CHAPTER 4
RECYCLING ELECTRONICS—PRELIMINARY PRACTICAL AND LEGAL VIEWPOINTS

In order to understand how contemporary environmental law and policy are embodied in electronics recycling-related measures in the European Community and the United States, an overview of the social sciences, natural sciences as well as technical and economic perspectives of the issue seems necessary.¹ This general introduction is followed by a more elaborate discussion on six specific areas of recycling—such as the recovery schemes, the division of responsibilities and the use of market based tools. The six specific areas will be discussed in separate Chapters 5–10 of Part III of this book. At that point the discourse will also be integrated with the trade law aspects of the matter.

4.1 THE ENVIRONMENTAL RATIONALE OF RECYCLING ELECTRONICS

The phenomenon “recycling” is founded on a complicated mosaic of diverging reasons. On the most general and abstract level, recycling builds on altruism. Altruism, on the other hand, is closely related to the environmental reasons for recycling.

¹ Ackerman (1997, at 2–3) has noted, that there is an odd disconnection between the practice and theory of recycling. On the one hand, recycling is ubiquitous. It continues to constantly expand into new product sectors (such as electrical and electronic equipment). On the other hand there is rather limited thorough academic social sciences research on the phenomenon and its role in the overall environmental policy. There seems to be nevertheless abundant literature on solid waste management, where recycling is treated as one part of that systemic entity. Ackerman’s book (1997) is one of the few that focuses on recycling, and treats the subject holistically, not just some aspect of it. From the perspective of law and also from the perspective of recycling electronics in particular, the literature consists mainly of focused and rather technical short analyses of the subject.
Recycling is a means of reducing the generation and disposal of waste. The environmental benefits of reducing waste through recycling may be categorized through product life-cycle thinking, because recycling—understood in this book in the wider sense of the term—protects the environment in many phases during a product’s life. The depletion of natural resources in the initial material extraction phase may, for instance, be decreased by using recycled rather than virgin materials. The production and use of electrical and electronic devices consumes considerable amounts of materials and energy. The environmental benefit of reusing or recycling a product or the materials that it contains may be many times greater at the material extraction phase of the economy than in manufacturing or assembly phases.

See however Martin (Martin, Kay, “Flow Control: the Wisdom of Doing Without.” MSW Management, May/June (1995), at 6, 8), who points out that the environmental strategy must be balanced. Monopolistic waste treatment entities may in Martin’s view attempt to sweep aside resource conservation and prevention incentives.

It has been rightly pointed out (see Koomey, Jonathan et al., “Sorry, Wrong Number: The Use and Misuse of Numerical Facts in Analysis and Media Reporting of Energy Issues.” Annual Review of Energy and the Environment, Vol. 27, No. 1 (2002), at 119–158), however, that one should remain critical in assessing quantitative environmental data. Indeed, the more complicated the analyzed systems are, the greater are the difficulties in obtaining objective and comparable data. Due to the complex, networked and global nature of the industry, electronics are clearly at risk in this respect.

When a ton of a primary substance need not be produced, the amount of, e.g., mining and ore processing wastes avoided reaches easily tens or hundreds of tons (Macdonald, Fran et al., Regulating Waste: Research into Government Measures to Encourage Minimisation and Recycling of Post-Consumer Wastes in