

**Jingtao (Michael) Yan**

**Question 1.**

Yes, I agree with the proposed mandatory phase out of the sale or distribution of single-use plastic shopping bags in New Zealand.

Plastic pollution problems caused by single-use plastic bag are already very serious and will lead worse results if nothing changes. Official authorities are responsible to lead business activities in a non-business, long-range and environmental friendly way.

I also agree that the ban of single-use plastic bags including degradable (e.g., Oxo-degradable, biodegradable and compostable) plastic. Some researches already did in this issue. A news of Stuff (Winter& Nadkarni, May 2018) reported that compostable bags are not the solution of this environment problem. The report indicated that existing standards of “biodegradable” plastic are underestimating the break-down times and not accounting for the damage of compostable plastics in the ocean. The news showed that a biodegradable plastic bag would still harm marine life.

On the other side, the process of degradation of degradable plastic bags needs time. According to the consultation, appendix 1, New Zealand uses about at least 750 million single-use plastic bags each year. The degradation velocity of those single-use degradable plastic waste is much slower than its generation velocity.

**Question 2.**

I personally prefer a mandatory phase out of any single-use plastic bags disregard the thickness is less than 70 microns or more. Because the use of plastic bags is not only depending on its thickness but also by design and practicability. Some plastic bags of the 50 or more and less than 70 microns in pictures of Table 4 are not suitable for daily use because of the design of lifting handle is not very durable and the manufacture technology is a little bit poor. Besides, bags offered by retailers are mostly designed with some advertisements, as a tool of marketing. Which means they are bad looking and sometimes embarrassing to reuse. This means some thick plastic bags are also crackly and easily be used as single-use.

If a thick plastic bag was abandon as single-use bags, it needs harder garbage disposal than a thin plastic bag. Therefore, I personally think a mandatory phase out should be more comprehensive and more detailed. For those who what to use bags in a marketing way, paper bags may be a better option.

**Question 3.**

No

**Question 4.**

No

**Question 5.**

No. Smaller retailers should not be exempted from this mandatory phase out of single-use plastic shopping bags.

Firstly, plastic shopping bag control should treat retailers equally without discrimination to show the fair. Fairness is crucial for official rules to avoid social controversial issues. Secondly, smaller retailers with less economic power are more tending to offer thinner, cheaper plastic bags. This may require more usage of bags when people carrying heavy stuffs in case of the break of a single bag. Thirdly, to define the demarcation of “large” retailers and “small” retailers is not easy. Because of the difference of national conditions, the define of “large” retailer in 250 or more employees in England may not suitable to New Zealand.

**Question 6.**

According to New Zealand business demography statistics: At February 2017, 98 percent of all enterprises had less than 20 employees. Less than one percent enterprises engaged half of all employees work for them. Thus, to define small retailers as those employing 100 or more employees is not very fit for nation situation. I personally think the number should be less than 20 employees. This also match the standard of small business used by authorities. For example, the Ministry of Business, Innovation & Employment (July 2017) deal with this by explain “Small businesses are de ned here as those enterprises with fewer than 20 employees. There is no official definition of a small business in New Zealand, however enterprises with fewer than 20 employees has traditionally been used and referred to in some legislation.”

**Question 7.**

Yes, I agree that mandatory phase-out period for single-use plastic shopping bags is at least six months from when regulations are Gazetted, subject to consultation. Despite in Australia, the ban actually needs more time. New Zealand is much smaller than Australia.

**Question 8.**

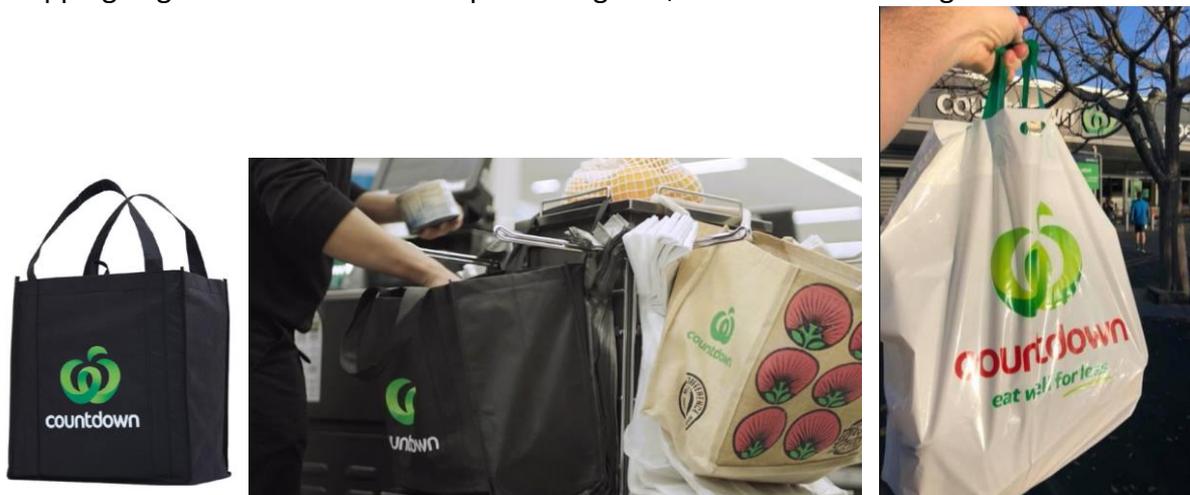
Yes, I agree that the benefits expected from implementing a mandatory phase out of single-use plastic shopping bags exceed the costs. Because the costs of this act can be measured by money in these years while the cost of plastic pollution is incalculable. The benefits of environmental friendly acts are long-term, and continuous for generations.

As for non-monetary way, the cost would be lower in the beginning. However, concerning actual economic interests of retailers, a non-monetary way not effective enough. If non-monetary way was void, a mandatory phase out would be use anyway. This may lead twice costs.

#### Question 9.

Yes. Just as mentioned in the consultation document, some retailers in New Zealand like New World offer some practicable alternatives to single-use shopping bags.

Another example, Countdown supermarkets now offering different types of thick multi-use shopping bags: 25 cents white thick plastic bags or \$1 black cloth-like bags and so on.



#### Question 10.

People would be encouraged to reuse multiple-use shopping bags in many ways. I believe both plan A (voluntary incentive schemes by individual retailers) and plan B (national information campaign and mobile phone app for shoppers) would work in some degree. Different ways may influence different groups of people. Besides, I also consider that multiple measures could be used at the same time to achieve better results. More options are: public service advertising; better design of multiple-use shopping bags; build a system of recycling and reusing multiple-use shopping bags.

#### Question 11.

Just as the consultation document said, I often reuse the supermarket single-use plastic shopping bags for bin liners. Me and my family always keep plastic bags in a certain place: a drawer or the gap between the refrigerator and the wall. However, the plastic bags are always too much, occupy too much room and become a mass. Supermarket plastic bags are also not very fitted for bin liners: rubbish leaks from poor quality plastic bags sometimes.

On the other hand, I will adjust to life without single-use plastic bags by using high-quality multiple-use shopping bags. Actually, I am trying to keep several of them in my car all the

time and I have a few paper boxes in my trunk. What I need to do in the future is to remember take one with me when I am entering supermarkets (I forgot to take it with me often).

### **Question 12.**

The data could be collected by monitoring the entrance and exit of the supermarkets, shopping mall, and street stores. Another possible practicable way could be by measuring the waste of plastic bags.

### **Question 13.**

Write a well-informed commentary about single use plastics and why they should or should not be banned. A balance will need to be arrived at, between concise and accessible writing, and a well-informed explanation.

#### **The discussion of single use plastics ban consultation**

Single-use plastic bags are omnipresent throughout the global economy and is used by consumers worldwide since the 1960s (UN environment, April 2018). In the market economy, retailers as business runners are naturally in the pursuit of maximum benefits. Offering shopping bags can be seen as a part of customer services as well as the shopping bag is one of the costs in the business. In order to cut the cost, “free” bags are reasonably plastic, cheap, thin, and single-use. As for the consumers, using single-use plastic bags offered by supermarkets has become a habit for a while. Accepting the “free” bags from retailers is chronic and convenience. Comparing buying their own reusable bags, using “free” bags seems a good choice to save money.

However, at the same time as plastic bags offering convenience, there is also some problem with single-use plastic bags. The average working life of single-use plastic bags is just 12 minutes. Besides, plastic pollution problems caused by single-use plastic bag are highlighted in multiple levels by a different group of people. The reasons of why an act of single-use plastic bags ban is necessary are numerous. These reasons are explained in following paragraphs by two sides: the view of the environment and the view of society.

From the view of the environment, just as the consultation document mentioned, plastic pollution problem is so serious that will lead to terrible results. Scientists estimate that refusing to change would have meant the plastic in the oceans will weigh more than all the fish that live in them by 2050 (Ellen MacArthur Foundation, January 2016) (Stuff, December 2017). Oceans Campaigner at Greenpeace Emily Hunter indicated that marine lives such as turtles and whales are suffering “a growing plastic waste epidemic”. She also explained that plastic waste is harmful to our daily living environment: “over 2 billion single-use plastic bags that clog our communities, coasts, rubbish dumps and oceans each year” (Woolf August 2018).

Besides, single-use plastic shopping bags are mostly non-biodegradable, require hundreds of years to degrade in the landfill. Unfortunately, as the answer of Question 1, compostable single-use bags are not a good solution because existing standards of “biodegradable”

plastic bags don't break down in the ocean and the speed of the degradation velocity of those single-use degradable plastic waste is much slower than its generation velocity.

Furthermore, because of the non-biodegradable issue, dealing with the plastic waste is another challenge. "Every year in New Zealand we use hundreds of millions of single-use plastics bags – a mountain of bags" said by prime minister Jacinda Ardern of New Zealand (Woolf August 2018). Plastic waste disposal in New Zealand have met problems: There are growing mountains of plastic throughout New Zealand due to China restricting imports of waste products (Moorby & Huffadine, 2018). Landfill of those plastic bags in New Zealand would occupy a lot of lands.

Seen from the level of society, a ban on single-use plastic bags is not only the act of the government but also the result of the will of people. Besides, the planned ban fit the international trend in these years.

The public support behind anti-plastic waste actions (Woolf, August 2018). Last year, Stuff launched a Bags Not social campaign (Stuff, December 2017). Most of the voters in this campaign show a need for plastic bag control by the government. 65000 New Zealanders signed a petition calling for the ban on single-use plastic bags in this year (Woolf August 2018). According to the survey of "What do you think about the Government's planned plastic bag ban?" (Stuff, August 2018), about 60% of voters showed a supporting attitude toward this act so far.

In the view of international trends, dealing with plastic waste is not acting alone. A United Nations' CleanSeas campaign pledge has launched in February last year. New Zealand is the 42<sup>nd</sup> country to sign up to this UN campaign (Tupou, March 2018). This pledge requires participating countries to significantly reduce the usage of non-recyclable and single-use plastic by the year 2022. "With a new government, we are committed to significantly reducing waste by 2020", Associate environment minister Eugenie Sage said (Tupou, March 2018). This means single-use plastics is imperative as an international joint action. Just as the plastic microbeads prohibition enforced by the Environmental Protection Authority (EPA) at the end of 2017. New Zealand was not the only country dealing with plastic microbeads. The acts aligned with Australia, the US, the UK, France, and Canada.

In conclusion, I strongly agree with the single-use plastic bags ban. Because for both goods to the natural environment and human society, this act is necessary and admits of no delay. In addition, I also think this act should happen ages ago. Because the negative impact of plastic bags already happened and last for a while. Many whales and turtles have died by eating a large number of plastic bags. I have seen the media reports mentioned in consultation documents. They are shocking and alarming. Moreover, there are far more important environmental issues caused by plastic pollution need to be solved. Some videos of *Albatrosses killed by plastic on a remote Pacific island* have shown that those albatrosses were died because ingesting different kinds of plastic, not only plastic bags and plastic microbeads. There is a long way to go for the human to fight against plastic pollution.

\*The link of Albatrosses video: <https://www.youtube.com/watch?v=pUM58LIU2Lo>

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