

# Press release

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## Axel Springer Verlag, STORA and Canfor are the first world-wide to present an overall balance sheet for the ecological life-cycles of papers and periodicals

What exactly happens, in ecological terms, in the life cycle of a newspaper or periodical? What share do the individual links in the paper chain have in the overall ecological impact? And how can forest use, waste paper recycling, pulp and paper production, printing and transportation be optimised further ecologically?

In order to be able to answer these questions as precisely as possible, a German newspaper and periodicals publisher, a Swedish and a Canadian forest, pulp and paper company have taken the first cross-sectoral initiative to examine and optimise the ecological life cycles of printed products in a holistic manner.

This was done by analysing actual examples of pulp and paper production in Germany, Sweden and Canada from an ecological point of view.

A model calculation shows that the fibres of an average spruce tree grown in Sweden (age 30 to 60 years) can produce a total of 37,440 newspaper pages (paper weight 42.5 g per m<sup>2</sup>, 24 pages, size 40 x 57 cm). 13,440 pages can be produced from the fresh wood fibres alone. A further 24,000 newspaper pages are produced by their recycling. Every tree felled is replaced through reforestation. In the past hundred years, Swedish wood supplies have doubled.

The unique thing about the present study is its inclusion of forest use. With the aid of a "forest indicator" proposed by the authors, wood production is linked together with the effects of industrial production for the first time to give an overall ecological balance sheet for printed products. The forest indicator gives information about the sustainability of forest management.

At the end of the paper chain ecologically analysed in the study, we have a daily newspaper and a weekly periodical. Their function, printing paper grade and printing processes differ and are therefore not compared with each other.

The Zurich institute Infras provided the scientific support, Professors Rudolf Patt and Arno Frühwald from the University of Hamburg were responsible for subjecting the industrial processes to critical scrutiny. In launching this project, its partners Axel Springer Verlag AG, STORA and Canfor are making a contribution to the discussion of the future issues Economics and Ecology, and in addition are acquiring important data for their own learning process. Furthermore, a presentation of the life-cycle assessment of newspapers and periodicals has been proposed as a world-wide project for EXPO 2000 and is to be exhibited in the Axel Springer Passage in Hamburg.

Here is a summary of the three main results:

1. Share of pollution: The two most relevant aspects of pollution in newspaper production are the production of fresh fibre, recycled fibre and paper (together 51 %), and printing and distribution (together 32%). The two most relevant environmental impacts in the production of a periodical are the sectors fibre and paper production (together 67 %) and printing and distribution (together 29 %).
2. CO<sub>2</sub> balance sheet: The proportion of carbon dioxide emissions (CO<sub>2</sub>) from fossil fuels is particularly low in newspapers and periodicals, i.e. they have low impact on the climate. The reason: in pulp and paper production, residual substances such as bark, the wood component lignin and any paper recycling residues no longer utilisable are incinerated to produce thermal energy. As a result, 50 % of fossil fuels can be replaced in a climatically neutral manner in newspapers, whilst for periodicals the figure is 36 %. The CO<sub>2</sub> released when incinerating wood residues is bound again in young tree growth and as such is a part of the overall ecocycle.
3. Strategic sectors: In order to reduce environmental pollution along the paper chain further in a continuing process, the study recommends companies in the forestry, pulp, paper and printing industry to concentrate primarily on the five strategic sectors – forest use, energy, climate, water and wastepaper recycling. Cross-sectoral cooperation offers the best potential to realise this.

Further information on the life-cycle assessment can be obtained from:

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The 8-page press release and the 54-page summary of the study entitled "Bewertung ökologischer Lebensläufe von Zeitungen und Zeitschriften" (Evaluation of Ecological Life Cycles of Newspapers and Periodicals) can be obtained free of charge in English and German from any of the above addresses. A full English version of the Study (approx. 180 pages) can also be obtained from any of the above addresses at a fee of DM 30.