

Paper Products Contribute Less Than Expected to Greenhouse Effect

New study investigates eco-efficiency of books, catalogues, kitchen roll, corrugated board and newspapers – Results presented at Smurfit Kappa in Feucht

What is the environmental impact of reading a newspaper? With new calculations, the *bifa environmental institute* in Augsburg supports the environmental advantages of a printed paper versus reading it on a computer screen. In cooperation with printers and the paper industry, among them INGEDE members *Mylykoski Lang Paper* and *UPM* in Augsburg, and supported by the Bavarian State Ministry for Man and the Environment, *bifa* had investigated five paper products along the whole value chain. The goal was to investigate the eco-efficiency and look for ways for ecological and economical improvement. For the five product categories books, catalogues, kitchen rolls, unprinted corrugated board and newspapers different forms of environmental improvement or alternative usage of raw material were checked for their environmental impact. The team found that newspapers contribute only 0.2 percent of all greenhouse gases in Bavaria, less than expected. Still there is room for optimisation.

For newspapers, Wilhelm Demharter, UPM's Director, Environmental Affairs, Central Europe, presented the results. The model referred to almost 1 billion newspapers weighing 190,000 tons, the annual consumption of the 12.5 million population of Bavaria. Here, reducing the grammage of newsprint from 45 to 42.5 g/m² brings the eco-efficiency up 6 to 8 points without affecting the production cost.

In order to compare the impact of electronic media with printed newspapers, the project group developed three scenarios for reading the news on a computer. The energy for downloading and reading was calculated, also a small portion for the manufacturing of the PC. If only one reader looks into the paper

for 30 minutes a day, the eco-index is 46 percent better for the computer, also the cost goes down 32 percent. Now let this reader print just one A4-page a day, then the eco-index goes down 11 percent for the electronic scenario, with cost being 26 percent less than for the printed version.

But statistically, every copy of a newspaper is being read by 2.8 people in Germany. Here the third scenario proves the environmental advantage of the printed paper: If three people who would have access to a printed copy read a paper on-line for 30 minutes,



Wilhelm Demharter, UPM (Photo: Smurfit Kappa)

the eco-index is 55 percent worse with the price being 24 percent less than for a printed paper.

Another result of the study, not so surprising for the paper industry: The biggest potential to increase the energy efficiency in the paper industry is a change of the current energy mix – for surrogate fuel which still has problems to be accepted by the public. For properly designed power plants, the ecological index rises by almost 30 percent if surrogate fuels are used to produce heat and electricity. Increasing renewable resources in the energy mix has less advantageous effects for the paper industry: For this calculated scenario, the eco-index goes up only little less than 9 percent.

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