



AN INNOVATIVE SOLUTION TO SAVING OUR OCEANS - PASTA

Save Our Sushi (SOS)

Rahul Chagan, Dayne Levick, Matthew Russell

Big Ideas 2019

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Big Ideas Narrative

Introduction:

We are a very diverse group of three boys who all shared an interest in saving something we love – the ocean. Team SOS – Save Our Sushi – consisted of Rahul Chagan (White House), Matthew Russell (School House) and Dayne Levick (Birt). The three of us are pupils at Bishops College, an Anglican school in Cape Town. Bishops is a very privileged school and we were lucky enough to be able to join in on one of these privileges – The Big Ideas Course.

The course started in August of this year in its second year running, so it is still in a development phase. We spent the first six weeks “loading minds”, which is basically consuming as much information about the broad subject – The SDG’s. The next step took place in September, and it was to separate everyone into groups of our chosen goal and begin the more independent side of the course.

Team SOS began with the reasons that we wanted to save the oceans and why the ocean is so important:

1. The Ocean takes up 71% of our Planet.
2. Sea Plants produce 70% of breathable oxygen.
3. The ocean regulates the climate.
4. The ocean is the sole protein source for 16% of humans.
5. The ocean provides a habitat to many creatures and over 60% of the world's population lives on coastlines.
6. Many people rely on the ocean for an income.

This then leads on to what we are preserving the ocean from; i.e. the problems:

1. Plastic straws
2. Overfishing

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3. Fish farming
4. Oil spills
5. Poaching
6. Recreational animal use
7. Climate change
8. Destruction of habitats
9. Microplastics

These problems affect everyone as the ocean is such a big part of human life and will have devastating effects lasting over a period of centuries. Without a healthy ocean, a chain reaction will take place in the food web, changing or killing everything on the planet.

We took to this goal because we wanted to help marine life and make sure that they aren't suffering from human mistakes. Disgusting videos and photos are shared everywhere about how our marine life is suffering and we think that these clips resonated with our group and gave us the inspiration to try and save the ocean.

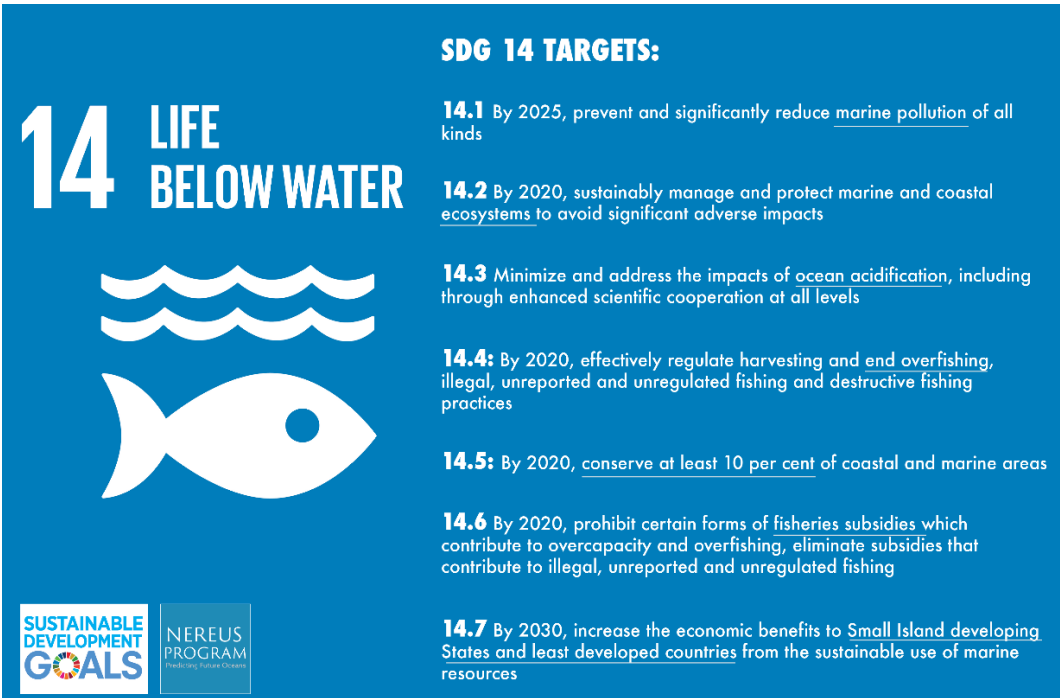
We had lots of different places that would be a good fit for our project to develop in but eventually chose the historical area of Bo-Kaap. We interviewed and educated the citizens of Bo-Kaap. We feel like SDG 14 closely relates to other goals such as SDG 3 – Good health and well-being and also SDG 15 – Life on land. We wanted to address these goals because we feel like they are all vital in our everyday lives.

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SDG 14: Life Below Water and its Targets

Over the past few terms, we have been doing extensive research on various topics regarding SDG 14 – Life below water. (United Nations, 2019) SDG 14 focuses on saving our oceans through miniaturized targets:

1. By 2025, prevent and reduce marine pollution of all kinds.
2. By 2020, sustainably manage and protect marine and coastal ecosystems to avoid significant adverse impacts.
3. Minimize and address the impacts of ocean acidification.
4. By 2020, effectively regulate harvesting and end overfishing, illegal, unreported and unregulated fishing.
5. By 2020, conserve at least 10% of coastal and marine areas.
6. By 2020, prohibit certain forms of fisheries subsidies which contribute to overcapacity and overfishing.
7. By 2030, increase the economic benefits to Small Island developing States and least developed countries from the sustainable use of marine resources.



SDG 14 TARGETS:

14.1 By 2025, prevent and significantly reduce marine pollution of all kinds

14.2 By 2020, sustainably manage and protect marine and coastal ecosystems to avoid significant adverse impacts

14.3 Minimize and address the impacts of ocean acidification, including through enhanced scientific cooperation at all levels

14.4: By 2020, effectively regulate harvesting and end overfishing, illegal, unreported and unregulated fishing and destructive fishing practices

14.5: By 2020, conserve at least 10 per cent of coastal and marine areas

14.6 By 2020, prohibit certain forms of fisheries subsidies which contribute to overcapacity and overfishing, eliminate subsidies that contribute to illegal, unreported and unregulated fishing

14.7 By 2030, increase the economic benefits to Small Island developing States and least developed countries from the sustainable use of marine resources

SUSTAINABLE DEVELOPMENT GOALS

NEREUS PROGRAM
Predicting Future Oceans

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These targets break down a large goal and make it easier to understand. Going into our project we knew we would have to learn a lot more about our goal and the problems we face, before and reasonable and realistic solutions could be produced. We encountered many different problems along the way.

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The Body

Plan 1: Microplastics and its effects

Going into our project, we knew that plastic and plastic straws were a massive problem, and we started off by doing a lot of research on that. (For A Strawless Ocean, 2019) Plastic straws are really bad for the ocean, and about 500 million plastic straws are used every day in America alone. Most of these straws end up in the ocean and pollute the water and sea life. If we keep going the way we are, there will be more plastic than fish in the ocean by 2050. Plastic straws can't be recycled because they are too light, and they end up in the sea because they are left on beaches and blown out of trash cans.



When plastics are in the ocean, they break down into smaller pieces and they do not dissolve and that makes it easy for small fish and birds to swallow them. People do need straws, but there are better ones to use. There are paper, bamboo and other straws and these work best. These will eventually break down in seawater, and won't be nearly as big a threat as plastic straws. We need to challenge the people around us to only use these alternative straws and try and to stay as far away from plastic straws as possible.

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While doing our research on plastics, we came across a new type of plastic which we didn't know about going into our project – microplastics. Microplastics are basically small pieces of plastic, which are polluting the environment. (Parker, 2018) They are one of the main problems surrounding plastics in the ocean because they are so small, and easily mistaken for food and shelter by sea creatures.



Examples of the tiny microplastics that birds and sea creatures often mistake for food.

Microplastics were found in sea salts several years ago but to what extent it was unknown. However, recent studies have shown that microplastics are found in 90% of sea salts. They tested 39 salt brands, and 36 of them had microplastics in them. The findings suggest that the human ingestion of microplastics via marine products is strongly related to plastic emissions in certain regions.

The density of microplastics found in salts varied, but those from Asian brands were particularly high. This is because Asia is a hotspot for plastic pollution. Microplastic levels were highest in sea salts, followed by lake salt and then rock salt. The study estimates that the average adult consumes about 2000 microplastics per year through salt. There is currently no confirmed evidence that these microplastics are harming us, but these salts are putting plastic into our bodies and this cannot be good.

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As you can see in the image above, microplastics are so small you can barely notice them.

From this research, we began doing a lot of brainstorming around plastics, but we weren't really coming up with any ideas. We had a lot of knowledge on the topic, but it didn't seem as if there was anything we could realistically do to limit the amount of plastic we use. Plastic is used so much by everyone and everywhere, so we were struggling to think of how to limit this. Instead of trying to force ideas, we decided to move on to some other topics for the time being.

Dayne's Reflection on Microplastics:

I think that microplastics are a big problem in the world because they are so small, and you can barely notice. It's hard to believe that microplastics have been found in 90% of sea salts. It hasn't been proven that microplastics harm the human body, but we can't digest these plastics, and that means that the amounts of plastic in our bodies will just continue to rise, and this is not healthy or sustainable. Not to mention how much it is affecting the animals and sea creatures around us. We really wanted to do something

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around this topic, but we really couldn't think of anything which we could do realistically. Plastics are used so much, by everyone, everywhere. You always see people share horrific photos and videos on social media about plastic and microplastics in animals, and these videos woke me up to what is happening in the environment. We really wanted to do something around plastics and microplastics, but we just couldn't think of anything, and thought it was better to try and look up more topics, instead of trying to force ideas around plastics.

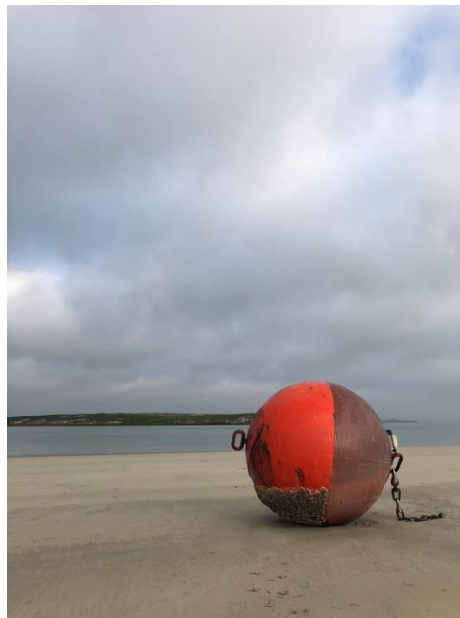


A horrific picture of what microplastics are doing to our animals.

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Plan 2: Fish Farming in Langebaan

One thing we noticed while doing our research, is the large amount of fish farming activity in Langebaan. (Save Langebaan Lagoon, N/A). At first, none of us really knew what fish farming was, or the effects it is having on the environment. We all assumed that it was just normal farming, as you would do with pigs or cows but after some more research, we found out that fish farming is not at all what it seems. Fish farming is the breeding of a certain type of fish, and then these fish will eventually be sold to shops and markets. Fish farming actually does some great things in the world so that isn't the problem. The problem is that the cages these fish are in are overpopulated and the fish are not treated with the care and respect they deserve.



A picture of the beautiful Langebaan lagoon.

We discovered that up to 409ha are being taken up by fish farms in Langebaan, and these farms are slowly but surely destroying the ecosystems in the Langebaan lagoon. The destroying of the ecosystems is primarily because there has been an increase in the seal population around the lagoon as the seals are attracted to the fish from the fish farms.

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This also means that there are more sharks because they are attracted to the seals. This is overpopulating the waters around the lagoon and is destroying the ecosystem in the area.



The areas in red show the areas of the lagoon which are currently being taken up by fish farms.

We also found out that the fish that are farmed are often deformed with lumps and diseases because they don't have enough room to swim around in because the cages are extremely overpopulated. The Langebaan lagoon is a nature reserve and is home to a variety of different endangered species and these fish farms are also a threat to them. The fish that are farmed also have a huge amount of sea lice which are bad for the fish and for human consumption. Half the time we are eating diseased fish and we don't even realise it. This is because we don't take enough time to look at the fish we are buying and also because they usually don't include where the fish are from in the packaging – often because the fish are diseased, and supermarkets and shops don't want us to find out.

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This is an example of one of the many farmed fish with diseases.

As a group, we saw this as something that is really affecting our fish and ecosystems. The problem is that like us before our research, not nearly enough people know about fish farming, and the effects it has on the environment and ecosystems. We knew that there was no way we could eliminate fish farming in Langebaan, so then we started to think of ways in which we could raise awareness around the topic so that people become more aware of the fish they are buying. We believe it is really important that we don't support the people who are running these fish farms.

While all of this was going on, it just so happened that one of our group members – Matthew Russell was going to Langebaan for the weekend. We saw this as a great opportunity as a group, so we asked Matt to ask as many questions and take as many pictures as possible. It also turned out that Matthew's uncle – John van der Vyver, is one of the people running the Save Langebaan Lagoon organization. Jaco, Shannon and Meghan du Plessis also help with the Save Langebaan Lagoon Organization, and they run fundraises to help save the lagoon. We were lucky that Matthew has contact with all of these people, so we sent him a couple of questions to ask them.

Matthew went for the weekend and used the opportunity to speak to John in particular. John told him how the increase in the seal population is evident, and that the dolphins that used to swim in the Langebaan waters have mostly moved away. John also stressed

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that the Langebaan lagoon is a nature reserve and that if one of the fish cages break, then all of the non-indigenous fish that they are farming will completely destroy the ecosystem in Langebaan.

Matthew decided to go and see this for himself, so he and his mom took their boat out and decided to sail around the Langebaan waters. One thing Matthew noticed right away was the number of seals. In the space of about 30 minutes, Matthew said that he saw about five different seal pods. Another thing Mathew noticed about the lagoon was that he didn't see any dolphins, which the Langebaan lagoon used to be known for.



Above are two of many different seal pods that Matthew saw while on the Langebaan waters.

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It was definitely a very useful visit. We read about most of these points online, but it was nice to have someone to actually go and see it happen and to take pictures for the rest of us to see. Overall, fish farms aren't completely bad. They feed a lot of people and are crucial for other goals such as SDG 1 – Zero Hunger. The problem is that the fish aren't living in a happy and healthy environment. The cages are overpopulated, and they do not have enough room to swim freely and live as free-range fish.



An example of the cages that the fish are forced to live in in Langebaan.

As we were brainstorming for ideas on how to raise awareness around fish farming, we weren't really coming up with any ideas, as fish farming is such a big 'buzz word' in the world, and is used globally, and we are trying to keep it as local as possible. We also found that Langebaan was quite far away, and it would be very difficult for us to go there on an outing to talk to the people running these fish farms. We decided to try and look at other ideas.

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Matthew's Reflection on Fish Farming:

This is what I really wanted to do when I started big ideas. I wanted to help as much as possible. But it was so impossible to get to the experimental fish farms due to the fact that it was in the mouth of the lagoon where it's really dangerous to go to the fish farms. Langebaan is home to many species that work in an almost untouched environment by church heaven. This place is so quiet and so deep in the lagoon with no man-made objects. And you can only sail to church heaven so the oil from the boat engines won't damage these endangered species that are fragile. I really hate it when I see these fish farms in this lagoon because the seals are overpopulating. They are not even indigenes fish in these farms. The new risk is that the cage breaks and the fish will leave and take over this lagoon. Then the ecosystem may change from a beautiful lagoon made from many animals from stingrays to Orcas. To a lagoon with nothing in it. I have been going to Langebaan since I can remember and it's a huge part of my life that I like to share with the people who mean the most to mean and I want the next generation to have the same experiences as I did. Chasing sand sharks and so on. I'm really grateful for Langebaan and I want to help it so everyone else can enjoy it when I'm gone. I feel like it is my job to help it and I thought I could do it using big ideas to help it, but it was way too hard. It was just too far and having no lift there and no access was just too difficult.



The Langebaan lagoon – Full of wildlife and indigenes animals.

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Plan 3: Pasta Straws

While all of this was going on, it was the third term holidays, and we were all enjoying a well-earned break. By complete coincidence, Rahul went to a restaurant at the Waterfront called the Greek Fisherman, where he found that they were using pasta straws. Rahul claimed they worked perfectly and immediately told us about the straws. We began to do a bit of research on pasta straws, hoping that they would be a great alternative to plastic straws.



Examples of our newly found pasta straws.

We started reading up on pasta straws and what we found really surprised us. We found that they are made completely of wheat and water, which means that they will eventually fall apart in saltwater after a while. We also found that they don't actually change the taste of your drink as other alternatives such as bamboo do. They cost about 10 cents per straw, which is quite reasonable compared to other alternatives, and they don't get soft in drinks such as milkshakes like paper straws do.

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We thought that this was really positive, and we wanted to pursue the idea of trying to introduce pasta straws to more restaurants. The main problem was that almost no one knows about pasta straws, just like we didn't before Rahul first encountered them. We wanted to change this, so we decided to organise an outing so that we could talk to and interview restaurant and corner shop owners, to see how much they knew about how bad plastic straws are, and if they would be willing to incorporate pasta straws into their business.

What we decided to do:

We decided to go to Bo-Kaap because we identified it as a place where there is a lot of plastic waste, and where there are a lot of different corner shops and restaurants. We thought it was the perfect place to try and implement our idea and advertise pasta straws to the shops in the area. We organized an outing to Bo-Kaap on the 23rd of October, and we left at 12:30 during open period. We printed a bunch of surveys about pasta and plastic straws, which we planned to hand out to different people at restaurants and shops.

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Interviews on Plastic and finding a Substitution for Straws:

These were the questions on the surveys which we handed out:

1. Do you now that there will be more plastic than fish in the sea by 2050?
2. Do you think that plastic straws are a problem? What do they do to the environment?
3. Have you ever heard of pasta straws?
4. Do you think that pasta straws will work just as well as plastic straws?
5. Would you be willing to pay an extra premium if it would help save the oceans?
6. How much do you think a single pasta straw should cost?
7. If the cost was feasible, would you be willing to implement pasta straws into your business?
8. Do you know of any other sustainable straw replacements? If yes, which ones?

We arrived and immediately went to a corner shop to buy drinks, and to hand out the surveys. As we bought our drinks, we noticed that the lady at the counter handed us three plastic straws to go with drinks. We spoke to them about the straws and gave them a few pasta straws to try for themselves. We explained the pros and cons to the people there, and it seemed as if they all agreed that pasta straws were a great alternative. However, it was a very small corner shop, and when we asked them whether they would be willing to incorporate pasta straws into their business, we ran into our first problem. It was evidently not a very wealthy shop, and they said that they get their plastic straws for free. The issue for them was that they said they might struggle with the extra expense, even though they really liked the concept, and our idea to help save the ocean.

We thought that this was a real problem, and we all felt quite frustrated at the time. We feel that people are encouraged to buy plastic straws because they are free. It is an

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advertisement for plastic straws, and the people who buy them usually don't know how bad they are for the environment. We felt quite disappointed at the time because we know that some shops are always going to favor the free option. However, we kept going, to see how much more we could find.



At the first corner shops which we visited.

We decided to target a few more restaurants, rather than corner shops because we were hoping that the extra expense would not be an issue for bigger companies. We came across an ice cream shop called the Nice Company. They also sell milkshakes, and they said that they use paper straws in their shops. They told us that they were using paper because they were trying to move away from plastic, and they didn't know any alternatives other than paper. They also told us that they had a few complaints about paper straws because they get too soft and disintegrate.

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This was great news for us because it meant that they were trying to move away from plastic, even though they were having complaints about the paper straws. We started talking to them about pasta straws, and how they don't get soft, unless placed in boiling water, and about how and why pasta straws are good for the environment.



Interviewing the Nice Company about plastic straws.

I think we had a good talk, and they seemed really interested in the straws, and the work we were doing at the Big Ideas course. They were asking questions about the topic, and potentially other ways in which they could minimise the amount of plastic they use. They were already quite good when it comes to their plastic use. They use hard cardboard as their ice-cream tubs, but they still use plastic spoons and paper straws. There are currently no good alternatives to the kind of plastic spoon that they want to use, but they

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did seem very keen to try pasta straws as an alternative because the paper straws they were using weren't great.

We told them where to buy the straws, and how much they would cost per straw. They really liked the idea and said that they were really keen to try and use them in their restaurants. It seemed as if they wouldn't mind the extra expense if it would help save the ocean.

Another restaurant we interviewed was the Col'Cacchio in Cavendish. Matthew was at Cavendish one day on the weekend, and took the time to interview a few shops. Col'Cacchio was one of them, and they were the only other restaurant that we interviewed other than the Greek Fisherman using pasta straws. Matthew saw this as a great opportunity to ask them how the straws are doing at their restaurant. They said that the straws are doing great at their restaurant, and they have not had any complaints or bad reviews about them. They also said that they are looking to implement pasta straws in all of their restaurants in South Africa.

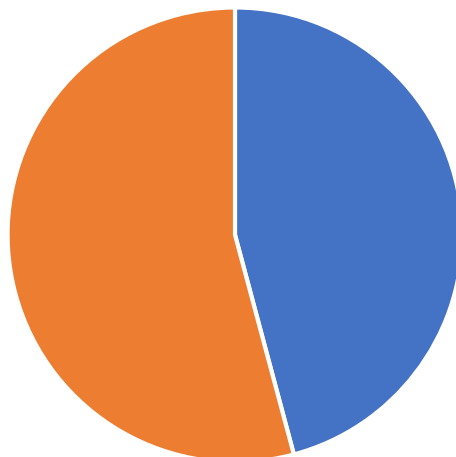
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Showing off our pasta straws with staff from the burger bar in Bo-Kaap.

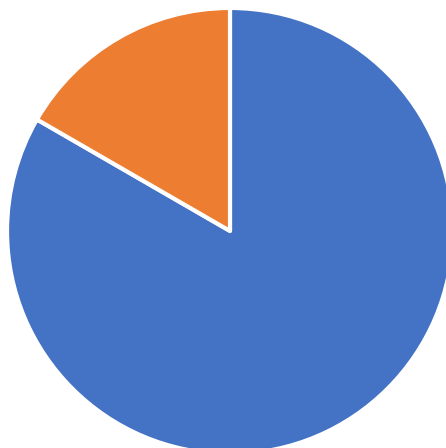
At Bo-Kaap, we got five surveys done, and overall throughout the term, we managed to get about 24 done. We have put all the data together in the form of pie charts, and the final results are down below.

Do you know that there will be more plastic than fish in the ocean by 2050?



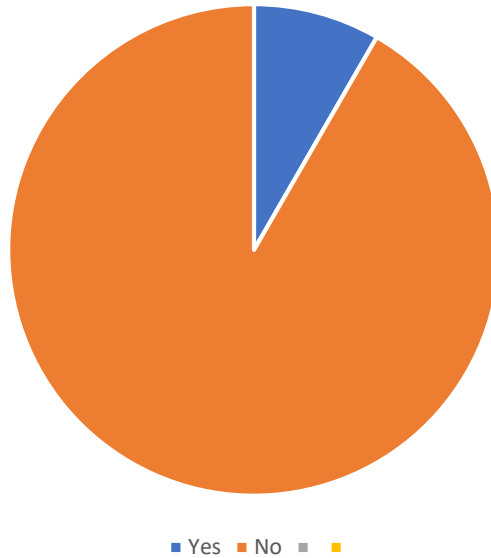
■ Yes ■ No ■

Would you be willing to pay an extra premium if it would help the environment?

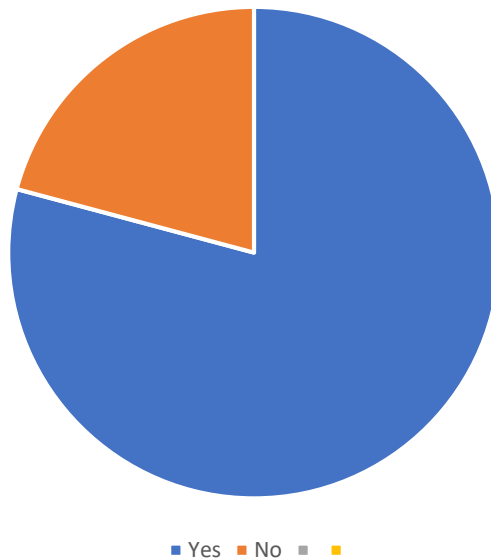


■ Yes ■ No ■

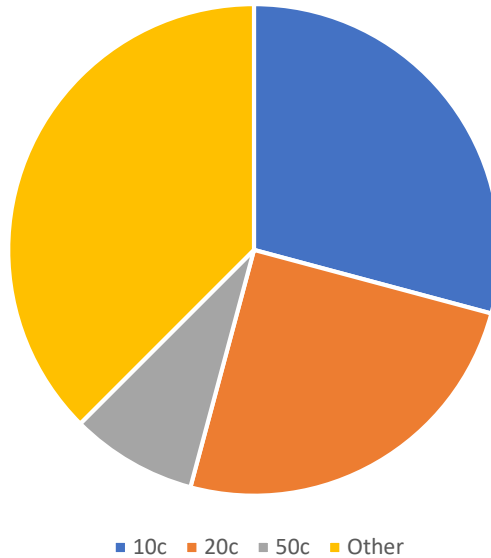
Have you ever heard of pasta straws?



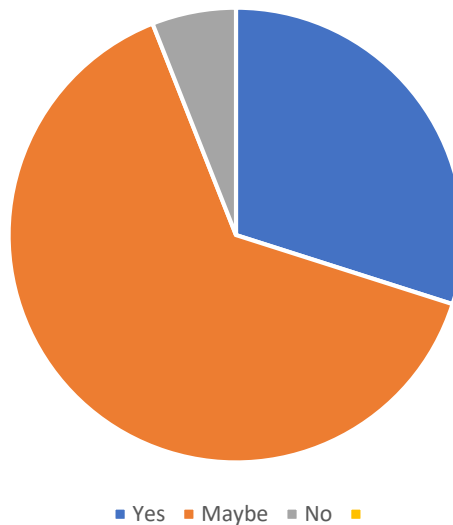
Do you think pasta straws work just as well as plastic?



How much do you think a pasta straw should cost?

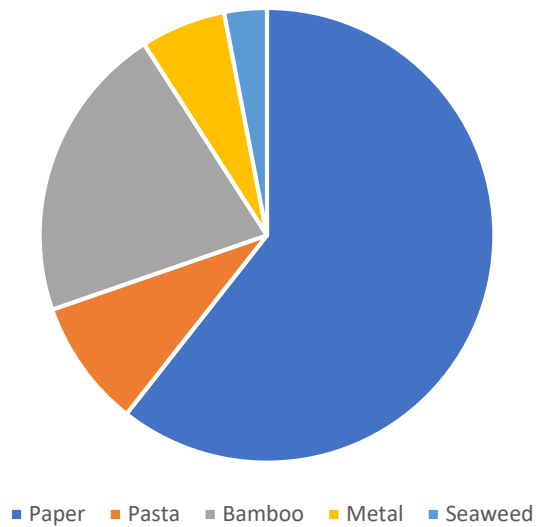


If the cost was feasible, would you be willing to implement pasta straws into your business?



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Do you know of any other sustainable straw replacements, if yes what?



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Analysis:

Overall, the results we received from all the restaurants were quite positive for our project. There were a few trends that started to form from the questions we asked the restaurants. Firstly, we were quite surprised at the answers we got to our first question – whether people know that there will be more plastic than fish in the ocean by 2050. The results were quite close to 50/50, and we thought that there would be a lot fewer people who knew that. We thought that this was positive because it means that quite a few people are aware of the effects that plastic has on the environment, they just aren't willing or maybe aren't aware of other alternatives to it.

Another great result for us was that almost everyone said that they would be willing to pay an extra premium, if it would help the environment. This excluded a few smaller corner shops and restaurants, because they told us that they couldn't afford to have the extra expense. I think that we just have to accept this, because not everyone is making huge profits, and need to try and limit their expenses. We also found that only two of the restaurants we spoke to knew what pasta straws were. The one was Col'Cacchio, who are already using pasta straws, and the other knew what they were but just didn't think of using them in their restaurant.

Matthew spoke a lot to Col'Cacchio about how people have been reacting to the pasta straws that they have been using, and they told us that the results have all been positive. As an Italian restaurant, they hopped on the pasta straw trend the moment they were released, and they told us that they have not had any complaints or bad reviews about them.

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Another big positive for us was that once we had demonstrated and spoken to the restaurants about the straws, a large majority agreed that they think they work just as well, if not better than plastic straws. The only thing that some restaurants were concerned about was that they can break in half if used in a slightly rough manner. Some restaurants also thought that they would change the taste of your drink, but we let them try it for themselves, and showed them they don't.

One thing we were concerned about was the cost of the straws, which is 10 cents per straw, but the data we gathered showed that most restaurants were fine with the cost. Most expected them to cost between 5 cents and 1 rand with many different answers. Most answers were 10 and 20 cents, which is about what the straws cost. When we asked them if they would be willing to implement them into their business if the cost was feasible, most of them said maybe, because they still needed to do extra tests on them. However, there were still quite a few who said yes, and only one or two restaurants who said no.

Our final question was what other sustainable straw replacements the restaurants knew about. Paper was by the far the most well known one, and then there were a few people who knew about pasta, bamboo, metal and seaweed straws. These are all good alternatives, but we explained why we think pasta is the best. Paper straws get too soft in a drink after a while and bamboo and metal are very expensive and bamboo changes the taste of your drink. Seaweed is a good alternative, but most people just don't like the thought of seaweed straws, and they don't smell great.

We think that we achieved what we wanted to achieve with our pasta straw idea. We have a lot of data to prove that restaurants do like the idea of the straws. The problem was that almost no restaurants knew about them before we went to show them. Hopefully we opened up their eyes to how bad plastic straws are for the environment and how we can try to limit the amount that we use. As a group we believe that pasta straws are the way forward, and we hoped we proved that with all of the data which we collected.

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However, we do have to acknowledge that our data can not be regarded as 100% accurate because we only got 24 surveys done. There are still multiple shops and restaurants in Cape Town which we did not interview, so we can't be sure that pasta straws are the best alternative. But we also have to realise that with the data we did collect, it does seem as if pasta straws are a very popular alternative and that there were a lot of restaurants who seemed very interested in the idea.

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Rahul's Reflection on Pasta Straws:

I was eating at the Greek Fisherman at the V&A Waterfront when my brothers drink arrived with a pasta straw. Both of us had never seen one before or even heard of it.

What we found really surprised us, and really convinced us that pasta straws are the best alternative to plastic straws. We found that pasta straws are made completely made out of wheat and water, which means that they will eventually fall apart in saltwater. They also last for a lot longer than paper straws, which get soggy after a while, and they don't change the taste of your drink like bamboo straws. They will only get soggy after about three hours, or if they are placed in boiling hot liquids. They only cost about 10 cents per straw and we also think that that is quite reasonable if it will help save the ocean. These straws come in a few different sizes, however the thickest one is the best, because it sucks the liquid out at the same speed as a plastic straw, unlike the thinner version which is harder to drink through.

Matthew's Reflection on Pasta Straw Interviews at Cavendish:

Sunday the 10th I went to Cavendish to do some more interviews and it was really successful. I went to Seattle coffee, Milky Lane, Col'Cacchio, Nando's, Gourmet India Vida café, and Spur. They were all kind and milky lane gave me an ice cream so that was really kind of them. I recorded them and 6 out of 7 were happy for the recording but Nando's ask me if I was going to type. Col'Cacchio had the pasta straws so I was really stoked that they had them. Vida café had bamboo straws for sale. They also had an option between plastic or paper straws. All these restaurants were really kind, and they let me ask many questions and a lot of them had paper straws but had complaints about how they would break, and you would need a lot more straws and so on.

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Conclusion:

Over the course of the project team SOS has focused on saving the ocean. We have done lots of background research surrounding the longevity of the ocean. We found the problem endangering the ocean and tried to come up with ideas to stop the problem. We found many issues, giving three different things a try. First, we tried to address the problem of microplastics, but were unsuccessful in creating an idea to combat this problem. Our second idea was to put pressure on the fish farmers in Langebaan. They were deforming fish and negatively impacting the ecosystem in Langebaan. However, we found that Langebaan was too far, and it would be unrealistic to successfully progress with a plan of action. Our final idea and the one we settled on was the promotion and advertisement of sustainable plastic straw replacements – especially pasta straws. We followed through our plan with an outing to the Bo-Kaap, interviewing restaurant owners and staff in the area.

We did research on multiple sustainable straw replacements, and found that pasta was the best all round option because of its cost effective price, longevity and sustainability. Therefore, it only seemed natural to choose to promote these new, innovative straw replacements.

Plastic straws directly impact SDG 14 – Life Below Water, because they play a big part in killing the marine life in the ocean and polluting its beautiful waters. Therefore, by addressing the negative impacts plastic straws have and promoting a sustainable replacement, our plan is linked to SDG 14. A sustainable replacement to straws = fewer plastic straws in the ocean = a better environment to live in for all of the life under water.

Overall our project has run smoothly from beginning to end, besides the last two days where we had to work hard to finish our narrative in time. The deadlines came quicker than expected, but through communication all three of us managed to work through our

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own parts of the narrative and complete it in time. However, we have struggled to come up with realistic ideas that will actually benefit the environment.

Although we haven't come up with a long-term idea to promote these straw replacements, we do agree that this cannot be a once off project, because it will not have a lasting effect. There isn't a long-term sustainable aspect to our project, because it was just promotion, however we think our research and interviews prove that pasta straws could serve as a suitable replacement and would be accepted in our community.

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Group Reflection:

Overall, we think that the Big Ideas course was a fantastic experience for all of us. We have learned about things which we never would have learned about in a normal class room. We have all learned and grown as a group as the course has gone on, and have learned so much about things like time management and especially working together as a team.

We are all very passionate about SDG 14 – Life below water and really wanted to do something to help save our oceans and the creatures that live there. We believe that our pasta straws idea will help contribute to this cause, and we will hopefully carry it forward in the future.

Looking back at our two terms of Big Ideas, we have learned more than we ever thought we would have at the start. None of us were great friends before the project, but we have all become a lot closer as a group, and overall we worked really well together. We all really enjoyed the Big Ideas course, and would strongly recommend it to everyone in the future who is considering doing the course.

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