# GREAT UNDIES WITH GREAT IMPACT

# UNDERWEAR FOR HUMANITY

IMPACT REPORT JUNE 2021- MARCH 2023

# Introduction from our founder

## Welcome to our first impact report!

I hope you enjoy the level of transparency, we will share our costs, our data, our methods and our whys. If you are from industry we invite you to copy us please!

This was a labour of love because the reason we exist is for impact, so sharing is a joy and not an add on for shareholders or reporting.

Are you old enough to remember that clothing is cheaper now than when you were young? I remember Westco had a Flashdance jumper that I desperately wanted for \$89 when I was a teenager. That same jumper today would be \$40, maybe less.

I worked at Holeproof and I remember 18 years ago when the Rio \$10 bra was launched, it was ludicrous, how can a bra be \$10?! Industry was angry and many brands called management at Holeproof to complain, now you can buy a bra for \$4. How has this happened?

Funnily enough I did my thesis on Offshore and Delocalisation Strategies for the UK Fashion Industry (I am from Melbourne, but was studying in London). 20 years later I started another degree, Sustainability in the Clothing Industry and guess what I found out? A lot happened in 20 years and the lowering of trade barriers turned into a mountain of cheap clothing so big that no-one knows what to do with it.

We are currently using 1.7 planets worth of resources globally and if everyone lived like we did in Australia it would be a total of 5.2 planets. Something has to change fast, but it isn't happening fast enough, many say this is the last decade left to change our direction. That is why I started such a radically different brand, I needed to see a manifestation of what I think the future needs to be right now, it is a remedy for my own climate grief challenges.

So I started with what I know, undies. Yes they are little and potentially funny, but they are powerful. Anything can be powerful if it has the right intention and ingredients. I am able to use my specialist knowledge as a microcosm of the next economy. An economy that is regenerative, transparent, equitable, a whole systems approach to business. And I am so excited to draw value out of every step, every human exchange, and stitch that I can. With the focus on impact, not profit, I have the ability to be incredibly uncompromising with my decision making.

I'd like to thank everyone who has contributed to Underwear for Humanity, including our suppliers, our makers, our team, and our community that support us from buying the products and spreading the word. I hope this report gives you optimism for how business can be a force of healing.

Kelly Barrett - Founder of Underwear for Humanity, March 2023



GREAT UNDIES WITH GREAT IMPACT

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# The numbers we care about:







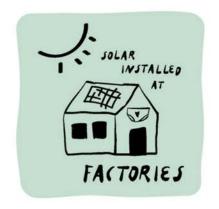








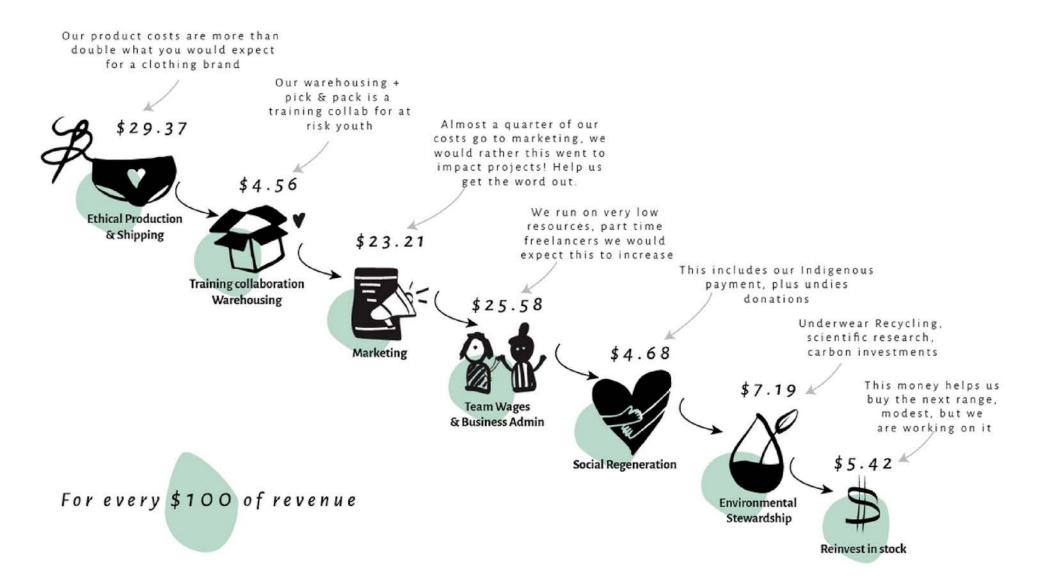








# Where does the money go?



#### **IMPACT REPORT**

# **About Us**





#### Who We Are

Underwear for Humanity was founded in 2021 after 18 months of development by Kelly Barrett, a veteran of the fashion industry and expert in underwear, having previously founded two successful businesses: Starcorp Textiles and Silent Arrow. Kelly is a disruptive, original thinker who is committed to evolving her industry. She is relentless in her passion to create a better and fairer world.

The team at Underwear for Humanity is made up of Kelly and Lily O'Shea who works part-time as a Marketing Assistant, as well as pro-bono work from Starcorp Textiles from underwear specialists. Kelly is a partner and Sustainability Director at Starcorp Textiles, an underwear business that does private-label products for other brands.

We also have many amazing freelancers that contribute to the business.

# Our Theory of Change

A 'Theory of Change' is a clearly articulated description of the impact you wish to create, and the steps that need to happen to create it. Our 'Theory of Change', acts as our north star, helping to guide our decision-making, and get us leaping out of bed each day... in our beautiful undies.

If we offer people the opportunity to participate in creating a better and fairer world.

By building a social enterprise that prioritises impact in everything that it does, It will lead to a shift in the way people consider where their money goes and the power that they have and ultimately empower them to contribute to and feel more connected to their humanity and world they choose to live in.



#### **Awards**

We are so proud to have won the Planet Ark - Australian Circular Economy Hub inaugural award, under the category Design for Circularity Award in November 2022. We thank Planet Ark for acknowledging us as such a new start-up, it was so meaningful and motivating for us.

Our mission is to contribute to a radical system refocus, where humans and the earth are valued over financial paradigms.



## **Our Certifications**

Transparency in the fashion industry is an ongoing challenge. Our certifications give some visibility of the standards we are meeting to protect humans, animals, and the planet.

We will continue to use these frameworks to improve our social enterprise, and ensure we are best practice not only in our industry, but business in general.

This includes our pending application for B-Corp certification, submitted 5th August 2022.

#### **Business Certifications**







#### **Materials Certifications**











#### **Manufacturing Certifications**





#### **Foundation Member**

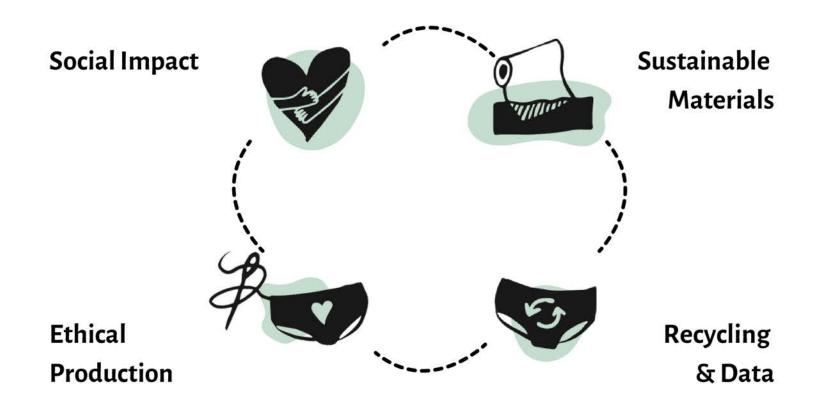


# Our Supply Chain

We prioritise impact in everything that we do. For us that encompasses not just our business activities, but our entire supply chain.

Therefore, this impact report follows the journey of our product, from production of the material right through to end of life, recycling, and donations.

We hope you find the journey of how your product is made, and the positive impact that it can have inspiring.



#### **IMPACT REPORT**

# **Social Impact**



UNDERWEAR FOR HUMANITY



# **Social Impact**

We envision a future where the fashion industry and all businesses must prioritise the planet and people over profit.

We exist to be a part of this new economy as a social enterprise and commit to contributing 50% of our profits to social and planetary projects each year as a combination of in-kind products and cash donations.

This is achieved through underwear donations, rent payments to Aboriginal initiatives and work-training partnerships.

#### **Business Certifications\***





## One-for-One Donation Model

Underwear may not seem important, but when you don't have access to it you quickly realise how essential this item is, especially for women. Having access to new, well-made underwear supports dignity, hygiene and self-esteem.

At Underwear for Humanity we have committed to donating a pair of underwear for every item we sell, it is part of our social enterprise model and who we are.

Not only are we donating new underwear, but we have also found a way to utilise waste materials too! for a double win. In 2019, prior to launching, we found thousands of meters of deadstock elastic at one of our factories that was destined for landfill. We now utilise all of our factories' deadstock — from other customers' cancelled orders, half rolls, and leftover elastic - to create the underwear we give away. Using deadstock in this way means the underwear created from it are special, in that they are all unique. Bringing value to waste is something we live for, making us so proud of these undies.





## Period Underwear: One-for-One

We did a pilot project with period underwear called Flow, it enabled us to donate period underwear one-for-one to help solve period poverty. Unfortunately, our sales were not high enough for us to continue to buy the stock, so we were unable to sustain the program and have since discontinued our flow underwear.

#### Total Period Undies Donated: 308

#### These have been donated to:

- Katherine Women's Information and Legal Service (KWILS)
- Family Access Network (Youth Homelessness Service)





# **Donations Recipient List**

#### 2021/22

- Backpacks 4 VIC Kids Inc
- Kara House
- Katherine Women's Information and Legal Service (KWILS)
- · Orygen Youth Group
- Mullumbimby District Neighbourhood Centre
- The Shift Project
- Days for Girls (Adelaide Division)
- Days for Girl (Central Victoria)
- February 2022 NSW flood relief (delivered to various shelters)
- Brisbane Domestic Violence (MICAH project)
- Fletcher Street Cottage Byron Bay
- Family Access Network (Youth Homeless Service)

#### 2022/23

- Backpacks 4 VIC Kids Inc
- Kara House
- Katherine Women's Information and Legal Service (KWILS)
- Brisbane Domestic Violence (MICAH project)
- Days for Girl (Central Victoria)
- Family Access Network (Youth Homelessness Service)
- Lighthouse Foundation















# **Indigenous Collaboration**

We are committed to a future where Aboriginal and Torres Strait Islander people are truly included in our society. Currently, there is widespread economic exclusion, and little opportunity to participate. We can see this in the low educational and employment outcomes and high incarceration rates. It is wrong! We do our part by paying Indigenous contributors and are always looking for other employment pathways.

Kelly is one of the founders of Fashion Futures, a program opening doors for the Wadeye community. And of course, we put our money where our mouths are and pay rent, as an integral part of the brand. We are always listening and learning from our Indigenous friends and they have a big impact on our business. Our cultural advisor is Delta Kay a friend and collaborator.

# Aboriginal Rent Payment

We launched in July 2021 paying 10c per item sold, through community support we grew and on 1st February 2022 we were able to increase this to 50c per item sold.

There is no obligation for our recipients to explain how the money is used, so we have no stories to tell, but there are some that are coming, a new project on Bundjalung land where we work.

We also pay money to Pay the Rent, for our work on Wurundjeri Country.



\$5,278 RENT PAID
TO INDIGENOUS GROUPS





# Minyirr Indigenous Incubator Program



Total Raised: \$2 278.92

Minyirr began as a conversation about how we could funnel money impactfully to where it was needed to increase choice and inclusion. We know from research that Indigenous businesses employ Indigenous people and that by supporting Aboriginal-led businesses, we're supporting the creation of more culturally safe inclusive jobs.

We collaborated with Michael Jalaru Torres, our photographer, he is a Djugun and Yawuru man based in Broome, who designed the print of this underwear range and led the photo shoot.

This beautiful Minyirr print represents a part of Broome where the red earth meets the bright blue ocean. The white lines represent the pristine sand, and the yellow lines are the sandstone that weaves through the rock.

All Underwear for Humanity profits from this style were donated to Blak Lens Incubator to support Indigenous-led entrepreneurs.

# Pick and Pack Work Training Program

Story

There was a person that got an opportunity at Social Engine for work training. We will call them Jane. Jane was regularly turning up for work late. Out in the world of regular employment being late all the time would be a big problem. So, a conversation began:

Social Engine: "Why are you always late?"

Jane: "Because I had to stop by Kmart and buy some shoes."

Social Engine: "Why?

Jane: "Because I was staying on a mate's couch and couldn't get to my things."

**Translated: Jane is experiencing homelessness.**Jane had been moving around from couch to couch for shelter.

The action: Social Engine helped Jane find permanent accommodation.

Result: Increased opportunity for success.



6 PEOPLE
THROUGH TRAINING
PROGRAM

# Every point where money passes hands in business is an opportunity to be socially regenerative.

We launched Underwear for Humanity (UH) by partnering with The National Homeless Collective (NHC), together Kelly Barrett (UH Founder) and Donna Stolzenberg (CEO NHC) created a training program for women at risk of homelessness. After twelve months we outgrew the space at NHC and were taking over their office! We decided together that it was time to go to a warehouse. Donna and Kelly are still working together on another project outside of UH.

We met Mark Watt from Social Engine at a social enterprise event and were so impressed with their warehouse program that we decided to collaborate.

Social Engine is a Melbourne-based social enterprise and NFP, their primary purpose is to change the lives of at-risk youth aged between 16 – 25 by offering diverse work opportunities, whilst also raising awareness of the issues surrounding youth unemployment

# Social Impact Summary

It is easy to take undies for granted but getting clean undies to people in need is important because to dignity and connected hygiene.



\$5,278 RENT PAID TO INDIGENOUS GROUPS



We care about social and economic inclusion of Aboriginal and Torres Strait Islanders. This is our rent payment of 50c per item sold.





We partner with Social Engine to create opportunities in warehousing and pick and pack. 6 people have been in the training program.



since we launched.

#### **IMPACT REPORT**

# Sustainable Materials



UNDERWEAR FOR HUMANITY



# Sustainable Materials

Material choice for our product is incredibly important, we spent years researching the materials in our range and visiting trade shows all around the world since 2015 to find mills and suppliers to collaborate with.

Our goal is to source the absolute best materials that are fit for purpose, have longevity of use, are comfortable and functional to wear and have as low a carbon and water footprint as possible. And when the material doesn't exist, we create our own, which is what we did with our 100% recycled fibre elastics.

We use a range of different materials, including cotton, Tencel, nylon, and elastane.

Currently, the most common fibres used to make underwear are cotton and bamboo. The production of conventional cotton requires intense levels of chemicals and pesticides, and bamboo fibres are almost always produced through a viscose process involving a highly toxic substance, Carbon Disulfide. These chemicals pose a health risk for both the people producing the fibre, and local communities through water pollution. We believe that these methods of production present too great a cost to our planet.

#### **Materials Certifications**





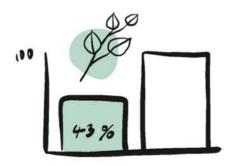


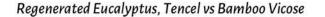


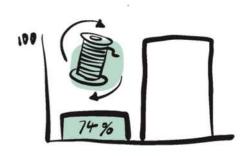




## LOWER IN EMISSIONS







Recycled Nylon vs Virgin Nylon



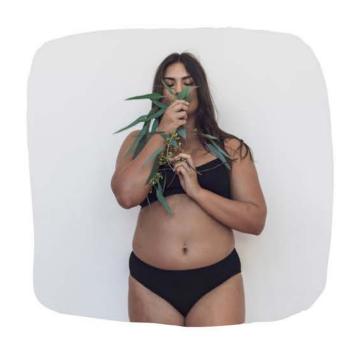
GOTS Organic Cotton vs Conventional Cotton

# Calculating the footprint of our materials

We commissioned a Life Cycle Assessment (LCA) of our products and found that our recycled nylon has a 74% lower carbon impact than virgin nylon, and our Tencel has a 43% lower carbon impact than conventional viscose bamboo.

Our recycled nylon uses 56% less water than virgin nylon, and our Tencel uses 15% less water than conventional viscose bamboo.

Of our three most common materials, recycled nylon (4.1 kg CO2e/kg material weight) has the lowest carbon impact, followed by Tencel (9.1 kg CO2e/kg), and then Elastane (22.8 kg CO2e/kg). We do use recycled elastane for our elastic and recycled synthetic materials are at least 70% lower in emissions than virgin, in the future, we will be doing an LCA on our elastics.



#### **Our Materials**

#### Organic and inconversion cotton

We recently added cotton to our range, it was a massive decision that we did not take lightly. Why? because we have found a way to use it in a way that is socially and planetarily regenerative, and that is what we are all about!

We know people love their cotton undies, so being able to offer this to our community as well as creating healing was a perfect match.

We are working on a regeneratively farmed cotton project right now in India that is direct with a farmer. It is rainfed and supports women farmers. It is too early for this report to give all the details as we are still signing the paperwork, but we will be giving you the full story and taking you along for the whole growing process, from seed to undies in May 2023.

In the meantime, before our crop is available we are using GOTS-certified organic cotton. Organic cotton uses 73% less water than conventional cotton (1) and of course, is not genetically modified. It is 46% lower in GHG emissions due to being fertiliser and pesticide free (2). Organic cotton currently represents 1% of the cotton fibre market and we are using it as a stepping stone.





#### Tencel

We launched using Tencel for our briefs range. Tencel is a Lenzing brand name for the fibre process called 'lyocell'.

It is a regenerated fibre made from a renewable planetary resource, eucalyptus tree wood pulp. The plantations are certified FSC and do not clear old-growth forests. Eucalyptus trees are some of the fastest-growing trees in the world, requiring no irrigation or fertilisers, and sequestering carbon as they grow.

The 'lyocell process' (the method for turning the wood pulp into Tencel fabric) is very different from a chemical perspective to the viscose process, as it uses a safe surfactant in a closed-loop system and 99% of the water and solution are recovered and used over and over again.

We really love this fibre, but it isn't perfect, nothing is. Whilst the production of Tencel uses 15% less water and emits 43% less carbon than conventional viscose bamboo, it does use 25% more energy to produce than viscose. We aim to mitigate this by encouraging and preferencing suppliers that are transitioning toward renewable energy-powered facilities.



#### Recycled nylon

We created our bras, and more recently briefs from a seamfree machine. We love this machine because there is much less wastage than flat cut and sew fabric. Seam-free machines are basically a sock machine, creating a tube that can be programmed for different knit types and pattern placements. Seamfree is great under the 'fit-for-purpose' requirement we have, it can be created firm enough to be supportive as well as supremely comfortable as a bra.

We did a lot of research to create our recycled nylon yarn and it took many years, but we finally sourced the perfect S and Z twist yarn to create our range. Our recycled nylon yarn is created from industrial waste and is certified by the Global Recycling Standard (GRS).

At this stage, the elastane blended with the nylon yarn for knitting is virgin quality. We strive for zero fossil fuel use, so this is still a work in progress.

We would love to be doing a circular bra by recycling our bras at the end of their life fibre-to-fibre, but at this stage, it is not possible. We are continuing to research this and have meetings almost weekly around the world to partner.





#### Recycled Elastic

While there are many suppliers of elastic, recycled elastic is very difficult to source, so we created our own. Our elastic is beautiful, soft and functional and made from GRS-certified recycled nylon and recycled elastane, so 100% of the materials used are from waste.

Our determination to use recycled materials delayed our launch by 6 months, but we were unwilling to use virgin nylon due to our uncompromising standards on the materials and processes that we use.







# Sustainable Dyeing and Printing

Due to decentralised supply chains, there is a lack of transparency in the fashion industry regarding chemical use and their full effects on the environment. It is estimated that the fashion industry currently uses over 8,000 chemicals in the processing and manufacturing of materials (Nimkar 2018). Many of these chemicals are not even identified, let alone researched for safety. Of the chemicals that have been investigated, over 2,000 pose a significant threat to human health and are categorised as 'substances of concern'. To divert from these unsustainable and toxic chemical practices, we use OEKO-TEX® certified dye houses to ensure no toxic substances are used in the dyeing of our fabrics.

OEKO-TEX® Standard 100 ensures that products are free from dangerous substances, which ensures the effect the dyeing industry has on the environment is minimised and the garments are safe for consumers as well as the people who make and sell them. The standard tests for numerous harmful chemicals, including pesticides, heavy metals, formaldehyde, and undesirable surfactants, even if they are not yet legally regulated. Extensive product checks and regular company on-site visits also ensure that the industry has a globally sustainable awareness of the responsible use of chemicals.

One of our goals is to achieve OEKO-TEX® MADE IN GREEN certification, which is an even higher level of custodianship.

Nimkar, Ullhas. 2018. 'Sustainable Chemistry: A Solution to the Textile Industry in a Developing World', Current Opinion in Green and Sustainable Chemistry, 9: 13-17 <a href="https://doi.org/10.1016/j.cogsc.2017.11.002">https://doi.org/10.1016/j.cogsc.2017.11.002</a>

# Positively Influencing Industry

#### Recycled Seamfree Yarn Development

It can be hard for a small start-up social enterprise like ours to have much of an influence in an industry dominated by large players. But our founder, Kelly, is so knowledgeable and passionate about finding the best possible outcomes, that we've already had an impact in this space.

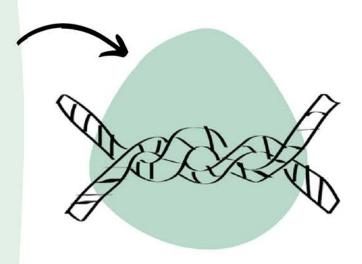
Our seamfree bras required very specific S-twist and Z-twist processes which, as a small company struggling to meet minimum order quantities, was hard to get manufacturers to agree to do. After a couple of years of trying, we eventually found a manufacturer that we could work with.

A year later, a very large-volume international brand approached this same factory asking how they could do a recycled seamfree garment and our research was used.

They don't know it was us, but to know that we have had a wider impact in the industry moving towards more sustainable production practices feels amazing. It is something we are really proud of.

#### Soy Inks

By only using soy ink (as opposed to regular fossil fuel-based inks) we were able to show the factory we use that this is a viable option for mass production orders, this has meant that other very large retailers have moved to this to reduce their footprint.



#### Recycled Metal Hardware

Our metal logo that is on our wireless bra and the rings and slides are made using 30% recycled materials from our hardware supplier. By educating our factories they have been able to pass this data on to other companies to use for sourcing.



#### Oeko-Tex Dye-Houses

Our influence on ensuring our dyehouses are Oeko-tex certified has had a roll on effect to all the production our factories make, which is monstrous compared to us. That means hundreds of thousands of items are made toxinfree due to our influence.



# Materials Impact Summary

Our seam-free range is made from recycled nylon diverted from landfill which is 74% lower in emissions. Our Undies are GOTs organic cotton & regenerated eucalyptus.



100% OF OUR ELASTIC IS RECYCLED We are couldn't buy recycled elastic, so we made our own! 100% of all of our elastic is made from recycled nylon and recycled elastane.



Textile dyes account for 20% of all industrial water pollution. We use non-toxic dyes, certified by Oeko-Tex.



NON-TOXIC TEXTILE DYEING



3,905kg

CO2

EMISSIONS

FROM

MATERIALS

PRODUCTION

We avoided 3,905 kg of emissions from all of our material production by using the most sustainable options available.

#### **IMPACT REPORT**

# **Ethical Production**



UNDERWEAR FOR HUMANITY



# **Ethical Production**

Creating a sustainable range takes genuine partnership and openness from your suppliers. In a murky and non-transparent industry such as fashion, trust is everything.

We have very close relationships with our manufacturers, and have been partnering with them for years to ensure safe and respectful working conditions for our makers, environmentally friendly dyeing and printing processes, and efficient use of our fabric and offcuts.

#### **Manufacturing Certifications**







#### **Our Factories**

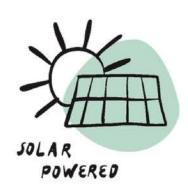
### Why not made in Australia?

We make all of our underwear ethically in China. Producing locally would be our ideal, but it is difficult with the current infrastructure available in Australia. In the clothing industry, almost all sourcing is done offshore, and materials and elastics are nearly all imported. Options for local manufacturing are very limited and underwear is a difficult product to sew and price sensitive.

Retail price is an important factor for most people, if we produced locally our retail prices would be much higher, which means most people would not have access, our sales would be lower and therefore our impact. If we source offshore we can cover the costs for our social and environmental programs and still have a reasonable retail price. It is an ongoing balancing act.

This doesn't mean we have given up on producing in Australia, we continually investigate ways to use sewing as training and hope that in the future local manufacturing can be a reality.

# ETHICAL MANUFACTURING AND LOGISTICS







# Shantou Yufeng Knitting Colnc

Yufeng produced the entire product range of our first Underwear for Humanity collection and is always looking to try new ideas in sustainable production and increase transparency in the supply chain. Not only do they have the skills to make more complex bras and underwear, but they are experienced working with Tencel and can finish products beautifully. The factory has a well-established anti-discrimination policy with clear accessible communication channels and safe working conditions.

# Quanzhou Fuxing Garment Co Ltd

Our second manufacturing factory, Fuxing, produces the underwear that is donated onefor-one with every pair sold and has also recently made the cotton briefs range. We know Fuxing very well, having worked with them on other projects for almost 10 years. We have a close relationship with the owner, Andy, who has been able to create products utilising their 'deadstock' materials (fabrics and elastics that are collected from cancelled orders. leftovers or over-orders). This has been able to divert previously lost materials from going to landfill, utilising them to create new garments.





- BSCI (Business Social Compliance Initiative) certified factory. BSC DBID: 365454 and Audit Id: 138177
- Sedex (Supplier Ethical Data Exchange) certificate: 2020CNZAA411187300
- · Oeko-tex certified safe dyes certificate: SHGO
- 60% above living wage paid (inc piece work)
- · Maternity leave paid
- · Thorough building safety procedures and OH&S
- Covid safe plan
- Medical insurance
- Grievance & anti-discrimination procedures with worker's representatives to help



- BSCI DBID: 358755 and Audit Id: 201847
- SEDEX (Supplier Ethical Data Exchange): 2020CNZAA408825582
- Oeko-tex certified safe dyes certificate number HK015132227
- 60% above living wage is paid (inc piece work)
- Maternity leave paid
- · Thorough building safety procedures and OH&S
- Covid safe plan Medical insurance
- Grievance & anti-discrimination procedures with worker's representatives to help

#### **Our Makers**

It is easy to think that clothing can be automated, but it isn't, it is a very manual industry. All clothing is made by hand, by a human being. So every piece of clothing you wear was put together by human hands, predominantly women, with the help of a machine.

Min Zhang, Jing Hua Lin and Hua Lin are the talented makers that sew our range in Yufeng. Base salary and bonuses bring them to 60% over the living wage. This is tracked via BSCI auditing for social compliance.

## Yufeng: Makers





My name is Zhang Min, I am a technician and pattern maker. I like music and travelling, working closely with the designers.



Min Lin Hua

My name is Lin Hua, It has been about 10 years since I sewing the underwear. I love my job. I like drinking Kongfu Tea, where I can enjoy the tea and social with my friends together.



Lin Jing Hua

I am Lin Jing Hua, I am a underwear sewing worker, I have been in this line for over 8 years. I like singing and dancing.

# Fuxing: Makers



He Huhua

I have been engaged in garment for over 12 years, specializing in garment CAD and paper pattern making, as well as being involved in daily production. I enjoy sport and food in my spare time.



Qing Shangqin

My name is Qing Shangqin, I have been engaged in garments for more than 23 years. After work, I like cooking and travelling.



Li Yinzhen

I am Li Yinzhen and I am a underwear sewing worker. I have been in this field for over 27 years and used to work as a production manager. In my spare time, I am interested in traditional Chinese medicine and health care.



Chen Bingbing

Hi am Chen Bingbing and I have worked for garment for over 25 years. Leisure time, I like dancing and travelling.



Chen Yongcha

I am Chen Yongcha, and I have worked in the field of underwear for over 29 years. I enjoy dancing and cooking after work.



#### Solar

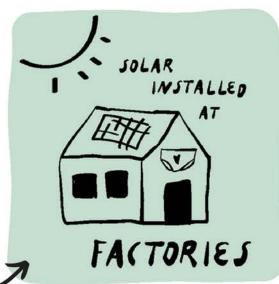
Working closely with our two factories we have encouraged installation of solar panels on both of their roof spaces. One of our factories did not have solar installed before the LCA was complete, so our carbon output will be lower for future production, this is something we will track.

Renewable energy at our product assembly stage reduces overall emissions while protecting the manufacturers from the impacts of power outages which halt production and cost them time and money.

At our factory in Shantou, Dongguan, China, which assembles our tencel and seamfree range, 23% of energy usage is solar powered.

In Xiamen, Fujian, China, at our factory that produces our organic cotton undies, 80% of the power is solar. This difference in solar power usage between product assembly suppliers relates to the amount of solar panels that can fit on the roof space, our Shantou supplier has a more narrow roof space.





# Waste and Manufacturing off-cuts:

The seam-free machines we use, similar to sock machines, knit the exact width and hem required with no waste. The tube tension and pattern are programmed into the machine to create the perfect fit for our products, meaning only the arm and neckline are cut and the body is fully fashioned on the machine.

This reduces material waste significantly vs cut and sew techniques. The 'arm' and 'neck' offcuts are removed and repurposed for the insulation industry in China, diverting the waste from landfill.

# Packaging and Shipping

#### Plastic Free Shipping

In the fashion industry, garments are typically transported in plastic poly bags inside boxes to avoid damage and water exposure. The boxes are then pallet-wrapped in warehouses with cling film. This plastic is invisible to the consumer because it disappears before a product ever reaches the shelf.

As we know single-use plastic items are polluting our land, waterways and even the air we breathe. There is an urgent need to reduce this invisible shipping plastic. We couldn't find a solution, so we developed our own reusable system. Our reusable shipping bags can be used over and over again, and eliminate any single-use plastic from our shipping.

Made from recycled polyester (from post-consumer plastic bottles), they feature a sturdy zip and reinforced seams to ensure they will last for many years and will be repaired when damaged. They are shipped inside recycled cardboard boxes which are then reused in Australia. Once damaged they are then recycled.

Due to covid travel to China was halted and we found that we were unable to return our bags, by September 2022, we were forced to ship in poly bags. It was sad, but we had no choice. We have access to industrial soft plastic recycling, so they do not go to landfill, but not using them to begin is what we strive for. We estimate that we avoided using 3,714 single-use plastic bags since we launched.



#### Warehousing and Social Impact

We collaborate with Social Engine for pick and pack. Social Engine is a Melbourne-based social enterprise and NFP, its primary purpose is to change the lives of at-risk youth aged between 16-25 by offering diverse work opportunities, whilst also raising awareness of the issues surrounding youth unemployment



#### Plastic Free Packaging

We made our packaging minimal in size to preserve natural resources. We use FSC-certified recycled kraft board, printed utilising soy-based inks instead of the common fossil fuel ink. There is zero plastic and a small amount of animal-free glue holding it together.

We transfer our stock into kraft card pick boxes. They are picked and mailed in small compostable mailers with a compostable address label.



#### **Ethical Production Summary**

We pay a premium to have our underwear made and have a close working relationship with our ethical makers.
We are grateful that all of our makers are very experienced and highly skilled.

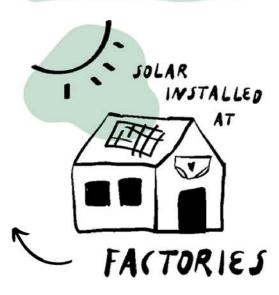




Since launching we estimate that we avoided 3,714 plastic inner bags from our shipping.

Through partnership and research we were able to help encourage our factories to install solar.

1,085kg of emissions has been avoided in production due to this.





We want the money we spend to be be socially regenerative, our partnership with Social Engine helps fund training opportunities. This helps youths that have fallen through the system that need mentoring and support.

#### **IMPACT REPORT**

# Recycling & Data



UNDERWEAR FOR HUMANITY

## **Recycling and Data**

Sustainability can mean a lot of things, for us, it's not enough to just 'lower our footprint'; we want to actively regenerate the planet and shift industry practices.

On top of being uncompromising in the way we source materials and reuse waste in our manufacturing, we also invest in projects that draw down carbon, and have implemented a reuse program as well as pioneering recycling of underwear in Australia.

#### **Materials Certifications**









#### Underwear recycling

Textile recycling might sound like it is happening, but believe us, it is barely in existence. The industry is scrambling for answers and making promises it cannot keep.

Some of the biggest challenges in garment recycling are to do with the complexity of fibre blends and components involved. Underwear is made up of mixed fibres: cotton, nylon, elastane, Tencel, bamboo, nylon lace, and polyester. There are trims, sew-in-labels, threads, and prints, as well as hygiene hurdles. Bras can be made of a mix of 26 components of varying materials such as polyurethane laminated with polyester, nylon, metal wire and rings, elastane, and threads.

Recycled polyester is not made out of your old top but rather from clear plastic bottles because it is an easy, readily available feedstock, so clothing is literally in the too-hard basket.

Real recycling happens when a product or its materials are able to be broken down and reprocessed to manufacture the same type of product, or fibre-to-fibre. When the value of a product goes down then the term is called 'downcycling'. The textile industry is in its infancy with textile recycling and many projects are still at the lab stage, so downcycling is all we can do right now.

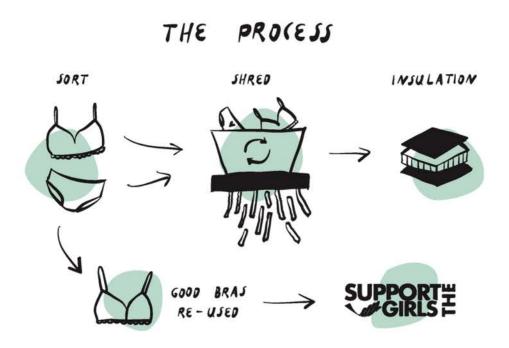
#### Pre Loved Program

When a garment is produced it takes energy and resources, so we need to maximise the use of everything ever made to extract as much use as possible and avoid new products being made where possible.

That is why we introduced a pre-loved section to our range. We planned to take back used bras that would be washed and prepared for re-sale by The Shift Project, supporting women at risk of homelessness. This program launched in September 2022 and has been really slow so we have decided to end it.

Any bras sent in for recycling that are wearable are sent to Support the Girls for reuse, so we think that is the pathway needed for people.





#### **Our Recycling Process**

With 204 million underwear items being imported into Australia every year, and almost all of it ending up in landfill, we can't sit and do nothing. So, despite the challenges the industry faced, we have implemented a mail-in recycling program that sends each item to its best end of life.

Bras have two pathways, they are sorted by Social Engine (creating a further income stream) and if they are in good wearable condition they are sent to Support the Girls (a charity that provides free bras for women that do not have access).

If they are in poor condition, they are sent to India where as much value is extracted as possible, wires are reused or smelted depending on demand at the time they arrive, foam is re-used or used for stuffing, materials are shredded and spun into heavy yarn used for blankets. Anything that cannot be reused is shredded for insulation. All brief items are sanitised and used for insulation, downcycled in India.

#### Why India?

India has become a central country for processing used textiles. They have a growing infrastructure to break down and re-use materials. They are also a manufacturing country, unlike Australia.

We can easily shred fibres in Australia, however, our high labour cost and lack of investment in complex machinery means we need to send these materials back to a manufacturing country for reprocessing. The recycling facility in India we use is Sedex certified as a safe and ethical working environment.

We are continually investigating fibre-to-fibre for nylon recycling of our bras, the industry isn't there quite yet, but you can be sure this is something we are very focused on.



# Our Underwear Recycling System

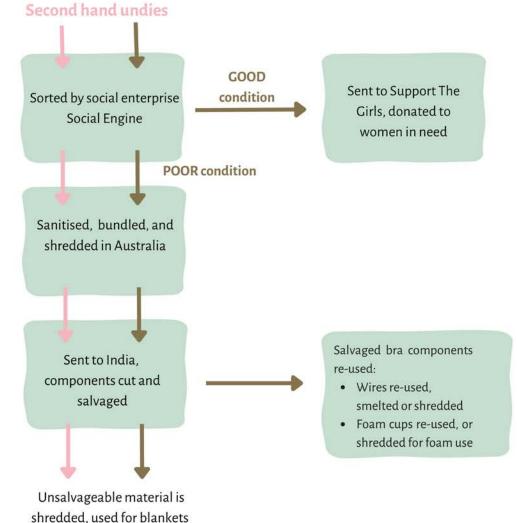
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## Second hand bras

and insulation



# Carbon Measurements & Offsetting

Nearly every single thing we do from when we get out of bed in the morning produces carbon (except a walk in nature!).

As a social enterprise, we believe our responsibility is even higher than a consumer because we can choose the materials we use to go into production.

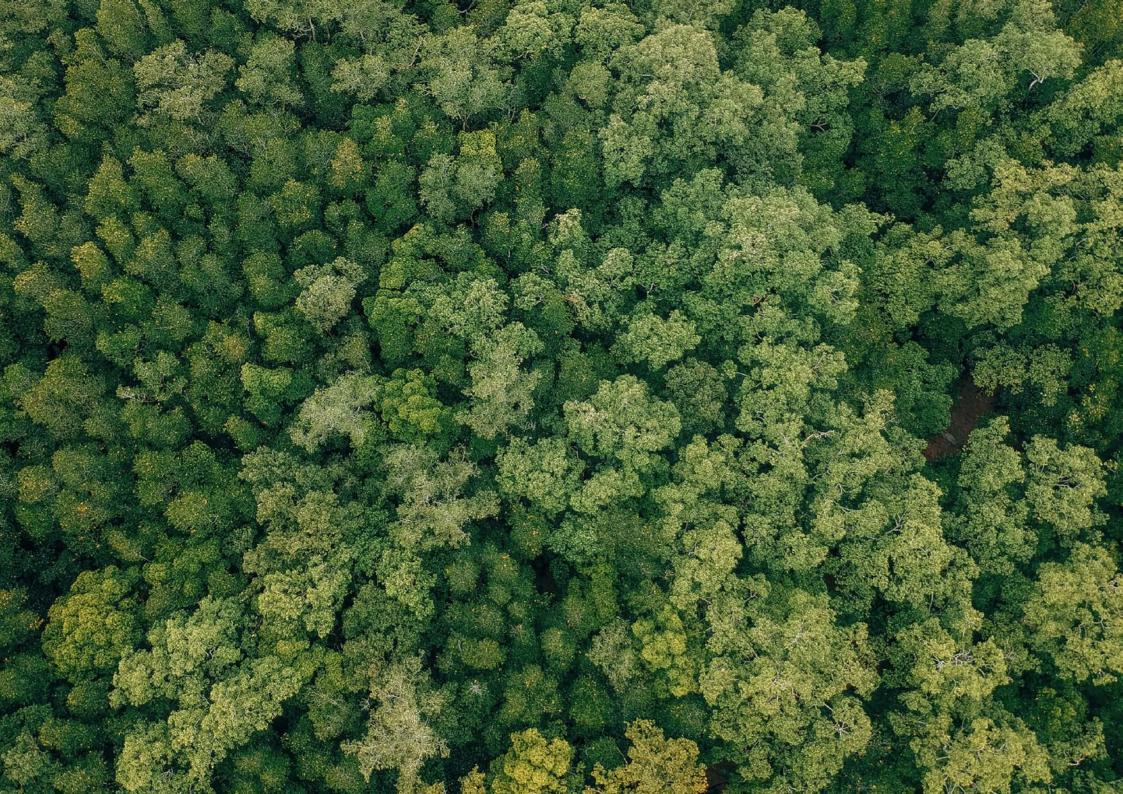
Our Climate Positive certification with On a Mission recognises that we buy 1.5 times more carbon offsets than we produce each year.

We are continuously striving to leave as little impact on the environment as possible, in all we do.

**Business Certifications** 

ON A MISSION.





#### Carbon Measurements & Offsetting

After we have chosen our materials carefully and conducted our business to be as low in emissions as possible (including our office running on renewables), we still have carbon that we need to take responsibility for. We calculate and offset our emissions through On a Mission and pay 50% more than what we use to be carbon positive.

Our Scope 1, 2 & 3

Scope 1 - Direct business

emissions

Underwear for

Humanity

travel

Underwear for

Humanity

office

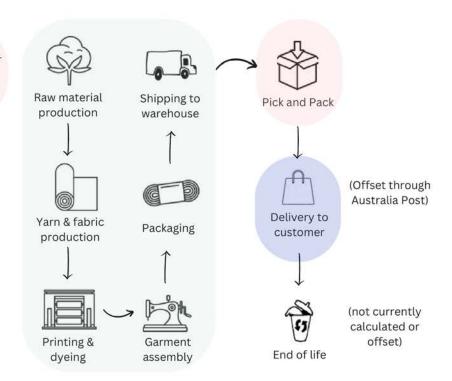
Scope 2 - Emissions from business electricity use

Underwear for Humanity electicity use

Scope 1 emissions are those that are directly emitted from business activities (i.e. office and travel). Scope 2 emissions are those that come from purchased energy, in our case, electricity. Many businesses will calculate and offset their Scope 1 & 2 emissions and claim to be a 'carbon neutral business', however, this omits the vast majority of their footprint. We offset our Scope 3 emissions at all stages along the product's journey, from upstream production right through to downstream shipping. We do not have a study on end-of-life to be able to offset, but hopefully, in the future, we can do this.

Scope 3 - Emissions from upstream activities

Scope 3 - Emissions from downstream activities

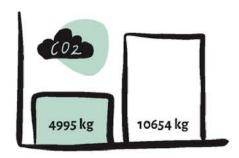


#### Footprint of our products:

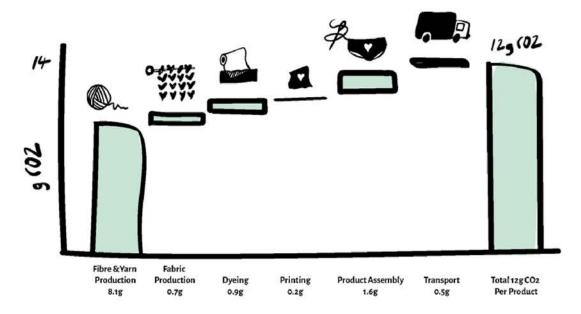
The carbon impact of our products ranges from 278g per unit (Recycled Wireless Seam-free Bra) to 920g per unit (Men's Trunks).

Comparing our numbers against other similar brands, Underwear for Humanity products on average have a significantly lower carbon footprint. We believe this is largely due to our sustainable and recycled materials. For instance, our recycled nylon has a 74% lower carbon impact than virgin nylon, and our Tencel has a 43% lower carbon impact than conventional viscose bamboo.

5,659 KG EMISSIONS AVOIDED VS INDUSTRY STANDARDS



#### Footprint at each stage of production



The carbon footprint of creating a product is heavily in the fibre and yarn production phase, this is typical for the fashion industry, and often represents 80% of emissions (ours is 67%). Many people worry about the shipping aspect of the clothing industry, but it is only a small proportion. Ships carry huge amounts of cargo and are quite energy efficient, emitting half as much as train transport, one-fifth of a truck and one-fiftieth of air. (1)

1. https://www.greenbiz.com/article/future-freight-more-shipping-less-emissions

#### Our Carbon vs Industry Standards

Since Underwear for Humanity has been operating, we have saved over 5,600 kg of GHG emissions from being emitted during the production process due to our selection of materials and processes

#### Investing in Carbon Draw Down Projects



ON A MISSION.





After all of our tenacity, we still cause some emissions, so we offset what is left by investing in verified carbon projects. Over Underwear for Humanity's relatively short lifespan, we have so far contributed over 5 tonnes of GHG emissions into the atmosphere, similar to a car for one year.

We understand that offsetting is not a perfect method of mitigating environmental harm, which is why we do as much as we can throughout our supply chain before looking towards offsets. For those emissions that we can't eliminate, we ensure that we are investing in projects that are both drawing down carbon, as well as contributing to socially regenerative outcomes.

We work with On A Mission to offset our scope 1, 2 and 3. We have contributed to some amazing projects in reforestation around the world.

(images via: On a Mission. 2023. 2022 Impact Report)

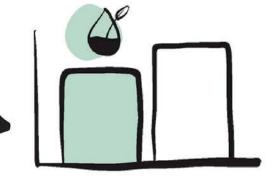


## **Water Footprint**

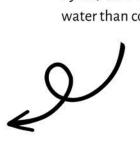
Whilst reporting on carbon footprint is becoming increasingly common, carbon is not the only environmental impact of a business' supply chain. Using the same process that we used for carbon, we have also had the water footprint of our products calculated.

Since our inception, Underwear for Humanity products have used over 130,000 litres of water in their production, which is 34,000 litres lower than industry average. The vast majority of water consumption along the supply chain occurs in the production of the fibre and yarn (95%).

34,644 L WATER SAVED VS INDUSTRY STANDARDS



Our conscious selection of materials uses less water than industry norm materials. For instance, our recycled nylon uses 56% less water than virgin nylon, and our Tencel uses 15% less water than conventional viscose.



#### Recycling and Data Summary

Of the emissions we cannot avoid we pay for 1.5 times as many carbon offsets. These carbon investments are socially and planetarily restorative, making us carbon positive.

100% PRODUCTS
(ARBON POSITIVE

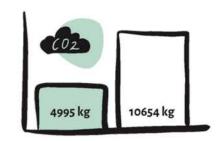


204 million underwear items are imported in Australia every year, we pioneered underwear recycling in Australia to keep underwear out of landfill. So far we have processed 7,632 items.

Water conservation is critically important, by careful material choice we have been able to reduce our water use greatly compared to standard materials.



5,659 KG EMISSIONS AVOIDED VS INDUSTRY STANDARDS



Textiles is a polluting industry, we have to do all we can to reduce our impact. So far our emissions are less than half of industry standards.

## Our Mistakes Along the Way

Even though we've only been operating for a short while, we've come across our fair share of mistakes and learning opportunities already. Here are some examples:

#### **Packaging**

We wanted to design the most minimal packaging we could, which ended up being a rolled piece of recycled kraft card, printed with soy ink. As our products vary in size, a one-length fits all card would be a waste for our smaller products, so we paid the very expensive extra cost to do 4 different packaging card lengths. The problem was, the factory would sometimes use the wrong length (which easily happens). This meant that the card either pops open if too small, or creases and looks terrible if too large. All of this results in an unacceptable presentation and is a work in progress. Our last order used a lighter-weight card, which so far is performing better and not creasing and of course is lower on materials.



## Lace Range 100% recycled was then 30%

We spent months sourcing a lace that was made from 100% recycled nylon content to do a bralette and brief. For a little social enterprise like ours to be able to dictate materials is hard, particularly because we don't meet minimum order quantities. We found a supplier that was willing to tag us on a bigger order from an international brand. Fast forward 8 months and as we were excitedly preparing to launch, we were shocked to discover that the lace used is made of only 30% recycled material, as the larger customer must have changed their design. This was the first bit of nylon we used that is virgin material, which felt like a failure for our brand promise. We chose not to waste it as the product is beautiful and functional, so we have continued with making it and want it to have optimum use.



### Covid Stopped Our Shipping Bags Going Back



Our plastic-free shipping relied on us taking our bags back to China. Once Covid happened there were no more trips. We managed up until February 2023, then we had to use a single large plastic carton liner to protect the items. China has just lifted the travel restrictions and we expect to be able to send them back by May 2023.

#### We Had to Clear Stock

We never wanted to go on sale. Being a small social enterprise that is stubbornly diverse in sizing, plus exposed to minimum order quantities, meant that ordering too low would risk us carrying the wrong size or wrong colour for our customer's needs. We ended up carrying too much stock and found ourselves running dangerously low on money and taking up too much warehouse space.

18 months after our launch, we realised we needed to reduce the price of some of our original colours. Whilst we had to compromise on our initial ideals, you will never see us be part of Black Friday or other fast fashion sales. When we reduce our prices under the above circumstances it will be outside of normal sale periods to avoid supporting those cycles.

#### Our Logo Washed off

Our gold logo in our early designs washed off on one of our deliveries. We knew it would not last forever, it was a non-toxic print and there are limits, but we were unwilling to use a toxic substance that would last longer. We now use a silicon base which took us a year to source and adds 10% to our product cost, but we are happy with it. Sorry to everyone that lost their logo:(

#### Our Sizing Changed image

When we received our first delivery it came up smaller than approved. It was mid-covid and the world was in a spin, so it was understandable. But it meant we had to size down, and that we lost our larger sizes. It was sad and hard as a brand that believes in diversity. Also, adjusting the fit of our best-selling recycled Wireless Bra for the next shipment meant that some people loved the old fit over the new, which meant we disappointed those people.





## Summary

We are trying to operate a radically different social enterprise within our current financial system, and often we come across hurdles, but we believe change happens with grassroots movements and we are dedicated to being part of a new restorative future.

We know that people care deeply, but are often disempowered or just too busy in our crazy lives. We are here to make sure the money you spend is creating the future we all want to see.

We can't as individuals know everything about every product and industry, it is impossible and stressful to even try. We hope you can trust us for your underwear and know that we are uncompromising in our decisions and will always have your back.

Thanks so much for being here with with us this last year and a half, we are so excited to be doing this together with you.





GREAT UNDIES WITH GREAT IMPACT