the sector and impact the consumer.”

2.10 A small group of respondents did not state whether they were for or against a ban on plastic drinking straws. This included the British Plastics Federation and Nestlé UK. The British Plastics Federation believed alternative measures such as raising public awareness and improving the waste management infrastructure would be more appropriate. Nestlé UK recommended exemptions based on suggested medical conditions including neurological diseases, paralysis, patients recovering from surgery and digestive conditions.

Government response

2.11 It is clear from the consultation responses that the majority of both individuals (82%) and organisations (81%) support the proposal to introduce a ban on the distribution and/or sale of plastic drinking straws in England. There is overwhelming support for the government's proposed approach, with those in support of the ban stating *"We are delighted that the government is taking a strong stance, providing the leadership and legislation that is so desperately needed to drive UK-wide behaviour change. Thank you for taking this initiative"*. Many respondents likened this ban to the government's successful 5p carrier bag charge, which has taken 15.6 billion plastic bags out of circulation since its introduction in 2015.

2.12 The government will introduce a **ban with exemptions** on the **supply** of plastic drinking straws to the end user in England. The exemptions will ensure that plastic straws will continue to be available for use as medical devices and for people with disabilities who rely on them to eat and drink safely and independently. Registered pharmacies will be allowed to sell plastic straws in store and online. Commercial catering establishments will be able to keep plastic straws behind the counter to provide to customers on a specific 'on demand' basis. Some catering establishments (in health, educational and care settings) will be able to supply them without them having to be requested.

2.13 The ban with exemptions will be part of plans to protect our rivers and seas, and meet our 25 Year Environment Plan ambition to eliminate avoidable plastic waste. As a world leader in tackling plastic pollution, the government acknowledges the need to take decisive action and act now in order to protect our environment. The exemptions allow us to balance this against the needs of those that have to use plastic straws for medical reasons.

2.14 The government commends and fully supports those retailers, bars and restaurants that have already committed to either removing plastic straws from their outlets or only supplying them to customers if a specific request is made. However, we want to go further than supporting these initiatives; we believe that only legislation can fully address this problem and leave the environment in a better state.

2.15 For plastic straws, we will review the policy after the ban has been in place for a year, to assess its effectiveness in cutting the number of straws, its impact on those with disabilities, and whether the policy needs to be revised.

2.16 As set out in the Waste and Resources Strategy, we will also be developing new indicators and metrics for analysing waste data across the sector, moving away from weight based targets (which do not work well for lightweight plastic items with a large environmental footprint) and focusing initially on carbon and natural capital impacts. This longer term work will help us to understand the environmental impacts of alternatives to plastic straws more fully.

3.0 Question 2: Do you agree with our proposed date for the ban (October 2019)?

- Yes / No
- If no please explain why.
- If your answer to question 2 is “No”, when should the ban be in force? April 2020 / October 2020.

3.1 A total of 1,546 responses were received for this question, of which 1,206 were from members of the public, and 340 were from organisations, including the Alliance for Beverage Cartons and the Environment Limited (ACE UK), McDonald’s UK, the Bio-Based and Biodegradable Industries Association (BBIA), the National Pharmacies Association and the Chartered Institute of Waste Management. There were 21 respondents that did not answer the question, and 22 respondents did not add reasons to support their views.

3.2 The **majority** (1,022) of respondents said that they do agree with the proposed date of October 2019 for the ban, with 510 responding that they do not agree with the proposed date (Figure 3).

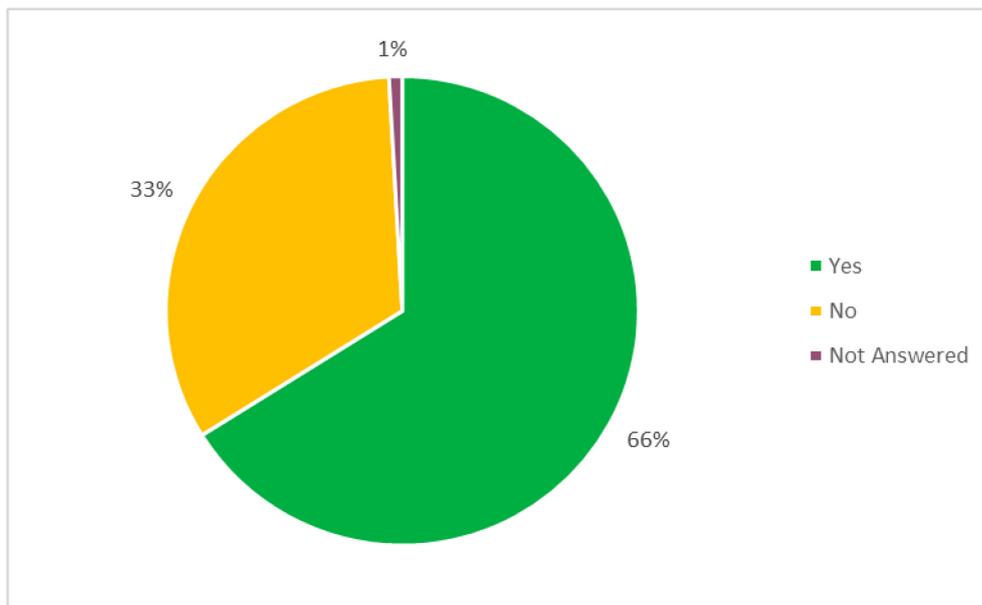


Figure 3: Responses to Question 2

3.3 Of the minority 510 respondents that did not agree on the proposed date (389 members of public, and 121 “other”), a predominant number indicated that they do not agree with the ban altogether and therefore do not wish for it to be implemented. Other views included delaying the start date to allow more time for research and development, and for supply chains and infrastructure to develop suitable alternatives.

3.4 Of the 478 respondents who offered answers regarding when the ban should be implemented, a majority responded that the ban should be implemented immediately,

thereby earlier than the proposed date of October 2019. There was predominantly the same response from organisations – a majority preferred a ban to be implemented as soon as possible. The trend for an earlier ban continued in many more responses, with many indicating they wanted the ban to be implemented in 2019, earlier than October. Of the few respondents who selected either April or October 2020 as indicated in the question, a majority preferred October 2020.

3.5 There were repeated concerns from organisations that the proposed date for the ban is too soon, especially for straws attached to carton packages. The availability of suitable alternative material for straw products used with cartons is limited, and the proposed date may enforce a ban before the supply chain has had time to develop non-plastic alternatives at scale. ACE UK stated that alternatives fail to meet the requirements of food safety, function, water resistance and hygiene, while McDonald's UK stated that they have already implemented a plan to replace plastic straws with paper alternatives, but the proposed date could pose a significant challenge for other businesses. A large manufacturer responded with the viewpoint that the earliest date of implementation is 2023 due to technical, logistical and cost challenges, adding that this will allow time to develop alternative packaging options.

3.6 The BBIA gave an example of the measures implemented by the Seychelles, who have banned straws, as well as expanded polystyrene food containers. The ban had two phases: from a certain date, the import or manufacture of straws was banned; there was then a 6-month period to use up the straws already in circulation, during which straws were allowed to be used. The BBIA recommended this approach to allow for a more gradual move to alternative materials.

Government response

3.7 The government notes the desire for the ban to be introduced sooner rather than later, but also the need for industry to be given time to develop alternatives and to adapt. The government wants to implement an ambitious but realistic timeline to ban the supply of plastic straws, to ensure the ban is as effective as possible in tackling plastic pollution and protecting our environment. **Therefore, the ban with exemptions for the supply of plastic drinking straws to the end user is planned to come into force in England in April 2020** (see question 3 for beverage carton straws). Our proposed ban will be in place sooner than would be required under the Single Use Plastics Directive, which is still at the final stages of agreement and is not expected to have to be implemented until summer 2021.

3.8 We also note that there are alternatives to plastic straws and that last year, McDonald's UK & Ireland announced that they were working with their partners to produce paper straws in the United Kingdom. McDonald's has made a significant investment in UK manufacturing to produce an alternative to plastic. The government will work with industry and various groups to develop alternatives and increase their scale of production, as we take forward the actions needed to deliver the 25 Year Environment Plan.

4.0 Question 3: Do you support a ban on beverage carton straws?

- **3a: Yes / No**
- **3b: Would you support a ban on beverage carton straws coming into effect later than October 2019? If so, how much longer? (April 2020 / October 2020)**
- **3c: Please share any evidence or views on the potential design and marketing implications of a ban on beverage carton straws.**
- **Please share any evidence or views on the potential implications and costs for imports and supply chains**

4.1 This question was divided into three parts for analysis due to a large volume of data. These three sections are denoted above.

3a) Do you support a ban on beverage carton straws? Yes / No

4.2 A total of 1533 responses were received, with 1208 people adding reasons to support their views. Those who added comments comprised of 935 members of the public, and 273 others including NGOs, manufacturers, retailers and the public sector. Key responses from organisations included Innocent Drinks, National Pharmacy Association, Foodservice Packaging Association, the British Soft Drinks Association, the Bio-Based and Biodegradable Industries Association, British Plastics Federation and Nestlé UK. Some organisations did not provide an answer to the yes/no section of this question but did provide details in their reasons.

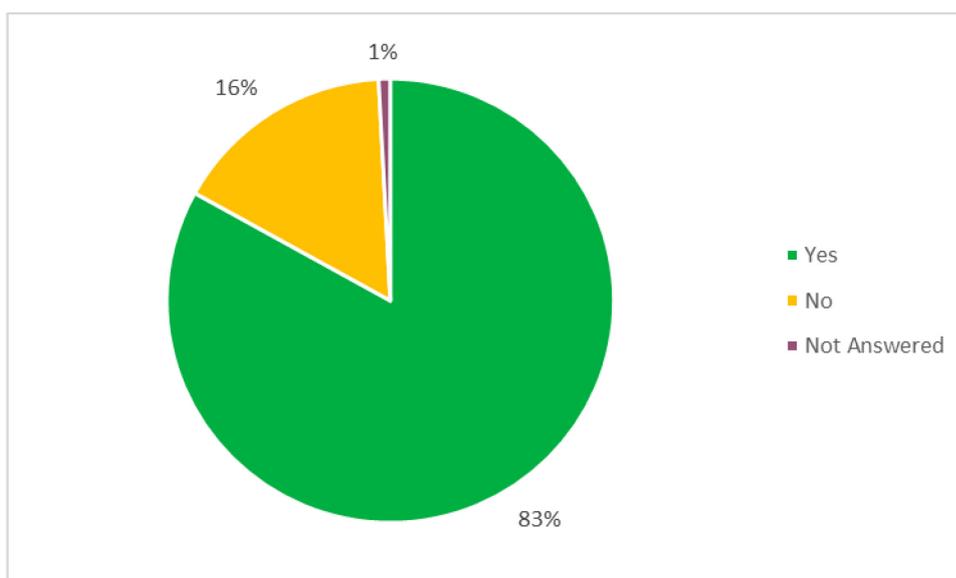


Figure 4: Members of Public Responses to Question 3a

4.3 Members of the public were **predominantly** in support of a ban on beverage carton straws (Figure 4). Many responses from members of the public who supported the ban were blank, whilst a small minority asked us to refer to their previous response. Of those who provided reasoning many stated that they supported the ban for environmental reasons, including worries that the beverage carton straws caused litter and were unrecyclable. A range of other views were represented in support of a proposed ban. These included:

- Some responses that stated that other alternative materials to plastic were available, with another small group discussing design alternatives. The materials suggested included paper and biodegradable plastics, whilst the design alternatives included those similar to milk cartons, or increased water fountains in public spaces.
- Another small minority view was that plastic straws are unnecessary.
- A very small group also stated that the ban should go further, with Tetra Pak style cartons and the plastic casing for the straws being banned additionally.

4.4 Members of the public who were against a ban of beverage carton straws stated that beverage carton straws should not be banned for social reasons, including the ease of use by those who are disabled, elderly or sick. Many respondents referred to their previous response in question 1.

4.5 Other small groups mentioned further reasons why beverage carton straws should not be banned which included:

- Ease of use for people without disabilities, including young children.
- Objection to government control over straw usage.

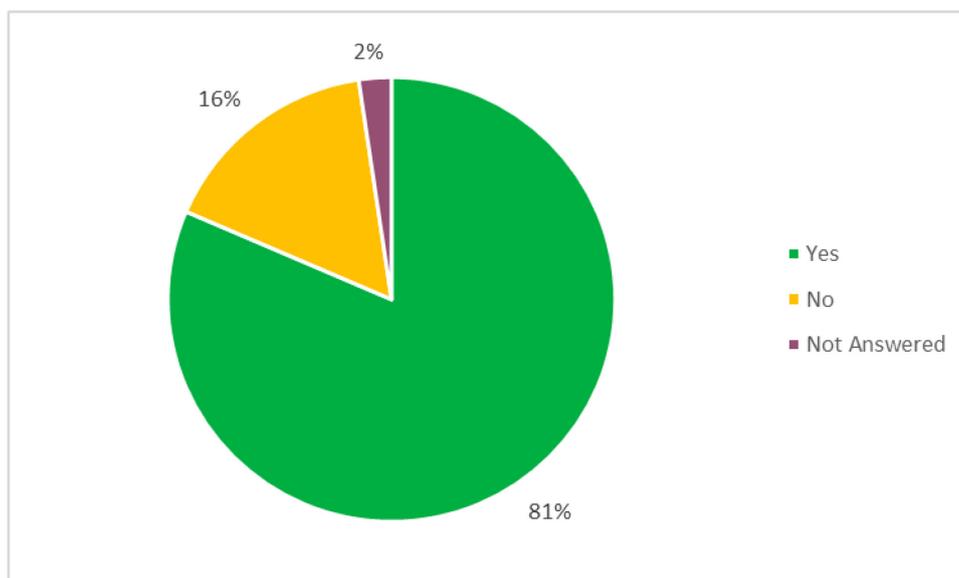


Figure 5: Organisations Responses to Question 3a

4.6 Organisations who responded were also predominantly in support of ban (Figure 5). These included NGOs, manufacturers, retailers and the public sector. There was not a clear consensus received amongst organisations as to why beverage carton straws should

be banned. Reasons that were frequently mentioned included environmental and economic reasons. Examples of such responses are given below:

- Many responses stated that straws were unnecessary and caused significant environmental harm.
- Responses mentioned that materials were available to easily replace non-biodegradable plastic straws on cartons. Other also talked about design alternatives, including alternative carton designs which negated the need for a straw.
- A small group were concerned about the suggested timescales, including Muller UK&I, and Innocent. Innocent requested 3 years to find a suitable environmentally friendly alternative for their carton and straw products, whilst Muller argued that the proposed time frame would result in “a significant reduction in the production of dairy products that rely on these straws, and therefore impact on the availability to schools and the consumption of healthy milk.”
- Other responses included one from Merseyside Recycling and Waste Authority, who contended that a ban on straws could contribute to reduced street cleaning costs for local authorities, and reduced contamination of dry recycling.

4.7 Organisations who did not agree to a ban on beverage carton straws offered a variety of reasons. Many stated that these straws are critical for those with physical impairments to be able to drink. Amongst others, these included disability campaigners, the National Pharmacy Association and an NHS response. Another small group disagreed with the ban in reference to the proposed time scales. These included the British Soft Drinks Association (BSDA), Refresco UK Beverages Ltd and the Foodservice Packaging Association. The Foodservice Packaging Association believe that “at least 3 years will be needed to produce a global workable alternative format in another material”. This is in agreement with the BSDA’s belief that an alternative for on-pack straws will not be fully industrialised before 2025. The BBIA stated that if on-pack straws are to be targeted and replaced with a biodegradable alternative, the film containing them should be biodegradable too.

4.8 Those who did not provide a yes or no response to whether plastic carton straws should be banned included the British Plastics Federation, who asked for more time before the ban is implemented to investigate innovative design alternatives. They provided an example of a ‘Straw Pak’.

4.9 A large manufacturer responded with the following viewpoint:

- On-pack straws are left in the package in two thirds of cases according to an Omnibus study from November 2018.
- A plastic cap alternative to a beverage carton straw would replace the straw with approximately 15x more plastic, which would increase the total amount of plastic used and the carbon footprint.
- Manufacturers would need to invest in new equipment (over £20 million) and have a long lead time of 2-3 years.

4.10 Another large manufacturer stated that they are working towards a new type of packaging which does not have a detachable straw, which would reduce the chances of straws being littered.

4.11 Tetra Pak Limited's response is summarised below:

- Tetra Pak Limited stated that on-pack beverage carton straws qualify as packaging for the purposes of waste legislation as defined by article 3 of the EU Directive 94/62/EC.
- Tetra Pak Limited does not agree with the ban, stating that the beverage carton with on-pack straw is a more sustainable alternative than a plastic bottle, and that 92% of local authorities in the UK have access to carton collection and recycling.
- In response to the question of timescales, Tetra Pak Limited stated that it is working to find an alternative, and that they hope to be in a position to offer non-plastic alternatives by 2025. By the end of 2019, the company will have made available 15 million straight paper straws, however these are only compatible with approximately 10% of their packaging volume.
- Tetra Pak Limited added that in the UK there are approximately 10 production facilities which produce drinks filled in cartons with straws on approximately 20 production lines. Capital equipment investment to produce alternatives is estimated to be tens of millions of pounds in the next five to seven years.

3b) Would you support a ban on beverage carton straws coming into effect later than October 2019? If so, how much longer? (April 2020 / October 2020)

4.12 Regarding the dates proposed (question 3b), a total of 1,095 responses were received. 837 were from general members of the public, and 258 were from organisations, some of which included Muller UK & I, Nestlé UK, Natural England, Keep Britain Tidy, Dairy UK, and Morrisons. There were 451 respondents that did not answer the question, and 30 respondents which supplied an ambiguous response. The majority (1,028) responded that they would not support a ban on beverage carton straws coming into effect later than October 2019; 264 respondents indicated they would support the ban on the proposed date (Figure 6).

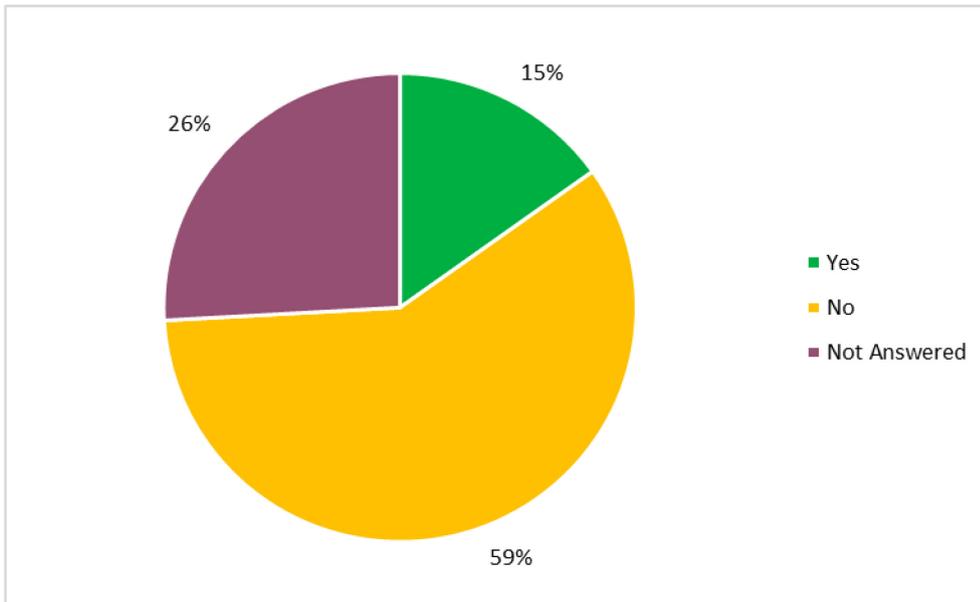


Figure 6: Responses to Question 3b

4.13 Of the 264 respondents that answered yes to the second part of this question, 75 did not provide further answers. Of those that did, a majority preferred the October 2020 implementation date to April 2020.

4.14 For those respondents who did not agree with any of the proposed dates, their reasoning was varied. Many did not provide any reasoning. One major theme indicated that respondents wanted the ban to go into effect immediately. This contrasts with a small number of respondents who indicated that they did not want the ban to go into effect at all. An alternative view expressed the desire for the carton-straw ban to be introduced at the same time as the plastic-straw ban, citing consistency in the bans as an important factor for their comprehension by both the public and organisations.

3c: Please share any evidence or views on the potential design and marketing implications of a ban on beverage carton straws.

4.15 Neither members of the public nor “others” provided any concrete evidence to support their claims. No evidence of modelling carried out was reported, however, responses could be grouped into several themes. For example, many shared the concern that there are no available alternatives that would suit the functional use of a plastic straw for carton beverages. This group of respondents cited characteristics such as the strength of the straw to pierce the beverage’s seal, the 90-degree bending capability of plastic straws, and the fact that beverage cartons would have to be redesigned to match the dimensions of an alternative straw attached to the container.

4.16 Another large group of responses were more optimistic, expressing that design companies, research groups, and universities will likely adapt to the ban to design either containers or straws that will comply with the ban. Examples included having an easy-open pull-tab or perforated-corner opening system that would eradicate the need of a

straw. It must be noted however that this group of responses did not consider accessibility for disabled users. Some did indeed indicate that there are currently no suitable design alternatives for disabled users.

4.17 Regarding potential implications for import and supply chains, a majority felt that the cost to the environment would be higher than the cost to supply chains, and that the benefits of a ban would thereby outweigh any costs. Alternative views were concerned about the import implications, adding that production and sale of alternative straws should be restricted.

Government response

4.18 The government notes that the majority of respondents (members of the general public and organisations) agree that beverage carton straws should be banned and that the ban should be in force from October 2019. Organisations who responded were predominantly in support of ban, including NGOs, manufacturers, retailers and the public sector.

4.19 We also note that there was a small group concerned about the suggested timescales, including British Soft Drinks Association (BSDA), Refresco UK Beverages Ltd, Tetra Pak, Muller UK&I, and Innocent. The Foodservice Packaging Association and Innocent requested at least 3 years to find a suitable environmentally friendly alternative. Additionally, Muller argued that the proposed time frame would negatively impact the production of dairy products that rely on these straws, and impact the availability of milk to schools.

4.20 At the Commonwealth Heads of Government meeting in April 2018, the government made a commitment to continue working with industry to develop alternatives and ensure there is sufficient time to adapt.

4.21 The ban on beverage carton straws will be implemented in accordance with the Single Use Plastic Directive. This is expected to be adopted in June 2019 with a transposition deadline of June 2021. This will allow industry time to develop alternatives and full scale industrialisation.

4.22 On 23 June 2016, the EU referendum took place and the people of the United Kingdom voted to leave the European Union. Until exit negotiations are concluded, the UK remains a full member of the European Union and all the rights and obligations of EU membership remain in force. During this period the Government will continue to negotiate, implement and apply EU legislation. The outcome of these negotiations will determine what arrangements apply in relation to EU legislation in future once the UK has left the EU.

5.0 Question 4: Should the government begin with a targeted ban on the distribution of straws with a longer-term view to extending it?

- **Yes / No**
- **Please give reasons**
- **If so, how would this work in practice?**

5.1 A total of 1,419 responses were received. The **majority** responded that they would not like the government to begin with a targeted ban on the distribution of straws with a longer-term view to extending it (Figure 5).

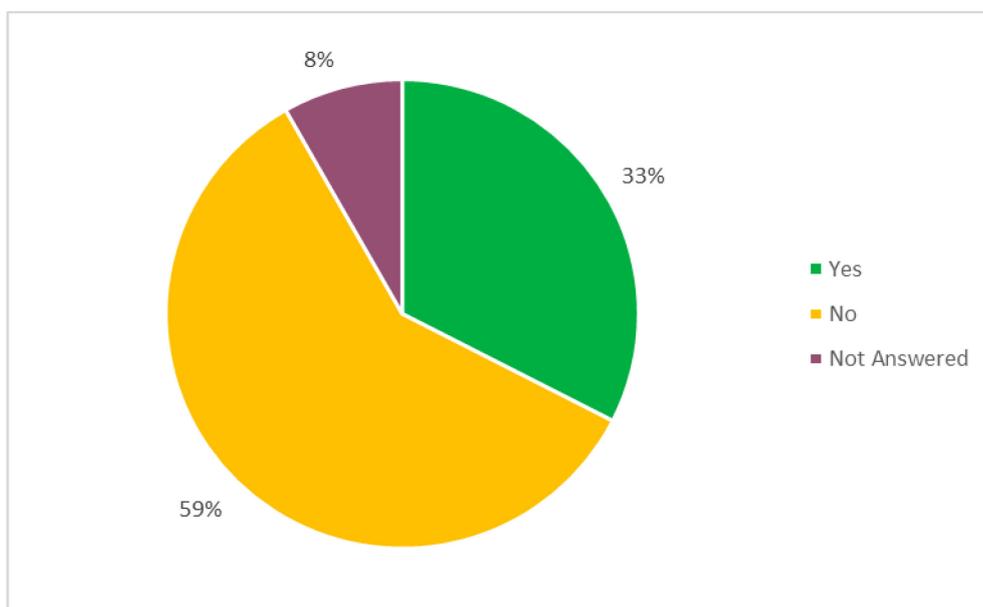


Figure 7: Responses to Question 4

5.2 The majority view from both the public and organisations was that the government should not begin with a targeted ban.

5.3 1,010 respondents added reasons to support their views. Those who added comments comprised of 768 members of the public, and 242 others including NGOs, manufacturers, retailers and the public sector. Key responses from organisations included the British Soft Drinks Association (BSDA), Seoil UK Limited, and Thames Water.

5.4 Of those not wanting to see a targeted ban, the majority stated that they did not want a delay to its full implementation. Many also stated that ongoing or future negative environmental impacts needed to be mitigated sooner rather than later. Thames Water added that “A full ban on sale and distribution should come into force at the same time, as the benefits will be greater and more immediate than a phased change which may cause confusion or allow loopholes to develop.”

5.5 Of those calling for a targeted ban, many want time to adapt to alternative materials used for straws. A small number indicated that a targeted ban would be a good start and/or there were environmental reasons for taking this approach. Many responses did not provide a direct answer to the question posed.

5.6 The BSDA believes that “banning the distribution of loose straws would be a pragmatic starting point”. Adding that “focusing initial efforts on the distribution of loose straws would provide manufacturers with the time required to research, develop and test potential alternatives to on-pack plastic straws, and fully understand the wider environmental impact of using alternative materials may have”. Seoil UK Limited added that a targeted ban on polypropylene and polylactic acid (PLA) straws could be implemented, with exemptions for paper and polypropylene straws with an oxo-degradable additive.

5.7 There were a wide range of responses from those giving reasons for their views on the government beginning with a targeted ban, or not, but many responses did not provide a direct answer to the question posed. There is not a clear consensus in reasoning for either approach.

5.8 There was no clear consensus as to how a targeted ban might come into force from those calling for one. Other views expressed ranged from a timetabled approach (to allow manufacturers to develop alternative products to those made from plastic), to those calling for an immediate end to manufacturing of the products in question.

Government response

5.9 The majority of respondents (59%) did not agree with the proposals by the government to begin with a targeted ban on the distribution of plastic straws, with a longer-term view to extending it.

5.10 A ban with exemptions will be implemented in order to help ensure that plastic straws remain available for individuals with medical / accessibility needs. This approach will mitigate and tackle the negative environmental impacts of plastic straws sooner rather than later. The environmental benefits of a ban with exemptions will be greater and more immediate than a phased change which may cause confusion.

5.11 The matter of biodegradable plastics is addressed in paragraph 13.8-13.10.

6.0 Question 5: If pursuing a broader ban including the sales of straws, do you agree with the proposal to exempt plastic straws for medical-enabling and other specialist uses from any ban?

- **Yes / No**
- **Please give reasons**
- **For 'other specialist uses' please give examples**

6.1 A total of 1,581 responses were received for this question, of which 1,180 were from general members of the public, and 321 were from organisations. There were 45 respondents that did not answer the question, and 35 respondents who supplied ambiguous responses. Key responses from organisations included Muscular Dystrophy UK, the Spinal Injuries Association, the Chartered Institute of Waste Management, the Marine Conservation Society and Nestlé UK.

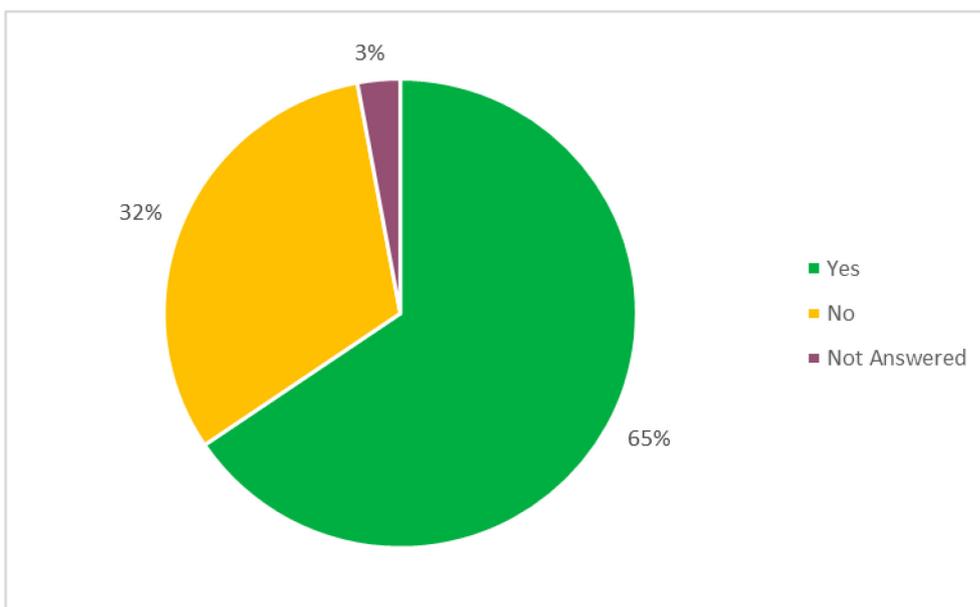


Figure 8: Responses to Question 5

6.2 The **majority** (1,013) of members of the public and organisations agreed with the proposal to exempt plastic straws for medical-enabling and other specialist uses from any ban; while 488 respondents indicated they did not agree (Figure 8). The organisations that supported an exemption included Slush Puppie Ltd, Nestlé UK, Natural England, Keep Britain Tidy and Morrisons.

6.3 Muscular Dystrophy UK presented the results of a survey they conducted:

1. Of the disabled people they surveyed, 43% use straws all the time, and 34% some of the time.

2. 30% of those surveyed say straws should be available on request, and 15% say straws should be available through the NHS by prescription or through occupational therapy.
3. 19% say a card scheme, similar to The Access Card or CEA cinema card, should be used to eliminate any issues with getting a straw in pubs or restaurants.
4. Nearly 77% of those surveyed were against the straw ban.
5. Only 23% were in favour of the straw ban.

6.4 Trailblazers, a national network of 700 young disabled people and their supporters (and part of Muscular Dystrophy UK), added that disabled people are worried about being targeted for using straws which they need. The group also supports an initial pilot scheme, which they believe should be run with pubs and restaurants before full implementation. They also suggest that the government should work with disabled people to ensure that this pilot is not having an adverse impact on their needs. Trailblazers offered support to this scheme through their network of ambassadors.

6.5 The Spinal Injuries Association stated that “disabled people who are reliant on plastic straws to drink independently must still have access to them. Failure to do so will be a backwards step in terms of independence for this group of people.”

6.6 Merton Centre for Independent Living (CIL) surveyed their members regarding the ban on plastic straws. Many disabled people expressed great concern about the ban, saying straws were essential for access and independence for disabled people who need them. Some members voiced their frustration at how they feel invisible in the debate on plastic. Responses included: “People need straws!”; “The government can’t do that!”, “Our voice must be heard”. Merton CIL members also stated that the government should be targeting bigger pollutants rather than plastic straws.

6.7 The Chartered Institute of Waste Management believes that exemptions are essential for medical, disability-related and other special uses. They added that “there are extensive medical conditions where a plastic straw is the best alternative (helping to eliminate the indignity of using a ‘sippy-cup’ for adults, particularly in public)” and that straws made from alternative materials are not always suitable for people with medical conditions. The Marine Conservation Society is in agreement with this recommendation and added that a disability advisor for single use plastics has been appointed to an expert panel with the Scottish Government.

6.8 As part of Nestlé’s global operations, it has a health science department. Nestlé UK provided a detailed response including a multitude of reasons that plastic straws offer benefits to, or are required by, people with medical conditions. The examples given included neurological diseases, people who experience tremors or poor dexterity, dementia, gastro-intestinal issues, cerebral palsy, stroke, dysphagia, spinal injuries, paralysis, and patients recovering from surgery, chemotherapy or radiotherapy.

6.9 The National Pharmacy Association added a response on behalf of their members stating, “It is important that such legislation will not inadvertently affect patients who require access to plastic drinking straws following an inability to swallow following a medical condition.”

6.10 The respondents that did not agree reasoned that suitable alternatives exist for specialist uses that fulfil the same function as a plastic straw. Other minority views included:

- There should be no exemptions to the ban, as this would allow for loopholes and abuse.
- An exemption for medical-enabling use and other specialist uses presents an unfair burden for disabled users. This group of responses also expressed a worry about “gatekeeping”, i.e. having to prove their disability and the question of whether or not that applies as a “specialist-use”.

6.11 Only 154 responses were collected regarding examples of “specialist uses”. The examples were grouped and listed below, in descending order:

- People with disabilities (**majority** view)
- Other (e.g. speech language therapists, rehabilitation, science laboratories, chemical industries) (minority views)
- Children
- Elderly
- People with life-threatening conditions

Government response

6.12 The majority of respondents (65%) including members of the public and organisations agreed with the proposal to exempt plastic straws for medical-enabling and other specialist uses from any ban.

6.13 When the Prime Minister made the announcement at The Commonwealth Heads of Government Meeting in April 2018 on proposals to ban plastic straws, she proposed excluding plastic straws for medical reasons on the basis that plastic straws are essential for people with certain medical or accessibility needs. The evidence from the consultation shows the necessity of plastic straws for these groups, and support for the continued availability of plastic straws in these cases.

6.14 This is a sensitive and important issue, and it is necessary to take both the environmental impacts of straws and the needs of people that need to use straws for medical reasons into account. In particular, the government does not want to unfairly disadvantage people with disabilities in terms of making their access to such necessary straws unreasonably difficult, or to place an unreasonable burden of disclosure requirement on them in order to obtain a straw.

6.15 Therefore, the government proposes a ban on plastic straws with exemptions. We have proposed relatively broad exemptions to the ban, with the intention of enabling ongoing access to plastic straws for those who need them – these are discussed in more detail in the following sections.

6.16 We consider that even with these exemptions, the overall environmental benefit of our proposals will still be very high overall – we estimate that annual plastic straw usage in England will drop from 4.7 billion down to around 44 million. While the breadth of the exemptions means that it will be still possible for people to obtain a plastic straw even without having medical or accessibility reasons for doing so, we think this extra margin is likely to be relatively small, and is outweighed by the privacy concerns expressed by advocacy groups for people with disabilities.

6.17 We commit to continuing to work with relevant stakeholders as we draft the legislation, and we will also carry out a post implementation review of this policy in five years, which will give us the opportunity to adjust the way the ban works if needed.

6.18 The consultation also highlighted some unanticipated uses of straws, such as their use in pre-dosed granular medicines, or for packaging for powders or delicate objects. Given this, we propose that plastic straws with “**pre-dosed granular medicines**” will be exempt from the ban.

6.19 Plastic straws used for “**the containment, protection, handling, delivery and presentation of goods**” under Article 3 of Directive 94/62/EC (Packaging and Packaging Waste Directive), fall under the scope of this Directive and as such will be treated as packaging and are therefore **exempted from this ban**. Such packaging is regulated through other mechanisms, and our Resources and Waste Strategy sets out further information on our policy intentions in this area.

7.0 Question 6: Do you agree with the proposal to provide exemptions for wholesalers to import and stock plastic straws for distribution to pharmacies and pharmacy departments in retail outlets and other users for medicinal and specialist uses?

- Yes / No
- Please give reasons
- Please provide any supporting examples, evidence or consideration of implications

7.1 A total of 1,478 responses were received for this question, of which 1,163 were from members of the public, and 315 were from organisations, some of which included Slush Puppie Ltd, Muller, UK&I, Nestlé UK, SUEZ Recycling and Recovery UK Ltd (SUEZ), Natural England, Keep Britain Tidy, Jacobs, the Chartered Institute of Waste Management (CIWM), and NHS England. There were 68 respondents that did not answer the question (Figure 9).

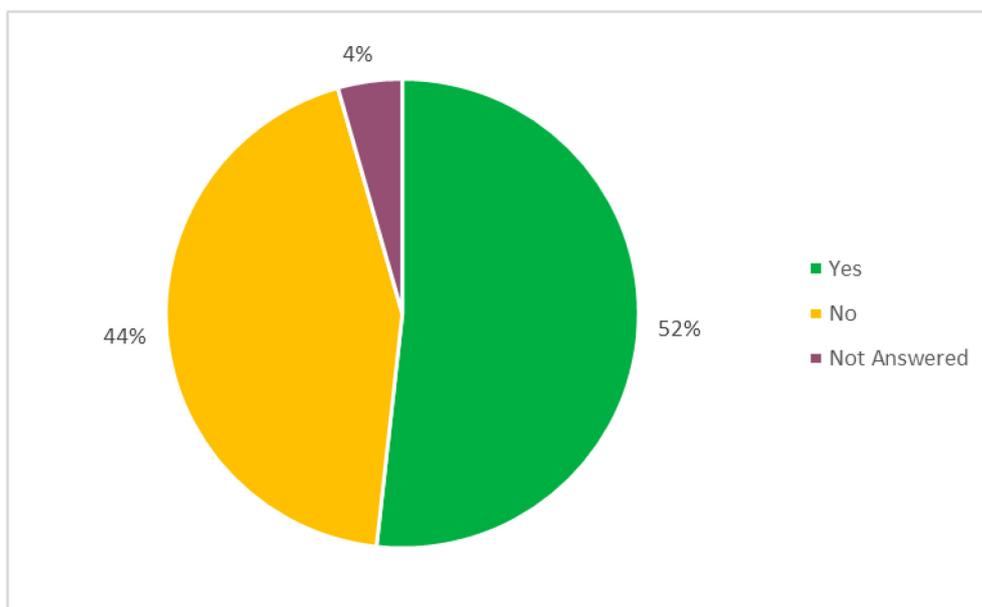


Figure 9: Responses to Question 6

7.2 The **majority** (800) of members of the public and organisations responded that they do agree with the proposal to provide exemptions for wholesalers, while 678 disagreed. Of those that did not agree with the exemption, a **majority** indicated that suitable alternatives to plastic straws exist, making an exemption for wholesalers unnecessary. The next largest group of responses expressed that there should be no exemptions at all, as this would lead to loopholes and abuse of the system. The organisations that disagreed included Surfers Against Sewage, University of Plymouth and NHS England. The opinions of this group included:

- Concern that there would be leakage of straws into the general public.
- NHS England stated that as the ban won't start immediately, pharmacies will have time to source a reusable or biodegradable alternative for use by disabled people.

7.3 No robust statistical evidence was identified by respondents to support their assumptions, and no evidence of modelling carried out was reported. Most responses were anecdotal, with none providing concrete evidence to support their claims. SUEZ expressed the desire for a “level playing field” in terms of which products (including alternatives) qualify for the exemption. This would serve to avoid confusion and undermining of compliant organisations and those investing in the manufacture of alternative products. They suggested limiting permission to a small number of approved wholesalers, which would maintain competition but limit the opportunity for fraud and the burden on regulatory enforcement. An anonymous member of the public shared that exemptions for specialist uses would stigmatise those users when seen using straws in a public space, adding to further divisions between the able-bodied and the disabled.

7.4 The CIWM stated that there will need to be a distribution network to supply plastic straws if exemptions are made but did not state whether it agrees this should be achieved through pharmacies. However, the CIWM raised the concern that if straws are offered on prescription this could result in a cost to the user, and that equally it would not be appropriate for pharmacy to offer plastic straws ‘as default’. The CIWM also added a suggestion that an ‘exemption certificate’ could be used to signify those who require plastic straws, and that a pharmacy could prescribe straws in appropriate situations.

Government response

7.5 The government notes that the majority (52%) of members of the public and organisations responded that they do agree with the proposal to provide exemptions for wholesalers, (44%) did not agree.

7.6 Our policy will ban the supply of plastic straws to the end user except by pharmacies or catering establishments. Our focus on the end user means that we do not need to regulate the rest of the supply chain, which could reduce competition and increase prices. We want to ensure that registered pharmacies continue to be able to supply plastic straws to those who need them, as alternatives such as paper, metal or silicone straws may not always be suitable for people with disabilities. Wholesalers will be outside the scope of the ban in order that pharmacies and any other outlets providing permitted services to those groups who require a straw can continue to provide that service.

7.7 We note the suggestion about provision of plastic straws on prescription, however, we consider that this will put an extra burden on the health services. Everyone will be able to buy straws from pharmacies without the need to provide proof of need. This is to prevent people with medical or disabilities having to declare their medical condition or accessibility needs, which would invade their privacy and could lead to discrimination or stigma. We will review the policy through a post implementation review (PIR) five years

after it is implemented. In this PIR we will consider how effectively the ban is working and suggest new policy options where appropriate, remaining mindful of the needs of disabled people who may not wish to formally declare their disability.

8.0 Question 7: Should the government allow / exempt catering establishments (such as pubs, cafés and restaurants) to provide plastic straws to customers on a specific 'on demand' basis?

- Yes / No
- Please give reasons
- How should this exemption operate in practice?

8.1 A total of 1515 responses were received, with 1122 people adding reasons to support their views. Those who added comments comprised of 858 members of the public, and 264 others including NGOs, manufacturers, retailers and the public sector. Key responses from organisations included UK Hospitality, Thames Water, McDonald's UK, and the Marine Conservation Society. The **majority** view from both the public and organisations was that the government should not allow an exemption (Figure 10).

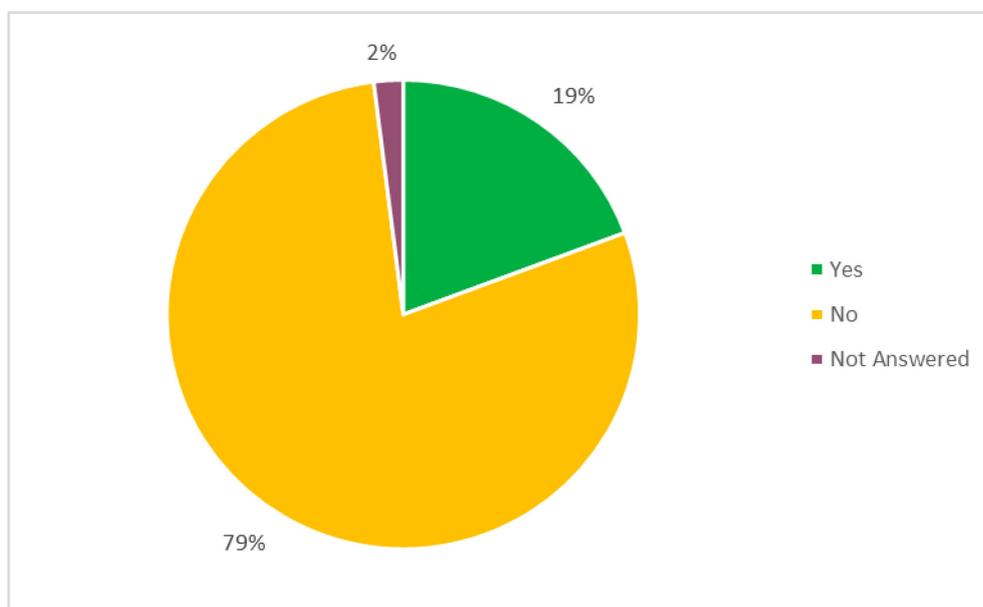


Figure 10: Responses to Question 7

- 8.2 From those against an exemption, a range of views were represented:
- Many said that alternative materials to plastic are already available;
 - Many said that a ban should mean a ban and/or that exemptions are unnecessary;

- Some said that customers would be able to bring their own plastic straws, although opinion was divided on whether there should be an exemption for providing plastic straws for medical reasons.

8.3 From those in favour of an exemption, the **majority** would want to see an exemption for medical reasons. An alternative approach was also put forward: plastic straws should be available to patrons, but on request only.

8.4 Trailblazers, a national network of 700 young disabled people and their supporters, and part of Muscular Dystrophy UK said “We believe that all public places which usually provide food or drinks should be legally required to stock heat and cold safe plastic bendy straws for disabled people only as part of this legislation, and failure to do so should fall under the Equality Act 2010 in England, Scotland and Wales and the Disability Discrimination Act 1995 in Northern Ireland”.

8.5 In answer to the question how should the ‘exemption operate in practice’, the largest minority viewpoint expressed by those stating that there should not be an exemption was that non-plastic straws could be available. Many respondents against the exemption were in favour of an exemption on medical grounds and that straws could be provided to patrons on demand only.

8.6 Trailblazers provided the results of a survey of disabled people, of which “19% say a card scheme, similar to The Access Card or CEA cinema card, should be used to eliminate any issues with getting a straw in pubs or restaurants”.

8.7 UK Hospitality was in support of providing straws on demand and stated that several of its member organisations have already ceased to offer plastic straws altogether. McDonald’s UK stated that in an ideal scenario they would continue to offer plastic straws for those who require them for medical or accessibility reasons, but that retaining a small stock of plastic straws would be a significant challenge for their restaurants and supply chain.

8.8 Thames Water holds a contrasting view that plastic straws should not be available on demand, because the establishment would not easily be able to determine who meets exemption criteria. They stated that such a scheme would undermine the environmental benefits of a ban. Marine Conservation UK stated that an exemption would be challenging for businesses, and that a blanket ban would be easier to implement and less confusing for customers.

Government response

8.9 The majority view (79%) from both members of the public and organisations was that the government should not allow an exemption to catering establishments (such as pubs, cafés and restaurants) to provide plastic straws to customers on a specific ‘on demand’ basis.

8.10 The government will allow catering establishments to keep plastic straws behind the counter to provide to customers on a specific 'on demand' basis. There will be no requirement on catering establishments to stock plastic straws but those that decide to do so, may provide them to anyone that requests them, whether or not the person requesting a straw has a medical need for it. There will be no requirement to provide proof of, or state an, accessibility need. In practice, this means that catering establishments will be prohibited from actively offering plastic straws. Plastic straws will be provided to customers only on request. We anticipate that this approach will encourage people to use non-plastic straws if they do not need a plastic one.

8.11 We accept this means that plastic straws may be used by people without accessibility needs, but we consider that the relative level and impact of this happening is likely to be low, and is outweighed by the needs of people with disabilities and other groups with particular accessibility needs.

9.0 Question 8: If your answer to question 6 was 'Yes' who should be able to supply to catering establishments?

- **Pharmacies only**
- **Pharmacies and wholesalers**

9.1 A total of 540 responses were received. Those who responded comprised of 416 members of the public, and 124 others including NGOs, manufacturers, retailers and the public sector. Key responses from organisations included the National Pharmacy Association, the Liberal Democrats Disability Association, the Food and Drink Federation, and the British Institute of Innkeeping.

9.2 There was not a consensus in the responses received. The **majority** of those answering said that only pharmacies should be able to supply to catering establishments (Figure 11).

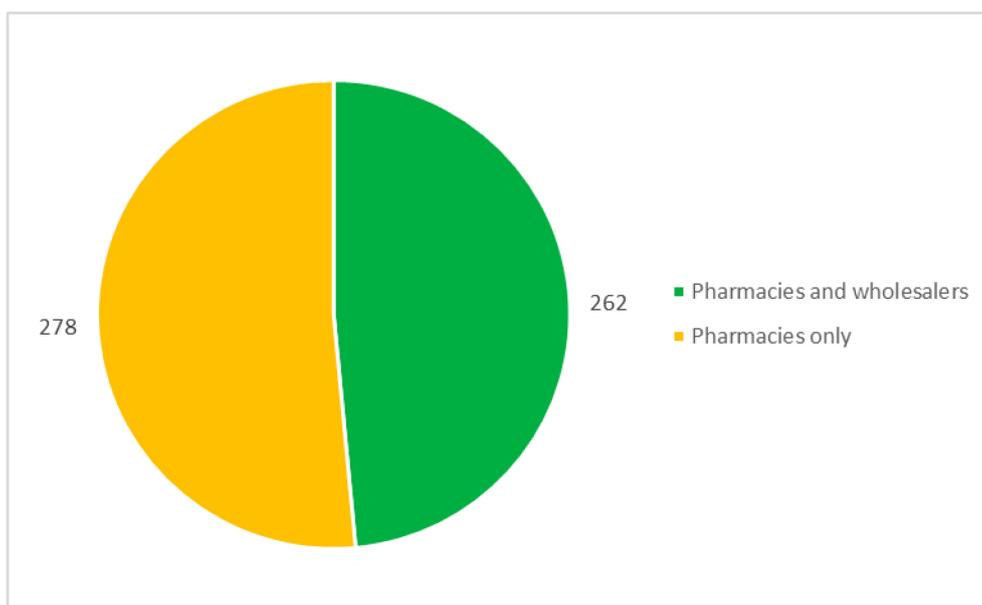


Figure 11: Responses to Question 8

9.3 Members of the public were split in their responses, with the views from organisations tipping the balance of the overall response towards ‘pharmacies’ only. The consultation did not ask for further qualifying statements with regards to the question.

Government response

9.4 The supply of single use plastic straws to the end user will be permitted in registered pharmacies (in store and online). The focus on the end user means we do not need to regulate the rest of the supply chain.

10.0 Question 9: Should online pharmacies be able to supply plastic straws?

- **Yes /No**
- **Please give reasons**

10.1 A total of 1425 responses were received, with 868 people adding reasons to support their views. Those who added comments comprised of 662 members of the public, and 206 others including NGOs, manufacturers, retailers and the public sector. Key responses from organisations included the Chartered Institute of Waste Management (CIWM), the National Pharmacies Association and Thames Water. The **majority** of both members of the public and organisations that answered was that online pharmacies should not be able to supply plastic straws (Figure 12).

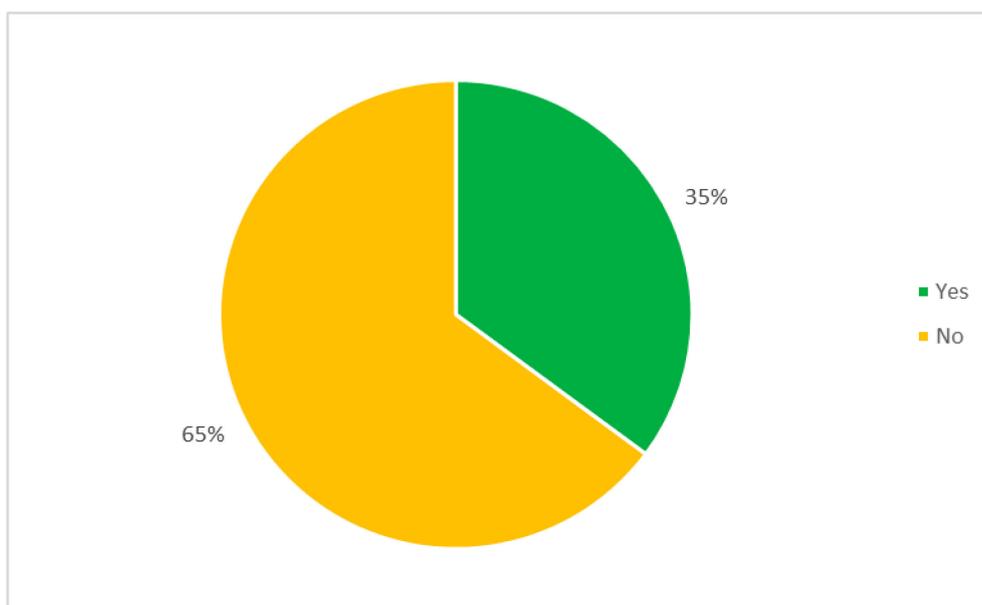


Figure 12: Responses to Question 9

10.2 Of those against online pharmacies being able to supply plastic straws:

- Many said that alternative materials for the straws are available
- Some said that it is not necessary to maintain this supply route
- Some said it would be a loophole for those seeking to circumvent the ban for non-medical reasons

10.3 Of those wanting online pharmacies to supply plastic straws, the **majority** wanted online pharmacies to be able to supply them for medical reasons, with many expressing that would benefit those who are not easily able to visit a high street pharmacist.

10.4 The CIWM responded 'no' to this question and believes that supplying through pharmacies would be extremely difficult to control and regulate. Thames Water stated that it would be very difficult to prove that the end user meets the requirements of an exemption to control this through online sales, which could leave online pharmacies open to abuse from those who do not have a medical need for straws.

10.5 The National Pharmacy Association provided the following response: "Online pharmacies provide medication to all patients including fortified drinks for those who have difficulty in eating and drinking. Online pharmacies should therefore continue to provide and supply plastic straws."

Government response

10.6 The government notes that the majority of respondents (65%) said No and (35%) said Yes to allowing registered online pharmacies to sell plastic straws.

10.7 We recognise the input from the National Pharmacy Association (NPA) and the Company Chemists' Association (CCA), (whose members own and operate over 6,000

pharmacies). Both the NPA & CCA believe that registered pharmacies should be allowed to sell plastic straws to individuals who need them.

10.8 The government is determined to make sure that plastic straws will be available for individuals who require them. Therefore, we propose that registered pharmacies in England will be allowed to sell plastic straws. Registered pharmacies will be allowed to sell plastic straws without need for prescription and there will be no requirement to provide proof of, or state an, accessibility need. The plastic straws will be able to be sold on request over the counter or online to anyone that asks for them, whether or not they have a medical need for them.

10.9 We accept that this means people that don't need straws for medical reasons will continue to be able to buy them. However, we consider that the relative level and impact of this is likely to be low, and is outweighed by the needs of people with disabilities and other groups with particular accessibility needs. We will continue to work with relevant advocacy groups to identify whether people with disabilities and other groups face any increased burdens or discrimination from plastic straw use once the ban is implemented, and will consider adjustments as necessary

10.10 We will review the policy five years after implementation. If we have not seen a sustained reduction in plastic straw usage or the formulation of the ban with exemptions is not working as intended, the government will amend the policy and the law accordingly.

11.0 Question 10: Are there any other groups for whom the alternatives to plastic drinking straws might be unsuitable?

- **Please supply any evidence you may have to support your suggestions.**
- **Are there any purposes not included in the exemptions where the alternatives to plastic drinking straws are not suitable?**

11.1 A total of 514 responses were received. Those who responded comprised of 368 members of the public and 146 others including NGOs, manufacturers, retailers and the public sector. Key responses from organisations included, the Foodservice Packaging Association, Seoil UK Limited, and the Chartered Institute of Waste Management.

11.2 There was no predominant view, however:

- Many said that those with medical problems may find alternatives unsuitable.
- Some respondents including the Foodservice Packaging Association said that the young or elderly may find alternatives unsuitable.
- Some members of the public said that straws made from alternative materials may invoke allergic reactions.

- Seoil UK Limited raised concerns that paper straws could carry risks for those with a low immune system due to contamination risk from bacteria or fungal growth.
- Several respondents raised concerns about the hygiene of reusable straws, including the Chartered Institute of Waste Management, who added that “multi-use/reusable straws would need to ensure that ease of cleansing could be undertaken, as part of the design.”

11.3 No robust statistical evidence was identified by respondents to support their assumptions, and no evidence of modelling carried out was reported. Although many anecdotes and opinions were offered as evidence (including links to social media and online news sites), no peer-reviewed references, or other scientific research, was quoted to support the answers given.

11.4 Responses to the final part of this question did not reveal further themes or concerns.

Government response

11.5 The government recognises that people with disabilities and accessibility needs rely on plastic straws to drink safely and independently. Alternatives to plastic straws may not always be suitable. The government is determined to make sure that plastic straws will be able to be available for individuals who need them and will ensure that the legislation does not prevent this. We accept this means that straws will continue to be available to those that do not need them for medical reasons. However, we consider that the relative level and impact of this is likely to be low, and is outweighed by the needs of people with disabilities and other groups with particular accessibility needs.

12.0 Question 11: Are there any other steps government should take to ensure those with accessibility needs are not disadvantaged or stigmatised?

12.1 A total of 585 responses were received. Those who responded comprised of 435 members of the public and 150 others including NGOs, manufacturers, retailers and the public sector. Key responses from organisations included Nestlé UK and the Foodservice Packaging Association.

12.2 There was no majority view. A range of views were represented. These included:

- Many said that it should be ensured that straws made from alternative materials should be available (which should be facilitated by a variety of means, including further research, subsidised or free straws to those who require them for medical reasons).
- Some took the opportunity to express that there should not be a ban on plastic straws.
- A small number of responses said that there should be public communication and/or an educational programme to inform the public about straws made from alternatives to plastic.
- Nestlé UK added that careful messaging is required if making exemptions for medical use of plastic straws and recommended that patient groups for the relevant conditions should be consulted to ensure that the messaging is appropriate.
- The Foodservice Packaging Association stated that if making exemptions for medical conditions, “communication in the publications used by charities for the disabled should also be used so that those with reduced mobility are aware of their rights to a plastic straw and have an opportunity to report any organisation that refuses to provide one to them.”

Government response

12.3 The government will continue working with all stakeholders including disability groups to ensure that those with accessibility needs are not disproportionately disadvantaged, and that they are included in conversations around research and design for alternatives to plastic straws.

12.4 We have carried out an Equality Analysis to show how we engaged with the public sector equality duty throughout the policy development process. We will continue to develop our Equality Analysis throughout the policy process through to implementation.

13.0 Question 12: Do you agree that the ban should cover all compostable and biodegradable plastic (such as PLA)?

- Yes / No
- Please give reasons and any evidence that might be helpful. Are there environmental or economic reasons why these should not be banned?

13.1 A total of 1387 responses were received, with 782 people adding reasons to support their views. Those who added comments comprised of 575 members of the public, and 207 others including NGOs, manufacturers, retailers and the public sector. Key responses from organisations included the Bio-based and Biodegradable Industries Association (BBIA), the British Plastics Federation, Thames Water, the Chartered Institution of Waste Management, the Marine Conservation Society, Seoil UK, and Natural England. The majority of all respondents answered 'yes' to including compostable and biodegradable plastics (Figure 13).

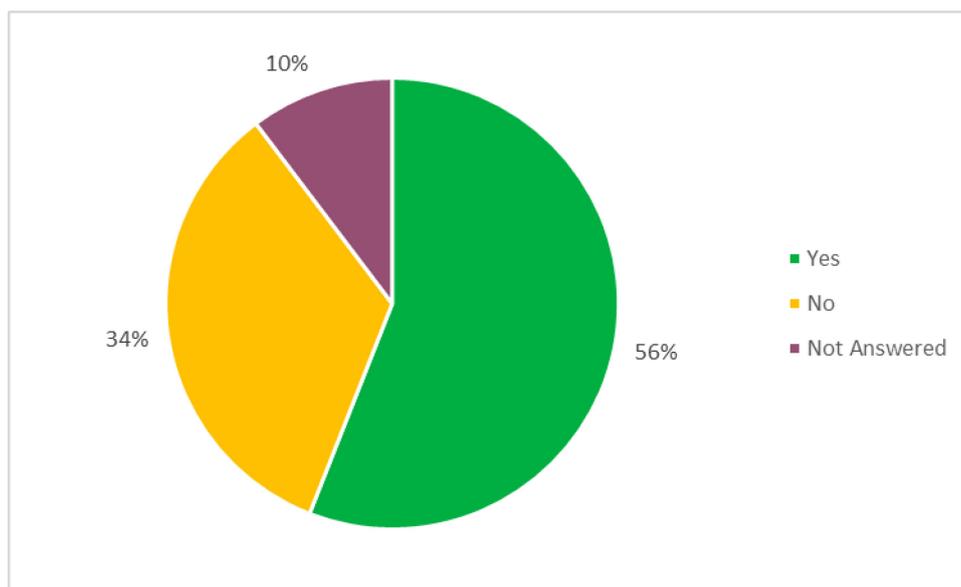


Figure 13: Responses to Question 12

13.2 No robust statistical evidence was identified by respondents to support their assumptions, and no evidence of modelling carried out was reported. A number of academic papers and studies were referenced regarding the decomposition of biodegradable/compostable plastics and their effect on the environment.

13.3 The responses from members of the public and organisations were similar in their sentiment; the **majority** of respondents from both groups did agree that the ban should include compostable and biodegradable plastics. The views and reasons expressed showed a mixture of themes; over a quarter of the responses referred to the environment, animals or marine life. Reasons provided in support of the ban included:

- Biodegradable or compostable plastics still have the potential to damage the marine or terrestrial environment through polluting rivers and oceans or affecting wildlife.
- There were repeated concerns that biodegradable or compostable materials can take a significant time to degrade, which may not mitigate the environmental damage caused when littered or disposed of incorrectly.
- Natural England stated that “There is no international or European standard for marine biodegradability and the only industry certification is based on a now-withdrawn international standard.”
- The Chartered Industry of Waste Management stated that “There is urgency to make sure such standards for packaging apply to home composting, windrow composting and anaerobic digestion as the predominant routes for segregated food wastes in the UK” and that “There is on-going work on a ‘marine biodegradable’ standard and sustainable sourcing standards for purported biodegradable biomaterials.”
- A small number of respondents raised concerns about the confusion caused by labelling of biodegradable and compostable items, which is linked to a lack of clear standards for their subsequent processing upon disposal.
- There were repeated concerns that micro plastics could form as a result of the introduction of biodegradable or compostable plastics, which can damage the marine environment.
- Natural England gave reference to academic studies which show that Polylactic acid (PLA) does not break down in the marine environment, can affect marine life, and does not degrade in conditions made to simulate the digestive system of a turtle.
- There is some concern regarding sustainability and land used for the production of these plastics, which is potentially due to confusion about biodegradable vs. bio-derived plastics, collectively under the term ‘bioplastics’. This reflects other comments on unclear labelling.
- Biodegradable or compostable plastics may not be possible to separate or recycle in existing waste processing infrastructure. This view was shared by several organisations in the plastics and recycling industry.

13.4 Many respondents opposed the ban of biodegradable or compostable straws, and about one tenth of respondents did not provide an answer. Those against the ban cited the following reasons:

- Some believe that biodegradable or compostable plastics will not harm the environment.
- A small number of responses mentioned disability or medical reasons in opposition to the ban of these types of plastic.
- Seoil UK, a manufacturer of plastic straws, recommends the use of an oxo-biodegradable additive which can be used with polypropylene straws which will enable them to biodegrade safely in the environment. The company also states that polypropylene with oxo-biodegradable additive will compost in a Windrow system but will not meet the EN13432 packaging composability standard which requires 90% biodegradation within 180 days. The company stated that it is able to provide

more information on the material and costs compared to other material types on request.

- The BBIA added that “the decision to restrict biodegradable plastics in the absence of any negative evidence and of proper methodologies to measure impact and risks, is going to severely disrupt the evolution of the UK’s highly innovative biochemical and biomaterial industrial sectors.”

13.5 Several members of the public, both in support and against the ban, referred to the amount of time taken for these materials to decompose or biodegrade, and a small number expressed that the naming and labelling of materials can be confusing or misleading to consumers. Some referred to their own experience in dealing with compostable plastics, claiming that materials did not degrade.

13.6 Symphony Environmental Technologies plc expressed the view that the ban “Should absolutely not cover Oxo-biodegradable plastic”, a view which is shared by Seoil UK Limited. Symphony also suggested that the term biodegradable causes confusion, preferring either ‘compostable’, or ‘Oxo-biodegradable’. The company also added about Oxo-biodegradable plastics; “This technology causes ordinary plastic to oxidise much more quickly in the open environment and convert into biodegradable materials. These materials are then consumed by bacteria and fungi, who recycle it back into nature, leaving behind only water, biomass, and a small amount of carbon dioxide”. Some organisations, including the Foodservice Packaging Agency and the Renewable Energy Association expressed the opposite view, that Oxo-biodegradable plastics are problematic and should be included in the ban.

Government response

13.7 The majority of responses from members of the public and organisations (56%) agreed that the ban should include compostable and biodegradable plastics with (34%) saying No and (10%) Not answered. Those who agree cited environmental reasons and that biodegradable plastic biodegrades in very specific circumstances.

13.8 It is currently unclear whether plastics currently labelled as biodegradable are fully biodegrading in all environments, especially the marine environment in the absence of heat and UV light. Therefore, the ban will cover all types of plastic straws including those carrying a biodegradable or compostable standard.

13.9 Further information on the benefits and limitations of bio-based, biodegradable and oxo-degradable plastics is set out in government’s recent [Resources and Waste Strategy](#). As set out in the recent [Bioeconomy Strategy](#), government will work with UK Research and Innovation and industry to seek evidence on the demand, benefits and implications of a standard for bio-based and biodegradable plastics.

13.10 The government has previously stated that it will explore a biodegradable standard for plastics. In the event that such a standard is established and is proven to have better

environmental outcomes than current alternatives such as paper straws, the government will consider exempting these from the ban on supply of plastic straws.

14.0 Question 13: Do you agree with the government's assumptions (outlined in the accompanying Impact Assessment) that the number of straws made of plastic will fall from 95% in 2018 to under 5% by 2020 if a ban is enacted in October 2019?

- If not, please supply any evidence or modelling that you may have undertaken.

14.1 A total of 634 responses were received. Those who responded comprised of 469 members of the public, and 165 others including NGOs, manufacturers, retailers and the public sector.

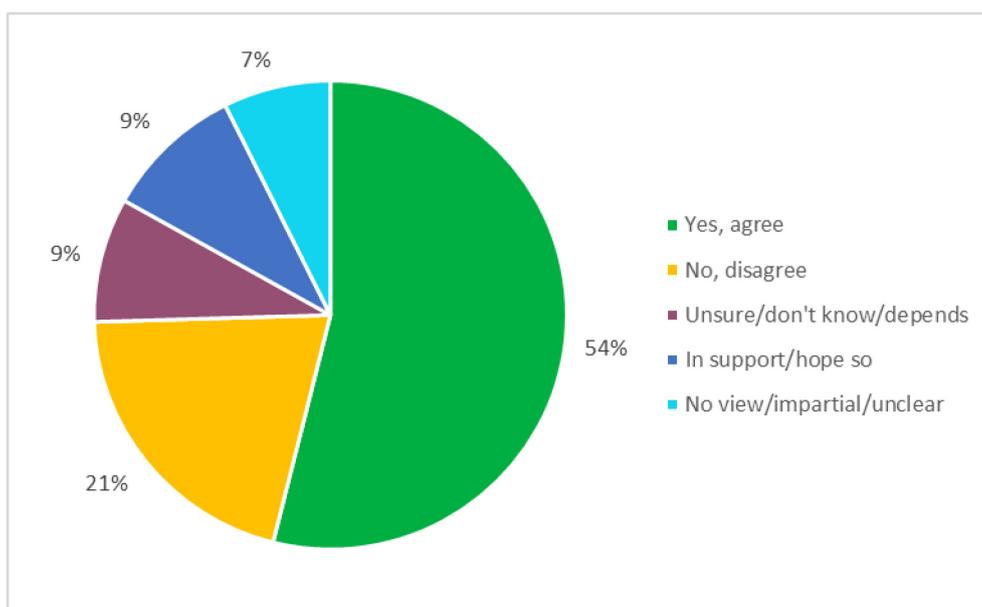


Figure 14: Responses to Question 13

14.2 No robust statistical evidence was identified by respondents to support their assumptions, and no evidence of modelling carried out was reported.

14.3 The majority of people who commented on this question did agree with the government's assumptions on the projected fall in production of plastic straws (Figure 14). The same proportion of members of the public and organisations responded 'yes'. However, fewer members of the public than organisations believed the number of straws made of plastic will fall by this amount within the timeframe. A small number of respondents likened the potential ban on plastic straws to the 5p charge on plastic carrier

bags and stated that the effect of reducing the number of these items in circulation would be similar.

14.4 Many of those who commented stated that they did not agree with the assumptions, while a small number of respondents were unsure, or unclear in their views. Among those who did not agree with the assumptions, Tetra Pak Limited stated that for Tetra Pak cartons with on-pack straws, this reduction in the number of straws made of plastic is unlikely to be possible. By 2020, Tetra Pak Limited stated they will only be able to manufacture and supply alternative straws for approximately 10% of their products in the UK.

14.5 A small number of people stated that they would, or that they already are stockpiling plastic straws in the case that a plastic straw ban were to be implemented. Some of these people cited reasons of disability for this action.

Government response

14.6 The views and additional evidence provided in response to this question have been used to update and finalise our Impact Assessment. Note that date of the ban in the final Impact assessment is now planned for April 2020.

15.0 Question 14: Do you anticipate any additional costs and or constraints to industry from this proposed ban?

- Please supply any evidence you may have to support these costs and constraints
- We welcome further evidence for the price per unit of non-plastic straws, and evidence to suggest how the price of non-plastic straws will change as the scale of production increases.

15.1 A total of 635 responses were received. Those who responded comprised of 457 members of the public, and 178 others including NGOs, manufacturers, retailers and the public sector. Of the three questions asked, the second, asking for specific evidence, only received 59 responses. Key responses from organisations included the Packaging Trade Association, Tetra Pak Limited, Seoil UK, and the British Soft Drinks Association (BSDA).

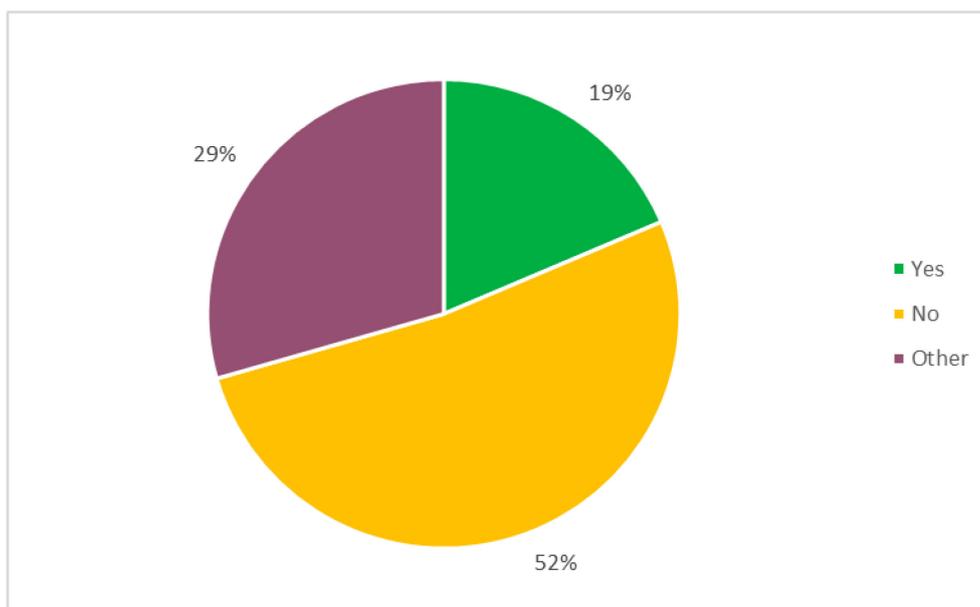


Figure 15: Responses to Question 14

15.2 No robust statistical evidence was identified by respondents to support their assumptions, and no evidence of modelling carried out was reported.

15.3 The majority of respondents did not anticipate additional costs or constraints to industry from the proposed ban (Figure 15). The same general sentiment was shown by both members of the public and those from organisations. Many of these responses stated that the environment is more important than the economic cost of implementing the ban.

15.4 Specific reasons for cost to industry were suggested in many responses, including several scenarios presented by the BSDA. These scenarios illustrated the potential costs including those from new equipment and product redesign. Some of the responses which did foresee additional costs for industry cited the following reasons:

- A small number of respondents stated that paper straws would cost four times more than plastic straws, but these were anecdotal reports.
- Some respondents mentioned the requirement for new investment in equipment or change of equipment for the manufacture or packaging of new/replacement drinking straw products.
- According to the BSDA, switching from a carton with on-pack straws to a plastic bottle with a cap would require investment of £250k to £1.5 million per production line, plus redesign costs. The switch to plastic bottles could also result in more plastic being produced since this type of packaging uses more material.
- There were repeated concerns regarding the cost incurred in research, development, or design of new products.
- Some respondents mentioned costs associated with the change of existing packaging to interface with new/replacement straw products.
- According to the BSDA, switching from on-pack straws to a container with a cap could increase the minimum container size from 125ml to 250ml, which affects portioning capabilities for food producers including for drinks aimed at children.
- Additional manufacturing facilities being required, due to slower production of paper straws compared to plastic extrusion. The Packaging Trade Association provided a comparison of the production rate for paper straws (110 pieces/min) and the production rate for plastic straws (1500 pieces/min).
- Tetra Pak Limited stated that the following costs would result from the implementation of a ban:
 - Cost for developing alternatives that can be attached to food or drink cartons
 - Cost for redesigning cartons so that paper straws can be used
 - Cost for the range of paper straws that would be required (e.g. U-shaped straws, telescopic straws)
 - Capital equipment costs for producing the straw
 - Capital equipment costs for applying the straw to a carton
- Tetra Pak Limited also stated that the industrial-scale production of on-pack paper straws is a challenge; alternative paper-straw production technologies are currently not suited to high volume production in food-safe environments, and that significant R&D investments of over £30 million would be needed to develop alternatives.
- Seoil UK stated that production costs for paper straws are significantly higher than for plastic straws, and that there is an order of magnitude difference in production rate for the typical manufacturing processes.

15.5 Seoil UK, a manufacturer of straws, said that there could be an effect on income to HMRC, due to the difference in import costs and import tariff rates as a result from a

change from plastic to paper straws. Seoil UK sited a loss to HMRC representing £1.524 million in duty receipts, according to their estimate.

15.6 It was also highlighted that there will be a lead time to set up new facilities for production of paper straws, and that the period proposed by Defra should take this into account to ensure continuity of supply.

Government response

15.7 The views and additional evidence provided in response to this question have been used to update and finalise our Impact Assessment.

16.0 Question 15: Should we expect non-plastic straw use / consumption to decrease?

- **Yes / No**
- **Please provide evidence that can be used to predict how consumers respond to a change in the material of straws**

16.1 A total of 1235 responses were received, with 461 people adding reasons to support their views. Those who added comments comprised of 324 members of the public, and 137 others including NGOs, manufacturers, retailers and the public sector. Key responses from organisations included the Marine Conservation Society, McDonald's UK, and Thames21.

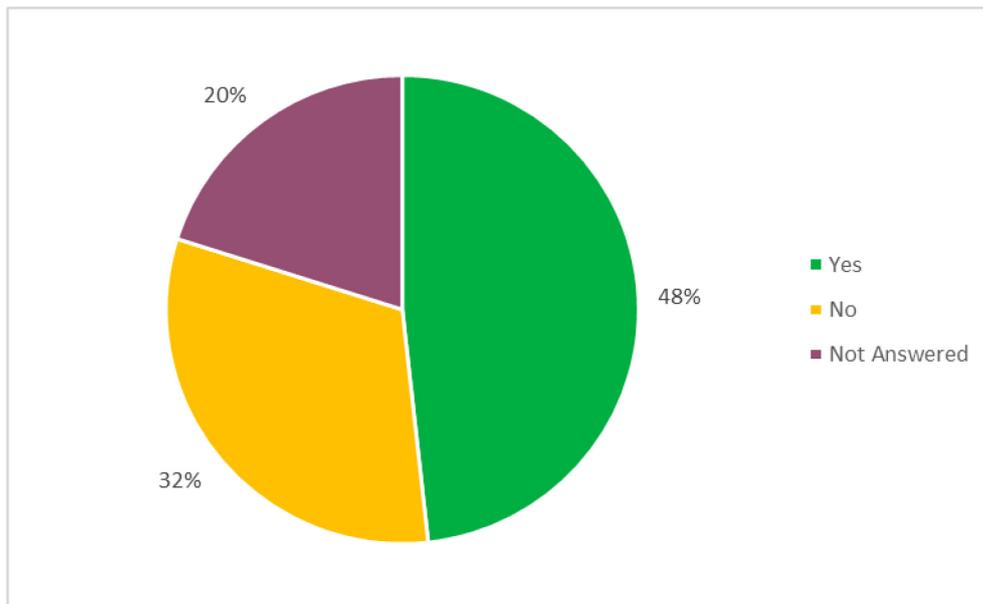


Figure 16: Responses to Question 15

16.2 No robust statistical evidence was identified by respondents to support their assumptions, and no evidence of modelling carried out was reported.

16.3 There was not a majority view in response to this question (Figure 16), with a range of views and many people in disagreement with the statement. One fifth of respondents did not provide an answer to this question. The responses from members of the public and organisations showed very similar proportions across the response categories.

16.4 Reasons provided for a decrease in non-plastic straw use included:

- Some businesses have already stopped offering any type of straw, and that a ban on plastic straws may result in additional businesses following this example. This could result in an overall decrease in demand for straws.
- Suggestions that changes to packaging could mean fewer straws are offered with retail products, further decreasing the demand for straws.

16.5 The Marine Conservation Society provided the following results from a survey: “A YouGov survey commissioned by the Marine Conservation Society, found that 62% of people support (and only 14% oppose) a ban in the UK on plastic straws being automatically given out in drinks, or being available on the counter, at restaurants and bars. Eco-friendly alternatives would be available but only on request by customers. Most support came from those aged 55 and over – with 68% supporting, and only 9% opposing, the suggested ban. This survey was conducted by YouGov, on behalf of the Marine Conservation Society. The total sample size was 2137 adults. Fieldwork was undertaken between the 7th and 8th August 2017. The survey was carried out online. The figures have been weighted and are representative of all GB adults (aged 18+).”

16.6 McDonald's provided the following information: "McDonald's UK moved straws and napkins behind restaurant counters and based on the current trajectory, this will result in an 8.2% reduction in the number of straws used by the end of this year. Simple measures like this are having a marked impact on customer behaviour, without harming quality and customer experience; and we would expect as other businesses adopt similar proactive measures that a reduction in plastic straw consumption will be seen across the board."

16.7 As with question 13, the proposed ban was likened to the 5p carrier bag charge in the UK, with a number of responses believing that the decline in demand would be similar to that effected by the 5p charge on plastic bags.

16.8 Anecdotal evidence to support the view that demand for non-plastic straws will increase was provided by Thames21, an Environmental NGO, of a US-based manufacturer of paper straws, which has seen a 4,900% increase in sales over a 12-month period.

Government response

16.9 The views and additional evidence provided in response to this question have been used to update and finalise our Impact Assessment.

17.0 Question 16: Our proposals for enforcement are that the ban will be enforced through civil sanctions set out in Part 3 of the Regulatory Enforcement and Sanctions Act 2008. How should compliance with the ban be monitored? Who should enforce the ban?

17.1 A total of 519 responses were received (368 from members of the public and 151 from organisations) regarding monitoring, and a total of 546 responses were collected regarding enforcement (389 from members of the public and 157 from organisations). However, a majority of these were ambiguous answers, with only 235 responses (123 from members of the general public, and 112 from all others) providing a categorised response for monitoring, and 177 responses for enforcement (49 from members of public, and 128 organisations).

17.2 In terms of monitoring, there was not a clear consensus. Many believed monitoring should occur through random spot checks/audits/inspections, while approximately the same proportion preferred a system where citizens can monitor other fellow citizens. Several did not specifically say how they should be monitored but expressed that fees should be paid by those found not complying. This opinion is shared by organisations, with several respondents favouring a fee for non-compliance.

17.3 In terms of enforcement, many members of the public indicated that Trading Standards should be responsible for enforcing the ban. This recommendation was also given by organisations such as Thames Water, Fidra, Innocent Drinks, Nestlé UK, the Co-operative Group and Keep Britain Tidy. The next largest group believed local authorities should be responsible, although many added reservations about the lack of capacity (time, personnel, and funds) of local authorities to take on more responsibilities. An alternative view believed that the hospitality sector e.g. the Food Standards Agency, food and hygiene accreditations, etc.), should have enforcement responsibilities for their respective sectors. This view was supported by the Food Service Packaging Association.

Government response

17.4 The ban will be enforced through civil sanctions set out in Part 3 of the Regulatory Enforcement and Sanctions Act 2008. We will work closely with local authorities and other relevant stakeholders in order to establish the most effective and efficient way of enforcement, and take these responses into account in doing so.

18.0 Question 17: Are there any risks that alternatives to plastic straws will themselves have significant environmental impacts?

- **Yes/No**
- **If so, how could these risks be avoided, minimised or mitigated? Please supply any evidence you may have to support your suggestions**

18.1 A total of 1008 responses were received, with 648 people adding reasons to support their views. Those who added comments comprised of 451 members of the public, and 197 others including NGOs, manufacturers, retailers and the public sector. Key responses from organisations included Tetra Pak Limited.

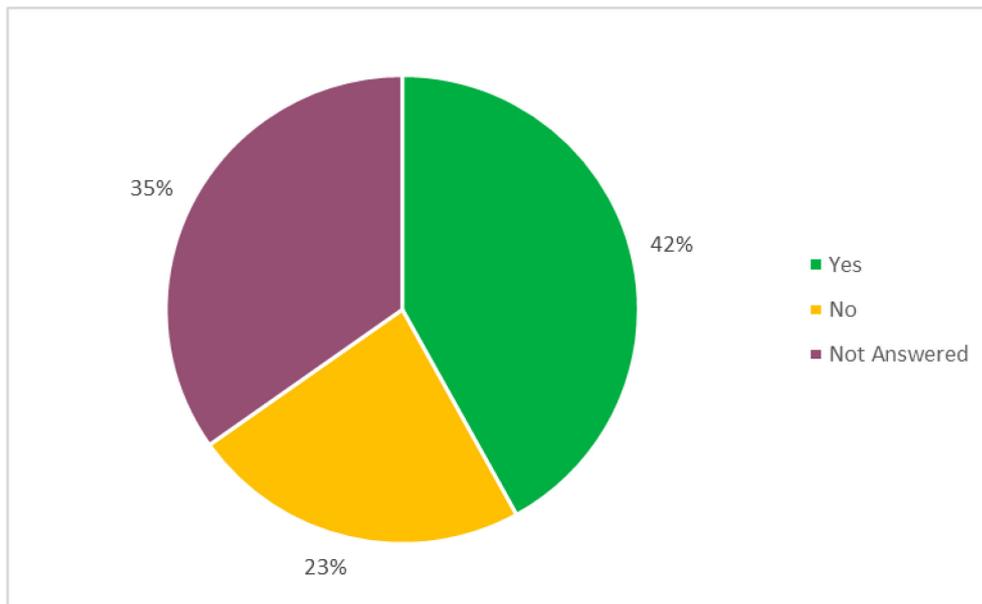


Figure 17: Responses to Question 17

18.2 There was a lack of clear consensus overall and from members of the public for this question, with many people choosing not to answer (Figure 17). For all types of respondent, the **majority** that did answer this question believe that there is a risk that alternatives to plastic straws could have a significant environmental impacts. There was a mixture of reasons given to support this view. The majority of respondents from organisations stated that alternatives would have significant environmental impacts, whereas the responses from members of the public showed a range of views with no clear consensus.

18.3 Respondents who believed there would be significant environmental impacts of alternatives to plastic straws mentioned the following in their comments:

- A small number of responses mentioned that paper straws are two times the weight of plastic straws, and believed that the carbon footprint of transportation would be significant due to this.
- A small number of respondents were concerned about the sourcing of natural materials. Fidra, an environmental charity, gave the following response: “Where the alternative is something other than plastic, such as paper or bamboo, these materials should be responsibly sourced and follow accredited sustainability schemes, for example; FSC Certified Paper should be used where the alternative is paper and follow the 10 FSC principles and criteria”.
- There were repeated concerns about the recycling or recyclability of alternatives to plastic straws.
- Several respondents voiced concerns that the environmental impact of biodegradable and compostable straws would be worse than for plastic straws. It is worth noting that the opposing view about this alternative was also present.
- A small number of respondents mentioned reusable alternatives, made of metal, glass etc. however, a mixture of views were given as to whether these are better or worse for the environment.

18.4 Those who did not believe that there would be significant environmental impacts from alternatives to plastic straws shared views such as:

- That fewer straws will be manufactured and used as a result of a ban, so the overall impact should be lower.
- That alternatives to plastic straws could be recyclable and hence better for the environment.
- A number of respondents mentioned compostable or biodegradable straws with the belief that these will have a lower environmental impact than plastic straws. It is worth noting that the opposing view about this alternative was also present.
- A number of respondents mentioned reusable alternatives, made of metal, glass etc. However, a mixture of views were given as to whether these are better or worse for the environment.
- Tetra Pak Limited stated that “cartons with on-pack straws use less plastic and have a lower climate impact than virtually any available alternative”, providing an example comparison of a carton vs. a plastic bottle using seven times less plastic to hold the same amount of fluid.
- Tetra Pak Limited provided the results of a Life Cycle Assessment (LCA) study conducted by the Institut für Energie- und Umweltforschung Heidelberg GmbH (IFEU). The study shows that a 189 ml HDPE plastic bottle was shown to have three times higher carbon footprint than a carton of the same size with a plastic straw used on the UK market.
- Tetra Pak Limited also stated that cartons allow the storage of perishable food and drink items for extended periods compared to other forms of packaging; this type of storage further acts to reduce environmental impact by reducing waste.

Government response

18.5 The government notes that while alternatives to plastic may have environmental impacts, we believe that the impact from plastic pollution is more detrimental: plastics have a significant impact on our environment, both on land and in our seas and rivers when they are either littered or discarded incorrectly after use, as they take years to degrade and once they do, they break into microplastics.

18.6 Plastic is an incredibly versatile material that forms a key component of many products we use today. It is tough and long-lasting, which is why it can also be a problem for the environment. While plastic plays a useful role in the economy and provides essential applications in many sectors, its growing use in short-lived applications, which are not designed for re-use or cost-effective recycling, means that related production and consumption patterns have become increasingly inefficient. The steady increase in plastic waste generation and its leakage into our environment, in particular into the marine environment, must be tackled in order to achieve a circular lifecycle for plastics and protect the environment.

18.7 The government believes plastics production needs to be directed towards ensuring that fewer single use plastics are produced, and more reuse and recyclable materials are preferred and promoted. We want to support Research / Development, innovation to finding solutions to increase the recyclability of plastics and alternatives to commonly used single use plastics. The UK government has committed a £61.4 million package of funding to boost global research and help countries across the Commonwealth stop plastic waste from entering the oceans.

18.8 We will review the policy five years after implementation. If we have not seen a sustained reduction in plastic straw usage or that the formulation of the ban with exemptions is not working as intended, the government will amend the policy and the law accordingly.

18.9 As set out in the Waste and Resources Strategy, we will also be developing new indicators and metrics for analysing waste data across the sector, moving away from weight based targets (which do not work well for lightweight plastic items with a large environmental footprint) and focusing initially on carbon and natural capital impacts. This longer term work will help us to understand the environmental impacts of alternatives to plastic straws more fully.

19.0 Question 18: Is there anything else you would like to tell us relating to the proposed ban on the distribution and/or sale of plastic straws?

19.1 A total of 445 responses were received. Those who responded comprised of 318 members of the public, and 127 others including NGOs, manufacturers, retailers and the public sector. Key responses from organisations included Fidra and Thames Water.

19.2 There was no single majority theme in the responses received. Minority themes in the mix of responses included:

- Many called for the government to implement the ban as soon as possible.
- Some expressed concern regarding the potential impact of the ban on those with medical problems, especially the disabled.
- Some wanted the government to take the opportunity for the government to ban or restrict uses of plastic beyond straws.

19.3 Thames Water added a comment that the proposed ban “may also provide the water industry and its customers with environmental and financial benefits, as any straws which reach sewage works currently are removed and disposed of either to landfill or thermal destruction”.

19.4 Fidra, an environmental charity, added a comment that “Further measures and recommendations should be implemented for other single use plastics where alternatives are already available (for example cutlery, polystyrene food trays etc.), with firm and ambitious targets to encourage industry phase. This will ensure the UK remains a leader in the move towards reducing unnecessary plastic waste.”

Government response

19.5 Government departments will continue to work closely together, and with the devolved administrations, to develop a coherent approach to tackling the plastic problem.

19.6 We know there is an urgent need for new thinking to tackle avoidable waste, particularly plastic. Our priority will continue to be preventing plastic entering the environment in the first place and eliminating avoidable plastic waste over the lifetime of the 25 Year Environment Plan. In practice this means avoiding unnecessary use of plastics – as with all materials - in the first place.

20.0 Question 19: Do you agree with the government’s estimation that the number of straws made of plastic will fall gradually from 95% in 2018 to 3% by 2026 even if a ban was not enacted in October 2019?

- **If not, please supply any evidence or modelling you have undertaken.**

20.1 A total of 752 responses were received. Those who responded comprised of 565 members of the public, and 187 others including NGOs, manufacturers, retailers and the public sector.

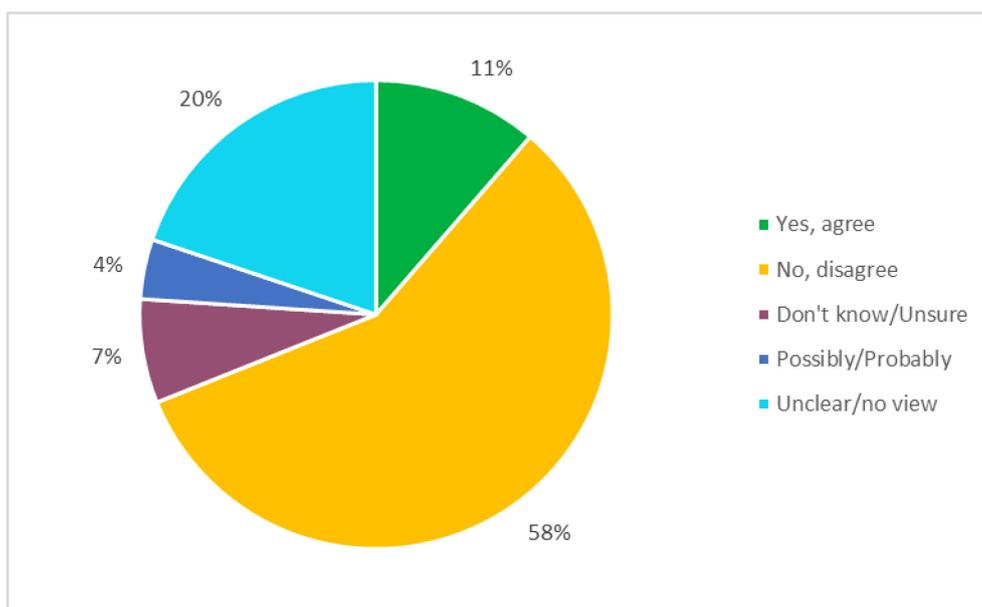


Figure 18: Responses to Question 19

20.2 No robust statistical evidence was identified by respondents to support their assumptions, and no evidence of modelling carried out was reported.

20.3 The **majority** of respondents disagree with the estimate of the fall in use of plastic straws without a ban. A small number of respondents did agree with the estimate, and a small number did not know (Figure 18). The sentiment of many of the responses was unclear. The responses from members of the public and organisations had the same proportion of responses in disagreement with the government estimate.

20.4 Some respondents stated that the government has a responsibility to act, and that without government intervention, the use of plastic straws would not fall to the 3% target by 2026. A small number of respondents asked why a ban would be considered if the use of plastic straws would fall naturally.

Government response

20.5 The views and additional evidence provided in response to this question have been used to update and finalise our Impact Assessment.

21.0 Question 20: Do you agree with the government's estimation that 44 million straws (about 1% of existing straws) will still be required for exemptions following a ban?

- If not, please supply any evidence or modelling you have undertaken

21.1 A total of 663 responses were received. Those who responded comprised of 490 members of the public, and 173 others including NGOs, manufacturers, retailers and the public sector.

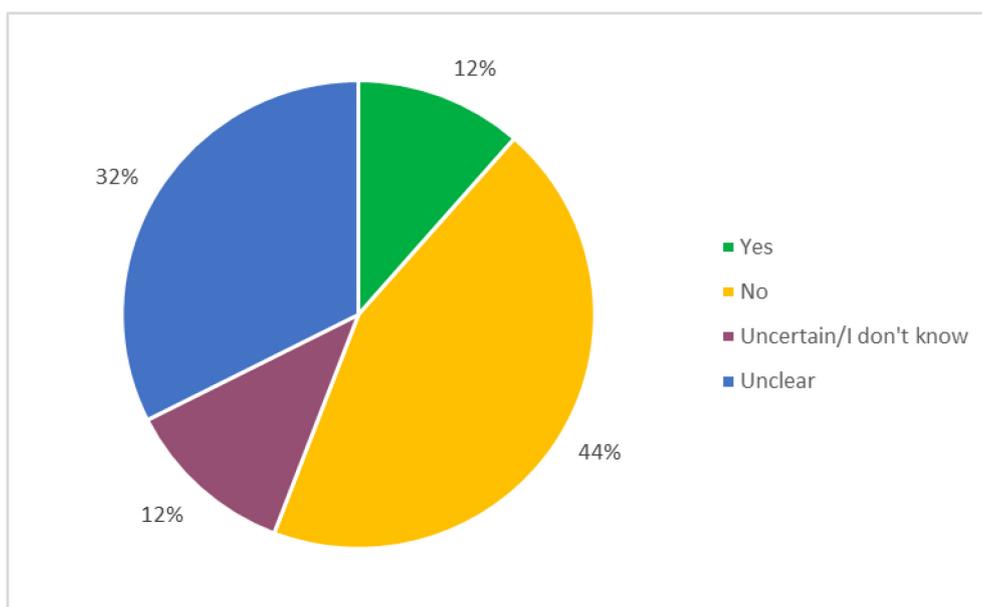


Figure 19: Responses to Question 20

21.2 No robust statistical evidence was identified by respondents to support their assumptions, and no evidence of modelling carried out was reported.

21.3 Many respondents did not express an opinion for or against the question (Figure 19). Some respondents interpreted the question to mean that the government would provide a limited 'bank' of straws. Some respondents stated that the question was unclear

21.4 A range of views were provided in response to this question with no clear consensus. Many of the responses did not agree with the statement that 44 million straws will still be required for exemptions following a ban. This sentiment was shared between members and the public and organisations. A range of reasons and opinions were provided, these included:

- It will be necessary to exempt more than 44 million straws for use, but no evidence to suggest the number required.
- The viewpoint that straws are entirely unnecessary so fewer straws will be required.

- Reasoning that alternatives to plastic are available so fewer plastic straws will be required.

21.5 A small number of respondents agreed with the estimate, and some of these mentioned disability or medical reasons in their response.

Government response

21.6 The views and additional evidence provided in response to this question have been used to update and finalise our Impact Assessment.

22.0 Question 21: Do you agree with the government’s estimation of business costs or constraints to industry from a ban as a total of £4.3 million per year because alternatives cost around 4 times as much as plastic straws?

- **If not please supply any evidence or modelling you have undertaken to demonstrate if it is overestimated or underestimated.**

22.1 A total of 673 responses were received. Those who responded comprised of 493 members of the public, and 180 others including NGOs, manufacturers, retailers and the public sector. Key responses from organisations included the Food and Drink Federation, and Tetra Pak Limited.

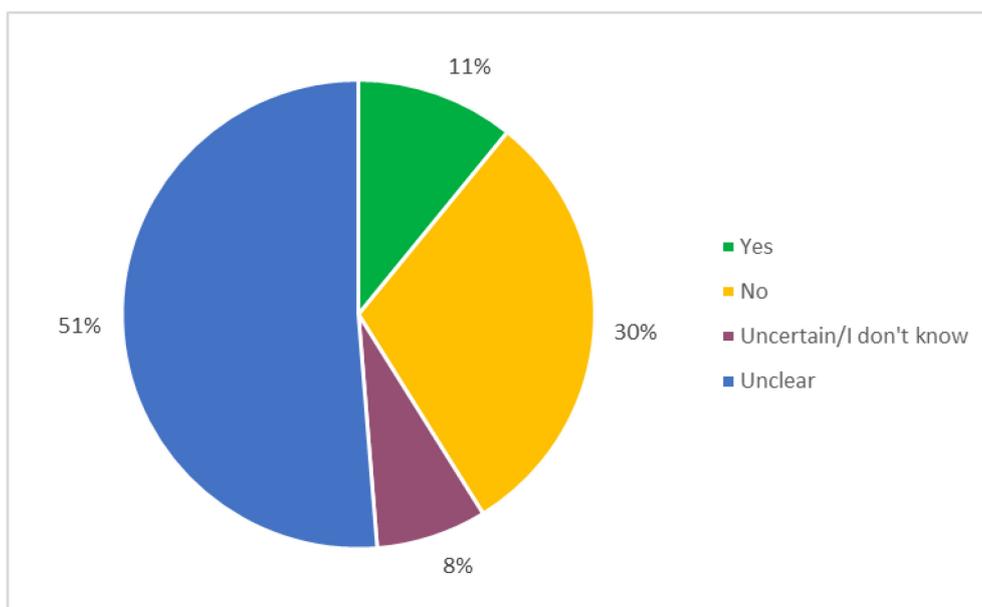


Figure 20: Responses to Question 21

22.2 The responses from members of the public and organisations showed very similar distribution across the response types (yes, no, etc.) (Figure 20). The **majority** of responses were unclear or did not give an opinion in agreement or disagreement with the estimate regarding increased costs to industry. These responses mentioned the following themes:

- Some respondents expressed a view that the environmental costs of using plastic straws are greater and more important than the economic costs of the alternatives.
- Some respondents suggested that the costs of alternatives would decrease over time as a result of increased demand and economies of scale.
- A small number of respondents were unsure whether the government's estimation takes into account the overall reduction in the number of plastic straws being manufactured due to decrease in demand.

22.3 Many of the respondents did not agree with the estimated cost to industry. These responses gave the following reasons:

- Some respondents believed that the costs to industry would be higher, due to the costs associated with alternative materials, investment in new equipment or manufacturing facilities, and product redesign and change.
- Some respondents believed that the costs to industry would be lower, due to the reduction in demand for straws and the economy of scale in producing more straws from alternative materials.
- Several respondents believed that the proposed ban would not considerably affect the industry, as the costs would be passed on to the consumer.
- A large manufacturer stated that they have carried out their own calculations which estimate the cost of finding alternatives for their products which require single-use plastic straws would be four to five times more than their current solution.
- Tetra Pak Limited stated that the government's estimate does not consider:
 - Cost for developing alternatives that can be attached to food or drink cartons
 - Cost for redesigning cartons so that paper straws can be used
 - Cost for the range of paper straws that would be required (e.g. U-shaped straws, telescopic straws)
 - Capital equipment costs for producing the straw
 - Capital equipment costs for applying the straw to a carton
- Tetra Pak Limited also stated that the industrial-scale production of on-pack paper straws is a challenge as alternative paper-straw production technologies are currently not suited to high volume production in demanding food-safe environments, and that significant R&D investments of over £30 million would be needed to develop alternatives.
- Tetra Pak Limited estimates the cost in capital equipment investment to be in the region of tens of millions of pounds over the next five to seven years.

22.4 A small number of respondents agreed with the government's estimate, providing the following additional information:

- Some of the respondents stated that the increased cost is worth paying to protect the environment.

- Several respondents suggested that overall straw consumption would reduce as a result of a ban on plastic straws, so costs would be further reduced.

22.5 The Food and Drink Federation added the following: “We would urge the government to take a holistic view of the wider pressures being faced by industry at the present time along with the attendant risks, before deciding whether to proceed with a ban. These include the proposal to introduce a Deposit Return Scheme, reform of the Packaging Producer Responsibility legislation, a tax on plastic containing less than 30% recycled content plus the wider market uncertainty due to Brexit.”

Government response

22.6 The views and additional evidence provided in response to this question have been used to update and finalise our Impact Assessment.

23.0 Question 22: Do you agree with the government's assumption that the price of non-plastic straws will remain unchanged following a ban?

- If not, please supply evidence or modelling you have undertaken

23.1 A total of 681 responses were received. Those who responded comprised of 496 members of the public, and 185 others including NGOs, manufacturers, retailers and the public sector.

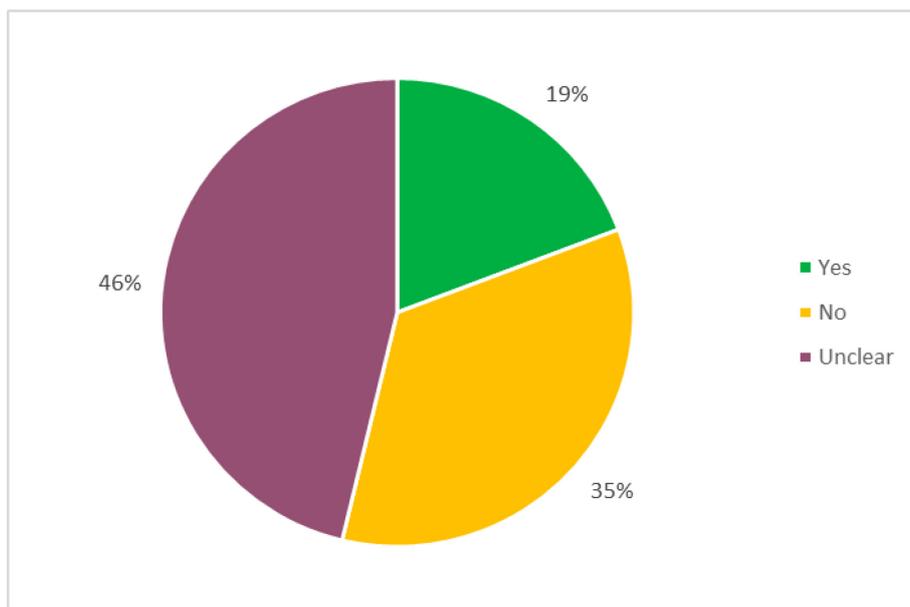


Figure 21: Responses to Question 22

23.2 No robust statistical evidence was identified by respondents to support their assumptions, and no evidence of modelling carried out was reported.

23.3 A range of views were received in response to this question, with no clear consensus from the respondents (Figure 21). Members of the public expressed similar overall views to people responding on behalf of organisations.

23.4 Many of the respondents were unclear in their view on whether they agree with the government's assumption, but did express their opinion on how the cost could change. A range of views provided are presented below:

- Many respondents believe that increased demand for non-plastic straws may drive a cost reduction due to economies of scale.
- Several responses mentioned the possibility that prices could go up, with concern that those who need straws for medical reasons may be exploited.

23.5 The majority of respondents who provided a clear answer in their response did not agree with the government's assumption. The reasons provided in support of this view included:

- Many respondents believe that increased demand for non-plastic straws may drive a cost reduction due to economies of scale.
- Some respondents suggested that the market for non-plastic straws would become more competitive with more suppliers moving into this space, which could drive costs down.
- The Bio-Based and Biodegradable Industries Association responded with a view that they do not foresee any dramatic price changes, however it is difficult for them to predict how the market will change. In the long term, they believe that the price of compostable materials will fall as their consumption increases.

23.6 Some of the respondents did agree with the government's assumption, and shared their reasons for supporting as follows:

- A number of respondents, even though they stated that they agree the price will remain unchanged, stated that economies of scale in the future could result in cost reduction in the long term.
- Some respondents believe that demand for all types of straws will reduce, and hence the price will remain the same.

Government response

23.7 The views and additional evidence provided in response to this question have been used to update and finalise our Impact Assessment.

24.0 Question 23: Do you agree with the government's assumption that overall demand/ consumption of straws will remain unchanged (hence no behavioural response from a ban)?

- If not, please supply evidence or modelling you have undertaken

24.1 A total of 817 responses were received. Those who responded comprised of 610 members of the public, and 207 others including NGOs, manufacturers, retailers and the public sector. Key responses from organisations included the British Institute of Innkeepers, and the British Soft Drinks Association.

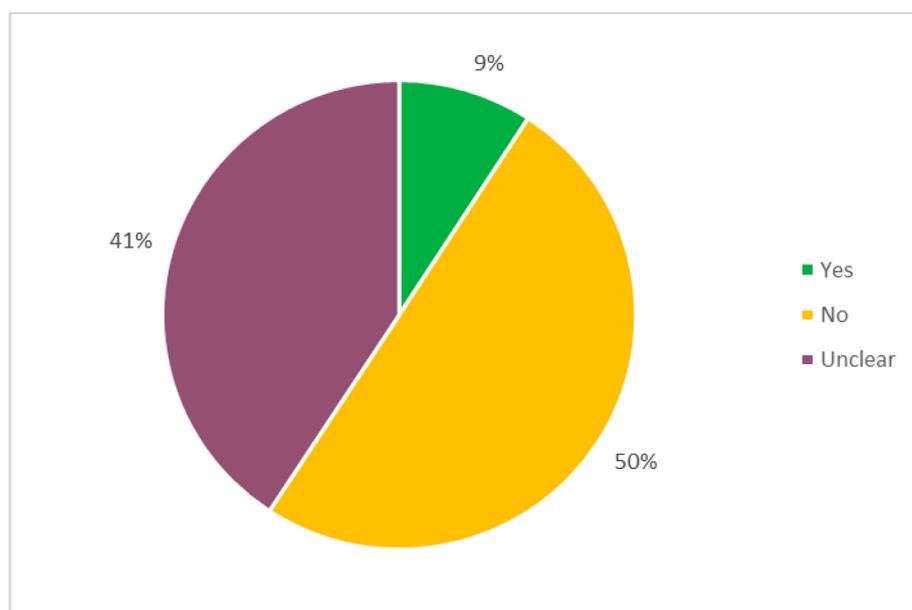


Figure 22: Responses to Question 23

24.2 No robust statistical evidence was identified by respondents to support their assumptions, and no evidence of modelling carried out was reported.

24.3 Approximately half of responses did not agree with the government's assumption (Figure 22). Reasons included the belief that public opinion and behaviour towards single-use plastics is already changing. Some of the respondents who did not agree with the assumption believed that demand for straws would decrease, due to increased cost of straws and a change in public opinion and behaviour.

24.4 Many responses were unclear in their sentiment in agreement or disagreement with the question, some of whom stated that they don't know how to respond, while others stated reasons such as straws are still required for disability reasons. The largest minority theme found was the responses which mentioned behaviour change; a number of responses mentioned behaviour change but were not clear on whether they believed demand would increase or decrease.

24.5 A small number of respondents did agree with the government's assumption, although very few respondents gave reasons for this belief. A small number of people stated that straws are still necessary, so the demand will remain the same.

24.6 A trade association stated in their response that change in behaviour has already been reported in some businesses, including a decline in the use of straws by 63% as a result of moves to supply straws only upon direct request from customers.

24.7 In support that the demand for straws will decline, the British Institute of Innkeepers stated that they have seen a change in the awareness of the public about what is happening to our environment, which has caused a reduction in the demand for plastic straws.

24.8 The British Soft Drinks Association stated that the use of loose plastic straws in pubs, supermarkets and restaurants will fall sharply, as these are not being offered automatically to customers, and alternatives are already being used across much of the sectors. However, they believe that the demand for products with on-pack straws is unlikely to decrease, as people are making a specific choice to buy this product.

Government response

24.9 The views and additional evidence provided in response to this question have been used to update and finalise our Impact Assessment.

Part B: Plastic-stemmed cotton buds

25.0 Question 24: Do you support the proposal to introduce a ban on the distribution and/or sale of plastic-stemmed cotton buds in England?

- Yes / No
- Please give reasons

25.1 A total of 1,420 responses were received, of which 1,126 were from members of the public, and 294 were from organisations, including Wessex Water, the Co-operative Group, British Retail Consortium, Fidra, Surfers against Sewage, Merseyside Recycling and Waste Authority and SUEZ Recycling and Recovery UK Ltd (SUEZ). 768 respondents gave extra information/reasons in support of their response. Key responses from organisations included Thames Water, United Utilities, Welsh Water, Severn Trent Water Ltd., Wessex Water, Fidra, and the British Plastics Federation.

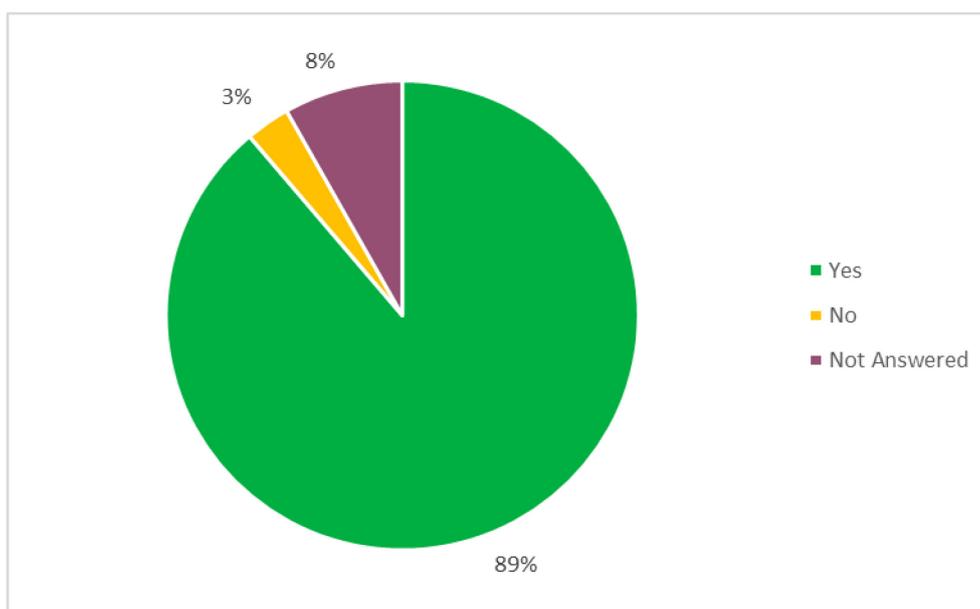


Figure 23: Responses to Question 24

25.2 Members of the public **predominantly** supported the ban (Figure 23). Many did not provide a reason for their support. When reasons were given, many reported that plastic cotton buds were harmful to the environment/wildlife and caused litter, particularly in the marine environment. Members of the public reported that plastic cotton buds were one of the most common items of litter found whilst taking part in beach cleans, and by marine litter organisations. Other reasons for supporting the ban were as follows:

- A small minority were clear that other alternative materials to plastics were currently available as replacements for plastic-stemmed cotton buds, pointing

out that many supermarkets already stocked these alternatives. Paper and cardboard were the most commonly mentioned alternative materials, whilst biodegradable and bamboo alternatives were also mentioned.

- Another small minority said these items were altogether unnecessary and could easily be banned.
- Another small group mentioned the issues with plastic cotton buds in sewer systems, and how people often flush them down the toilet.

25.3 Of the members of the public who did not support the ban, a variety of reasons were mentioned:

- A small number did not believe that the government should intervene and ban products, but should leave decisions like this up to economic markets and consumers.
- A small number did not agree to a ban on plastic cotton buds as these were important for medical uses, including allergies and conditions which would make using alternatives impossible.

25.4 The **majority** of organisations were in support of a ban on plastic cotton buds. Many did not provide a reason for their support. Of those that did provide a reason, many believed plastic cotton buds should be banned on the grounds that there were perfectly functional alternatives already available. Many also noted that plastic cotton buds often caused litter and were unlikely to be recycled. Other reasons organisations supported the ban were as follows:

- Several organisations mentioned that plastic cotton buds are problematic when disposed of incorrectly, such as flushing them down the toilet. This group included Severn Trent Water Ltd who noted that plastic cotton buds contribute to blockages, flooding and pollution in the sewers, and a proportion can escape from our sewers into the aquatic environment.
- Another waste and wastewater company welcomed the ban alongside further behaviour change campaigns around responsible disposal of cotton buds, including those made from alternative materials to plastic.
- Several other respondents from the water industry including Thames Water and United Utilities said that plastic-stemmed cotton buds make up a proportion of the items which are captured by inlet screens and that they would support a ban for this reason.
- Several organisations believed they should be banned on the basis that they are an altogether unnecessary item, which should be removed in order to limit damage to the environment/wildlife.

25.5 Fidra, an environmental charity, has been involved in 'The Cotton Bud Project' since 2013, to highlight the issue of plastic-stemmed cotton buds. Following three years of discussions with Fidra, in 2016, Johnson & Johnson Ltd publicly committed to change from plastic to paper stems. Fidra expressed the view that "A ban will not only make sure that no new plastic cotton buds enter our marine environment but will also support those

retailers and manufacturers who have already made the progressive step to swap plastic with paper”.

25.6 A small number of organisations did not support the ban on plastic cotton buds. Many of those who did not support the ban did not provide a reason for this decision. Some respondents believed that alternatives had a higher environmental impact than plastic cotton buds. One mentioned that paper products are energy intensive and often result in higher greenhouse gas emissions than plastic. Other reasons for not supporting the ban were for accessibility reasons, disagreeing with government regulation, the small impact this would have on the environment and an alternative reduction method of encouraging greater recyclability.

25.7 The British Plastics Federation did not answer yes or no, but did express a view that the disposal of the items incorrectly is what causes the environmental cost, adding that “We would also recommend information campaigns focusing on informing consumers about the impacts of flushing cotton buds (and other non-sewage related items) down the drain or dropping them on the ground. This would achieve the behavioural change needed to deal with this issue in a more comprehensive way. Labelling should take place on packs of buds to inform consumers about the impacts that cotton buds could have in the environment.”

25.8 Wessex Water expressed a view that the ban should be extended to other bathroom consumed/flushed products such as wet wipes, adding that “We wish to see a clear commitment from government to adopt a similar future approach to eventually ban the distribution and sale of wet wipes containing plastic, in order to encourage manufacturers to develop more environmentally-friendly alternatives. We also urge the government to take action on sanitary products in the form of placing an obligation on retailers to stock alternative products that do not contain plastics”. The response from Welsh Water reflected similar views, while also calling for clear ‘do not flush’ labelling on packaging for such products.

Government response

25.9 It is clear from the consultation responses that the majority of respondents (89%) support the proposal to introduce a ban on the distribution and/or sale of plastic-stemmed cotton buds in England. A minority (3%) of respondents did not support the ban.

25.10 The government notes that plastic stems of cotton buds have a significant impact on the environment. An estimated 10% of cotton buds are flushed down toilets, and once flushed the items are able to make their way through sewage plants and out into the marine environment. Campaigns to discourage this practice have been met with limited success. Incorrect disposal methods lead to costs to society including visual pollution and damage to marine ecosystems, all of which have a negative well-being impact on people.

25.11 We note that there have been voluntary moves from plastic to paper stems by manufacturers and retailers. Plastic-free alternatives already exist in the market; brand manufacturer Johnson and Johnson produce paper-based cotton buds in mainland Europe and Sainsbury's now offers a plastic-free adhesive for paper stemmed cotton buds. Major supermarkets have followed suit by either switching to biodegradable paper or committing to doing so.

25.12 The government will introduce a ban with exemptions to the supply of plastic-stemmed cotton buds to the end user in England, with the exception of those plastic-stemmed cotton buds required for scientific, medical and forensic purposes. The ban with exemptions falls under plans to protect our rivers and seas and in line with our Resources and Waste Strategy and the 25 Year Environment Plan.

25.13 The ban with exemptions will ensure that cotton buds sold in England are made of environmentally friendly materials that will decompose quicker and will have lower life-cycle impacts on the environment. The ban with exemptions will support those businesses who have already invested in plastic free cotton buds which will create a level playing field for businesses to provide consumers with alternatives.

26.0 Question 25: Do you agree with our proposed date for the ban (October 2019)?

- Yes / No
- If no please explain why

26.1 1,545 respondents provided answers, and 154 did not provide an answer. Of those that answered, 961 were members of the public and 230 were organisations. Overall, 1,191 respondents agreed with the proposed date of October 2019 for the ban on cotton buds, and 354 disagreed (Figure 24).

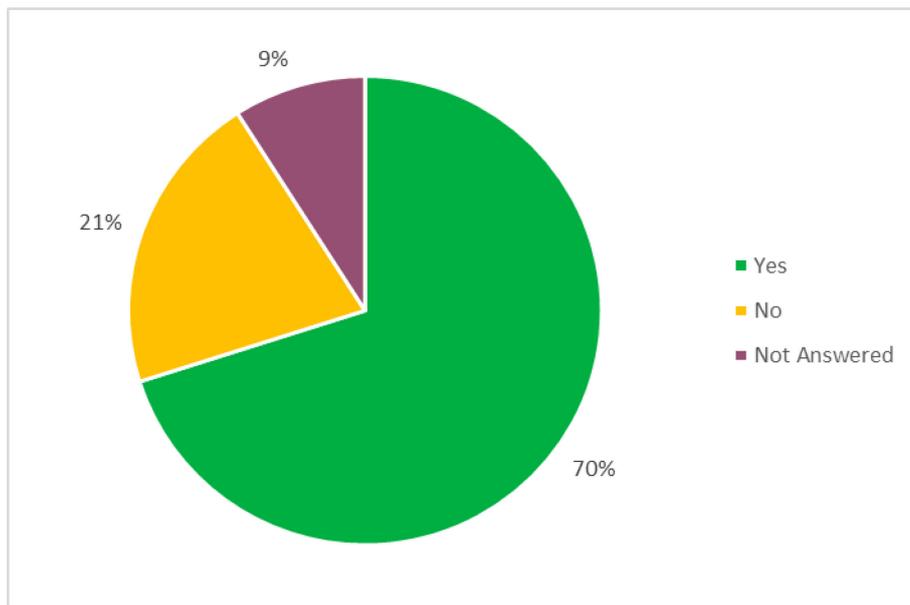


Figure 24: Responses to Question 25

26.2 Of the 1,545 respondents, only 267 provided additional reasoning. Key organisations providing reasoning are Fidra, the Co-Operative Group, SUEZ and Natural England. The majority of respondents, (organisations and members of the public) expressed the preference for the ban to be implemented sooner than the proposed date, many suggesting February or April 2019.

26.3 SUEZ agreed with the proposed date, however suggested that it may be advantageous to align all the bans' implementation dates to allow for clear communication and engagement programmes.

Government response

26.4 The government notes the desire for the ban to be introduced sooner rather than later and the fact that alternatives to paper stems are already available on the market.

26.5 In order to tackle plastic pollution and protect our environment, the ban with exemptions for the supply of plastic-stemmed cotton buds to the end user is planned to come into force in England in April 2020.

27.0 Question 26: Do you agree that the ban should cover all compostable and biodegradable plastic (such as PLA)?

- Yes / No
- Please give reasons and any evidence that might be helpful. Are there environmental or economic reasons why these should not be banned?

27.1 A total of 1,541 responses were received, with 1,206 from members of the public and 335 from organisations. Overall (for both members of the public and organisations), a **majority** agreed that the ban should cover all compostable and biodegradable plastic, including Polylactic acid (PLA) (Figure 25).

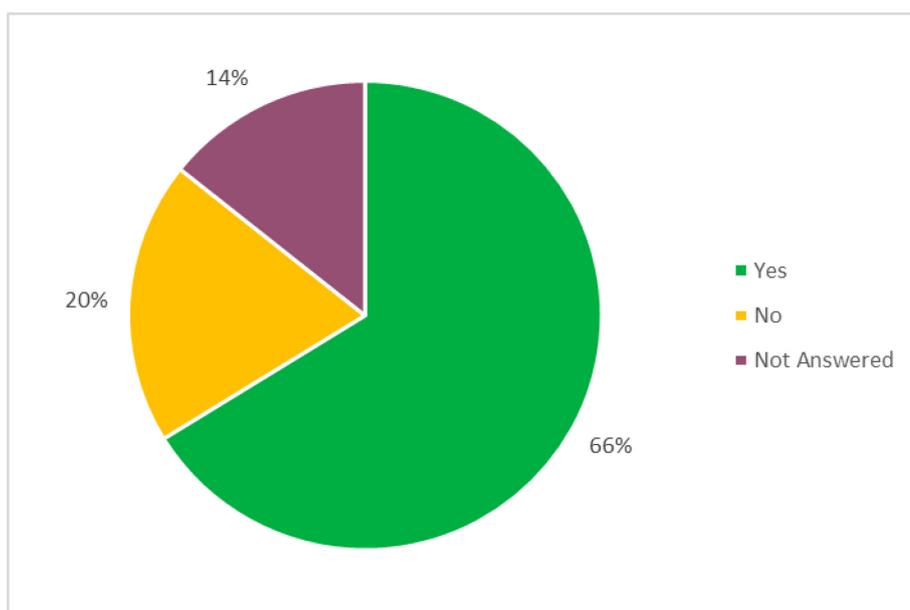


Figure 25: Responses to Question 26

27.2 Of those that provided reasoning and/or evidence, respondents **predominantly** cited environmental reasons. An equal (not majority) of respondents shared the view that biodegradable plastic does not fully degrade in the environment. Fidra referenced a study by Narancic et al in 2018 that tested the biodegradation of the six most common 'biodegradable plastic alternatives' (including Polylactic acid (PLA) and polycaprolactone (PCL)) across a variety of environments. The reference to this paper suggested that its findings showed that the majority of polymers and their blends failed to achieve ISO and ASTM biodegradation standards, and some failed to show any biodegradation.

27.3 Organisations such as Fidra, Surfers Against Sewage, Palagan Limited, British Plastics Federation, Thames Water, the Co-Operative Group, SUEZ Recycling and Recovery UK Ltd, United Utilities, and Chartered Institution of Water and Environmental Management stated biodegradable plastic will not solve the problem of marine litter. Many were concerned that cotton buds made from biodegradable plastic will encourage consumers to continue disposing of them improperly, for example by flushing them down the toilet, as they think the product will biodegrade, when in fact this is likely not the case.

27.4 Some respondents expressed a view that better alternatives to biodegradable plastic, namely paper, are widely available and pose a comparatively smaller risk than Polylactic acid (PLA). Several respondents also added that given the current technology at waste recovery facilities, paper is easier to treat than biodegradable plastics.

27.5 Symphony Environmental Technologies plc expressed the view that the ban “Should absolutely not cover Oxo-biodegradable plastic” - a view which is shared by Seoil UK Limited. Symphony also suggested that the term biodegradable causes confusion, preferring either ‘compostable’, or ‘Oxo-biodegradable’. The company also added about Oxo-biodegradable plastics; “This technology causes ordinary plastic to oxidise much more quickly in the open environment and convert into biodegradable materials. These materials are then consumed by bacteria and fungi, who recycle it back into nature, leaving behind only water, biomass, and a small amount of carbon dioxide”. Some organisations, including the Foodservice Packaging Agency and the Renewable Energy Association, expressed the opposite view: that Oxo-biodegradable plastics are problematic and should be included in the ban.

Government response

27.6 The majority of responses from members of the public and organisations (66%) agreed that the ban should include compostable and biodegradable plastics with (20%) saying No and (14%) Not answered. Those who agree cited environmental reasons and that biodegradable plastic biodegrades in very specific circumstances.

27.7 It is currently unclear whether plastics currently labelled as biodegradable are fully biodegrading in all environments, especially the marine environment in the absence of heat and UV light. Therefore, the ban will cover all types of plastic straws including those carrying a biodegradable or compostable standard.

27.8 Further information on the benefits and limitations of bio-based, biodegradable and oxo-degradable plastics is set out in government’s recent [Resources and Waste Strategy](#). As set out in the recent [Bioeconomy Strategy](#), government will work with UK Research and Innovation and industry to seek evidence on the demand, benefits and implications of a standard for bio-based and biodegradable plastics.

27.9 The government has previously stated that it will explore a biodegradable standard for plastics. In the event that such a standard is established and is proven to have better environmental outcomes than current alternatives such as paper stems, the government will consider exempting these from the ban.

28.0 Question 27: Can you provide supporting evidence of any expected additional costs and or constraints to industry from this proposed ban?

28.1 A total of 144 responses were received, however 81 responses were excluded from the analysis as they did not directly answer the question, for example several responses purely said “No”, and many responses did not refer to costs to industry.

28.2 Of the categorised responses from both members of the public and organisations, a **majority** believed that there would be no additional costs to industry, as alternatives are already readily available on the market.

28.3 Fidra stated that the ban would serve to level the playing field for businesses who have already made the switch from plastic stems to paper stems. A ban in England would also align with the similar Scottish proposal to ban plastic-stemmed cotton buds, and more widely across the European Union following the vote on the Single Use Plastic Directive, removing any potential trade barriers in the future.

28.4 Southern Water included the following financial figures: “So far this year, we have removed more than 5,700 tons of debris from the wastewater we treat, a large proportion of which is made of, or contains, plastic... Nation-wide, £90 million is spent on clearing blockages every year.”

Government response

28.5 The views and additional evidence provided in response to this question have been used to update and finalise our Impact Assessment.

29.0 Question 28: Are there any risks that alternatives to plastic-stemmed cotton buds will themselves have significant environmental impacts?

- Yes/No
- If so, how could these risks be avoided, minimised or mitigated? Please supply any evidence you may have to support your suggestions.

29.1 A total of 1,545 responses were received, 696 from members of the public and 219 from organisations. However, of the 1,545 responses, 630 were “Not Answered”, although some did provide responses for the second part of the question. Of the remaining “Yes/No” responses, opinions were evenly split, with a **majority** responding “No” (Figure 26).

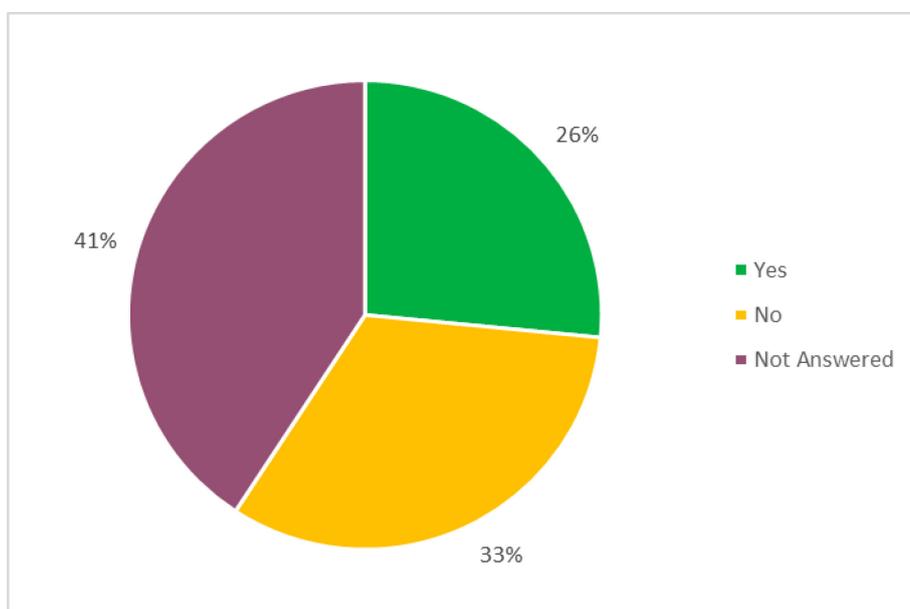


Figure 26: Responses to Question 28

29.2 It should be noted that responses between members of the public and organisations and were split; overall, a **majority** of members of the public believed that alternative materials did not have any significant environmental impacts, and a **majority** of organisations believed they did (Figure 27).

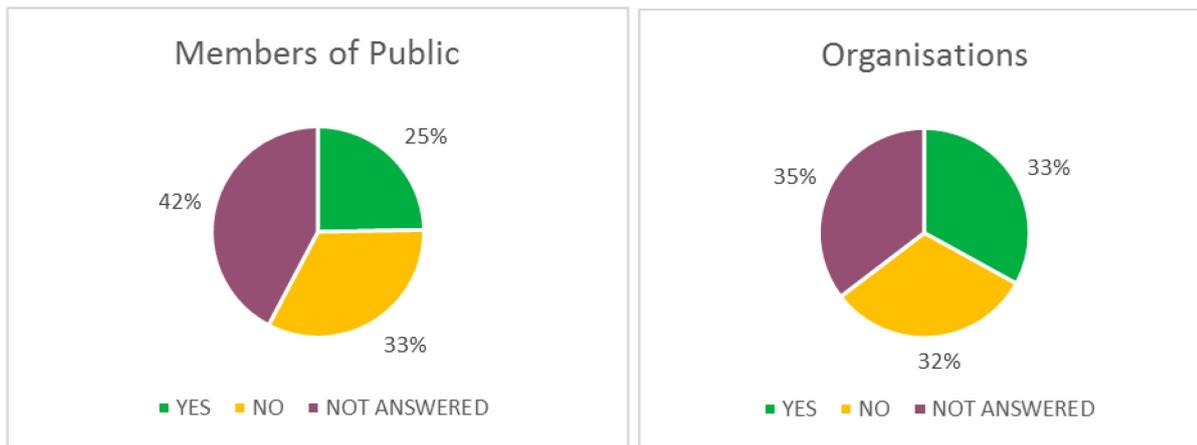


Figure 27: Responses from Members of the Public and Organisations for Question 28

29.3 Reasons provided in the respondent's answers were similarly divided. Below is a summary of the views shared by respondents, in descending order:

- Alternatives must be sourced from sustainable materials. Fidra, among others such as Thames Water, Chartered Institution of Water and Environmental Management, the Co-Operative Group, and the Merseyside Recycling and Waste Authority, held this view. Fidra added that as paper production depends on forestry and recycled content, it is vital that any alternatives to plastic are responsibly sourced, considering issues such as land access for virgin production and chemical contaminants in recycled content.
- Environmental risks associated with higher demand for paper. The Co-Operative group and Natural England shared their concern over the higher environmental impact that producing paper has compared to plastic (land and timber use, chemical and pesticide use, etc.), as did many members of the public.
- The alternative of paper is less harmful than plastic in terms of environmental risk. This view was commonly held by Welsh Water and the Chartered Institution of Water and Environmental Management.
- More analysis and research must be done on the impacts of alternatives. This view was mostly held by organisations, who cautiously advised that the environmental costs of alternatives should be thoroughly investigated and considered by industry, in order to reduce impact and avoid any unintended consequences.
- Alternatives will likely still be disposed of in the same manner, causing similar and persistent issues with sewage and marine litter. This view was commonly held among organisations. Most insisted that regardless of the material used for cotton buds, if no communication or labelling is used to prevent improper disposal in full, the cotton buds will still end up in marine environments. Thames 21, for example, shared that plastic cotton buds are particularly prevalent in their data; they represent 13% of all litter counted on the foreshore of the Thames, and are

consistently observed to constitute approximately 5-10% of marine debris surveyed in European seas. United Utilities stated the same reasoning, adding that encouraging and promoting responsible disposal would provide greater environmental value than the ban alone. AWS and Welsh Water agreed, adding that behaviour change must be a key priority.

Government response

29.4 The government notes that while alternatives to plastic may have environmental impacts, we believe that the impact from plastic pollution is more detrimental: plastics have a significant impact on our environment, both on land and in our seas and rivers when they are either littered or discarded incorrectly after use, as they take years to degrade and once they do, they break into microplastics.

29.5 Plastic is an incredibly versatile material that forms a key component of many products we use today. It is tough and long-lasting which is why it can also be a problem for the environment. While plastic plays a useful role in the economy and provides essential applications in many sectors, its growing use in short-lived applications, which are not designed for re-use or cost-effective recycling means that related production and consumption patterns have become increasingly inefficient. The steady increase in plastic waste generation and its leakage into our environment, in particular into the marine environment, must be tackled in order to achieve a circular lifecycle for plastics and protect the environment.

29.6 The government believes plastics production needs to be directed towards ensuring that fewer single use plastics are produced and more reuse and recyclable materials are preferred and promoted. We want to support Research /Development, innovation to finding solutions to increase the recyclability of plastics and alternatives to commonly used single use plastics. The UK government has committed a £61.4 million package of funding to boost global research and help countries across the Commonwealth stop plastic waste from entering the oceans in the first place.

30.0 Question 29: Do you agree with our proposals to exempt plastic-stemmed cotton buds for scientific uses? (For example, those used within forensic science provision, including taking swabs and samples under the Police and Criminal Evidence Act 1984).

- Yes / No
- Please give reasons.

30.1 A total of 1,228 responses were received, of which 970 were from members of the public, and 258 were from organisations, including Wessex Water, Severn Trent Water Ltd., and Fidra. 671 respondents gave extra information/reasons in support of their response. There was no majority response to this question when analysed. (Figure 28). However, when sector was included in the analysis, a **majority** of answers from members of the public were not in favour of the exemption. The **majority** of responses from organisations were in favour.

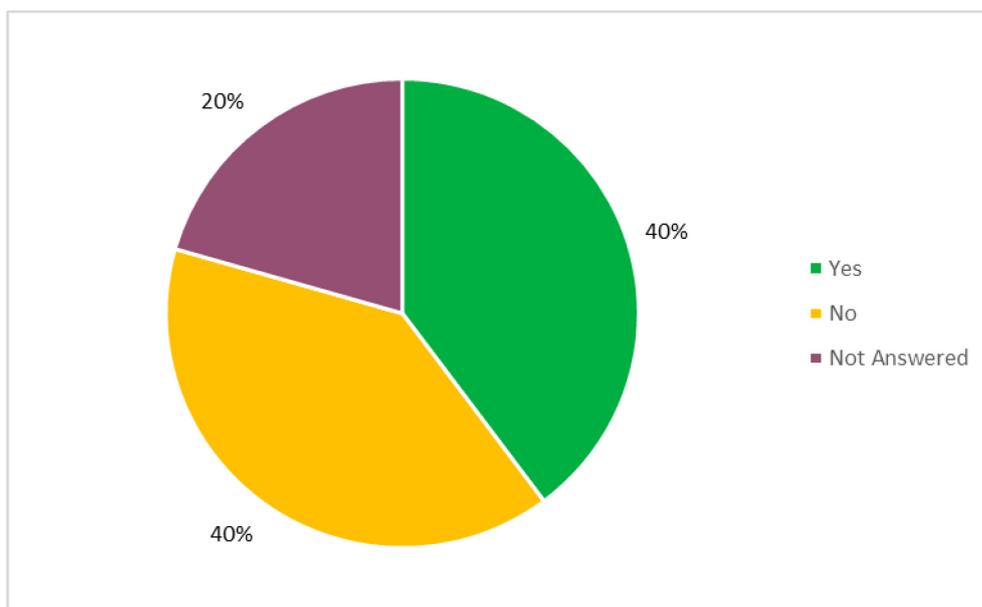


Figure 28: Responses to Question 29

30.2 Water companies such as Wessex Water and Severn Trent Water Ltd. expressed the view that cotton buds used for scientific purposes will not be incorrectly disposed of into public sewers, hence there should not be an issue in terms of plastic litter/pollution. However, Wessex Water added “It is not clear from the consultation why non-plastic alternatives cannot be used for scientific purposes”.

30.3 Of the respondents in favour of an exemption, many indicated that they were in favour of the ban if there was no alternative to plastic for scientific purposes. Of those not

in favour of an exemption, the majority of respondents stated was that they are unconvinced that alternative materials to plastic would not be suitable. The reasons given between members of the public and non-members of the public were consistent with each other.

30.4 Fidra, an environmental charity, believes that, “This exemption should not be used as a loop hole and only accredited or registered organisations / companies should be allowed to manufacture, sell and supply to those scientific bodies.”

30.5 The British Plastics Federation stated that “scientific uses (forensic, medical applications, etc.) may need to be exempted as alternatives might not be fit for purpose due to strength, stiffness, hygiene, or contamination risk. The users in these applications might reasonably be expected to dispose of plastic cotton buds responsibly”.

Government response

30.6 The government will exempt plastic-stemmed cotton buds for use for scientific, medical and forensic purposes.

30.7 We note that the plastic-stemmed buds that are used to take reference samples (both crime scene and elimination) are processed in the laboratories and destroyed under controlled conditions, therefore there is limited negative impact on the environment.

31.0 Question 30: Are there any uses of cotton buds where there is no suitable alternative to a plastic stem?

- Yes/No
- If so, how could these risks be avoided, minimised or mitigated? Please supply any evidence you may have to support your suggestions

31.1 A total of 927 responses were received, of which 724 were from members of the public, and 203 were from organisations. 179 respondents gave extra information/reasons in support of their response.

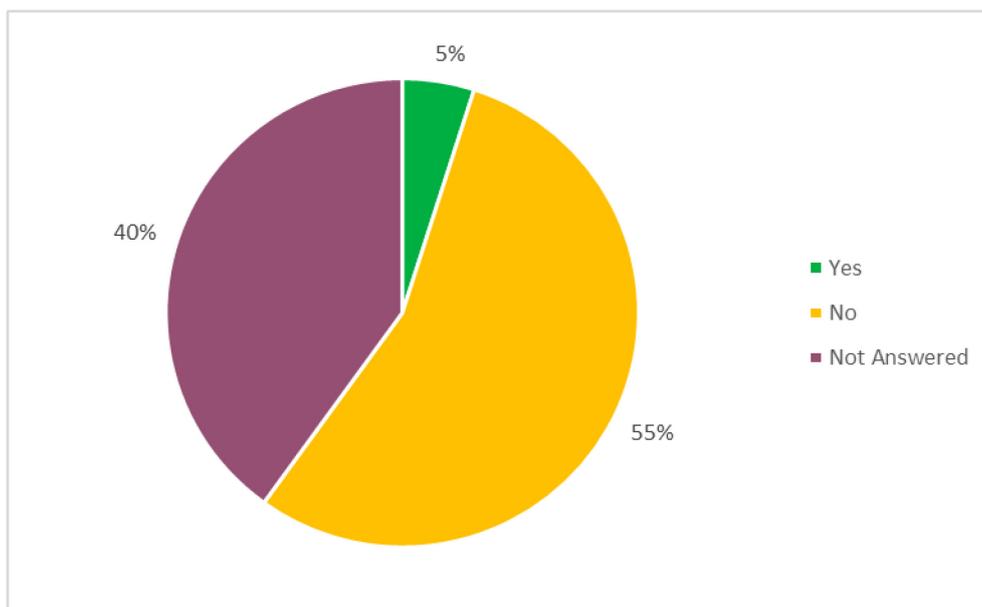


Figure 29: Responses to Question 30

31.2 No robust statistical evidence was identified by respondents to support their assumptions, and no evidence of modelling carried out was reported.

31.3 The **majority** of respondents did not recognise that there could be uses of cotton buds where there is no alternative to it having a plastic stem (Figure 29). Of those indicating that there were uses of cotton buds where a plastic stem would be necessary, many stated that medical use would be an application. Some indicated that forensic investigation techniques may require the use of plastic stems, and that paper-stemmed buds were not always compatible with the specialist technical equipment used to analyse swabs from DNA sampling. Some did not state a specific application but stated that alternatives to plastic stems may not provide a sterile or germ-free surface to work with.

31.4 The British Plastics Federation stated that scientific uses (forensic, medical applications, etc.) may need to be exempted as alternatives might not be fit for purpose due to strength, stiffness, hygiene, or contamination risk. The users in these applications might reasonably be expected to dispose of plastic cotton buds responsibly.

Government response

31.5 The government notes the widespread availability of alternatives to plastic-stemmed cotton buds and the fact that the majority (55%) of respondents did not recognise that there could be uses of cotton buds where there is no alternative to it having a plastic stem. However, the consultation responses indicated there were likely to be a limited range of narrow circumstances where non-plastic stems were not compatible with technical equipment, and that these buds were very unlikely to cause littering or marine pollution issues due to their strict disposal requirements. Therefore, we will exempt plastic-stemmed cotton buds for use for scientific, medical and forensic purposes.

32.0 Question 31: Our proposals for enforcement are that the ban will be enforced through civil sanctions set out in Part 3 of the Regulatory Enforcement and Sanctions Act 2008.

- **How should compliance with the ban be monitored?**
- **Who should enforce the ban? (For example, Local Authorities, Trading Standards or Office for Product Safety and Standards)**

32.1 A total of 441 responses were received, of which 319 were from members of the public, and 122 were from organisations, including Keep Britain Tidy, the Co-operative Group, and SUEZ Recycling and Recovery UK Ltd. Key responses from organisations included Welsh Water, Thames Water, United Utilities and Anglian Water Services.

32.2 A variety of monitoring methods proposed by some consultees included checks (not further specified), inspections, audits and declarations. A **majority** proposed that local authorities, including Trading Standards, enforce the ban. Many proposed involvement from both the public and the supply chain, including manufacturers. A small number proposed that the Office for Product Safety and Standards should be the enforcement organisation.

32.3 Welsh Water added that “Trading standards departments of local authorities are policing the existing microbeads bans (from cosmetics etc.) using powers that have been conferred on them under the Regulatory Enforcement and Sanctions Act 2008. It seems sensible to build on this role, but if so, local authorities will need [to be] resourced accordingly. Given that the purpose of the regime will be to reduce the scourge of plastics in the environment, the option of accepting enforcement undertakings under the 2008 Act, enabling offenders to deliver practical environmental benefits, would seem particularly appropriate.”

32.4 In contrast to the statements above, United Utilities expressed a view that Local Authorities already struggle to enforce existing powers across various disciplines due to resource challenges. Anglian Water Services added that the manufacture and distribution of cotton buds is unlikely to fall under one single local authority area, hence it would make sense for the Office for Product Safety and Standards (OPSS) to be involved.

Government response

32.5 The ban will be enforced through civil sanctions set out in Part 3 of the Regulatory Enforcement and Sanctions Act 2008. We will work closely with local authorities and other relevant stakeholders in order to establish the most effective and efficient way of enforcement, and take these responses into account in doing so.

33.0 Question 32: Is there anything else you would like to tell us relating to the proposed ban on the distribution and/or sale of plastic-stemmed cotton buds?

33.1 A total of 210 responses were received, of which 140 were from members of the public, and 70 were from organisations. Key responses from organisations included the Marine Conservation Society, the Chartered Institute of Waste Management, Anglian Water Services, United Utilities and Natural England.

33.2 A variety of themes were presented in the answers provided. Many stated the importance of the environment in relation to the ban, with sub-themes of wildlife, beaches and the oceans, while many called on the government to implement the ban soon. A small number of respondents called for education and communications to accompany the introduction of the ban. The Marine Conservation Society suggested that “Going forward there is clear labelling on cotton bud packets not to flush them down the toilet to lead to further positive behaviour change around what should and should not be flushed”.

33.3 Several respondents wrote about issues regarding communications / benefits regarding the ban and the impacts of plastic buds being disposed of to the sewer. The Chartered Institute of Waste Management added that “There have been a number of campaigns on what not to flush down the toilet and CIWM believes it is paramount that such campaigns continue and target marketing to coincide with the outcome of this consultation. Perhaps this is considered under the Litter Strategy national campaign or

government works with those already campaigning. Thames Water Bin it don't Block it; National Bag It and Bin It campaign are a few examples.”

33.4 Several organisations including water companies expressed the view that the government should consider a ban on products made with plastic fibres such as wet wipes, as these are commonly found in the sewerage system. United Utilities added that “These products are a significant contributor to the causes of flooding and pollution recorded in the water industry. These items have a significant impact, particularly where plastic fibres are part of the construction, due to the widespread use by the public and the likelihood of being flushed. Our view is that a ban on products such as these would also be beneficial.”

33.5 Anglian Water Services expressed the view that the issue of micro plastics entering the water cycle through laundry also requires attention. The organisation added that “According to Plymouth University, a single washing machine cycle can release over 700,000 micro plastic particles into the water cycle. Therefore, we would welcome government intervention to help encourage further innovations [with/from] clothing and washing machine manufacturers in order to tackle this plastic pollution at source.”

33.6 Natural England added “We would like to highlight that some biopolymers which can be utilised in place of plastics can degrade in the marine environment – for example cellulose or PHAs (polyhydroxylalkanoates) – as demonstrated by peer-reviewed studies (Greene, 2018; Thellen et al. 2008). [These] could potentially be considered for personal hygiene products (Dietrich et al. 2017) that enter sewerage systems and waterways”.

33.7 The Marine Conservation Society also added that “The Scottish Government have already drafted legislation to ban plastic cotton buds in Scotland so it would seem sensible to make sure that bans either side of the border are the same.”

Government response

33.8 The government will take further action against plastic pollution in line with our Resources & Waste Strategy and the 25 Year Environment Plan. The government will put in-place an effective communications strategy ahead of the proposed ban with exemptions to ensure that consumers and businesses are aware of the changes.

Part C: Plastic drink stirrers

34.0 Question 33: Do you support the proposal to introduce a ban on the distribution and/or sale of plastic drink stirrers in England?

- Yes / No
- Please give reasons

34.1 A total of 1,546 responses were received, of which 1,206 were from members of the public and 340 from organisations including the Foodservice Packaging Association, Bio-Based and Biodegradable Industries Association, British Plastics Federation, British Institute of Inn keeping, Fidra, Seoil UK Limited, Keep Britain Tidy, Environment Agency, Natural England, Co-Operative Group, SUEZ Recycling and Recovery UK Ltd, Environmental Association for Universities and Colleges and Symphony Environmental Technologies Plc. Overall, a **predominant** number of respondents supported the proposal to ban plastic drink stirrers in England, with only 36 respondents not supporting (Figure 30).

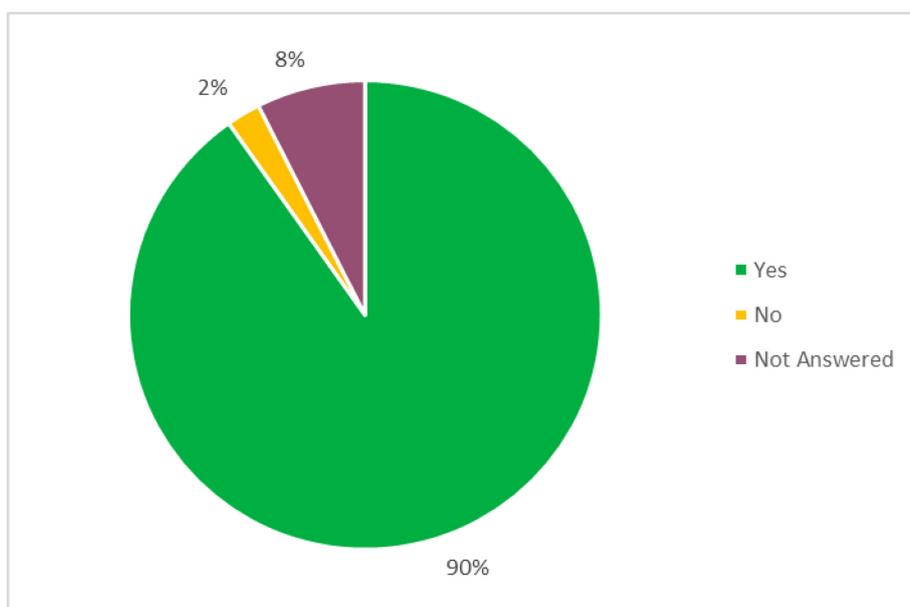


Figure 30: Responses to Question 33

34.2 Of the 1,546 responses, only 690 provided further reasoning. The following views were commonly expressed by both members of the public and organisations (listed in descending order):

- Alternatives to plastic drink stirrers are readily available on the market; the **majority** of respondents pointed to the use of alternative materials and/or products than can easily replace plastic drink stirrers, namely wooden stirrers or metal spoons.

- Drink stirrers are a commodity item and are therefore not vital; this opinion was shared by the British Plastics Federation, and many members of the public. Many members of the public added that, unlike straws (which can be very helpful for those with accessibility needs), drink stirrers do not disproportionately affect disabled people, making it a comparatively less divisive issue.
- Plastic drink stirrers are often disposed of as litter, causing environmental harm; the British Plastics Federation (among others) shared this view. They added that government should integrate the issue of marine litter in their national waste management strategies.

34.3 Alternative, minority views from those not supporting the ban included issues such as:

- Allowing alternatives to be used will not solve the problem of litter. Consumer education and awareness campaigns should therefore be given priority over bans.
- Allowing government to ban products gives government too much power; product use should be driven by industry.

Government response

34.4 It is clear from the consultation responses that the majority of respondents (90%) support the proposal to introduce a ban on the distribution and/or sale of plastic drink stirrers in England. A minority (2%) of respondents did not support the ban.

34.5 The government notes that alternatives to plastic drink stirrers are readily available on the market in the form of wooden stirrers and metal spoons.

34.6 The government will ban supply of plastic drink stirrers to the end user in England under plans to protect our environment and in line with our Resources and Waste Strategy and the 25 Year Environment Plan.

35.0 Question 34: Do you agree with our proposed date for the ban (October 2019)?

- Yes / No
- If no please explain why

35.1 A total of 1,391 responses were received, with 1,106 from members of the public and 285 from organisations, some of which included the Foodservice Packaging Association, Food and Drink Federation, Keep Britain Tidy and the Co-operative Group.

35.2 Overall, a **predominant** number of respondents agreed with the proposed date of October 2019 for the ban (Figure 31). For those that did not agree with the ban, a **predominant** number indicated it was because they wished for the ban to come into effect sooner than the proposed date, many citing April 2019. Alternative views expressed that the date should be the same as the ban for straws and cotton buds, to avoid confusion.

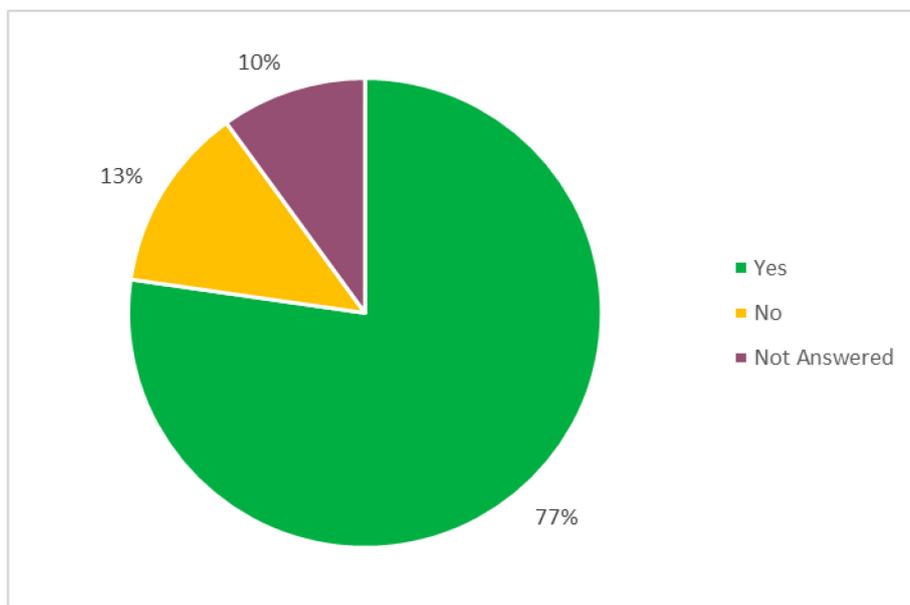


Figure 31: Responses to Question 34

35.3 Key respondents that did not agree to the proposed date were the Foodservice Packaging Association and UK Hospitality. The Foodservice Packaging Association expressed that the ban would not provide a solution to littering, as this ignores the more critical issue of addressing the behaviour of those who litter. They added, "The Treasury has indicated the aim of the proposed tax on plastics with less than 30% recycled content is to change behaviour and therefore a tax, if introduced, will not be enacted until April 2022. We propose a common date of April 2022 apply to all the actions proposed by the government to provide some consistency and clarity to business." UK Hospitality did not agree with the date because they were not convinced that there is an alternative to replace the plastic stirrers that is both cost effective and able to satisfy demand.

35.4 Key organisations agreeing with the proposed date are SUEZ Recycling and Recovery UK Ltd (SUEZ), and Nestlé UK. However, both include concerns regarding the date. SUEZ expressed concern about the communications involved in multiple bans brought in at different schedules and consider a coordination of bans (i.e. between the three products) most advantageous.

35.5 Nestlé UK on the other hand prefers a phased approach that would enable any existing stock already on the market to be used before new stock is introduced. They add, “As these products are often ordered in bulk, this would help us to ensure that any stirrers that are already in circulation have time to work through our supply chain.”

Government response

35.6 The majority (77%) of respondents to this question - both individuals and organisations - agreed that the ban should be in force from October 2019. Of the respondents who offered answers / reasons regarding when the ban should be implemented, a **majority** responded that the ban should be implemented sooner, many citing April 2019, earlier than the proposed date of October 2019. 13% of the respondents did not agree with the proposed date of October 2019 and 10% did not answer.

35.7 The government notes the desire for the ban to be introduced sooner rather than later because of the fact that alternatives to plastic drink stirrers are already available on the market. The ban for the supply of plastic drink stirrers to the end user is planned to come into force in England in April 2020, in line with the other proposals in this consultation response. The reasoning behind introducing the ban on this date is to tackle plastic pollution and protect our environment, and to minimise confusion around implementation dates.

36.0 Question 35: Do you agree that the ban should cover all compostable and biodegradable plastic (such as PLA)?

- Yes / No
- Please give reasons and any evidence that might be helpful. Are there environmental or economic reasons why these should not be banned?

36.1 A total of 1,320 responses were received, of which 1,038 were from members of the public, and 282 were from organisations, including the Bio-Based and Biodegradable Industries Association, Keep Britain Tidy, the Marine Conservation Society and Morrisons. 380 respondents gave extra information/reasons in support of their response. Key responses from organisations included Fidra, Surfers against Sewage, the Co-operative Group, the Chartered Institute of Waste Management (CIWM) and Symphony Environmental Technologies plc.

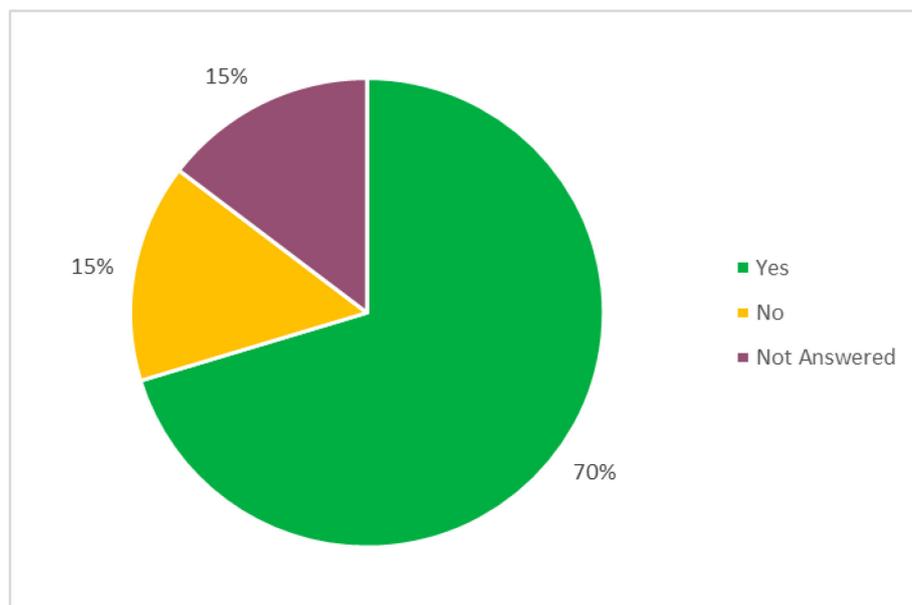


Figure 32: Responses to Question 35

36.2 No robust statistical evidence was identified by respondents to support their assumptions, and no evidence of modelling carried out was reported.

36.3 The responses from members of the public and organisations were similar in their sentiment in response to this question; the **majority** of respondents from both groups did agree that the ban should include compostable and biodegradable plastics (Figure 32). The views and reasons expressed showed a mixture of themes. The reasons provided in support of the ban included:

- Some respondents mentioned the environment, animals or rivers/oceans in their response, to support their view that biodegradable and/or compostable plastics still cause damage to the environment, e.g. when littered or if they enter the marine environment.
- Several respondents said that alternatives such as wooden stirrers or metal spoons should be used instead.
- Some respondents believed that compostable or biodegradable materials take too long to break down.
- A small number of respondents mentioned micro plastics in their response, in the belief that compostable or biodegradable plastic is a cause of this problem.
- Some respondents referred to their previous responses to the sections on straws and cotton buds.
- Fidra, an environmental charity, added that “There is currently very little evidence on how plastic alternatives, including ‘biodegradable plastics’ behave in the marine environment. Furthermore, they, like traditional plastics, still pose a threat to marine life”.
- Surfers against Sewage, an environmental charity, added that “Many compostable plastics take around 60 to 90 days to compost in an industrial facility, but many facilities operate on much shorter cycles (i.e. 30 days)”.
- Keep Britain Tidy said that “PLA [Polylactic acid] can biodegrade under specific conditions but usually these are within industrial or municipal composting and anaerobic digestion facilities and would therefore require the public to identify them as biodegradable plastic and ensure they are disposed of correctly. This is further complicated by the fact we do not yet have universal food waste collections.”
- The Co-operative Group said “To be able to use PLA, the stirrers would need to be accepted into food waste collections and likely to actually hit those collections. Most stirrers are consumed on-the-go or in the home, and are unlikely to go into food waste collections. PLA stirrers would be persistent if littered.”
- The CIWM added that stirrers are too small to consolidate and mechanically separate for recycling, regardless of the end treatment destination, and that separation of stirrers for recycling or any type of treatment is likely to be unfeasible on the grounds of practicality and cost.
- The CIWM also stated the following regarding standards: “In addition, there is confusion with regard to compostable materials that meet the standard EN 13432. There are also ASTM D6400 and Vincotte OK compost standards in the market. There is urgency to make sure such standards for packaging apply to home composting, windrow composting and anaerobically digestion as the predominant routes for segregated food wastes in the UK. There is continuing work on a ‘marine biodegradable’ standard and sustainable sourcing standards for purported biodegradable biomaterials.”

36.4 Reasons provided by those against the inclusion of compostable and biodegradable plastic in a ban included:

- Some respondents believed that biodegradable and/or compostable plastics are more environmentally friendly.
- A small number of respondents referred to their previous responses to the sections on straws and cotton buds.

36.5 Symphony Environmental Technologies plc expressed the view that the ban “Should absolutely not cover Oxo-biodegradable plastic”, a view which is shared by Seoil UK Limited. Symphony also suggested that the term biodegradable causes confusion, preferring either ‘compostable’, or ‘Oxo-biodegradable’. The company also added about Oxo-biodegradable plastics: “This technology causes ordinary plastic to oxidise much more quickly in the open environment and convert into biodegradable materials. These materials are then consumed by bacteria and fungi, who recycle it back into nature, leaving behind only water, biomass, and a small amount of carbon dioxide”. Some organisations, including the Foodservice Packaging Agency and the Renewable Energy Association expressed the opposite view, that Oxo-biodegradable plastics are problematic and should be included in the ban.

Government response

36.6 The majority of responses from members of the public and organisations (70%) did agree that the ban should include compostable and biodegradable plastics with (15%) saying No and (15%) Not answered. Those who agree cited environmental reasons and that biodegradable plastic biodegrades in very specific circumstances.

36.7 It is currently unclear whether plastics currently labelled as biodegradable are fully biodegrading in all environments, especially the marine environment in the absence of heat and UV light. Therefore, the ban will cover all types of plastic straws including those carrying a biodegradable or compostable standard.

36.8 Further information on the benefits and limitations of bio-based, biodegradable and oxo-degradable plastics is set out in government’s recent [Resources and Waste Strategy](#). As set out in the recent [Bioeconomy Strategy](#), government will work with UK Research and Innovation and industry to seek evidence on the demand, benefits and implications of a standard for bio-based and biodegradable plastics.

36.9 The government has previously stated that it will explore a biodegradable standard for plastics. In the event that such a standard is established and is proven to have better environmental outcomes than current alternatives, the government will consider exempting these from the ban on supply of plastic stirrers.

37.0 Question 36: Can you provide supporting evidence of any expected additional costs and or constraints to industry from this proposed ban?

37.1 A total of 203 responses were received, of which 135 were from members of the public, and 68 were from organisations. Key responses from organisations included the Marine Conservation Society, Oxfordshire Environmental Partnership and Fidra. No robust statistical evidence was identified by respondents to support their assumptions, and no evidence of modelling carried out was reported.

37.2 When responding to this question, many people responded to say that they did not have any additional evidence, while some respondents mentioned that alternative stirrers such as wooden stirrers, or metal spoons are available.

37.3 The Marine Conservation Society expressed the view that “Many cafes and restaurants already have the facility to clean cutlery and tableware so this should not cause a problem and will probably in the long term save them money as they will no longer need a supply of disposable stirrers.” The MCS also believes that “Wooden stirrers are probably the best alternative where no washing facilities are available and stirrers are needed, and may be able to be disposed of in food waste bins.”

37.4 Oxfordshire Environment Partnership expressed a view that “As most stirrers are used at the place of drink purchase and will therefore end up in commercial collections, it is likely that the impact on [local authorities] will be very minimal.” Fidra, an environmental charity, added that “While we recognise that there may be some short-term costs associated with transitioning to non-plastic alternatives, we do not anticipate any long-term additional costs or constraints to industry from the proposed ban. Reducing the use of stirrers by providing them only on-demand and encouraging businesses to provide reusable alternatives (e.g. teaspoons) will also help to reduce any potential additional costs.”

Government response

37.5 The views and additional evidence provided in response to this question have been used to update and finalise our Impact Assessment.

38.0 Question 37: Are there any risks that alternatives to plastic drinks stirrers will themselves have significant environmental impacts?

- **Yes/No**
- **If so, how could these risks be avoided, minimised or mitigated? Please supply any evidence you may have to support your suggestions**

38.1 A total of 947 responses were received, of which 716 were from members of the public, and 231 were from organisations, including Natural England, the Co-operative Group, SUEZ Recycling and Recovery UK Ltd and Surfers against Sewage. 379 respondents gave extra information/reasons in support of their response. Key responses from organisations included the British Plastics Federation, Palagan Limited, Keep Britain Tidy, and the Foodservice Packaging Association. There was no majority consensus from respondents to this question (Figure 33), with a mixture of viewpoints being represented across members of the public and organisations.

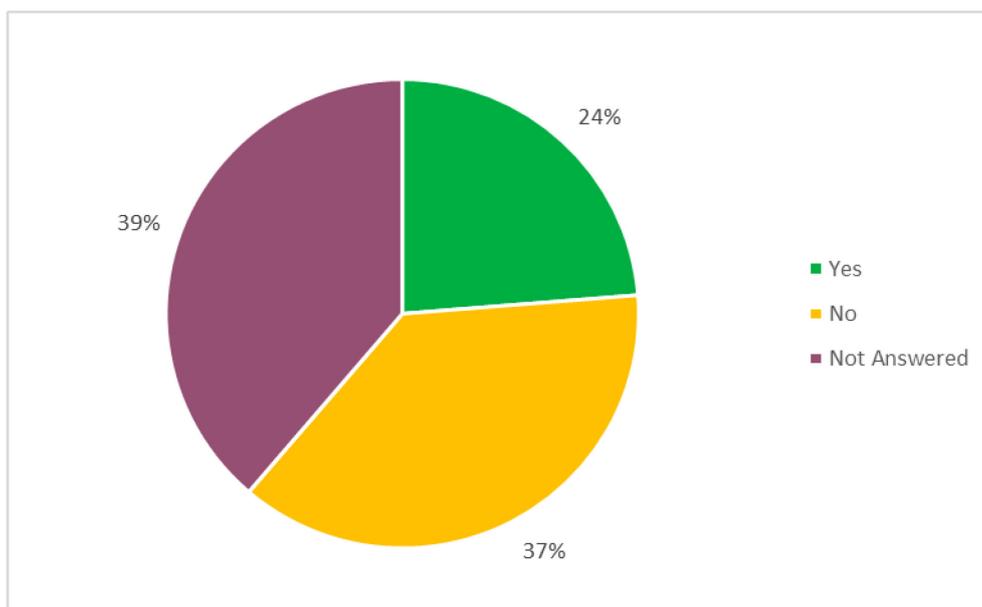


Figure 33: Responses to Question 37

38.2 The majority of responses to the evidence section of this question mentioned alternatives to plastic stirrers such as wooden stirrers or metal spoons. However, this is true of respondents saying both yes and no to this question, so opinion may be divided on the benefits of alternatives.

38.3 Of the respondents who did not believe there are risks that alternatives will have significant environmental impacts, the majority mentioned alternatives including wooden stirrers and metal spoons. There was not a clear consensus in the views expressed in this category, and very little detail was provided in responses.

38.4 Of the respondents who answered yes, a range of themes were mentioned in support, including:

- A small number of organisations including the British Plastics Federation, Palagan Limited and the Foodservice Packaging Association referred to a study published by the European Commission in July 2018, titled Life Cycle Inventories of Single Use Plastic Products and their Alternatives; the results of which show that the best-case multi-use stirrer has a similar environmental impact to a single-use alternative across multiple emissions categories including carbon dioxide, methane and volatile organic compounds.
- Some respondents mentioned deforestation as a risk, or sustainable sourcing of wood for wooden stirrers.
- A small number of respondents mentioned carbon footprint, global warming or climate change in their response.
- A small number of respondents mentioned waste, disposal or landfill as an environmental impact caused by alternatives.
- A small number of respondents referred to their previous answer to the similar question related to drinking straws.

38.5 Keep Britain Tidy expressed that switching to wooden stirrers may cause greater amounts of litter if the public consider them acceptable to litter as they will biodegrade. The organisation also added that “Communication around the ban should include clear messaging on prevention of waste through reducing consumption of stirrers in the first place (irrespective of material type) and correct disposal of wooden stirrers, making it clear that littering of wooden stirrers is illegal and potentially still damaging.”

Government response

38.6 The government notes that while alternatives to plastic may have environmental impacts, we believe that the impact from plastic pollution is more detrimental: plastics have a significant impact on our environment, both on land and in our seas and rivers when they are either littered or discarded incorrectly after use, as they take years to degrade and once they do, they break into microplastics.

38.7 Plastic is an incredibly versatile material that forms a key component of many products we use today. It is tough and long-lasting which is why it can also be a problem for the environment. While plastic plays a useful role in the economy and provides essential applications in many sectors, its growing use in short-lived applications, which are not designed for re-use or cost-effective recycling means that related production and consumption patterns have become increasingly inefficient. The steady increase in plastic waste generation and its leakage into our environment, in particular into the marine environment, must be tackled in order to achieve a circular lifecycle for plastics and protect the environment.

38.8 The government believes plastics production needs to be directed towards ensuring that fewer single use plastics are produced and more reuse and recyclable materials are preferred and promoted. The UK government has committed a £61.4 million package of funding to boost global research and help countries across the Commonwealth stop plastic waste from entering the oceans in the first place.

39.0 Question 38: Our proposals for enforcement are that the ban will be enforced through civil sanctions set out in Part 3 of the Regulatory Enforcement and Sanctions Act 2008. How should compliance with the ban be monitored? Who should enforce the ban?

39.1 A total of 681 responses were received, of which 473 were from general members of the public, and 208 were from organisations, some of which included the Foodservice Packaging Association, Keep Britain Tidy, Natural England, SUEZ Recycling and Recovery UK Ltd (SUEZ) and the Co-operative Group.

39.2 Regarding monitoring, answers were mixed. Many respondents favoured having random spot checks to monitor compliance to the ban. A slightly smaller group favoured a system of peer compliance where the public act as whistle-blowers (reporting non-compliance through email, twitter, etc.). A smaller group still favoured monitoring the ban using monetary fines for non-compliance.

39.3 Regarding enforcement, many favoured trading standards as the enforcement mechanism for the ban. The next largest group preferred Local Authorities. An alternative view, held by NGO Policy Connect, recognised the limited resources of local authorities and believed enforcement should fall on a “Specific unit within Defra”. One trade association suggested audits as a method of monitoring, adding that these should coincide with visits monitoring other regulations so as not to incur additional costs. SUEZ opted for a two-pronged approach, suggesting that Trading Standards would work well to enforce the ban in the hospitality sector, and that Local Authorities could have a role to play in terms of monitoring through waste collections and litter assessments.

Government response

39.4 The ban will be enforced through civil sanctions set out in Part 3 of the Regulatory Enforcement and Sanctions Act 2008. We will work closely with local authorities and other relevant stakeholders in order to establish the most effective and efficient way of enforcement, and take these responses into account in doing so.

40.0 Question 39: Is there anything else you would like to tell us relating to the proposed ban on the distribution and/or sale of plastic drink stirrers?

40.1 A total of 187 responses were collected for this question, 137 from members of the public and 50 from organisations, including the Foodservice Packaging Association, Fidra, Keep Britain Tidy, and Natural England. The responses collected for this question can be categorised into the following groups, in descending order:

- Reiterating support for the ban.
- One member of local government added the importance of communications campaigns to have better results in terms of how the ban is received by the public.
- Restating the existence of suitable alternatives to plastic drink stirrers.
- Expressing that plastic drink stirrers are an unnecessary product altogether.
- Expressing that more action should be taken to reduce the use of other products such as disposable beverage containers, plastic cutlery, and plastic lids. Several respondents expressed that these products contain more plastic than drink stirrers and should therefore be targeted instead. Fidra, for example, expressed support for the ban and added that they would expect additional measures to be taken to ensure a broader reduction of single-use disposable items in line with the waste hierarchy. CIWM added that the rationale as to why government chose plastic stirrers above other frequently littered items is unclear.
- Stating that they do not support the ban.

Government response

40.2 The government will put in-place an effective communications strategy ahead of the proposed ban to ensure that consumers and businesses are aware of the changes. The government will take further action against plastic pollution in line with our Resources & Waste Strategy and the 25 Year Environment Plan.

Annex A: Organisations that responded to the consultation.

5 Farming
A Local Authority in Essex
Abatech
ACE UK
ACS
AG Barr plc
Alien Rock
Amgueddfa Cymru - National Museum Wales
Andel Plastics Ltd
Anglian Water
Arcadis Environmental Consultancy
Associated British Ports
Association of Accounting Technicians
Bassetlaw District Council
BCWD Ltd
Beach Bonkers
Beach Clean
Beachcleangirl
BeONE Co
Betts Ecology
Biffa
Bio crop protection
Bio-Based and Biodegradable Industries Association
BNP Paribas Commercial Finance
Brands2Life
Brighton Climate Action Network
British Beer and Pub Association
British Plastics Federation
British Retail Consortium
British Soft Drinks Association
BSAC
BSNA
Bucksum farm shop
Bude Friends of the Earth
Bude Marine Group (BMG)/ Great British & Hartland Beach cleaners
Bury Wildlife and Greenbelt Defenders. Also an ecological consultant.
Business West
Cambridgeshire and Peterborough NHS Foundation Trust
Capri Sun
Cardboard Zebra Creative
Cefas
CFR Management Services Ltd t/a CFR Sales & Distribution Ltd
Charly Cox Coaching Ltd
Chartered Institution of Water and Environmental Management
Chester and District Friends of the Earth
CIWM
Client Earth
Climate Friendly Bradford on Avon
Coast Care
Cockaynes Wood Trust
Cornwall Council
CORSERV Ltd
Crafted
Cromwell Polythene Ltd
CWT
Dairy UK
Defra DDTS GIO
Delib
Dolton Primary School
Dorset County Council and Weymouth and Portland Borough Council
DPAS Limited
Dŵr Cymru Welsh Water
East London Waste Authority
East Suffolk Greenprint Forum
Eastern Inshore Fisheries & Conservation Authority
Eastleigh Borough Council
EAUC
Eclipse Create
Ecus Ltd
EE
Elopak UK Limited
Engie
Environment Agency
Environment Systems Ltd
Environmental Association for Universities and Colleges
Environmental Packaging Solutions
ENVIRONMENTAL POLICY FORUM
Environmental Services Association
EXXpedition
Family
Farming partnership
Fauna & Flora
Ferring Conservation Group
Fidra
Final Straw Cornwall
FlyingBinary

Folk & Soul Ltd
 Food and Drink Federation
 Food Development Company
 Foodservice Packaging Association
 Footprint Alba
 Frampton Litter Walk
 Friends of grove park WSM
 Friends of Shoreham Beach LNR
 Future Ecologic Ltd
 Garvald Edinburgh
 GoingCoastalBlue
 Greater London Authority
 Green Wedmore
 Greene King Plc.
 Hale Community Volunteers Tidy Up Group
 Hampshire County Council
 Hampshire Hospitals NHS Foundation Trust
 HarperEm
 Healing Pachamama
 Healthcare
 Heart of London Business Alliance
 Hexpol TPE Ltd
 HMRC
 Holme Valley Camping & Caravan Park
 Hotcourses Group
 Hotelier
 IF
 INEOS Olefins and Polymers Europe
 Innocent Drinks
 Institute of Zoology, Zoological Society of London
 Isle of Man Government
 Islington Council
 Jacobs
 Joint Nature Conservation Committee
 Jon Ford Environmental Ltd
 Karmic Seed
 Kcc
 Keep Britain Tidy
 KraalD & Goldsmiths UoL
 KU Leuven
 Land and Heritage Ltd
 Launceston College
 Levelled Up
 Liberal Democrats Disability Association
 Lincolnshire Wildlife Trust
 LinkAge network
 Litter Picking Watch Romney Marsh
 Litterbug's community group
 Liverpool Water Witch Marine & Eng Co Ltd
 Living River Foundation
 Lizard Adventure Ltd
 Local authority
 Local Government
 Local neighbourhood
 London Assembly
 London Borough of Southwark
 London Environment Directors' Network
 London Sustainability Exchange
 Lucozade Ribena Suntory
 Mace
 Macmillan Academy, Middlesbrough
 Marine Conservation Philippines
 Marine Conservation Society
 Marketing Services
 McDonald's UK
 Merseyside Recycling and Waste Authority
 Merton Centre for Independent Living
 Mid Sussex Wood Recycling Project
 Miles & Co. Tiling
 Milk Education
 Minster Gatehouse museum
 Morecambe Bay Partnership
 Morrisons
 Mott MacDonald Limited
 Muller UK&I
 Muscular Dystrophy UK
 N2 United business network
 National Federation of Women's Institutes (NFWI)
 National Pharmacy Association
 National Trust
 Natural England
 Nature link
 Neighbourly
 Nestlé UK
 New Forest Aquaponics cic
 Newcastle University
 Newquay marine group
 NHS
 Nicholas Plc.
 Ningbo Yusiga International Trade Co., Ltd
 No Plastics
 Norfolk and Suffolk NHS Foundation Trust
 North Bristol NHS Trust
 North Coast Consulting Ltd.
 North London Waste Authority

North Somerset Council
 Northumberland Wildlife Trust.
 Office for National Statistics
 ORCA
 Oxford University
 Oxfordshire County Council
 Oxfordshire Environment Partnership
 Palagan Limited
 Parkstone Tower Practice
 Pharmaceuticals
 Phil Smith Conservation Consultant
 Plastic Free Borders
 Plastic Free Eastbourne
 Plastic free Falmouth
 Plastic Free North Devon
 Plastic Free St Austell
 Plastic Free Wilmslow
 Plastic-free Bradford on Avon
 Plastic-free Weston-Super-Mare
 Plastridistribution
 Plymouth Waterfront Partnership
 PML
 Polar Krush
 Police
 Policy Connect
 Portsmouth Canoe Club
 Prasadam
 Press associations
 Presteigne Area Community Group
 Princes Ltd.
 Public Health England
 Public Health Wales
 Pupils 2 Parliament
 PwC
 Ramsgate Litter Forum
 RBC Ltd
 Reassure
 Refresco UK Beverages Ltd, Refresco
 UK Drinks Ltd
 Renewable Energy Association
 Rossall Beach Buddies
 Royal HaskoningDHV
 RPA
 RSPCA Mallydams Wood
 Ruils Trustee & Your Say Chair
 Rural Payments Agency
 S&P Global
 Saint-Gobain
 Salmon & Trout Conservation
 SAP
 Sea Trust CIC
 Sea search Cornwall
 Secret Events
 Seoil UK Limited
 SEPA
 Severn Trent Water Ltd
 Shingle Street Settlement
 Company/Bawdsey Coastal Partnership
 Sidmouth Plastic Warriors
 SIG Combibloc Ltd
 Skegness and District Coastal Access for All
 Slush Puppie Ltd
 Smile through Sport
 SOAS Students' Union
 Soroptimist International of Fishguard and Goodwick
 South Beach Beacons
 South Staffordshire Council
 Southend Borough Council
 Southern Water
 Southmead Hospital
 Spinal Injuries Association
 St Albans City and District Council
 St Barnabas hospice, Worthing
 Stramash
 Student's Union
 SUEZ Recycling and recovery UK limited
 Surfdomo
 Surfers against Sewage
 Sustainable Development Unit for the Health and Social Care System
 Sustainable Drainage Ltd.
 Sustainable Stamford
 Sustainable Stamford UK
 Symphony Environmental Technologies plc
 TCTC
 Teignbridge District Council
 Tetra Pak
 Thames Water
 Thames21
 The Auckland Project
 The British Institute of Inn keeping
 The Co-operative Group
 The Deans Beach and Environment Volunteers
 The GBN
 The Healing Clinic CIC
 The Landmark Practice
 The Packaging Federation
 The Polar Krush Group
 The Pure Option
 The Rocking Horse Nursery

The School & Nursery Milk Alliance
The University of Edinburgh
The University of the West of England
The Willows
Thetford River Group
Think About Plastic, Arran
Tops Day Nurseries
Torfaen Friends of the Earth
Touretteshero
Transition Long Ashton
Triratna Buddhist Sangha
UK Health Alliance on Climate Change
UK Hospitality
Ulster University
United Utilities Plc.
University College London
University of Bristol
University of Edinburgh
University of Leeds
University of Northampton and University
Hospitals of Derby and Burton NHS
Foundation Trust
University of Plymouth
University of Portsmouth
University of South Wales
University of Southampton

University of Surrey
University of York
Vegware
Vertemis Ltd.
Viridor
Warrington Education Centre
Waste Disposal Authority
Wessex Water
West Cornwall Friends of the Earth
Weston-Super-Mare Town Council
Whale and Dolphin Conservation
Whitstable Marine Environment Group
Wildcare
Wildlife and Countryside Link
Wiltshire Wildlife Trust
Wimborne War on Waste
WinACC Waste Action Group
Wind Elements
Wittgenstein Limited
Women's Institute
Woodlands School
WRAP
WWT Consulting
Yorkshire Wildlife Park
Zero Plastic Hero
Zoological Society of London