

5  
2

الاستدامة  
SUSTAINABILITY  
PEI UAE

TODAY FOR  
TOMORROW

YEAR OF SUSTAINABILITY

# Sustainable Consumption



A practical guide to  
responsible consumption in our daily lives.

# Content

Overview	01
About the Year of Sustainability	02
Sustainable Consumption (Behaviours):	
Keeping our Food Green	04
Eating for our Land	07
Fashionably Sustainable: Saving the Planet with Style	10
About Our Experts	13
References	14

## Overview

Welcome to the Year of Sustainability's guide towards responsible consumption and enhancing sustainable practices in our daily lives.

This guide provides practical advice, expert insights, and helpful information to empower us to make informed choices and carry forward the legacy of sustainability that our ancestors have instinctively practised in all facets of their lives. By adopting responsible consumption and making conscious decisions, we can ensure a more sustainable future for generations to come.

Powered by input from a selection of members from our Sustainability Experts Network: Habiba Al Marashi, Sultan Al Junaibi, Ali Al Shimmari and Nour Almhairie; this guide will inspire us to work together towards a collective future that preserves our traditions of sustainability and valuable resources.

So let's embrace responsible consumption and make a positive impact on the environment, our health, and the future of our land.



## About the Year of Sustainability

His Highness Sheikh Mohamed bin Zayed Al Nahyan, President of the United Arab Emirates, announced that 2023 will be the 'Year of Sustainability'. The year will run from January until December 2023 and aims to promote the nation's deeply-rooted value of sustainability in order to encourage sustainable behaviour change and work towards a more sustainable and thriving UAE. It will draw on the UAE's heritage to inspire sustainable practices and collective action, bringing together everyone that calls the UAE home.

### ***Why do we need to adopt sustainable practices?***

Sustainability is vital for protecting our environment, preserving our natural resources, and ensuring our well-being and a better future for all. Our actions, both big and small, have the power to make a real impact and create a healthier, more sustainable world.

### ***How can I start?***

Getting started on your sustainability journey can seem overwhelming, but small steps can lead to significant change. This guide will provide tips and tricks to easily incorporate sustainable practices into your daily life.



You can take many simple actions to make a positive impact at home or in the office. From reducing energy and water usage to reducing waste and choosing environmentally-friendly products, the guide provides practical and achievable solutions to start your sustainability journey [1].





## Keeping our Food Green

"Keeping Our Food Green," is inspired by our cultural values of moderation and responsible consumption, we strive to make sustainable choices for the future, starting with our food choices.

Together, we can learn to reduce food waste, incorporate more plant-based foods into our diets, and positively impact the environment, our health, and the future of our land.

### *The Meat of the Matter: Confronting Excessive Consumption*

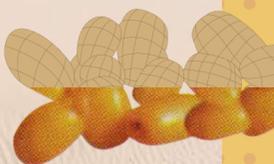
#### On Us

Eating a diet that is high in animal products can lead to nutrient deficiencies, as well as increased levels of inflammation and oxidative stress in the body. By incorporating more plant-based foods into our diets, we can improve our nutrient intake and support a healthier lifestyle [2].

Excessive red meat consumption has been linked to an increased risk of heart disease, diabetes, and certain types of cancer. By reducing our intake of red meat, we can improve our overall health and well-being [3].

#### On our Environment

Animal products and excessive meat consumption produce a disproportionate amount of greenhouse gases that harm the global and UAE environment.



## Plant Based Diet

*A plant-based diet emphasises foods that come from plant sources, such as:*

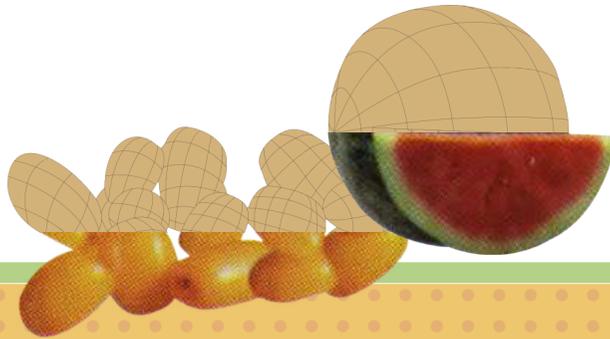
- Fruits
- Vegetables
- Whole grains
- Legumes
- Nuts
- Seeds

*The diet may also include plant-based proteins, such as:*

- Tofu
- Tempeh
- Seitan

*The degree of elimination of animal products can vary:*

- Vegan: No animal products, including dairy, poultry, and meat
- Vegetarian/Flexitarian: Some animal products, such as eggs or dairy



## Greening Up Your Plate: How Plant-Based Diets Can Support Sustainability and Health

### Plant-Powered UAE

It's no secret that incorporating more green in your diet is better for your health and the environment, but it can be tough to make the switch. Here are some common obstacles to a greener diet:

#### 1. Cultural and Traditional Eating Habits

Meat and dairy are a big part of our traditional cuisine, but that doesn't mean we can't incorporate more plant-based options and create fun and innovative recipes inspired by our local cuisine.

#### 2. Limited Availability of Plant-Based Options

Finding plant-based options can be challenging, But with a little creativity, we can make the most of what's available in our ever-growing farmers' markets, local farms and our rich variety of local produce.

#### 3. Social Pressure

It can be tough to go against the grain, especially when friends and family are used to a particular way of eating. However, our values of moderation and responsible consumption of our resources will surely encourage others to join our quest for a greener and healthier UAE.

*"When it comes to excessive red meat consumption, it's important to be mindful of the potential health consequences. In the UAE, where red meat is commonly consumed, it's crucial to strike a balance and incorporate more plant-based foods into our diets. Not only can this promote better digestive health, but it can also reduce the risk of chronic diseases such as heart disease and diabetes [3]."*

*Nour Almheiri - Sustainability Expert*





*“While most of the meat consumed in the UAE is imported, we need to be mindful that the production of this meat causes significant adverse environmental impact in many other parts of the world. For example, meat and dairy products account for around %14.5 of global greenhouse gas emissions [4]. These emissions will directly impact the UAE because the MENA region is one of the world’s most vulnerable regions to the impacts of climate change.”*

*Habiba Al Marashi - Sustainability Expert*

## ***Plant-Powered Perks: Why a Diet Rich in Fruits, Vegetables, & Grains is the Way to Go***

### **On Us**

#### **Reduced Risk of Chronic Diseases**

- Plant-based foods are rich in fibre, vitamins, minerals, and antioxidants, which can help reduce the risk of chronic diseases such as heart disease, type 2 diabetes, and certain cancers [5].

#### **Improved Digestive Health**

- Plant-based foods are often fibre-rich, promoting digestive health by keeping the gut microbiome healthy and reducing the risk of constipation and other digestive issues [6].
- Consuming various plant-based foods can help promote a healthy balance of gut bacteria [7].

#### **Improved Weight Management**

- Plant-based foods tend to be lower in calories and higher in fibre compared to animal-based foods, which can help promote weight loss or weight maintenance.

### **On our Environment**

- Plant-based diets have a lower carbon footprint than diets high in animal products [8].
- Growing plant-based foods requires less land, water, and other resources compared to raising animals for food [9].
- Plant-based diets can reduce the amount of greenhouse gases released into the atmosphere [10].
- Eating more plant-based foods can help to reduce deforestation and land degradation, which can harm local ecosystems and wildlife [10].
- Choosing plant-based foods can help to decrease the amount of energy and resources needed for transportation and processing of food [9].

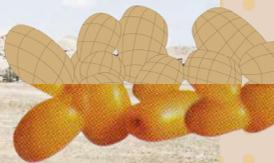
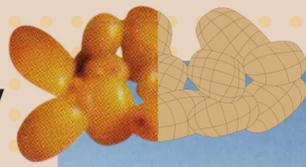




## Eating for our Land

If we want to play our part in creating a more sustainable future, reducing our meat consumption is a great place to start. There are plenty of delicious and nutritious alternatives to red meat out there that we can explore [11].

- **Seafood:** Fish, shrimp, crab, and lobster are excellent sources of protein and omega-3 fatty acids.
- **Legumes:** Lentils, chickpeas, beans, and peas are excellent sources of protein, fibre, and other essential nutrients.
- **Nuts and Seeds:** Almonds, walnuts, sunflower seeds, and pumpkin seeds are excellent sources of protein, healthy fats, and other essential nutrients.
- **Quinoa and other Grains:** Quinoa, brown rice, and other grains are rich in protein and fibre and can be used as a base for salads and other dishes.
- **Poultry:** Chicken, turkey, and duck are lean protein sources lower in saturated fat than red meat.





*"As a nutritionist, I believe that adopting sustainable practices in our diets is good for our health and the land. By reducing meat consumption, buying locally, and reducing food waste, we can positively impact the environment and support ethical food sources. Additionally, a sustainable diet can be richer in nutrients, promoting better health and well-being."*

*Nour Almheiri - Sustainability Expert*

## ***Food Overload: The Truth About Excess Consumption***

### **On Us**

- Portion control for better health: Larger portions can lead to consuming more calories than necessary, resulting in weight gain and health problems. Proper portioning can help control calorie intake and promote overall health.
- Balanced nutrition: Portion control ensures a balanced mix of nutrients. By filling our plates with appropriate portions of various foods, we can get the nutrients our bodies need to function optimally [13].
- Improved digestion: Overeating can lead to digestive issues like bloating, gas, and acid reflux. Portioning out food can alleviate these symptoms and improve overall digestion [14].

### **On our Environment**

- Wasting food means wasting the resources that went into producing it, such as water, energy, and labor. This puts unnecessary pressure on our natural resources and contributes to environmental degradation [15].
- When food is disposed of in landfills, it decomposes and produces methane, a potent greenhouse gas that contributes to climate change [16].
- Food waste also contributes to deforestation and habitat loss, as the demand for land to grow more food increases [15].
- The transportation of food that is ultimately wasted also contributes to carbon emissions and other pollutants that harm the environment [15].





## ***From Waste to Taste: Creative Solutions for Reducing Food Waste***

Did you know that in the UAE, over 3.27 million tonnes of food is wasted every year? That's enough to feed over 7 million people! [12] But it's not just about the numbers. Food waste also has a significant impact on our environment, contributing to greenhouse gas emissions and wasting valuable resources.

Let's explore some practical solutions to reduce food waste and make a positive impact.

## ***Plate It Right***

- **Planning Ahead:** Creating a shopping list can help reduce food waste, save money, and make meal planning easier. By only buying what's needed, we can avoid throwing away excess food and simplify our meal prep routine.
- **Use Measuring Tools:** Measuring cups, spoons, and kitchen scales ensure appropriate portion sizes.
- **Divide Plates:** Dividing plates help visualise portion sizes for each food group.
- **Hand Measurements:** Estimate portion measures using your hand (e.g., a serving of protein should be the size of your palm).
- **Practice Mindful Eating:** Tune in to your body's hunger and fullness cues to eat appropriate portions.





## Fashionably Sustainable

### *Saving the Planet with Style*

In recent years, the fashion industry has significantly shifted towards sustainability, with many consumers seeking environmentally-conscious clothing options. As a result, slow fashion has emerged as an industry concerned with quality, environmental impact, and resource preservation. This approach emphasises the use of local and seasonal materials for manufacturing clothes. In contrast, fast fashion is an industry focused on rapid production, low prices, and disposability, often sacrificing sustainability for quick profits.

### *Fast Fashion*

#### On Us

Fast fashion retailers often use lower quality materials to keep the prices of their items low, which can have negative impacts on the overall quality and durability of their products:

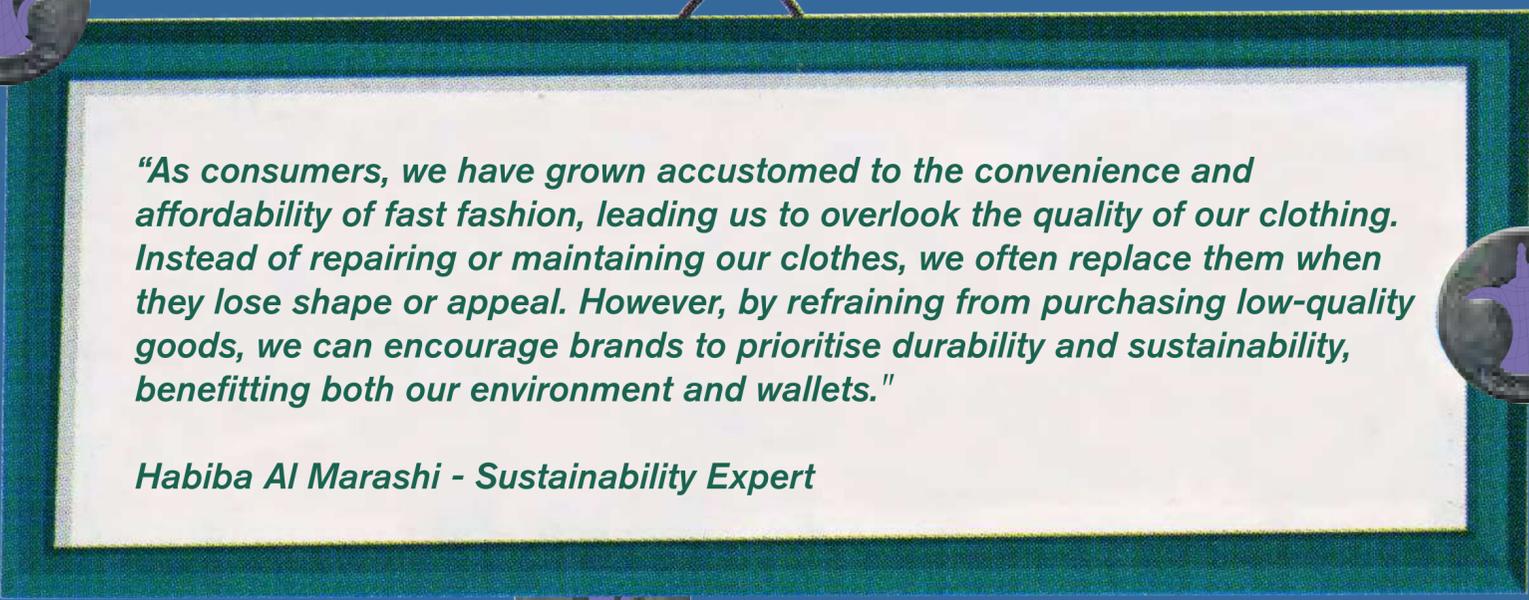
- Lower reusable life of fast fashion items causes the consumer to purchase excessive amounts of clothes.
- Fast fashion garments may contain harmful chemicals like formaldehyde and phthalates, which are associated with negative health effects. Synthetic fabrics used can also lead to skin irritation and other health issues [17].

#### On our Environment

Fashion requires resources for production and shipping. In addition to that, used clothes contribute to solid waste generation.

- A single pair of jeans can use up to 5000 L of water, while textile dyeing causes up to %20 of water pollution in the world [18].
- Global textile waste produces 92 million tonnes annually [19]. Abudhabi reported in 2019 that the city generated approximately 11.2 million tons of solid waste, which includes used clothes [20].





*“As consumers, we have grown accustomed to the convenience and affordability of fast fashion, leading us to overlook the quality of our clothing. Instead of repairing or maintaining our clothes, we often replace them when they lose shape or appeal. However, by refraining from purchasing low-quality goods, we can encourage brands to prioritise durability and sustainability, benefitting both our environment and wallets.”*

**Habiba Al Marashi - Sustainability Expert**

## ***Mindful Fashion: Slow and Steady Wins the Race***

### **On Us**

While slow fashion may come with a higher price tag, the use of high quality materials means that slow fashion products have a longer lifespan than fast fashion alternatives, making them more cost-effective in the long run.

- Shifting to a seasonal purchasing approach and decreasing the frequency of shopping can result in significant long-term financial benefits compared to habitual buying habits.
- By closely examining your relationship with fast fashion, you may discover the advantages of supporting local and independent brands. These brands often offer one-of-a-kind and original pieces while also promoting creativity, diversity, and small businesses.

### **On our Environment**

Fashion requires resources for production and shipping. In addition to that, used clothes contribute to solid waste generation.

- The use of seasonal raw materials in clothing production significantly reduces the industry's environmental impact [21].
- Decreasing purchases from online or international retailers can lead to a reduction in transportation emissions and ultimately lower the carbon footprint of the clothing industry [22].





## ***From Fast to Last: How to make the right choices***

- By purchasing high-quality materials, consumers can drive the demand for sustainable and ethical production practices in the fashion industry [23].
- Instead of discarding unwanted clothes in regular trash cans, consider fixing, recycling, donating, or selling them to extend their usable life and reduce waste.
- Consider renting or buying second-hand clothing from affordable brands as an alternative to buying new clothes, reducing the environmental impact of fast fashion and supporting sustainable fashion practices.

*"Local sustainable fashion can drive UAE's economic growth and diversification by creating jobs, boosting exports, and enhancing the country's brand. It promotes the UAE as a sustainability leader and opens up a new niche market in the textile industry, resulting in job creation and growth of small businesses. Additionally, exporting locally produced sustainable fashion products generates new revenue streams and reduces reliance on costly imports from other producers."*

*Ali Al Shimmari - Sustainability Expert*



## About Our Experts



Habiba Almarashi is the Co-founder and Chairperson of the first environmental NGO in the UAE known as the Emirates Environmental Group (EEG) in 1991. She has been recognised for her environmental work and campaigns for three decades and sits on the boards of several UN and international bodies. She established the Arabia CSR Network in 2004, a pioneering multi-stakeholder platform for the MENA region. She co-founded the Emirates Green Building Council in 2006 and served as its Treasurer and Board Member. Habiba joins a group of experts forming the Sustainability Experts Network as part of the Year of Sustainability.



Nour Almheiri is an experienced Clinical Dietitian with a demonstrated history of working in the healthcare industry. She is skilled in Nutrition Education, Nutritional Counseling, Clinical Nutrition, Dietetics, and Hospitals. Nour holds a Masters degree in Management from the University of Liverpool. She works as an expert on food security as part of the UAE's National Experts Program. Using her expertise in nutrition, Nour Almehairi offers her perspective on the health benefits of responsible consumption and maintaining more environmentally-friendly diets as part of the Sustainability Experts Network within the Year of Sustainability.



Sultan Al Junaibi is an Investment Manager at Abu Dhabi Investment Authority. His experience helped him establish several UAE-based start-up businesses and offer support to emerging entrepreneurs. Sultan was chosen as one of the members of the Sustainability Experts Network, who works alongside the Year of Sustainability team to offer an economic and financial perspective on establishing sustainable practices in the UAE.



Ali Alshimmari is an asset manager and Chairman of the Youth Council at Abu Dhabi National Energy Company (TAQA). Ali participated in the National Experts Program (NEP), where he developed an integrated approach to the UAE Hydrogen Strategy that focuses on ensuring a more sustainable, affordable and inclusive energy sector. Ali's expertise led him to be selected as one of the several experts forming the Sustainability Experts Network as part of the UAE's Year of Sustainability initiative, which aims to promote sustainable practices nationwide.



# References

- [1] GreenNYC, "Small Steps, Big Strides," NYC.gov, 2017. [Online]. Available: <https://www.nyc.gov/>. [Accessed: 13-Mar-2023].
- [2] S. van Vliet, J. R. Bain, M. J. Muehlbauer, F. D. Provenza, S. L. Kronberg, C. F. Pieper, and K. M. Huffman, "A metabolomics comparison of plant-based meat and grass-fed meat indicates large nutritional differences despite comparable nutrition facts panels," *Scientific Reports*, vol. 11, no. 1, 2021.
- [3] H. Lescinsky, A. Afshin, C. Ashbaugh, C. Bisignano, M. Brauer, G. Ferrara, S. I. Hay, J. He, V. Iannucci, L. B. Marczak, S. McLaughlin, E. C. Mullany, M. C. Parent, A. L. Serfes, R. Sorensen, A. Y. Aravkin, P. Zheng, and C. J. Murray, "Health effects associated with consumption of unprocessed red meat: A burden of proof study," *Nature Medicine*, vol. 28, no. 10, pp. 2075–2082, 2022.
- [4] J. Moskin, B. Plumer, R. Lieberman, E. Weingart, and N. Popovich, "Your questions about food and climate change, answered," *The New York Times*, 30-Apr-2019. [Online]. Available: [https://www.nytimes.com/interactive/2022/dining/climate-change-food-eating-habits.html#:~:text=Meat%20and%20dairy%2C%20particularly%20from,combined%20in%20the%20world%20today](https://www.nytimes.com/interactive/2022/dining/climate-change-food-eating-habits.html#:~:text=Meat%20and%20dairy%2C%20particularly%20from,combined%20in%20the%20world%20today.). [Accessed: 22-Mar-2023].
- [5] H. Boeing, A. Bechthold, A. Bub, S. Ellinger, D. Haller, A. Kroke, E. Leschik-Bonnet, M. J. Müller, H. Oberritter, M. Schulze, P. Stehle, and B. Watzl, "Critical review: Vegetables and fruit in the prevention of chronic diseases," *European journal of nutrition*, Sep-2012. [Online]. Available: <https://www.ncbi.nlm.nih.gov/pmc/articles/PMC3419346/>. [Accessed: 22-Mar-2023].
- [6] "How to add more fiber to your diet," Mayo Clinic, 04-Nov-2022. [Online]. Available: <https://www.mayoclinic.org/healthy-lifestyle/nutrition-and-healthy-eating/in-depth/fiber/art-20043983>. [Accessed: 22-Mar-2023].
- [7] R. S. Najjar and R. G. Feresin, "Plant-based diets in the reduction of body fat: Physiological effects and Biochemical Insights," *Nutrients*, 08-Nov-2019. [Online]. Available: <https://www.ncbi.nlm.nih.gov/pmc/articles/PMC6893503/>. [Accessed: 22-Mar-2023].
- [8] "Healthy plant-based diets better for the environment than less healthy plant-based diets," *News*, 10-Nov-2022. [Online]. Available: <https://www.hsph.harvard.edu/news/press-releases/healthy-plant-based-diets-better-for-the-environment-than-less-healthy-plant-based-diets/>. [Accessed: 22-Mar-2023].
- [9] H. Ritchie, "If the world adopted a plant-based diet we would reduce global agricultural land use from 4 to 1 billion hectares," *Our World in Data*, 04-Mar-2021. [Online]. Available: <https://ourworldindata.org/land-use-diets>. [Accessed: 22-Mar-2023].
- [10] A. Buxton, "New study finds plant-based diets can reduce carbon emissions by 61%," *Green Queen*, 16-Feb-2022. [Online]. Available: <https://www.greenqueen.com.hk/plant-based-diets-slash-carbon-emissions/>. [Accessed: 22-Mar-2023].
- [11] "Beginner's Guide to a plant-based diet," *Forks Over Knives*, 20-Mar-2023. [Online]. Available: <https://www.forksoverknives.com/how-tos/plant-based-primer-beginners-guide-starting-plant-based-diet/>. [Accessed: 22-Mar-2023].
- [12] S. Report, "3.27 million tonnes of food wasted in the UAE every year," *Khaleej Times*, 25-Jun-2015. [Online]. Available: <https://www.khaleejtimes.com/article/3-27-million-tonnes-of-food-wasted-in-the-uae-every-year>. [Accessed: 21-Mar-2023].
- [13] C. Mikstas, "Simple secrets to portion control and Healthy Eating," *WebMD*, 24-Feb-2023. [Online]. Available: <https://www.webmd.com/diet/ss/slideshow-serving-sizes>. [Accessed: 22-Mar-2023].
- [14] "Why is portion control so important?," *Eat Smart*, 23-Feb-2018. [Online]. Available: <https://www.eatsmartproducts.com/blogs/blog/why-is-portion-control-so-important>. [Accessed: 22-Mar-2023].
- [15] "Food Wastage Footprint: Impact on Natural Resources," *Food Wastage Footprint - Impacts on Natural Resources – Summary report*, 2013. [Online]. Available: <https://www.fao.org/sustainable-food-value-chains/library/details/en/c/266219/>. [Accessed: 22-Mar-2023].
- [16] P. by J. Buzby, "Food waste and its links to greenhouse gases and climate change," *USDA*, 24-Jan-2022. [Online]. Available: <https://www.usda.gov/media/blog/2022/01/24/food-waste-and-its-links-greenhouse-gases-and-climate-change>. [Accessed: 22-Mar-2023].
- [17] C. Chen, "Fast fashion's toxic clothing and how to avoid it," *Fashinnovation*, 10-May-2022. [Online]. Available: <https://fashinnovation.nyc/toxic-clothing/>. [Accessed: 20-Mar-2023].
- [18] D. Moorhouse, "Making fashion sustainable: Waste and collective responsibility," *One Earth*, 24-Jul-2020. [Online]. Available: <https://www.sciencedirect.com/science/article/pii/S2590332220303080#:~:text=The%20production%20of%20denim%20apparel,environmental%20impact%20becomes%20extremely%20high>. [Accessed: 22-Mar-2023].
- [19] M. Igin, "10 concerning Fast Fashion Waste Statistics," *Earth.Org*, 17-Feb-2023. [Online]. Available: <https://earth.org/statistics-about-fast-fashion-waste/>. [Accessed: 22-Mar-2023].
- [20] *Waste Statistics in Abu Dhabi Emirates 2019*, www.scad.gov.ae, Jul-2020. [Online]. Available: <https://www.scad.gov.ae/Release%20Documents/Waste%20Statistics%202019-Engv1.pdf>. [Accessed: 13-Mar-2023].
- [21] M. Charpail, "Fashion & environment," *SustainYourStyle*, 2017. [Online]. Available: <https://www.sustainyourstyle.org/en/whats-wrong-with-the-fashion-industry>. [Accessed: 22-Mar-2023].
- [22] J. Lee, "Fashion's carbon footprint: The Ins and outs of international shipping," *Good On You*, 01-Jun-2022. [Online]. Available: <https://goodonyou.eco/international-shipping/>. [Accessed: 22-Mar-2023].
- [23] A. Bringé, "Council post: The State of Sustainability in the fashion industry (and what it means for brands)," *Forbes*, 03-Jan-2023. [Online]. Available: <https://www.forbes.com/sites/forbescommunicationscouncil/2023/01/02/the-state-of-sustainability-in-the-fashion-industry-and-what-it-means-for-brands/?sh=74539a051c82>. [Accessed: 22-Mar-2023].



---

PEI UAE