

E P&L on the Danish textile industry

**Danish EPA
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01 Summary

We see responsible actions taken by individual companies and organisations in the sector an effort the Danish EPA is keen to support.

In collaboration with the Danish textile industry, the Danish Environmental Protection Agency (EPA) is pleased to add new perspectives to PUMA's ground breaking work on natural capital accounting. Through the Environmental Profit and Loss (EP&L) approach, the Danish EPA seeks to develop new ways of assessing the value chain of the Danish textile industry, that will support sustainable decision-making on three different levels. On the first level a regional industry analysis will support national decisions made by the industry and government bodies, while the second level provides tailored insights to support strategic decision making at the management level within companies. The third level will provide specific support to designers through product level analysis. All three levels of analysis will be driven by the development of the Danish textile industry value chain EP&L.

The analyses will contribute to the Danish EPA's current work with the apparel industry and other relevant stakeholders on developing a more sustainable apparel sector. The apparel industry is an important sector in a Danish context in terms of exports and employment. At the same time, the sector is amongst the most polluting and resource consuming world-wide with significant potentials for improvement.

The ambition of this project is to explore new ways of aiding the sustainable decision-making process within the apparel industry, and thereby adding to the already existing tools, such as the Higg Index.

The Danish EPA has initiated this project regarding an industrial E P&L for the Danish textile industry. The project is conducted by three consulting companies NIRAS, Trucost and 2.-0 LCA consulting working in a partnership. The project started the 1st of February 2014 and is planned terminated ultimo June 2014.

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02 Purpose

Why have you launched this initiative / project?

We see a growing concern in the apparel industry on developing a more sustainable sector focusing on environmental and social issues as means to address environmental concerns and at the same time run a healthy business. The Danish EPA are pleased to work with the apparel sector and other relevant stakeholders on developing better ways and ready for use tools to reduce the global environmental impact from the apparel industry.

We believe that creating a better understanding of and visibility around the societal value of environmental impacts from apparel production through use of natural capital accounting and E P&L is an important step in the transition towards a more sustainable apparel sector. With the help from skilled consultants in dialogue with the apparel industry and organisations we have developed this project that could possible help the development of a more sustainable apparel sector.

For The Danish EPA it is important to develop a project supporting voluntary environmental initiatives from business. We hope to see frontrunners taking lead on sustainable business development and hopefully profit from their effort.

What problem are you trying to solve?

The E P&L accounting model has only been conducted for companies so far, and the companies that have applied the model have usually been large and resourceful. A key question of this project is *“How can small and medium sized companies as well as other stakeholders take advantage of this new methodology of quantifying and valuing natural capital throughout the value chain?”*

An E P&L conducted at an industry level could benefit a wider group of stakeholders, including trade associations, government bodies and the companies in the industry. More specifically, the E P&L for the textile industry will give an overview and a complete picture of the environmental impacts related to suppliers throughout the value chain. An E P&L at this level will also illustrate the relationship between what is emitted domestically and internationally. In addition, the E P&L can provide information on how well the Danish textile industry performs compared to other European countries. On a company level, the E P&L can contribute to understanding the environmental profile of different types of products and/or fabrics, and provide useful insight to the companies on where the risks and opportunities are in the value chain. Finally on a product level the E P&L can provide a more precise product profile and illustrate the impact of substituting conventional materials with more sustainable alternatives.

The objective of this project is therefore to conduct an E P&L analysis across three levels:

1. Industry level (relevant for trade associations and government bodies)
2. Company/brand level (relevant for trade associations and companies)
3. Product level (relevant for trade associations, companies and designers)

03 Potential

What potential does this initiative / project have to significantly accelerate sustainability performance in the apparel industry?

The potential of the project is that new ways of applying the E P&L methodology and results are explored, so it reaches out to a wider group of stakeholders. So far E P&L projects have been conducted for large companies such as PUMA and Novo Nordisk. For these companies the results have fed into the company strategies and compliance work. This project will identify new ways of communicating results on three levels (industry, company and product). No existing tool has the ability to cover all three levels at once, and produce quick results for many different stakeholders. The project aims at add value to businesses by helping companies prioritise sustainability initiatives through the results, giving companies a platform to communicate in a more coherent way to a multitude of stakeholders and helping companies identify and manage risk across their value chain.

Additionally the methodology is strengthened by using new international Input-Output (I-O) tables, which are the backbone of quantifying environmental impacts throughout the value chain without having to perform detailed and time consuming bottom-up Life Cycle Analysis (LCA). I-O tables connect statistical data on monetary flows, environmental impacts and a range of other parameters. Data is aggregated to national or regional level. This project will apply new I-O tables developed in a project called CREEA, a project whose main goal is to refine, harmonize and elaborate economic and environmental accounting. The CREEA project produces detailed information on 130 sectors and products, 30 emissions, 80 resources, and 43 countries plus a rest of world category. It is on top of this data that the valuation of natural capital is conducted.

Over a longer time horizon, this project could contribute to existing standards such as the HIGG Index, and maybe add to the development of a common language for sustainability, a language that is less technical and complex than previously.

How do you define success in relation to your initiative?

The project will be conducted using one or two Danish case study companies and focus on specific value chains for a specific brand. The companies will contribute with knowledge and data to enhance the model. Together with the companies a range of “typical” garments will be selected for products specific analysis.

The project will look at a couple of the best-selling garments in Denmark (e.g. a white cotton shirt). Scenario analysis will be made looking at what would happen to the impact of those garments if conventional materials/processes were substituted by more sustainable alternatives. Hopefully, the results will invoke attention and be a platform for discussion within the industry on all three stakeholder levels.

Who is your target audience(s)?

The communication of the project is focused on the companies within the industry. It is essential that other companies within the industry can relate to the results and use the knowledge from the project to initiate sustainability initiatives within their own business. For example, if the project creates a baseline for different garments/fabrics, which can be used as a platform for knowledge and communication to the supplier and stakeholder including trade associations, government bodies and companies in the industry.

04 Deliverables

What will you have achieved by April 23, 2014, when the symposium and award ceremony takes place?

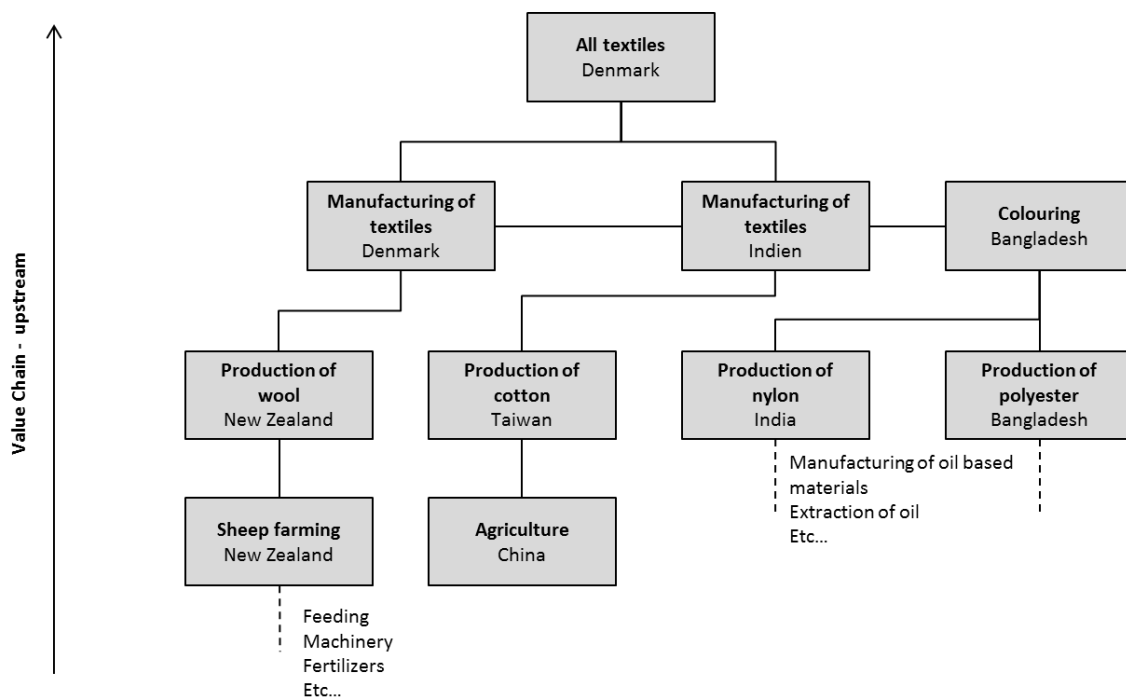
The project is conducted in two stages. In the first stage, a screening of the industry is established and used as a starting point for the case study companies. The first step is primarily based on generic and statistical data, only slightly modified.

In the second stage, a more detailed analysis is conducted for the case study companies. The model is adjusted to fit the actual value chain of the companies and a range of typical garments are selected out for a more detailed product analysis. The product analysis will be used to compare alternative fabrics and/or technologies at the supplier level.

4.1 Stage 1: Screening

Different stakeholders within the industry will be asked to contribute with industry specific data which can then be used to make the initial model. In this stage a more specific framing and scoping of the case study companies and product categories are conducted.

An illustration of Stage 1 is presented below:

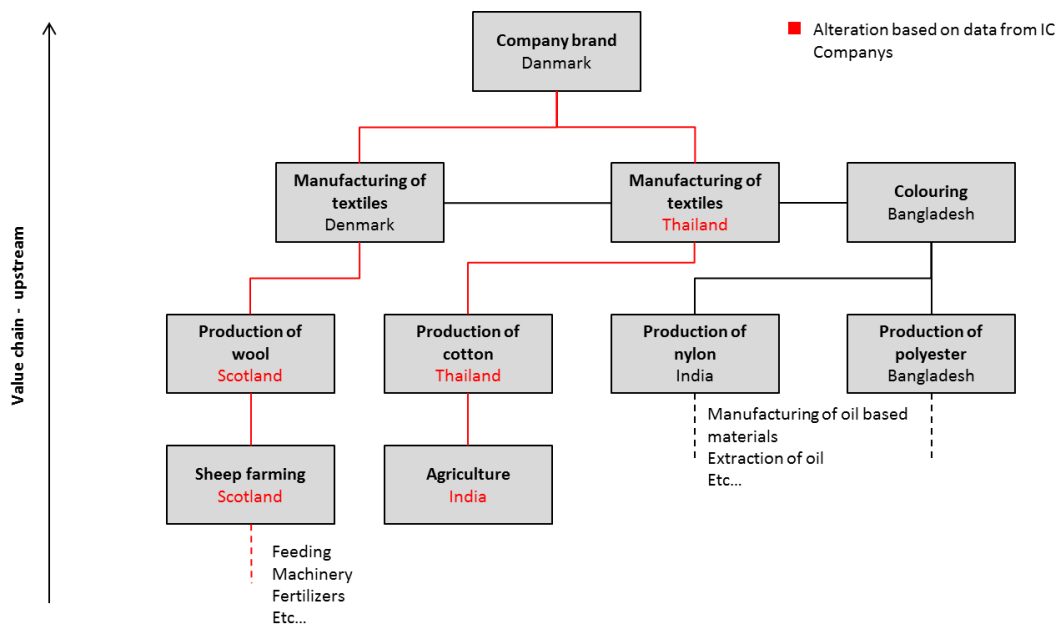


4.2 Stage 2: Detailed analysis

During the second stage a more detailed analysis is conducted for the case study companies. The further detailing can be done in two steps.

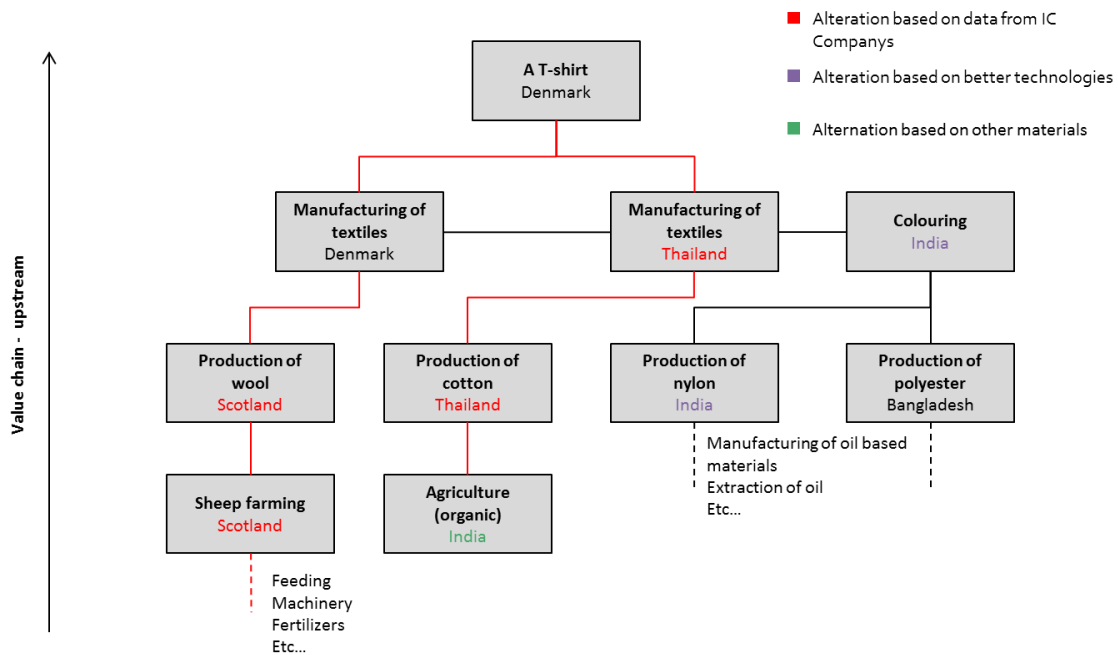
1. Brand level
2. Product level

At the brand level, the national model is altered to fit the company's value chain. This is illustrated below:



The data provided by the case study companies will enhance the model and eliminate uncertainties. This analysis will also contribute to the identification of hotspots within the value chain, and give input to the final level of product analysis.

Based on the results of the brand analysis a couple of garments will be selected for the product analysis. A bottom-up approach will be used to fill in the gaps of the generic model. For example, if cotton was identified as a hotspot at a brand level then a product with cotton is chosen for the next level of analysis. Bottom-up data for cotton for one specific garment will then be applied. Information on supplier, country of origin, applied technology etc. will generate a more precise product profile which will enhance the model significantly while still having a link to the overall industry level in Denmark. Please see illustration below:



What is your final product or deliverable?

The deliverables will be communicative and applicable to companies within the industry. The communicative material of the project should provide a clear and concise way of communicating sustainability issues within the value chain when applying natural capital valuation techniques. Specific examples of different initiatives will be used as inspiration to others, so that they can continue working with natural capital.

The final deliverables are still in the process of being clarified, but are likely to include some or all of the following:

- Illustrative posters
- A report
- Presentations targeted companies
- Booklet

Where can I find more information about your initiative?

Since only a few publications has been published in the world regarding E P&L there are not much additional information available. Furthermore there has to the best of our knowledge never before been developed an E P&L account on sector level. In a Danish context the only public available report is the E P&L account for the Danish pharmaceutical company Novo Nordisk A/S. A link on the Danish EPA website: <http://mst.dk/service/publikationer/publikationsarkiv/2014/feb/methodology-report-for-novo-nordisk%e2%80%99s-environmental-profit-and-loss-account/>

PUMA conducted the first E P&L account you'll find it on their webpage: <http://about.puma.com/puma-completes-first-environmental-profit-and-loss-account-which-values-impacts-at-e-145-million/>

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