



# **Cleaner Production in Leather Tanning**



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# **Cleaner Production in Leather Tanning**

*A Workbook for Trainers*

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UNEP

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# **Cleaner Production in Leather Tanning**

## *A Workbook for Trainers*

This package is one of a series that provides practical support material to teachers and trainers wishing to commence or enrich their curriculum with up-to-date approaches in environmental management.

It is based on extended experience with training workshops by UNEP and other agencies, and is now being made available for wider use in all regions throughout the world.

### **Acknowledgements**

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Further additions were made by the British Leather Confederation (BLC) under contract to UNEP.

It was subsequently trialled in workshops and courses in several places, leading to subsequent revisions to produce this current document.

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# Table of Contents

## *Cleaner Production in Leather Tanning*

	Evaluation Form.....	i
	Users Guide .....	iii
Part I	<b>Introduction</b>	
	1.1 This package .....	I:4
	1.2 Contents of this package .....	I:4
Part II	<b>Organizing Effective Training Activities</b>	
	2.1 Introduction.....	II:3
	2.2 Notes on interactive workshop organization.....	II:4
	2.3 Some ideas for more effective communication .....	II:5
	2.4 Some personal suggestions for effective training .....	II:6
	2.5 Resource persons guide.....	II:7
	2.6 Suggestions for self study.....	II:9
Part III	<b>Description of the Leather Tanning and Finishing Process</b>	
	3.1 Summary.....	III:3
	3.2 Introduction.....	III:3
	3.3 The manufacturing process.....	III:4
	3.4 Waste characterization and impacts.....	III:7
Part IV	<b>Beamhouse Processing</b>	
	4.1 Introduction.....	IV:3
	4.2 Materials audit .....	IV:4
	4.3 Cleaner production.....	IV:13
Part V	<b>Tanning Process</b>	
	5.1 A tanning case study .....	V:3
	5.2 Answers to the work exercises.....	V:17
Part VI	<b>Leather Finishing</b>	
	6.1 Introduction to leather finishing .....	VI:3
	6.2 Leather finishing case study.....	VI:13
	6.3 Answers to the work exercises.....	VI:28
	6.4 Examples of chemicals used in leather finishing.....	VI:37
Part VII	<b>References</b>	
	7.1 Introduction.....	VII:3
	7.2 References on leather tanning and finishing.....	VII:4
	7.3 Centres of expertise on leather.....	VII:5
	7.4 Background material on cleaner production.....	VII:6
	7.5 Transparencies on cleaner production .....	VII:14
	<b>Annexes</b>	
	I Process Guidance Notes on Leather Finishing .....	3
	II Examples of Health and Safety Data Sheets for Chemicals.....	17
	<b>Appendices</b>	
	I Supporting Documents for this Package .....	3
	II List of Training Resource Packages available from UNEP IE.....	5
	III About UNEP Industry and Environment .....	7

# Users Guide

This is a trainers support package, *not* a reference book. It does not give a systematic, comprehensive overview (there is not enough room to do this); rather, it focuses on some selected aspects that are central to the subject. The structure of the document allows further sections to be easily developed and added as additional modules.

The package is written for trainers to provide them with support material and ideas, rather than as a study book for students. The average trainee will only ever see a few pages or exercises reproduced from this document.

One of the purposes of this package is to provide some case studies and situation scenarios that can be used as a basis for interactive training and simulated decision-making. However, the exercises only explore a small part of the potential of the case studies, and trainers are strongly encouraged to develop further exercises or tasks.

The package is oriented at developing insights and decision-making skills. For teaching the factual knowledge base of the subject, trainers are referred to the reading lists in the bibliography.

Work exercises are predominantly based on interactive groupwork and a team approach to

problem-solving. Such work needs to be guided by a tutor who is a recognized expert in the field. This method allows the full complexity of real decision-making to be explored.

Where calculations are required, the exercises are more oriented towards throwing light on useful approaches or management decisions than simply finding the 'correct' answer. Trainers are strongly urged not to see this package merely as a set of arithmetic exercises.

In some instances, answers are indicated. The 'correct' answer depends on the context of the question. It is here that a tutor or external resource expert is useful.

Many trainers find this disturbing. They should remember that real decision-making depends on the wider circumstances surrounding the problem, and that a numerical answer which is politically or socially unacceptable, or administratively unworkable (even though accurate), is not in effect 'correct'.

The simulation of real life situations and decision-making that is the basis of this package makes it most suitable for senior students and trainees, and especially for professional training (or retraining) courses.

Do not forget to also refer to the package on *Cleaner Production* for teaching the underlying concepts and approaches in this workbook.

Finally, we must stress again that this package does not cover all aspects of the subject. Its prime purpose is to lead trainers into this field, and to help and encourage them to develop their own material, appropriately tailored to their specific learning situation. UNEP is prepared to work further with trainers who wish to extend this package into new directions, or go into greater depths on some subjects.

## How to start a training activity based on this package

**1** *Remember that this is a starters kit*, not a complete recipe book. Remember also that the workbook aims to develop insights and decision-making skills, not to convey knowledge or facts.

**2** *Understand the needs of your trainees*. What insights or skills do you intend to develop? Define your learning objectives.

**3** *Refresh your memory* by reading some of the background papers and studying the overhead transparencies. Write your own notes in the spaces provided.

**4** *Identify some expert resource persons* who could be invited as tutors to help you in discussion sessions.

**5** *Select some of the exercises* you wish to present to trainees.

**6** *Examine carefully the case study or scenario* on which they are based. Be sure that you have at least one solution to the exercise that you can explain and defend.

**7** *Develop other exercises* or questions yourself.

**8** *Develop your own local case study* if you can, and use this instead of the one in the package.

**9** *Prepare some background questions* and preliminary exercises for trainers to carry out before they start the workshop/course.

**10** *In session, summarize the issues* for trainees using the overheads given, and others you may have. Discuss the problems and difficulties decision-makers face. Discuss where factual information can be found to help in decision-making.

**11** *Commence the work sessions*, preferably in small groups, and preferably guided by

a tutor. Discuss and compare results. Be open to ideas and experiences from trainees, and discuss these.

**12** *Return to the learning objectives*, and check that they have been achieved.

**13** *Consider how to follow up* and reinforce the learning experience by establishing some ongoing projects, or periodic reunions.

*Refer also to other packages and workbooks, where useful additional teaching material is found.*

To facilitate using this package, the header of odd-numbered pages describes the contents of that particular section. This information is also repeated in the footer of even-numbered pages. You can track your progress through the package by referring to the calibrations on the bar across the bottom of odd-numbered pages:



The shading shows your current position in the text.



*Part 1*

**Introduction**

<i>1.1 This package.....</i>	<b>I:4</b>
<i>1.2 Contents of this package .....</i>	<b>I:4</b>

# 1 Introduction

Many teaching institutions and individual trainers have difficulty in following the rapid evolution of environmental issues that are relevant to their courses.

This is particularly true when teaching subjects such as pollution and environmental management. And yet it is important that new graduates have a good knowledge of issues in which they may eventually provide consulting services or policy advice to governments and industry.

The fact that development and environment are interrelated means that it is more vital than ever that:

- *all professionals have a basic environmental literacy that helps them to incorporate environmental priorities into their specialized work, whatever their profession;*
- *specialized environmental courses are relevant to today's environmental agenda.*

In 1993, in response to these findings, UNEP, WHO, and ILO jointly initiated the programme on Training Approaches for Environmental Management in Industry. The programme aims to enhance the capacity of national institutions to offer local training on topics concerned with the prevention of industrial pollution.

In this context, trainers' packages have been prepared on different areas of environmental management. These packages are intended to help educators and trainers to develop their own workshops or curricula, or to integrate some of the ideas and information into already existing teaching programmes.

*It is important to keep in mind that these training resource packages merely provide a first orientation to the topic.*

*In no way does the package constitute a 'course' in its own right.*

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