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ANALYSIS

The water footprint of coffee and tea consumption in the Netherlands

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Abstract

A cup of coffee or tea in our hand means manifold consumption of water at the production location. The objective of this study is to assess the global water footprint of the Dutch society in relation to its coffee and tea consumption. The calculation is carried out based on the crop water requirements in the major coffee and tea exporting countries and the water requirements in the subsequent processing steps. In total, the world population requires about 140 billion cubic metres of water per year in order to be able to drink coffee and tea. The standard cup of coffee and tea in the Netherlands costs about 140 l and 34 l of water respectively. The largest portions of these volumes are attributable to growing the plants. The Dutch people account for 2.4% of the world coffee consumption. The total water footprint of Dutch coffee and tea consumption amounts to 2.7 billion cubic metres of water per year (37% of the annual

Meuse runoff). The water needed to drink coffee or tea in the Netherlands is not Dutch water. The most important sources for the Dutch coffee are Brazil and Colombia and for the Dutch tea Indonesia, China and Sri Lanka. The major volume of water to grow the coffee plant comes from rainwater. For the overall water need in coffee production, it makes hardly any difference whether the dry or wet production process is applied, because the water used in the wet production process is a very small fraction (0.34%) of the water used to grow the coffee plant. However, the impact of this relatively small amount of water is often significant. First, it is blue water (abstracted from surface and ground water), which is sometimes scarcely available. Second, the wastewater generated in the wet production process is often heavily polluted.



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Keywords

Global water resources; Water footprint; Virtual water; Coffee; Tea; Trade

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