
THE CLIMATE FOOTPRINT OF PUBLICLY PROCURED TEXTILES (AND SCENARIOS TO REDUCE IT)

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Overall goal

Identify implementable actions that can significantly reduce the climate impacts of procurement of textiles

Activities

- Estimate the climate impacts of Region H and City of Copenhagen's (CC) yearly consumption of textiles (baseline)
- Estimate the climate savings from the Parck project's green criteria proposals
- Propose additional actions that could lead to a significant reduction

Setting the boundaries

- Only consider textiles purchased and owned by Region H and CC – not leased textiles
- Focus on four categories: **Uniforms, Close to body garments, flat wear and 'other'** (everything else)
- Consider the **whole life cycle** of the yearly purchased textiles from raw material extraction to end-of-life
- **Functional unit** same for all scenarios: *Delivery of the service provided by Region H's and CC's current annual procurement*
- Data collection from RH and CC. Gaps filled by considered assumptions



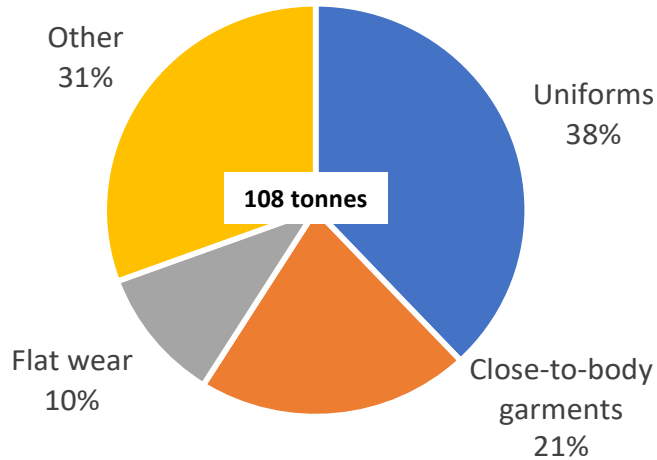
Category	City of Copenhagen (tonnes)	Region H (tonnes)	Sum (tonnes)	Fibre types (cotton %/ polyester %)
Uniforms	11,4	29,7	41	60/40
Close-to-body garments	15,6	7,0	23	50/50
Flat wear	7,6	3,8	11	70/30
'Other'	2,9	30,2	33	58/42
Total	37,4	70,7	108	

Assumptions for baseline

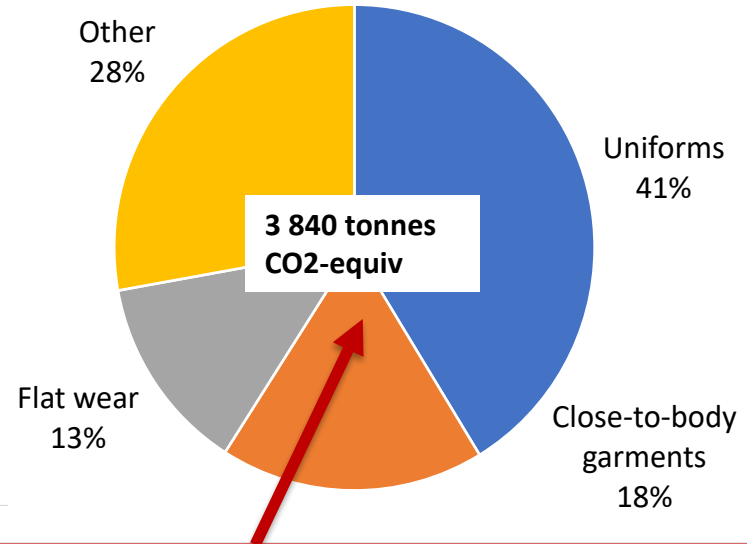
- Conventional cotton and polyester from fossil fuels
- Produced in Asia – ship to Rotterdam – lorry to Copenhagen
- Lifetime: Used until end of technical lifetime (including minor repairs)
- Lifetime: flat wear (100 washes), uniforms (88 washes), close-to-body (70 washes), other (60 washes)
- Laundering in Region H - 100% central laundry (0.4 kWh/kg)
- Laundering in Municipality – 100% at home or in individual institutions (0.9 kWh/kg)
- End-of-life: incineration with energy recovery

Results for baseline

Purchased weight

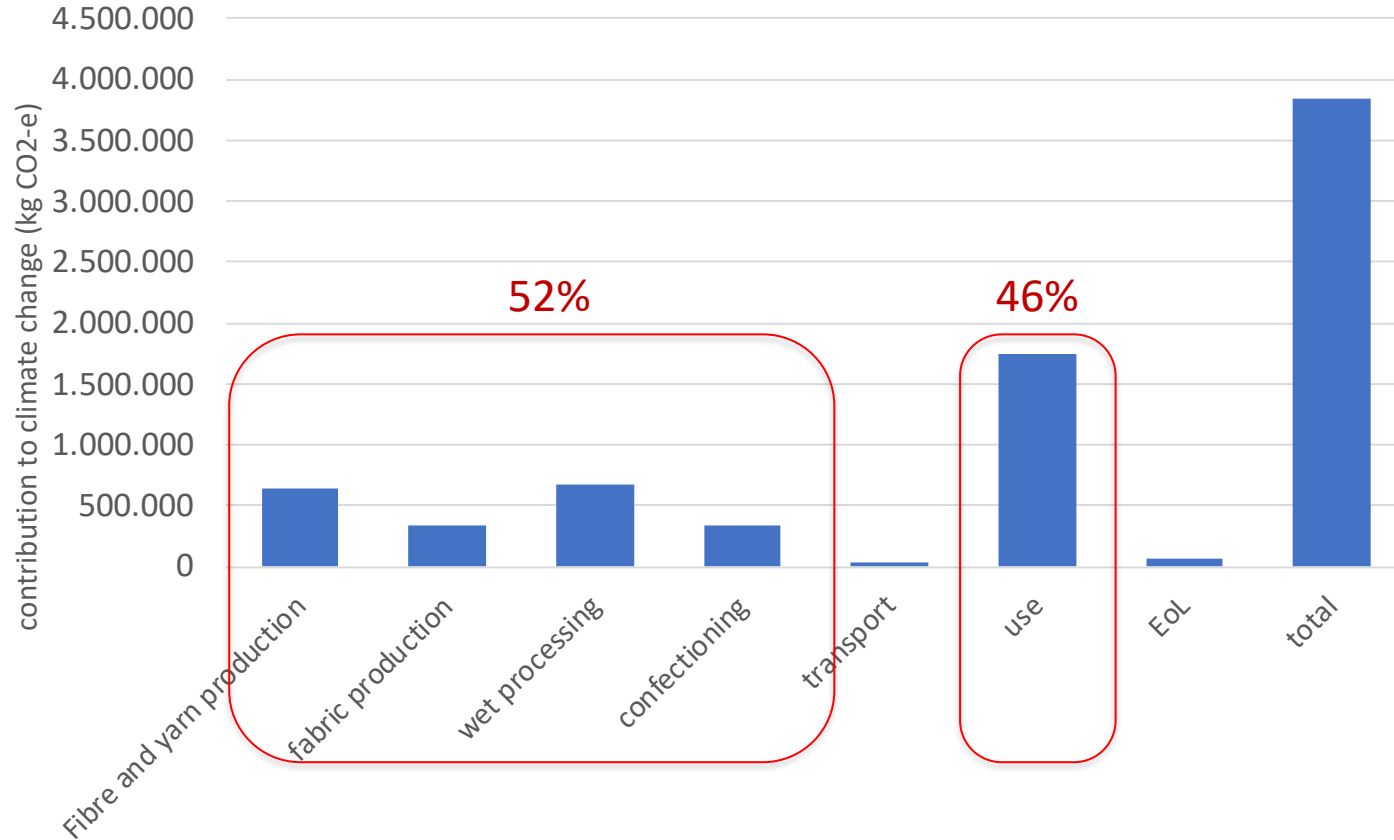


GHG emissions



Equivalent to 2000 passenger cars' yearly emissions

Results for baseline



Scenarios for Parck procurement criteria

- At least 20% of fibres should be from recycled sources
- Points – high share of recovered materials (also from post-consumer textiles) in procured products
- Cellulose-based fibres without recycled content should be organic
- Points – products should withstand high number of washes (100 washes as benchmark)
- Points – front pocket on doctor/nurse uniforms to withstand ink from pens
- Points – repairs at reasonable price
- Innovation criteria on closed-loop textiles

Scenario A: 60% polyester is from recycled sources

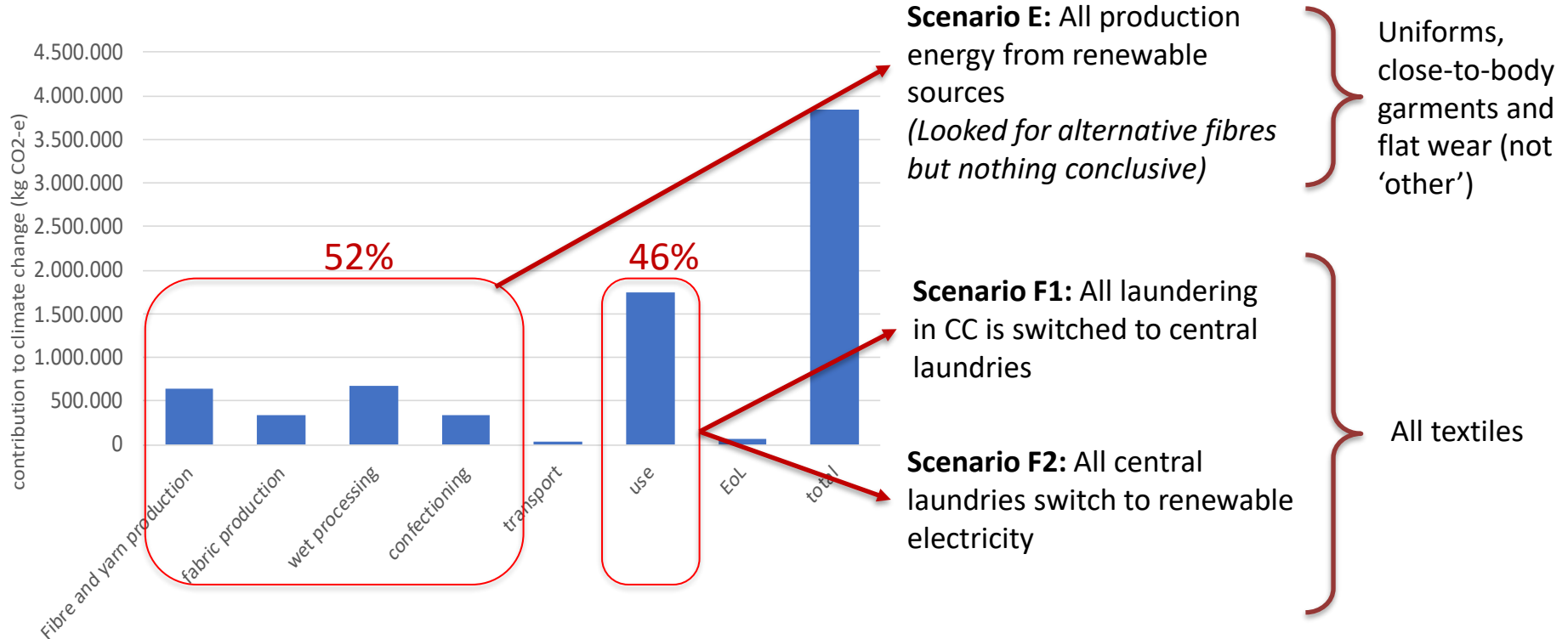
Scenario B: 100% cotton is from organic farming

Scenario C: products last 15% longer

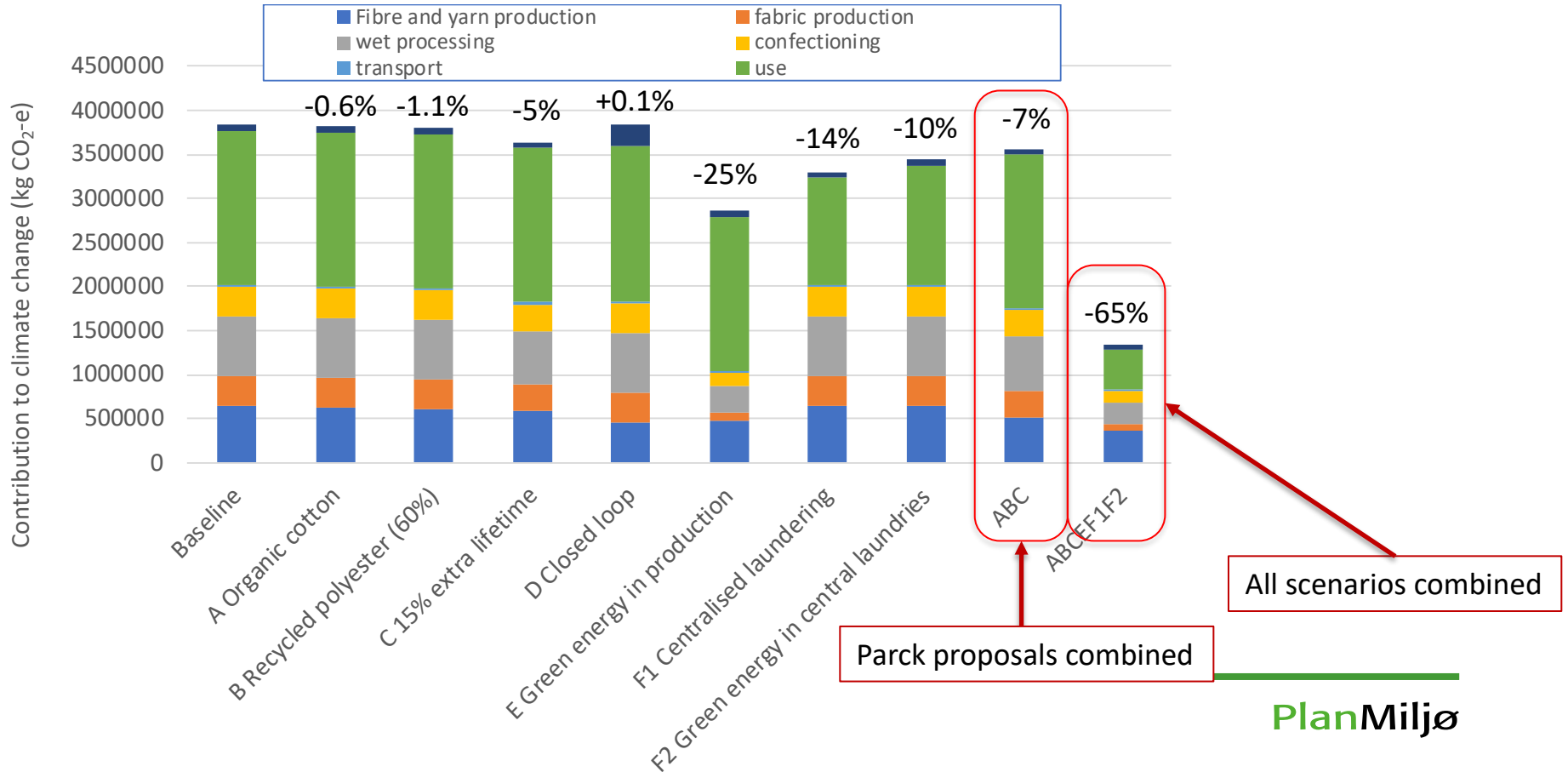
Scenario D: polycotton is recycled EOL using Blend Re-Wind process

Uniforms, close-to-body garments and flat wear (not 'other')

Additional scenarios



Results of scenarios



Key messages

- **Focus on the low-hanging fruit** – changes that affect a large part of the life cycle
- **Organic cotton** is a good choice but **for other environmental impacts**
- The importance of **recycling is overestimated** (at least for climate). **Prioritise extending lifetimes** - reduces pressures across the *whole* production chain
- **Extend lifetimes through range of actions** (*durable fibres, sensitive laundering, reduced leakage, recirculating between employees etc.*)
- **Shifting to green energy in production and laundering** gives significant climate benefits – but not always feasible
- **Centralised laundering** can reinforce such benefits

BUT!

Some assumptions need to be checked through survey:

- How are City of Copenhagen textiles really laundered at home and in institutions?
- What are the reasons for discarding textiles – always technical failure?

Thanks for listening!

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