



يونيڤرسيتي بروني دارالاسلام
UNIVERSITI BRUNEI DARUSSALAM



Am I trendy enough?

Team Brunei Adventurer
Aida Aimanuddin, Amirah Aliuddin
(Advisor: Muhammad Roil Bilad)

The fashion industry grow fast, partly due to the rise of ultra *fast fashion*, which relies on *cheap* manufacturing, *frequent* consumption and *short-lived* garment use.



50%
OFF

Flash Sale

ONLY FOR TODAY!

Fashion is inherently **unsustainable** - masked by **GREENWASHING**

FAST FASHION BRANDS:

(NON EXHAUSTIVE)

boohoo ARKET COS Bershka

ZARA C&A GAP ESPRIT

H&M FASHION NOVA FOREVER 21

MANGO M&M MONKI & other Stories

OYSHO Massimo Dutti NEW LOOK

MISSGUIDED NASTY GAL NEW YORKER SHEIN

PRIMARK* OSOS PRETTYLITTLETHING

RIVER ISLAND Stradivarius TOPSHOP

UNIQLO URBAN OUTFITTERS ZAFUL ROMWE

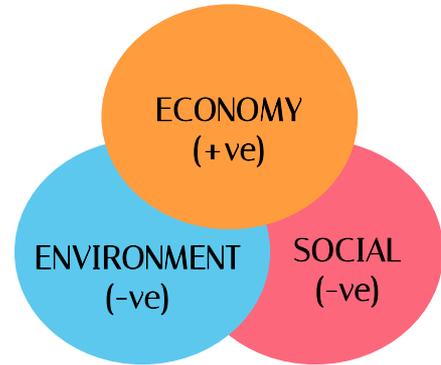
"Guilt free", "Ethical", "Vegan", "Recycled", "Organic", "Eco-friendly", "Sustainable" ..

- H&M's collection is *climate-conscious*
- Zara aims for *100% sustainable*
- Prada, Adidas - *reuse plastic* in their backpack
- Balenciaga, Burberry - Claimed to be "*eco-friendly*"
- Coach pledges to *never destroy* unsold products
- Chanel self-claim to be *climate conscious*

(Multiple sources, WION 2021).

Fashion industries claim they are sustainable **without saying HOW????**

FAST FASHION on Global network of garment manufacturing



Source: (Niinimäki et al., 2020).

ENVIRONMENT

Textile dyeing and treatment release 20% of global industrial **wastewater** (UNECE, 2018).

About 8,000 **synthetic chemicals** are used in the textile industry, which end up into freshwater (The Guardian, 2012).

5 out of 14 million tonnes of **microplastics** in the ocean are from textiles (EEA, 2022).

Over 8% of the total **global greenhouse gas emissions** are produced by the apparel/footwear industry (Quantis, 2018)

ECONOMY

Fashion industry generates **USD 1.3 trillion**, employing **300 million people** (McKinsey, 2019).

SOCIAL

India, Indonesia, Pakistan, the Philippines, Vietnam and Thailand **receive less than minimum wages** with rates varying from 6.6% to 53.3% (ILO, 2019)

#FastFashion	#UglyTruth1	#UglyTruth2	#UglyTruth3	#UglyTruth4	#ASEAN
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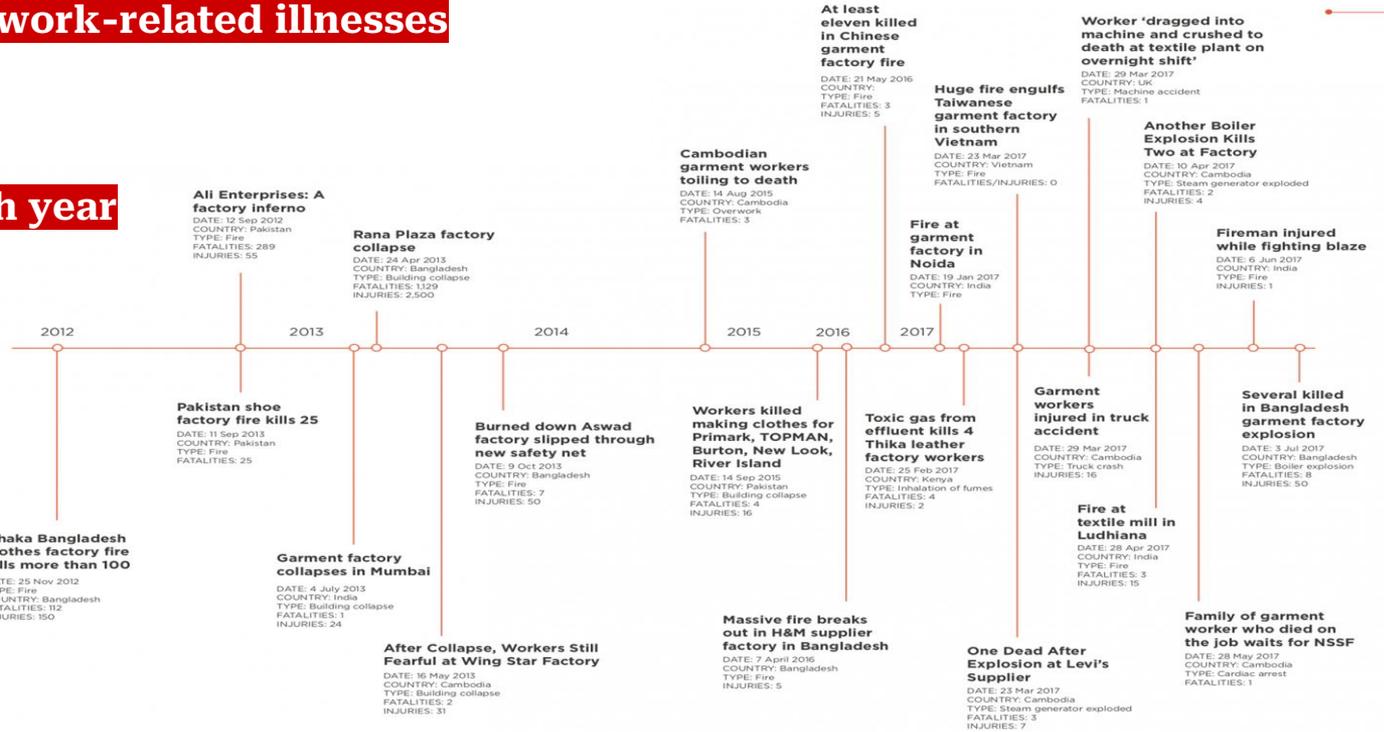
The “TRUE COST” of our “CHEAP” clothings

Timeline Poor health and safety in Garment & Textile industry from 2012 - 2017 (CO Data, 2018).

20 million people with work-related illnesses

1,600 deaths

1.4 million injuries each year



#FastFashion

#UglyTruth1

#UglyTruth2

#UglyTruth3

#UglyTruth4

#ASEAN

NEWS

Alarming accidents in Apparel Industry

Home | Queen Elizabeth II | War in Ukraine | Coronavirus | Climate | Video | World | Asia | UK | Business | Tech

More

Business | Market Data | New Economy | New Tech Economy | Companies | Entrepreneurship | Technology of Business | Global Education | Economy | CEO Secrets

The Collapse of Rana Plaza with a death toll of 1130 people lives and approximately 2400 people injured.

On 24 April 2013, one of the biggest hazard in garments industry occurred in Savar, Dhaka.

Fatal fires are common in Bangladesh's large garment manufacturing sector. Lax safety standards, poor wiring and overcrowding are blamed for causing several deadly factory fires every year.

“Had there been at least one emergency exit through outside the factory, the casualties would have been lower.”



Dhaka Bangladesh clothes factory fire kills more than 100

Nov 2012, BBC reports said that 120 people had died, with the number of fatalities to be at least 112. While hundreds are believed to be missing.

There are around 4,500 factories in Bangladesh, employing more than two million people. Clothes account for up to 80% Bangladesh's annual exports.

“Workers could not get out within safety time,”



2021-2022: DEATH & INJURY IN GARMENT & TEXTILE INDUSTRY

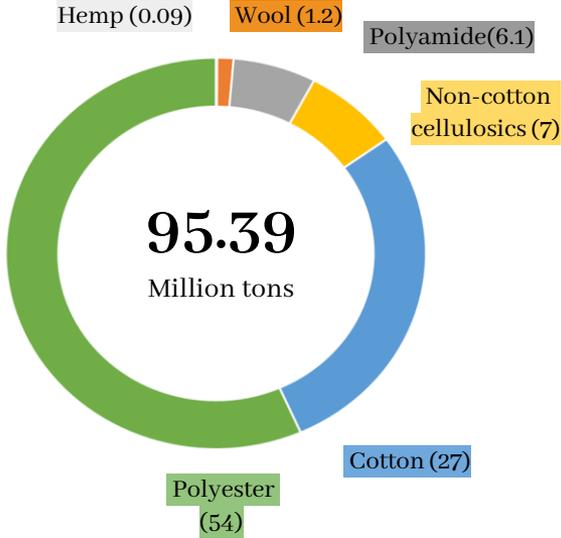
Workers in many countries around the world are in dire need of safe factories. It is urgent that apparel and textile companies that have not yet signed the International Accord do so immediately to make factories safer in their supply chains and to support a swift expansion of the programme to high-risk countries.

Up to date in the timeline of 56 incidents since January 2021, 131 workers died and 279 were injured in garment and textile factories Pakistan, India, Egypt, Morocco, China, and Cambodia.

Trade unions and labor rights activists call for critically needed fire and building safety renovations and repairs in the textile and garment industry.

Production of textile fiber consumes *water*, *energy* and emit *CO₂*

Annual fabric production



Source: (Niinimäki et al., 2020).

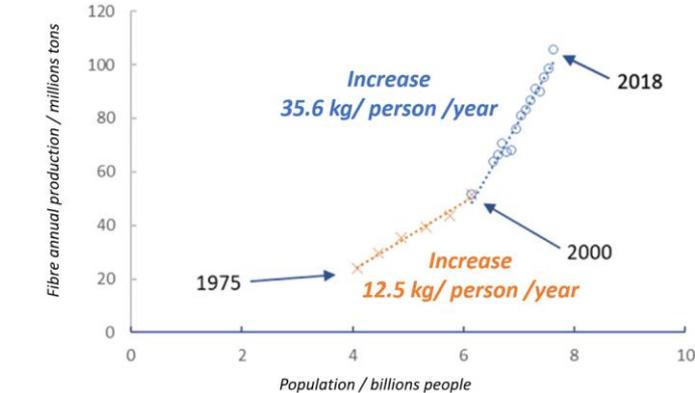
215 Billion
liters of freshwater

11.361 Million
GWh Energy

3.289 Giga
tons CO₂ eq

Source: (Quantis et al., 2018).

The increasing trend of fabric production per capita



Source: (Peters et al., 2021).

The worrying climate impact



Source: (Peters et al., 2021).

A large fraction of fashion products are....

... made for nothing,

- Many brands have been accused of destroying their products (Eluxe, 2022).
- H&M leaves \$4.3 billion in unsold inventory on the racks (New York Times, 2017)
- Burberry destroyed unwanted items worth £28.6m in 2017 (BBC, 2018).

... under used,



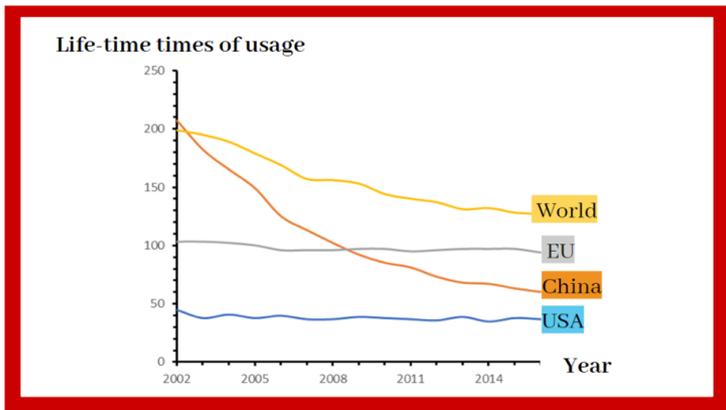
One in three women consider clothes old in <3× of wearing (Bernardo's, 2022).



One in every 8 owned clothes is “inactive” (Woodward, 2020).

... and end-up polluting the environment.

Polluting the environment

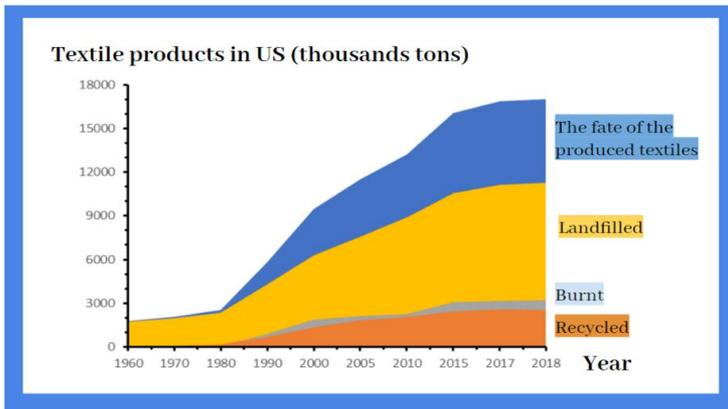


USAGE ↓

Source: (Assoune, 2022).



A truck full of clothes either burnt or landfilled every second



DISPOSAL ↑

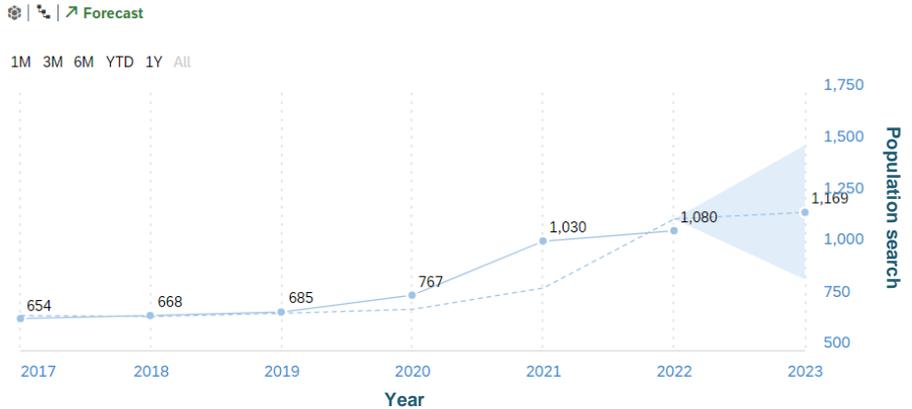
Source: (EPA.gov).

92 MILLION tons of waste clothes is discarded annually



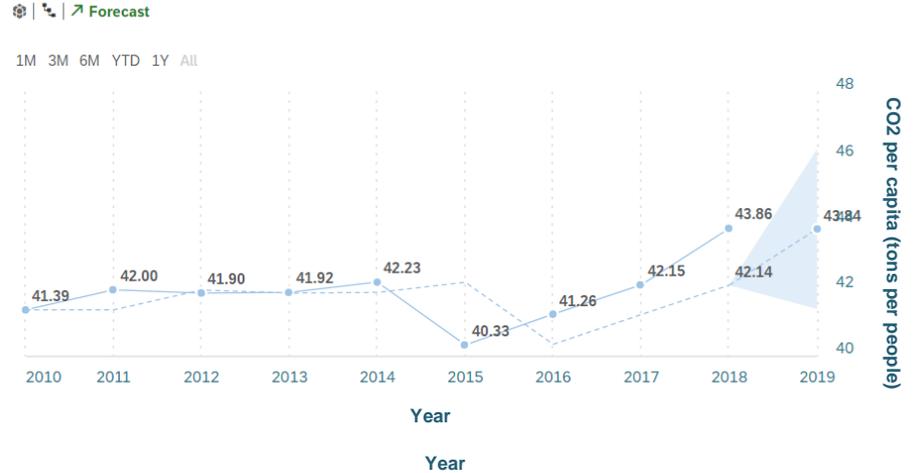
ASEAN countries *share* consumption and production, and also *shoulder* the environmental burdens

Fashion industry growth in ASEAN over time

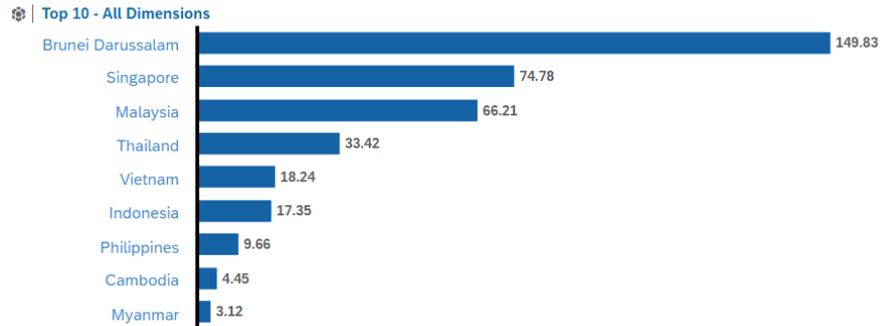


Source: (Google Trend).

Carbon emission per capita ASEAN over time



Carbon emission per capita (tons per capita) by ASEAN



Source: (The World Bank Data).

#FastFashion

#UglyTruth1

#UglyTruth2

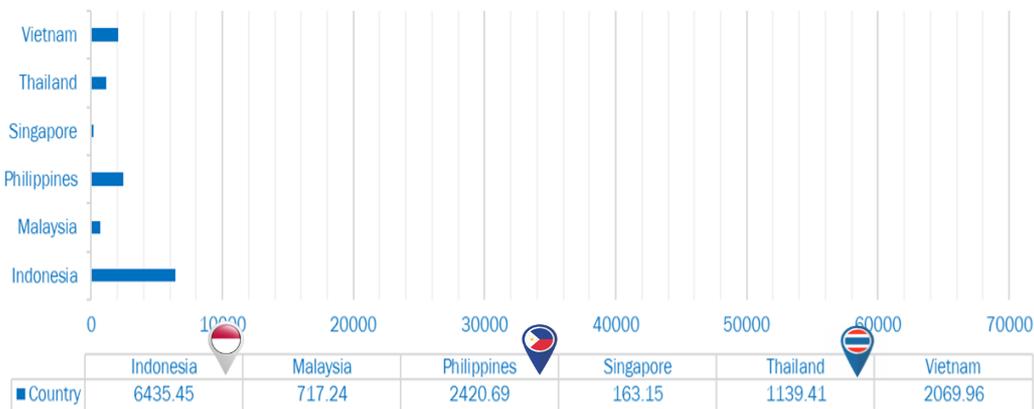
#UglyTruth3

#UglyTruth4

#ASEAN

Sustainable fashion implementation in ASEAN

Population search



Source: (Google Trend).



Indonesia



Fashion Chamber cultivate **circular fashion economies 2020** and FairWear Foundation advocating for **labor rights, fair wages and equity**

Philippines



The increase in production of fibers sources from **pineapple, abaca** and **coconut** in textile

Thailand



The **implementation** of local green design by **artisan and weavers**

SDG target, ASCCBP and AECBP

TARGET 8-8

PROTECT LABOUR RIGHTS AND PROMOTE SAFE WORKING ENVIRONMENTS

TARGET 11-A

STRONG NATIONAL AND REGIONAL DEVELOPMENT PLANNING

TARGET 13-3

BUILD KNOWLEDGE AND CAPACITY TO MEET CLIMATE CHANGE

TARGET 12-4

RESPONSIBLE MANAGEMENT OF CHEMICALS AND WASTE

ASCC BLUEPRINT 2025

SECTION B.2

Equitable Access for All

SECTION C.3

Sustainable Climate

SECTION C.4

Sustainable Consumption and Production

SECTION E.1

Towards an Open and Adaptive Asean

AECBP BLUEPRINT 2025

SECTION B.8

Sustainable Economic Development

SDG, ASCCBP, AECBP

Recommendation

Impact

Stakeholders

Market strategy

Milestone

Demo



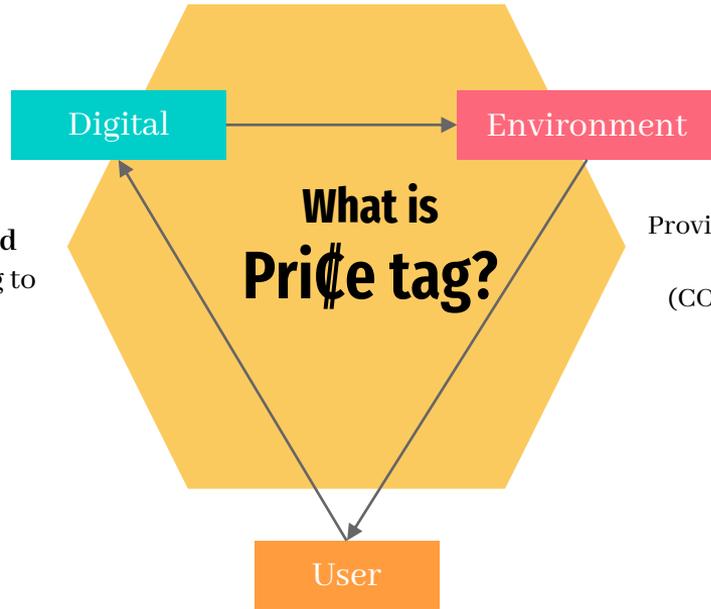
Introducing PriCe tag



Embedded in a smartphone camera

Uses *data mining* and *image processing technology* to recognize the fabric materials and the clothing size.

Provides *customized estimation* according to user preferences.



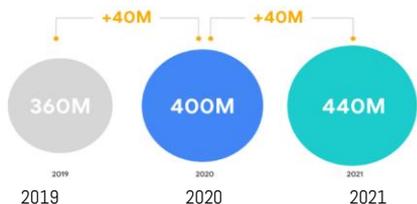
Provides *instant information* about the environment footprint (CO₂, water, energy, fabric waste and wastewater)

SDG, ASCCBP, AECBP	Recommendation	Impact	Stakeholders	Market strategy	Milestone	Demo
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Digital economy in ASEAN

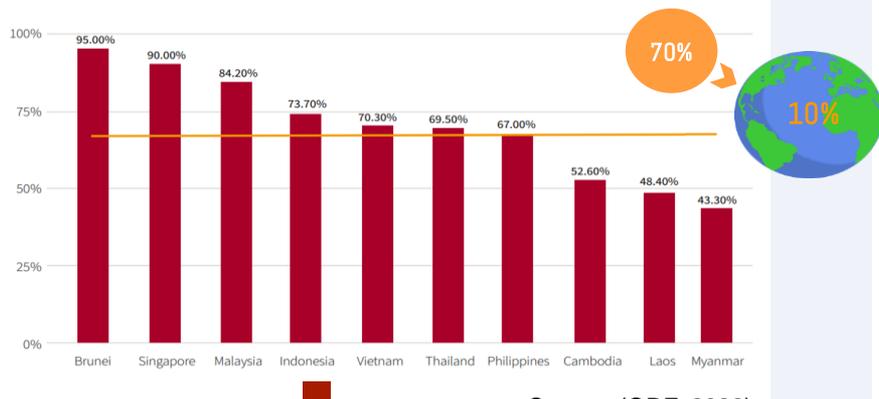
Source: (Worldbank, 2020)

ASEAN has a total of 440 million of internet users



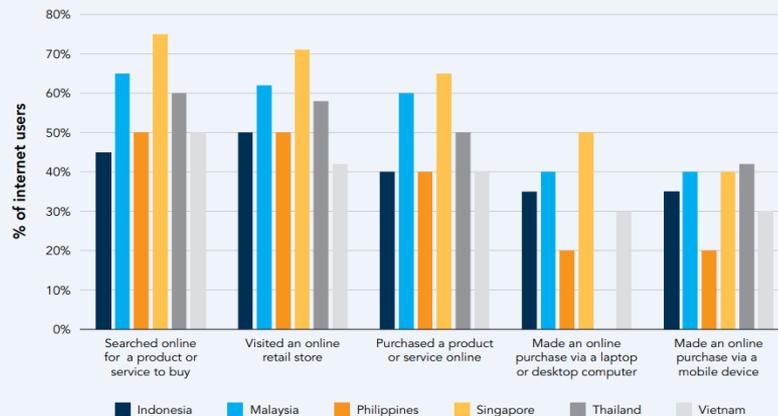
As more and more people use the internet to purchase common goods and services, the growth of e-commerce is at the centre of the regional digital economy's renewed expansion.

Internet penetration in ASEAN (%)

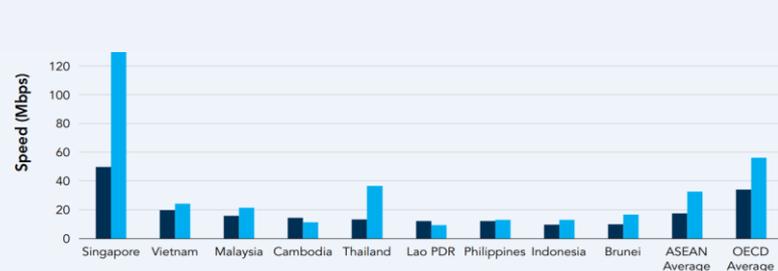


Source: (ORF, 2022).

ASEAN consumer digital activities



Speed network connection in megabits per second (Mbps)



Source: (ERIA, 2020).

SDG, ASCCBP, AECBP

Recommendation

Impact

Stakeholders

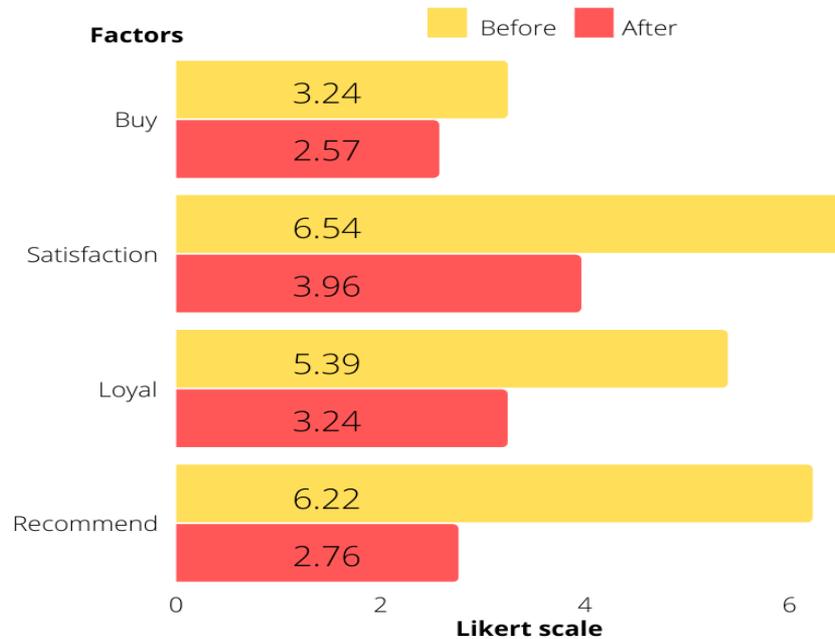
Market strategy

Milestone

Demo

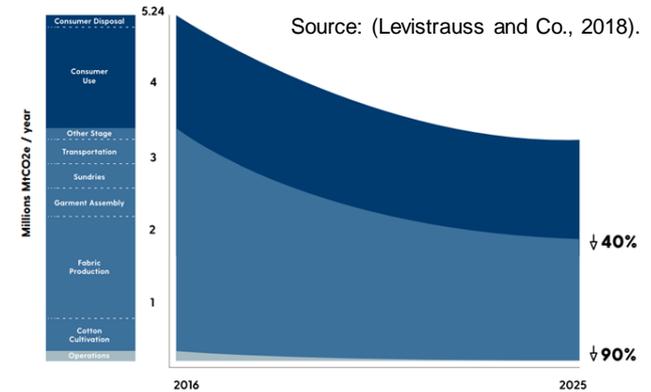
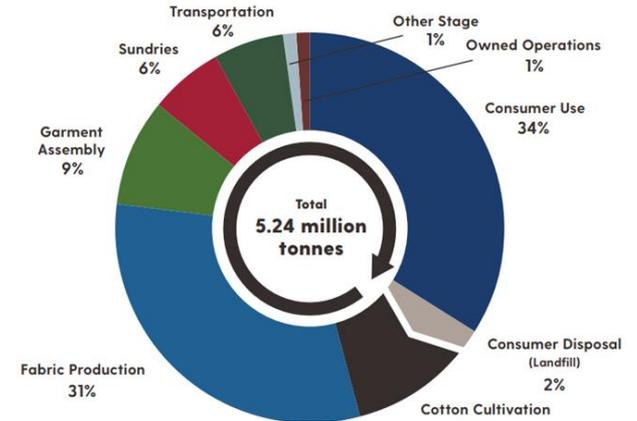
The Impact

The power of **negative** publicity on the consumer behaviour!



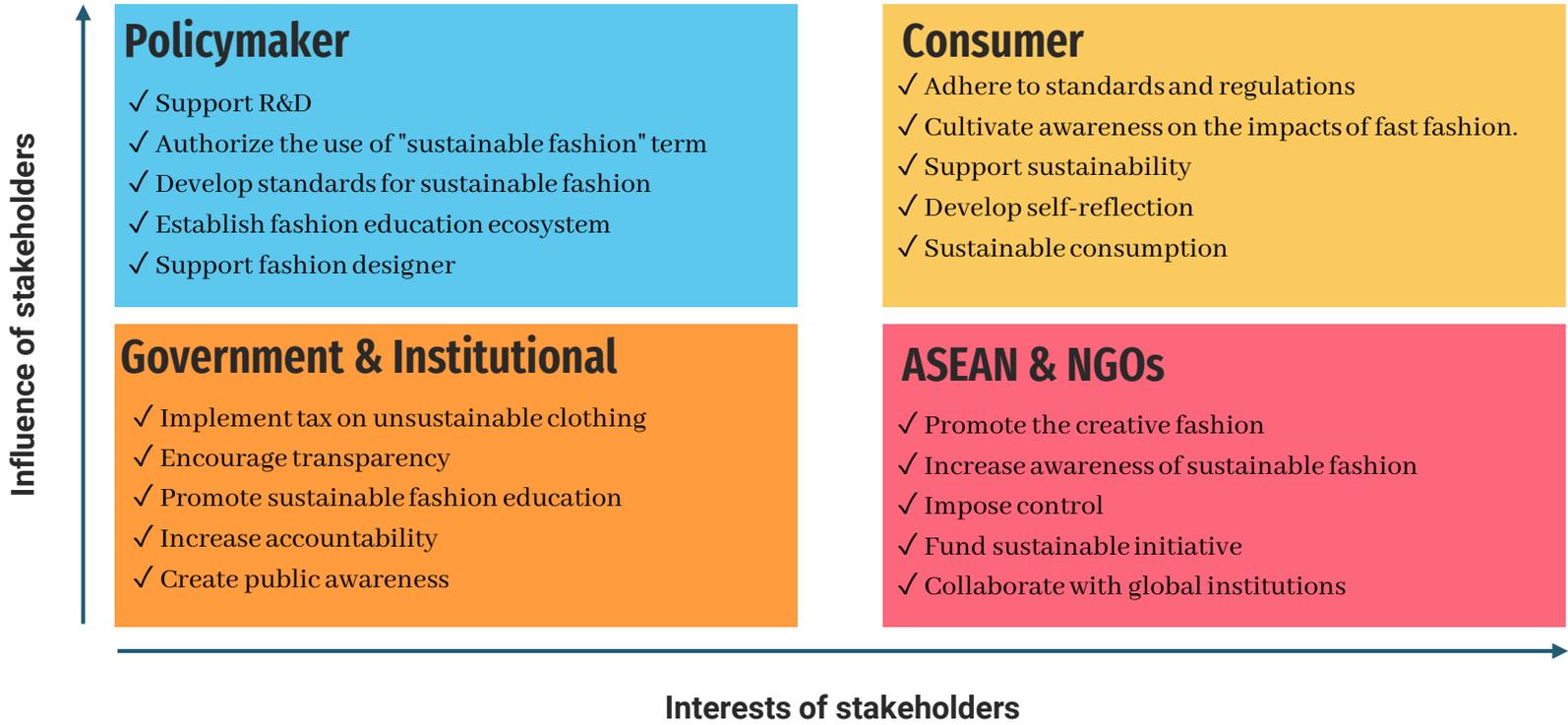
Source: (Roozen and Raedts, 2020).

GHG emission and pathway to reduce it



Source: (Levi Strauss and Co., 2018).

Stakeholder Support (in ASEAN)



SDG, ASCCBP, AECBP	Recommendation	Impact	Stakeholders	Market strategy	Milestone	Demo
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Desired partnership/investor



& etc...

SDG, ASCCBP,
AECBP

Recommendation

Impact

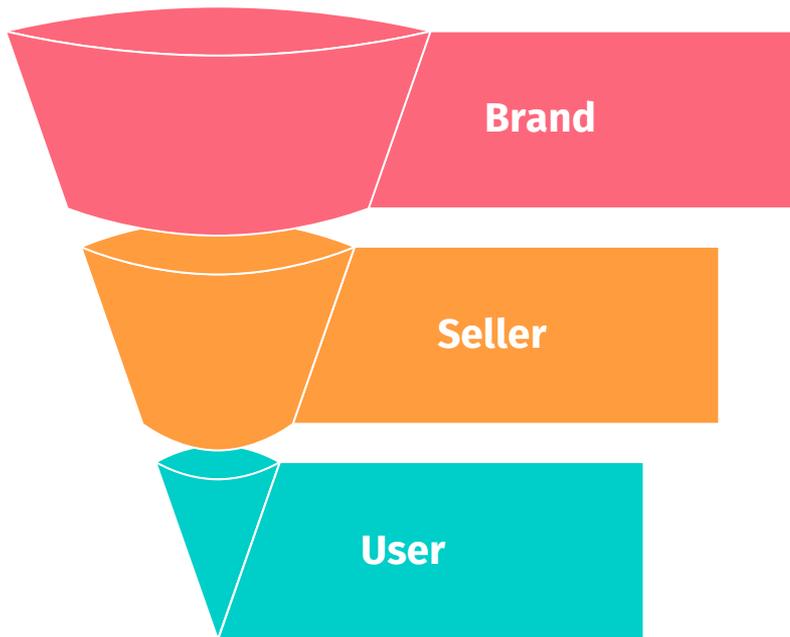
Stakeholders

Market strategy

Milestone

Demo

Financial Sustainability

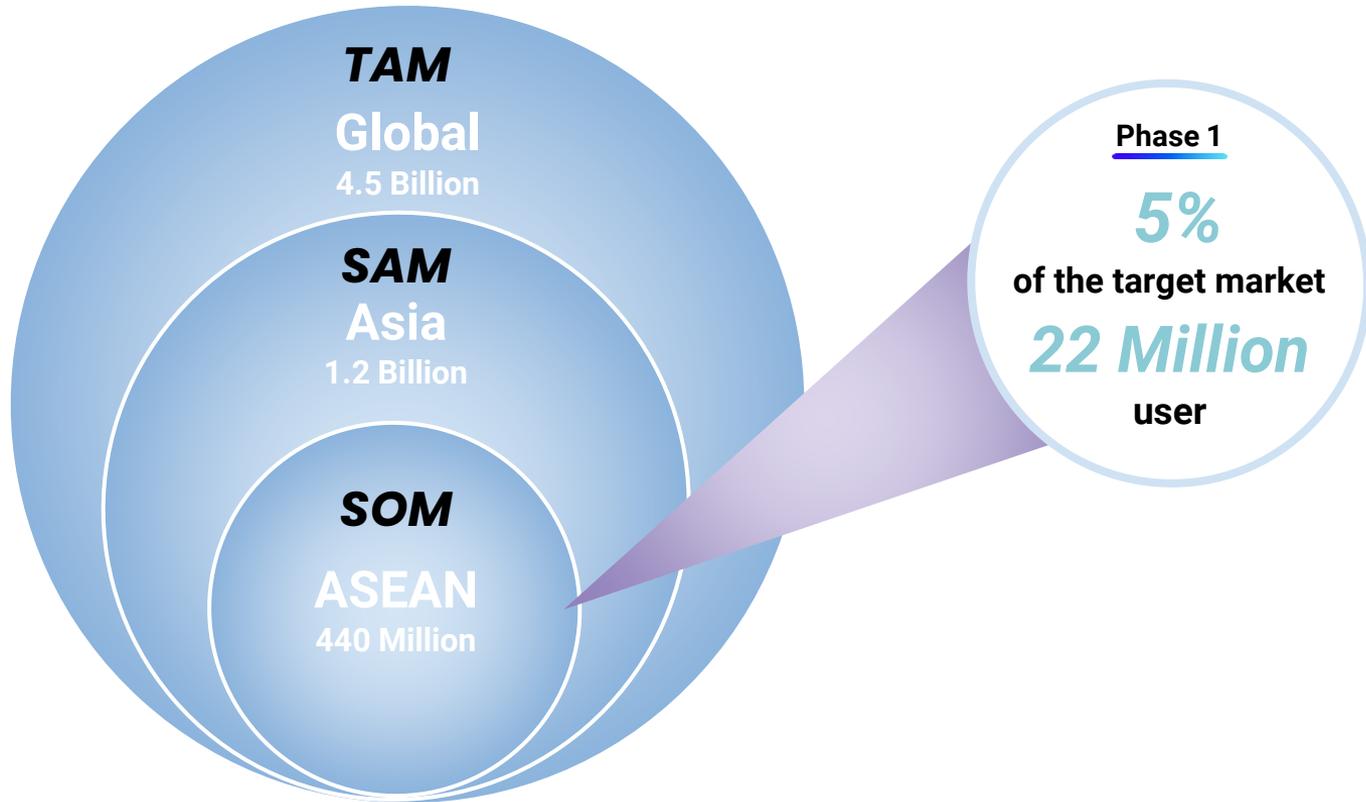


- Subscription of **USD 10k/year**
- To be **acknowledged** on sustainable fashion initiative
- Include product in Apps Database

-
- Seller will be charged **1 cent** per product to advertise

-
- **No charges** for the subscribers
 - **No charges** for sustainable fashion designer

Market size



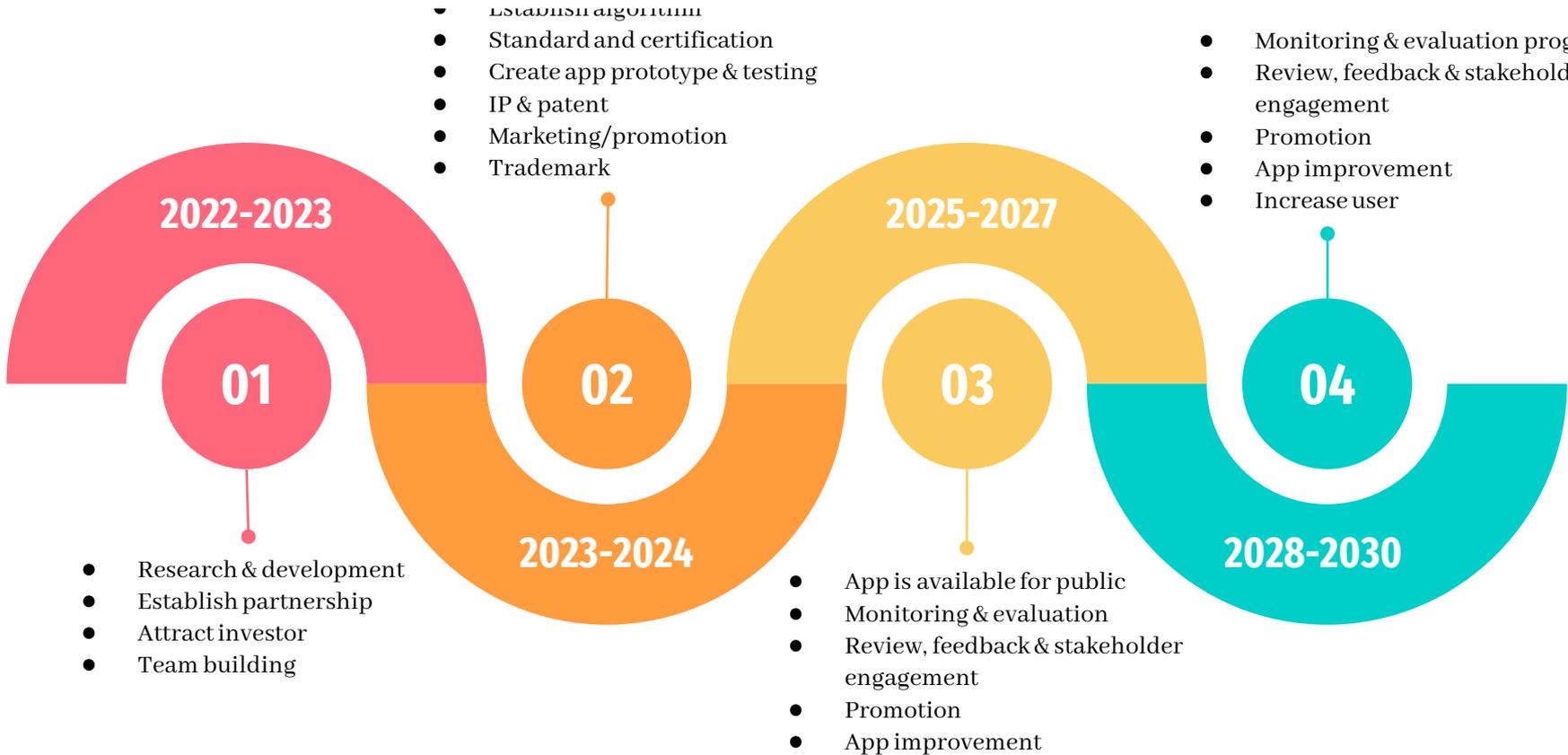


Estimated budget proposal

DIRECT COSTS per month		
Cost type	Cost explanation	Amount
Team wages	2 team members, USD\$ 25 per hour	\$1 000
App development	Hire programmer to develop app	\$400
Paid ads	Marketing app to social media platform	\$300
INDIRECT COSTS per month		
Cost type	Cost explanation	Amount
Utilities	Utilities used for project progression, internet and electricity	\$190
Server costs	Server for storing customer's data	\$100
Annual total costs		\$23 880



Milestone



SDG, ASCCBP, AECBP	Recommendation	Impact	Stakeholders	Market strategy	Milestone	Demo
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DEMO



SDG, ASCCBP, AECBP	Recommendation	Impact	Stakeholders	Market strategy	Milestone	Demo
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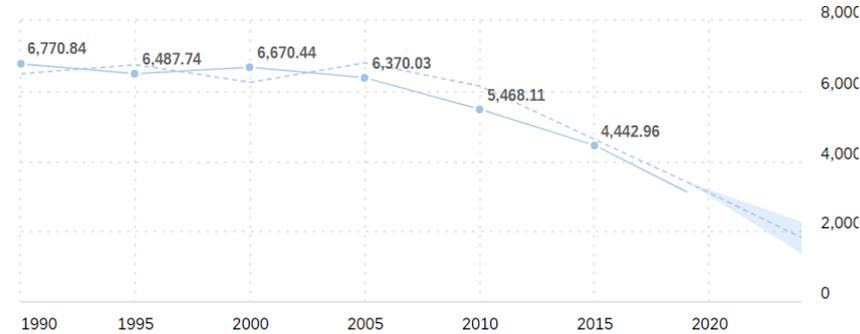
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Energy consumption per capita (kJ/capita) ASEAN over time

Forecast

1M 3M 6M YTD 1Y All



Source: (The World Bank).

Energy consumption per capita (kJ/capita) by ASEAN

Top 10 - All Dimensions

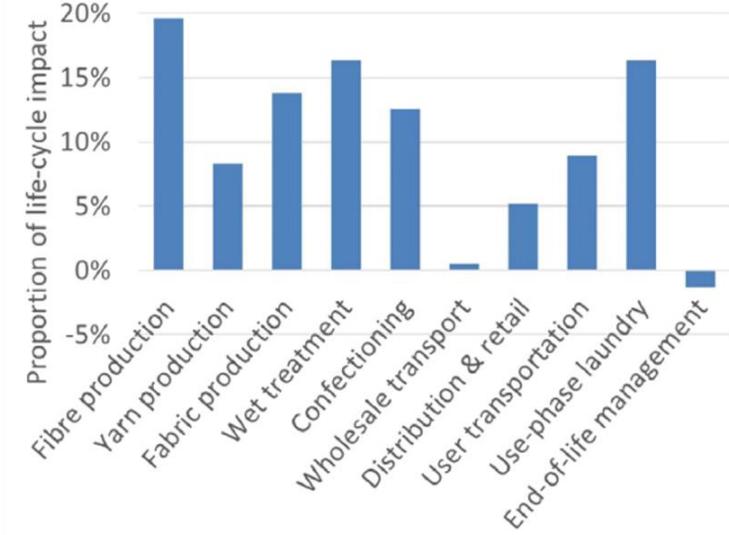


Source: (The World Bank).

Case study: LIFE CYCLE of FASHION INDUSTRY

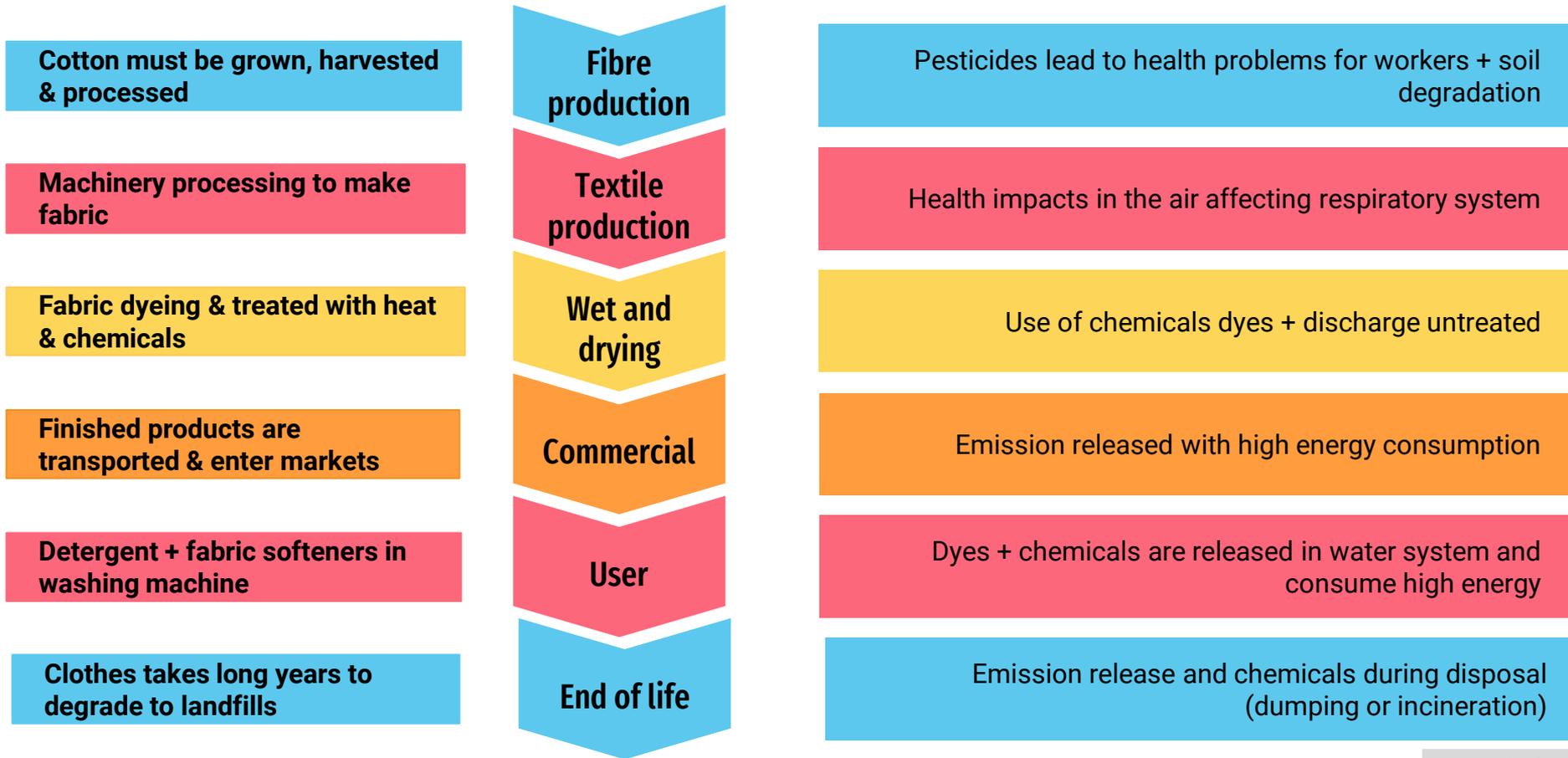


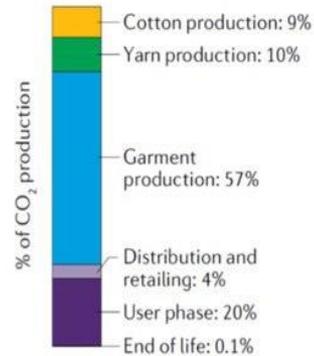
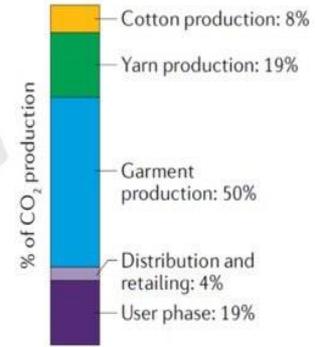
Source: (Neto et al., 2020)



Source: (Sandin et al., 2019).

Case study: LIFE CYCLE of FASHION INDUSTRY





Source: (Niinimäki et al., 2020).

Additional:

USER

Largely driven by the 'fast fashion' phenomenon (cheap price, high demand with fast production) the growing consumption of clothing doubled over the past 15 years – yet the lifetime of clothing used has been in steady decline.

Calculating emissions from the use phase is challenging, as there is a lack of data on behaviours such as the frequency of washing, washing temperature, detergent types and drying methods, which vary greatly between cultures (Yasin et al. 2016). The use phase would include data on the garment lifetime, use frequency, washing habits, and the energy, water and materials used in washing, drying and ironing.

The UK brand Marks & Spencer (M&S) found that the use phase had the largest consumption of energy across the life cycle, responsible for 81 % , major consumption of energy is washing and drying.

END-OF-LIFE

By 2030, we are expected as a whole to be discarding more than 134 million tonnes of textiles a year. Over 14 million tonnes of microplastics have accumulated on the world's ocean floor, up to 5 million tonnes are from textiles (EEA). The majority of microplastics from textiles are released the first few times textiles are washed, mainly in the textile wastewater.



Business Model Canvas

Key Partners

- Fashion designer brand
- Sustainable fashion designer
- Website/application developer
- Policy maker & government
- Potential investor
- User

Activities

- Software development
- Partnership with **key partners**
- To provide a transparent data

Resources

- Application & web application
- Patent & IP
- Funds & cloud data storage capability

Values

- Increased awareness of the fast-fashion industry and its environmental impacts
- To promote sustainable fashion designer products across ASEAN
- To ensure the sustainable fashion clothing line is not greenwashed by the fashion brand
- To provide a transparency data platform

Relationships

- Maintain an ethical and transparent connection with **key partners**
- Ensure that feedback from **key partners** is tracked throughout the implementation

Channels

- B2C: Application platform for user to purchase sustainable clothing line
- B2B: Application platform for sustainable fashion designer and fashion brand to acknowledge on sustainable fashion initiative

Customers

- Fashion branding that acknowledges and supports sustainable fashion
- Sustainable fashion designer who aims to sell products to buyers (Pricetag is a one stop platform)
- User who supports sustainable fashion and increase awareness about the impacts of the fast-fashion industry

Costs

- Website/application development
- Server maintenance
- Customer acquisition costs (Fashion designer & fashion brand, user)
- Employees

Revenue Stream

- Each product sales (USD 0.01)
- Branding subscription (USD 10k/annum)



Our competitors

Features	 Price Tag	 Buycott	 Good on you
Data image processing on the products			
Support sustainable products			
Provide the true cost per unit of cheap clothing			
Application is free to download			