

## INTRODUCTION

While the discussion in Parts I through III of this book has been mainly at the conceptual and theoretical level, in this part we present selected case studies. They serve to demonstrate the importance of the phenomenon of joint production in ecological-economic systems, to show the potential of the concept of joint production for analysing economy-environment interactions, and to illustrate the general results of the analysis obtained so far.

While many of the characteristics of joint production are eminent in most economy-environment interactions, the case studies in Part IV are selected such that each one highlights one particular aspect of joint production. Chapter 15 presents the case of waste paper, which is centred around the price ambivalence of this joint output. Chapter 16 discusses the history of the soda and chlorine industries, which illustrates the important role of joint production for innovation and industrial evolution. With the example of cement production, Chapter 17 shows how the development of an industry is being shaped by joint production and stock dynamics, with the result of increasing complexity. Finally, Chapter 18 uses the example of sulphuric acid to demonstrate how the ambivalence of joint products leads to the policy problem of joint externalities.

