

Project *brief*

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Pulp and paper balances to supplement international statistics

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- Only 7.6% of all countries have plausible data on recovered pulp production
- The mean reported recovered pulp production of the countries investigated is 0.8 million t
- The mean calculated recovered pulp production of the countries investigated is 2.5 million t
- The share of recovered fiber in the paper production of the countries investigated varies between 4.1% and 84.4% and is 44.4% on average

Background

The pulp and paper sector is one of the largest wood-processing sectors in the world. The use of recovered pulp - i.e. pulp obtained from recovered paper - in paper production is of great importance with respect to the conservation of resources and reduction of greenhouse gas emissions. Accordingly, it is very important to have correct information on this. However, there are numerous indications of data gaps and errors in the international database of the FAO regarding figures on the production and trade of wood and paper products.

Guiding questions

How many countries are actually affected by data gaps and errors in figures on recovered pulp production? Can we estimate a more realistic value for the recovered pulp production of the countries affected by these inconsistencies? What is the actual ratio between virgin and recovered fiber use in the paper production of these countries?

Methodological approach

In order to resolve the inconsistencies in this area, we developed national pulp and paper balances for the most important pulp and paper producing and consuming countries. This involves comparing the input of wood fibers (virgin pulp and recovered pulp) with the output (paper products). By doing so, the amount of recovered pulp production, which is considered the most inaccurate position on the balance sheet, can be determined as a residual volume. Furthermore, we can also use this method to determine the composition of paper production in terms of the proportions of virgin fibers and recovered fibers.

Results

Our analyses show that only 7.6 percent of all countries in the international database of the FAO have plausible data on recovered pulp production. Of the major pulp and paper producing and consuming countries (top 28), 11 countries already report plausible data on recovered pulp production. Another 6 countries had to be excluded from the analyses due to inconsistencies in the data structure. The analyses were therefore carried out for 11 countries (Tab. 1). We calculated a mean recovered pulp production of 2.5 million tons. In contrast, the mean reported recovered pulp production of the countries investigated amounts to only 0.8 million tons. The method thus allows the reduction of data errors and gaps as well as further information gain. The share of recovered pulp in the paper production of the countries investigated varies between 4.1 % and 84.4 % and is 44.4 % on average.

Tab. 1: Comparison of calculated (\hat{P}) and reported recovered pulp production in the FAO database (P_{FAO}) supplemented by the share of recovered pulp (α) in paper production.

Country	\hat{P} in 1,000 kg	P_{FAO}	α in %
Brazil	3,128,480	0	31.4
Chile	473,354	0	39.5
India	8,922,755	1,196,300	55.4
Italy	4,471,336	3,910,000	53.3
Mexico	4,724,343	2,889,000	80.9
New Zealand	110,415	207,000	15.2
Poland	2,426,583	0	51.6
Russia	1,923,228	100,000	21.9
Sweden	385,256	250,000	4.1
Turkey	1,406,824	0	50.4
Uruguay	51,048	0	84.4

Further Information

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