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## **Message from the Author**

*“WITHOUT CHANGE,” warns a bipartisan group of senators, “there will be more plastic by weight than fish in the oceans by 2050 (Washington Post, 2019).*

The Oklahoma State University reports that one school-aged student who uses disposable lunch products creates over 30 kg of waste, himself/herself, just during a nine-month school year! This essentially means that one private, primary school with an average number of students can create more than 30,000 kgs of waste in the cafeteria alone. There is a need, now more than ever, for schools to find ways to reduce, reuse and recycle disposable plastics in the lunchrooms, classrooms, and every inch of the school premises.

In early 2018, I founded A PLUS (Anti Plastic Union of Students)- an initiative seeking to make schools plastic free, once and for all. A PLUS is a movement that encourages the students to take ownership of the school’s collective responsibility to the planet and to play a leading role in the creation of a system that is truly sustainable and environmentally friendly.

We have a long way to go, but are heading in the right direction, and have created this book to help you learn from our successes and failures! The A-PLUS Plastic Free Campus Handbook is a guide for schools across our country and beyond to not only understand the need for plastic-free campuses, but to understand how to eliminate this danger to our health and our planet.

Through this guide, I hope you are able to find ways that you can begin to work with your school and community, to collectively make change!

- Devaj Gupta

## **Chapter 2: Ways to Reduce Plastic**

There are many ways in which plastic can be reduced on campus. You can change procedures at your school or university, encourage your fellow students to reduce their plastic usage, or replace plastic products with sustainable alternatives.

### **Cafeteria**

Let's start with one of the most common sources of plastic on campus: the cafeteria!

There are many types of plastic to be found in the cafeteria. Here are just a few examples:

- Plastic cutlery
- Plastic cups
- Polystyrene cups
- Plastic water bottles
- Plastic plates
- Plastic trays
- Plastic food containers
- Plastic packaging in the kitchen
- Plastic straws

There are countless alternatives to these forms of plastics. Here are some ways in which plastics can be reduced or replaced in the cafeteria:

- Based on my experience, students and schools prefer to have disposable cutlery, so a suitable replacement can be disposable wooden cutlery.
- For the same reason, disposable paper cups would be a suitable alternative to plastic cups.
- Instead of plastic water bottles, paper cups can be provided and kept near water filters/coolers for use.
- Paper/cardboard plates can be used instead of plastic ones.
- Steel/wooden can be used instead of plastic ones.
- Instead of individual plastic packaging, food can be covered with a lid or a container.
- Juices and other items can be bought from brands which supply their product in sustainable packaging instead of plastic packaging (like tetra pak instead of plastic bottles)
- Placing plastic recycling bins can be placed in the cafeteria.
- Since some students prefer the usage of straws, paper straws can be used instead of plastic ones.

Given the need for extended hygiene measures as a result of Covid-19, you can recommend your school to encourage their students to bring their own cutlery from home. This is an initiative that will not only increase hygiene standards, but as a result can improve sustainability measures across the campus, leading to the eventual removal of plastic cutlery.

When studying how long coronavirus droplets lasted on surfaces, researchers could not find any droplets left over on paper and cardboard surfaces after a few days, but found that the droplets

could stay on plastic surfaces for up to seven days. This means that using paper/cardboard disposables instead of plastic is not only better for the environment, it's safer in the time of COVID-19.

Another way to reduce plastic in schools is through proper waste management. The first step in this process is to separate waste. If you set up bins in your school for different types of waste, eg. glass, paper, plastic, cans, then it makes it much easier to dispose of waste in a sustainable way.

Four ways you can go about this sustainable disposal are:

- 1) Reuse waste. There are many ways you can reuse waste at school instead of disposing of it. Some examples are:
  - a) Reuse wooden ice-cream sticks to make pen stands or photo frames.
  - b) Instead of disposing waste paper used for packaging food, decorate it using paints, to create a background for your soft board, on which you can pin charts that you make for school.
  - c) Once a month, use everything unclaimed in the 'lost and found' section for a competition to see who can make the best from waste.
- 2) Recycle waste. Make sure you find out first what can be recycled in your area, and then use your new separated waste bins to recycle these things. Common things that can be recycled are items made from: glass (like bottles and jars), metals (like cans and foil), paper (cartons and packets), and plastic (like containers and bags.)
- 3) Compost organic waste. This can be very useful for food waste, plant waste or even paper. Compost can be very useful as it fits with point one – it can be reused in a variety of scenarios. For example, you can use it in your garden (if the school has one) or give it away to farmers or family members to use in their gardens or to feed livestock.
- 4) Instead of relying on cafeteria cutlery and plates, which may be plastic, bring your own reusable lunch box from home. If everyone brings their own lunch boxes, you can also ban the use of plastic cutlery completely. If this is not possible, definitely urge your school administration to switch to paper plates/straws/cutlery.

### **Classrooms:**

A new academic year usually means new school supplies, how can it not! Yet, the accumulation of school supplies leads to a generation of alarming amounts of waste. Here are some simple ways it can be reduced:

- 1) Using pencil cases made of cotton means they can be washed, jazzed up creatively and reused. Alternatively, transparent pencil pouches made from bioplastics also makes for an environment-friendly option (although they are hard to find).
- 2) Mechanical pencils are a more convenient option for students: they do not require constant sharpening and thus fewer trips to the dustbin with the pencil shavings. However, the plastic body of the mechanical pencil will end up at a landfill as it is a non-biodegradable object. Instead of plastic, environment-friendly pencils are an eco-friendly option. Nowadays, innovative and sustainability-oriented startups are

making pencils from newspapers and recycled water bottles. Investing in these products means going the extra mile for our beloved environment!

- 3) In case the aforementioned options are not easily available to you, switch to pens made from metal or other materials that are conducive to the environment. Some of these are:
  - a) Inkless pens that are made from aluminium, have metal nibs and never run out of ink. Instead a metal alloy is used which oxidizes on touching the surface of the paper and these metal deposits function as smudge-proof “ink”. For all the stationery enthusiasts and sketchers out there, this makes for an ideal option.
  - b) Pens made from biodegradable corn starch that are less harmful to the environment are also an apposite choice for a writing device.
  - c) Eco-friendly pens made from bamboo are also available online and a better alternative to plastic body pens.
- 4) Plastic water bottles are a nuisance for multiple reasons: they break at crucial moments during water fights, seem to get lost every other day, and are detrimental to the environment. Instead, transparent bottles made from bioplastic make for handy substitutes. Bioplastic from certain brands is compostable and all forms of them emit far fewer greenhouse gases.

Apart from these basic switches in school supplies, there are also a plethora of Indian companies that have begun producing alternatives to plastic items. Bakey’s, run by Narayana Peesapati, is manufacturing cutlery made from a mix of jowar, rice and wheat flour which can be eaten after usage. Shunya alternatives are making straws, toothbrushes and cutlery from bamboo that is exponentially more beneficial for the environment. Trying to partner with these companies to supply stationery for school can go a long way in aiding the environment!

COVID-19 caught us off-guard because we were completely unprepared to deal with a home-bound life for the foreseeable future. We did not mend our ways until things reached a new nadir. The environmental catastrophe has been showing signs of distress for a long time. It is up to us as a species to be prepared to ameliorate the situation and not let it reach more dire straits.

### **Playground:**

Often the place that students think of mostly inside their campus, the grounds are actually the trickiest to maintain and keep waste-free. Children litter with wrappers, plastic bottles and sundries, making the process of waste management difficult for maintenance staff.

Different classes can be on rotational duty to collect waste from the playground on a weekly schedule to ensure waste collection and to instil an anti-littering sentiment. The environment/nature club of the school can even collaborate with recycling companies to dispose of broken cones and exercise material in an environmentally friendly way.

Some sporting gear in schools that can be replaced for more environmentally-sound options are:

- 1) Basketballs: The production process to make basketballs not only requires the use of chemicals, energy and water, but also generates lots of waste throughout the production

chain. Now, Wilson is making basketballs from 40% recycled rubber and the display packaging is made from 80% recycled material. Albeit a more pricey option, these basketballs are also more sustainable.

- 2) Frisbees: Frisbees allow for both leisurely games over recess, or more serious Ultimate Frisbee competitions. The problem with this low-cost, low maintenance game is the plastic disc that is used for the game. Now they are made from bioplastics which are less harmful for the environment, assuring both joy from the game and care for our ecosystem which is saturated with single-use plastics. These options are available online and an easy switch to make.
- 3) Skipping/Jump rope: Skipping is the ideal warm-up to energize the entire body before training, or a great workout in itself to charge the lower body. However, the plastic rope that is generally used requires substitution. Jump ropes are now made using wooden bases or organic material to reduce plastic usage. If these are opted for, both children and the environment will be happy!
- 4) Swimming gear: If your school has a swimming pool, it is definitely very cool! However, silicone caps and unsustainable swimwear generate a large amount of plastic waste. Eco-friendly swimwear alternatives are now made from textiles, plant-based materials, recycled nylon fibers and rescued fish nets (which account for 10% of the world's ocean pollution). Switching to these alternatives is definitely a big step for the environment!
- 5) Yoga Mat: Yoga is great for fitness and health in general, even if it is not a favourite of younger children. However although cheap, the plastic mats are a makeshift noose for the environment as they are made entirely from plastic. Sustainability-conscious brands make yoga mats from harvested tree rubber, thermoplastic elastomer, jute fibers, and cotton. These are also more UV-resistant and last longer if the sessions are taking place in the sun. A little research and the right brand can do wonders for sports supplies in schools!

Now that we know that these options are available, how do we get our schools to incorporate these alternatives? The following steps make the ostensibly daunting process quite simple:

- 1) Extensive research: Put together a list of (preferably Indian brands) with cost quotes for your school to review. Make some calls and see if discounts are available for students/bulk orders.
- 2) Making the pitch: Make a comprehensive list of the options with costs and benefits for your school sports department/administration to look through. Prepare an impactful elevator pitch to help your cause.
- 3) Following up: This is perhaps the most irksome part of the process, but something worthwhile rarely comes about without running in circles and following up dozens of times regarding the status of your pitch. Make sure you are polite so as to not antagonize anyone!

## Chapter 3: Action

Once you've thought of some efficient ways that your school can reduce plastic, it's time to talk to your school to see whether they can implement your ideas.

Firstly, talk to your fellow students to see whether they have anything they'd like to add to your proposal, and if they can support you with your mission. The more people join your proposal, the more pressure you can put on your school and the more likely they are to take your suggestions into account.

After you've gathered a group, have a think about who would be the best person to contact at your school. Does your school have an environment officer? Research staff roles at your school and work out which members of staff have influence over decision making relating to sustainability and the environment. If nobody seems to have this responsibility, go directly to whoever is responsible for day to day events and activities at the school – they'll know whether the school can accept your suggestions.

Now it's time to draw up your proposal. From this guide I'm sure you'll already have thought of some great ideas for how your school can begin to reduce their plastic usage. For example, switching to eco-friendly products in the canteen, classroom and playground, as well as composting and better waste management. When making a presentation on how the school can improve, try to make it engaging for your reader, but also keep it professional. Make a simple list of points that you think the school could improve on and how they can do it – you want your reader to be able to see your main points immediately. Make sure it's engaging with font and colour, but don't go too overboard on the decoration!

Once you've drawn up your proposal, add a letter addressing the person directly. The structure could be something like this.

Dear X,

Paragraph 1: Introduction.

- Keep this short and simple, telling them why you're writing the letter.
- Example: We'd like to bring your attention to some things our school could be doing to cut down on their plastic usage, to help not only the planet but the school and its students.

Paragraph 2: Why it's important

- Add a paragraph here about why it's important for the school to do this. Include a section about why it's good for the environment (with perhaps a personal touch about what sustainability means to you), but remember their primary focus is the school – add why it's beneficial to the school too.
- Example: The students at (your school) feel passionately about cutting down on our plastic usage. Senators in the US warn there will be more plastic by weight than fish in the oceans by 2050 unless we make a big change. Our school uses lots of unnecessary plastic, which is both bad for the environment and for the school.

Some of the suggestions we've laid out will benefit the school's finances as well as the environment, and teach students about important topics such as sustainability. For example, (add a point you've suggested here that would directly benefit the school, maybe that disposable paper/cardboard products can be more cost effective than plastic, or that compost can be used in the school's garden).

Paragraph 3: Direct their attention to your plan

- You don't want them to spend too much time reading your letter and forget about the great plan you've attached! Direct them now to your plan that you've attached.
- Example: We have drafted a provisional plan for how the school can cut down on its plastic waste, attached to this letter.

Paragraph 4: Offer more information

- If the plan piques their interest, they may want to discuss it further with you. Make sure they know you're available to answer any questions and talk more.
- Example: We'd be very happy to discuss our proposal further with you and answer any questions you may have. Please feel free to contact me at (email address).

Sign off

- Sign off with a nice signature and include the names of all the students who are involved in your project, plus which grades they are in.
- Example: Kind regards/best wishes,  
Yanav Singh, Grade 11



## Chapter 4: Advocacy

When coming up with a plan to campaign against plastic, think about what technique would be most persuasive to those around you. Is it how the environment can affect animals? Maybe add a picture of a polar bear on melting ice. Is it how the environment can affect them? Put some statistics about how climate change will affect humans' health and wellbeing. Maybe at the moment they're particularly worried about the coronavirus? Add your statistics you've found about how droplets last for longer on plastic than cardboard/paper!

Once you've zeroed in on your campaign's theme, think about how you can transmit your message most effectively. Here are some ideas:

- 1) Speeches: A fiery, emphatic speech can go a long way in pushing a cause that you are passionate about. Listen to/read some sublimely uplifting speeches by stalwarts also advocating your cause. The likes of Greta Thunberg, Al Gore, Ed Miliband, Medha Patkar, and Vandana Shiva are a good place to start. Connecting with an audience is vital for the propagation of any changes in lifestyle that would aid the environment. Thunberg's iconic 'How dare you!' now resonates with people all over the world.
- 2) Effective social media channels: We have all had to write the slightly clichéd 'social media- boon or bane?' essay at least once in our lives. For advocacy purposes, it is a definite boon. A well-timed twitter storm with a hashtag related to your campaign, an instagram account with vivacious content, a facebook page that live-streams talks and lectures can be a fantastic and low-cost way of acquainting large numbers with your cause and campaign.
- 3) Posters and flyers: Making colourful posters or flyers with vivacious and eye-catching content is an effective way to garner attention towards your campaign. Posters should have primarily graphic content and less text: you can use illustrator applications or draw them by hand and scan. Think of short captions/slogans that stay with anyone who views them. Rhyming, alliteration or a play on existing songs/pop culture pieces can work wonders for your campaign! Flyers can be relatively text-heavy, but make sure to reduce them to incisive and laconic sentences. Using questions like: 'What? How? Why?' or bulleted list can hold the reader's attention, else it will waver.

If you decide to distribute posters about your campaign, make sure they're eye-catching and informative. A good programme to use for free is Canva – this helps you create posters with good colours, fonts and art. Think about what would catch your eye if you were looking at a poster about the environment and ask your friends for what they think would be good too.

As mentioned earlier, it's important to get as many people involved as possible. Which of your friends are also interested in this topic? Who do you think you could persuade to help you? There are many different people you could get involved with your campaign. For example: your friends (and their friends), teachers, neighbours, mentors, parents (and their friends) among others.

Again, tailor your “pitch” to what they’re interested in. If your friend loves animals, talk about how global warming is affecting polar bears, or how plastic is harming animals in the ocean. Talk to your teacher about how less plastic would benefit the school.

### **Getting other schools involved**

Another great way to increase involvement is to encourage other schools to get involved. A cross-school mission to reduce plastic would help keep the participating schools accountable. You could even encourage some friendly competition – maybe a prize for schools that reduce their plastic usage the most in a given period of time? This would encourage other schools to participate both for connections with other students and for publicity if they were the winning school. See if you can find students from other schools in your area who are also interested in the environment, and share your resources with them to help them put pressure on their school too. Think about what the strongest motivation would be for their school to participate.

### **Competition pitch idea**

**PLASTic:** to pave the way to a world where plastic is a pest of the past.

**Aim:** To be the school to collect plastic waste in the maximum number of ways.

### **Tips and ideas:**

- 1) You can make it specific to one variety of the performing arts: dance, plays or skits where the costumes need to be made from reused plastic. Judging can be based on the piece and its reception and on the creative reusability of plastic
- 2) If you do not want to make a single art form the fulcrum of the competition, have simultaneous little competitions like art from waste, quizzes about waste management, song-composing about the issue and the performances as a crescendo to the festival. That way more children get to participate and all the work created/performed can be put up on social media channels of the campaign.
- 3) Reach out to a wide range of schools with ample notice so that participation can be maximum.
- 4) Pitch this competition to newspapers so that there is also media coverage given to the cause and the event. An article in a daily may also be an excellent incentive for winners.
- 5) Plan the event in a manner where there is a slot for a charismatic guest speaker who can get through to young people about this cause. As mentioned earlier, do your research and reach out to personalities with adequate time for confirmation to make the most of this opportunity!
- 6) Try to plan it in a manner with your peers so that it can be an annual event in your school calendar, so that your cause does not lose momentum even after you graduate’ right until plastic becomes a relic of the past.