

## **Review of Group 9 Report: A comparative LCA of plastic and paper bags**

**By: Group 2**

- *Present some overall comments on your impression of the report.*

The report has been written in a very clear and easy to follow way. A lot of thought has been given to how to structure the case study, as well as what parts should be included and which parts should not. All the assumptions were given and the data sets were clear. The impact analysis part was very thorough and it was definitely nice to have reasoning for why each particular category had reached these limits.

Functional unit was spot on, but it could probably be altered, in order to have assumptions eliminated. The current F.U. has plastics bags/household year. Not only does that require statistics as the exact number cannot be found, but as it was stated in the report, the statistics for Swedish household bag usage could not be found, the UK ones were used. These assumptions will be factors for the results to deviate from reality. As the goal is to understand which bags, plastic or paper, have more impact to the environment, a large number of bags, for instance 1000 pieces, could be used.

- *Do you have any reflections on the choice of topic?*

The chosen topic is definitely relevant to the average consumer, especially in Sweden, where both paper and plastic bags are available in grocery stores. It is a topic that almost anyone can relate to and might even have questioned themselves about it. Therefore, it is really interesting to understand the results of this LCA.

- *Was the language good?*

The language was very clear. It has been a scientifically sound report and jargon has been avoided wherever possible.

- *Does the report have the required structure?*

The report has the required structure, which increases the clarity of the content and makes it easy to follow.

- *Are all parts of the LCA sufficiently and transparently documented?*

In Section 3.6 "It is assumed that the electricity used for printing contributes less than 10% of the total electricity used, and allocation is based on this assumption". Not clear on what basis this assumption was made. Request to add some references if available.

- *Are any questions left unanswered?*

The research question was clearly formulated and also answered in the conclusion post LCA analysis. There are no unanswered questions. Based on the assumptions made a clear conclusion is made.

- *Are results sufficiently documented and explained?*

The results are well documented and the graphs included from SimaPro help explaining the results.

- *Are the conclusions supported by the results?*

The conclusions are supported and connected to the results.

- *Is some issue not correctly handled in the LCA?*

The issues are correctly handled in the LCA.

- *Do results and conclusions answer the aim and objectives?*

The results and conclusions answer the goal of the study, which is to determine which type of bag is worse for the environment.

- *Suggest improvements.*

It could be directly stated in the conclusion that the paper bag is worse for the environment than the plastic bag since this was the goal of the study.

Font size in the report can be consistent throughout the report

In Appendix 3, the table headings can be written on the continuing pages. Also this appendix is not linked to the main report (i.e. not mentioned in the main report apart from the table of contents).

Figure 13, 16, etc. are not visible clearly. They could be enlarged.

LCA graph legends are not visible.