
ENVIRONMENTAL MANAGEMENT IN THE BREWING INDUSTRY

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The purpose of this guide is to raise awareness of environmental issues in the brewing industry, and to highlight the approaches industry and government may take to avoid or minimise environmental impacts.

Environmental issues covered include water pollution, air emissions, over-use of resources, solid waste, and chemical handling. Impacts related to packaging materials which take place outside the brewery are part of a larger issue and therefore outside the scope of this document.

Avoiding or minimising environmental impacts should include not only better management and control of emissions, discharges, etc. but also efficient use of inputs, such as energy, water, and raw materials. Increased efficiency in a brewery, implemented through both technical and managerial means, as described here, often lead to cost savings as well as improved environmental performance.

The guide is intended for three principal kinds of readers:

- those with **responsibility for day-to-day plant operations**, who may benefit particularly from the advice on occupational health issues, resource consumption and emissions, cleaner production, and waste treatment methods;
- those with **general management roles**, who in many countries will be ultimately responsible for effects on the environment of any kind, whether or not these effects were knowingly caused. They may find the advice in the chapter on environmental management, with its emphasis on pre-emptive rather than "end-of-pipe" action to reduce environmental impacts, particularly useful;
- those in **government, regulatory or standard-setting bodies** - or those seeking to influence them, such as **industry associations** - who will obtain information on how some countries have gone about adopting environmental protection measures, and on the causes and implications of these measures.

Where appropriate, use is made of case studies based on actual situations in the brewing industry. UNEP IE intends that, through this practical approach, industry and government can work together in making the brewing industry environmentally sustainable.

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