The initial steps towards monitoring GPP – Workclothes

Procura+ Seminar 14 October 2016 in Rome, Italy

Work clothes - Facts about the tender

- The tender involves: Enchanted visibility clothes and other products such as T-shirts, pants, overalls, socks, etc.
- Expected turnover in a 4-year period: 4.00000 euros
- Estimated pieces of clothe in the tender: 112.000 pieces of clothes

Environmental criterias and requirements:

- Minimum requirements in according with Ecolabel textile criterias and Oeko-tex 100
- Minimum requirements on organic cotton for 7 selected productgroups

CONFIDENCE IN TEXTILES
Tested for harmful substances
according to Oeko-Tex® Standard 100
00000000 Institute

EU Ecolabel
www.ecolabel.eu

Case: Organic cotton

- Of the 112.000 pieces of clothes, we added a minimum criteria for around 25.000 pieces of clothe from 7 selected product groups:

  T-shirts, T-shirts with sleeves, tanktops, shirts, pants, overalls og socks

- The minimum criteria was, that the products should contain a minimum of 70% of organic cotton.

  Why procure organic cotton?

  Lets compare conventional cotton with organic cotton!

Organic cotton – Selected products

How much organic cotton is produced to supply these 7 product groups?

Product group	Weight pr. unit	Quantity of order	Weight pr. product group
T-shirts	Approx.195 grams	10.000	1950 kg
T-shirts w. sleeves	Approx. 210 grams	2000	420 kg
Tanktop	Approx. 84 grams	2000	168 kg
Shirts	Approx.250 grams	200	50 kg
Pants	Approx. 320 grams	200	64 kg
Overalls	Approx. 350 grams	200	70 kg
Socks	Approx. 70 grams	10.000	700 kg
		Total kg/tons	**3400 kg / 3,4 tons.**

Environmental effects if applying a minimum of organic cotton on 7 product groups

	CO2-emission reduction - From cultivation and processing.	Water Conservation - From cultivation and processing.	Energy savings - From energy coming from non-renewable energy-sources. (Diesel, coal, natural gas, petroleum, mineral fertilizers)
Conventional cotton	3,4 tons conventional cotton x 1808 kg CO2 = 6147 kg CO2.	3,4 tons conventional cotton x 2120 m3 = 7108 m3 groundwater used.	3,4 tons conventional cotton x 4155 kWh from non-renewable energy sources = 14127 kWh used from non-renewable energy sources.
Organic cotton	3,4 tons organic cotton x 978 kg CO2 = 3325 kg CO2.	3,4 tons organic cotton x 182 m3 = 618 m3 groundwater used.	3,4 tons conventional cotton x 1611 kWh from non-renewable energy sources = 5477 kWh used from non-renewable energy sources.
Environmental effects	Reduction of CO2: **Approximately 3 tons reduced CO2.**	Conserved groundwater: **Approximately 6500 m3 groundwater conserved.**	Reduction of energy consumption: **Approximately 9000 kWh energy conserved from non-renewable energy sources (fossil fuel).**

Environmental effects

By applying a demand of organic cotton instead of conventional cotton in 7 product groups including 25000 pieces of clothes

The results:

- Approx. 3 tonnes of reduced CO2
- Approx. 6500 m3 groundwater conserved
- Approx. 9000 kWh energy conserved from non-renewable energy sources (fossil fuels)

Perspective

- Procurers can demand organic cotton in many other procurement areas (towels, linen, healthcare sector etc.)
- We can use the comparative methods to quickly estimate the environmental effect of some of the most important indicators

The initial steps towards monitoring – Utensils for houskeeping

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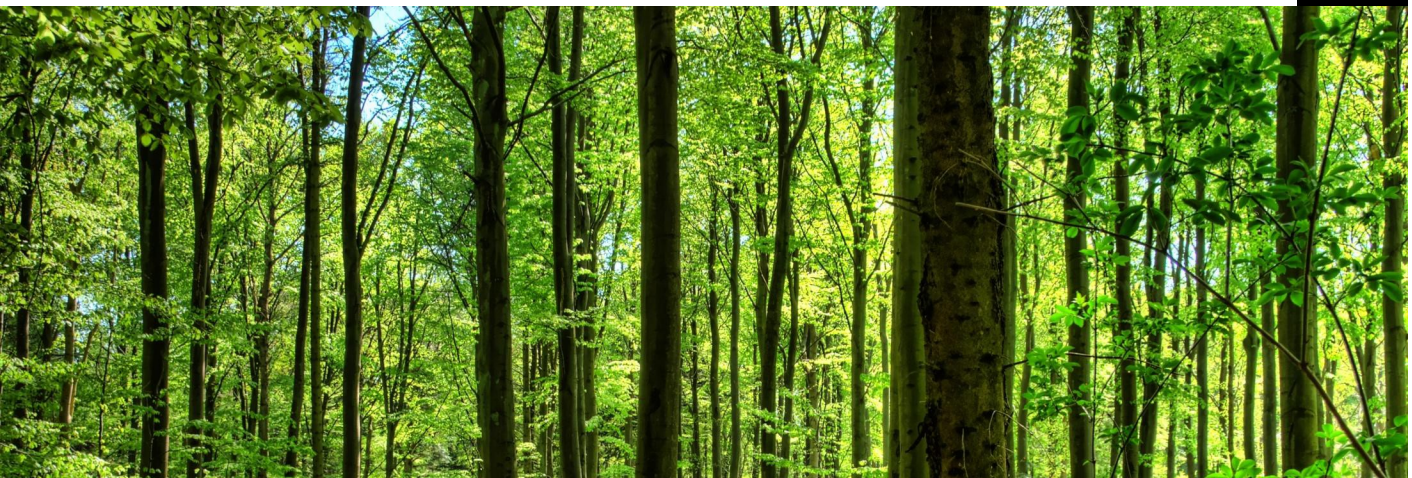
Facts about the tender

- Noncommittal contract for public procurers in Denmark
- Produced by:
  ”Common procurementservice for the state and the municipalities”
- Consumables include:
  paper towels, toilet paper, disposables, cleaning supplies etc.
- Order contains more than 1700 products.
- Contract was obtained by 1 september 2016
- Expected annual revenue at 34 mio Euros
- City of Copenhagen expects to spend more than 5 mio Euros annually

Objectives for the business case

- Enlighting wether there is any additional costs for green consumables
- Make other public procurers purchasing more green products with a ”Green Product Catalog”
- Higher compliance



Preliminary methods used for the business case

1. We selected the 5 most used products from 2015 (extracted from 2015-accountings)

2. We estimated the additional costs by procuring a green product instead of a conventional product for each of the 5 product groups

3. We estimated the environmental effects of those 5 products

4. The total socioeconomic cost is the net cost from which externalities like CO2, clean drinking water, sewage is put into account

Consumables: Case 60 tons Nordic Swan Eco Label(2015 numbers)	Energy/ CO2 Conservations in paper production	Less Water consumption in paper production	Conservation of chemicals in cleaning facilities of waste water
Environmental effct	X tons CO2	X m3 drinking water	X m3 chemicals
Socioeconomic cost per unit	Euros per ton CO2	Euros per m3 drinking water	Euros per m3 collected chemicals from wastewater
Socioeconomic cost	X tons CO2 * price CO2 = y euros	X m3 drinking water * price	X m3 collected chemicals from waste water * price m3 = y euros.
The total socioeconomic cost	***y euros for CO2 + y euros for m3 drinking water + y euros collecting chemicals from waste water= z euros in total***		

Perspective

We will estimate the environmental effects and the total socioeconomic costs for all 16 partnership municipalities, who are commitet to select ”The Green Product Catalog”

Challenges and recommendations

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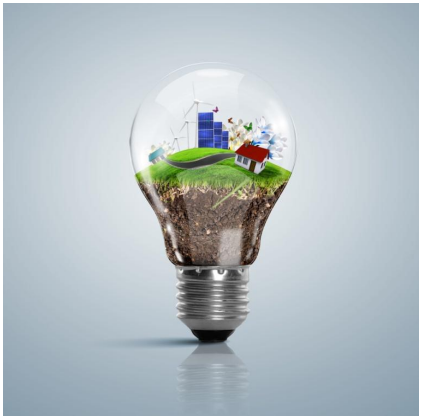
The Technical and Environmental Administration

Challenges!

- How do we estimate socioeconomic costs?
- What are the prices for water, CO2, chemicals in waste water etc.
- Which sources are trustworthy in terms of estimating environmental effects?
- How gets a conventional product selected?
- How much time is needed to make environmental assesments and estimate socioeconomic costs?



Recommendations

1. Consider the purpose of the estimates. Who is the target group? (Colleagues, management, politicians, media?).
2. Select some representative productgroup as illustrators of your green procurements.
3. Calculate environmental assesment and economics.
4. Make your decisions explicit.
5. Make accounts for your sources and methods
6. Be aware of your sources that may be reflecting a certain agenda
7. Involve any external partners to help with calculations or send them to consultation at the public administration and interest groups.

Contacts

Thomas Nielsen
Environmental adviser
The Technical and Environmental Administration
Email cy9g@tmf.kk.dk
Phone +4540481886

Thomas A. Christensen
Environmental adviser
The Technical and Enviromental Administration
Email thoach@tmf.kk.dk
Phone +4560200588

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