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Waste prevention in communities: a comprehensive survey analyzing status quo, potentials, barriers and measures

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Abstract

With the Waste Framework Directive in 2008, waste prevention was promoted as the first priority. However, the actual implementation of waste prevention activities has so far been hesitant, and the focus on end-of-pipe waste management such as recycling prevails. The objective of this study is to explore key factors that influence engagement in waste prevention activities, thus helping to clarify why waste prevention, although adopted at both the European and national levels, has so far not been successfully implemented. We investigate the status quo, potentials of and barriers to waste prevention within local authorities in Germany and identify measures for waste prevention.

An extensive literature review emphasizes that the overall implementation status of waste prevention is low, which is partially due to an apparent lack of guidance for practitioners. Our empirical study investigates possible reasons and provides solution-oriented insights on how to encourage activity. The study is based on a survey simultaneously addressing 386 Bavarian municipalities by questionnaire and on personal interviews with 33 executives and employees of public administration from three different local authorities.

Results verify that the implementation status of waste prevention measures among local authorities is generally low. Only 10% of all cities are about to establish waste prevention as a criterion in public procurement. The estimation of waste prevention potentials varies depending on the waste stream. A total of 70% of all respondents evaluate the potential for waste prevention of typical recycling materials, such as paper and plastic, as high or very high, while waste from building materials and construction components is considered to be hardly preventable. Main barriers are the low acceptance for waste prevention activities and a lack of information. A total of 25% of all interview partners felt that environmental awareness in general is a mandatory condition for behavioral change.

Keywords: Waste Prevention, Resource Efficiency, Local Authorities, Waste Management, Transdisciplinary Research Design

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