Book review

SUSTAINABLE RESOURCE MANAGEMENT

Stefan Bringezu and Raimund Bleischwitz. Greenleaf Publishing, 2009.
ISBN-13: 9781906093266, £40, 338 pp.

Since the often-repeated phrase of the past ten years has been 'we are dealing with resources not waste', it is good to see a new publication taking a resource-based view of national and regional economies. Its publication is timely, given the increasing concern about the availability and sustainability of both renewable and non-renewable resources. This book, subtitled 'Global trends, visions and policies', arises from a variety of projects carried out for the EU and the German government, including supporting the EU thematic strategy on resources. Authored by researchers at the Wuppertal Institute, it attempts to provide analysis of material flows through economies, two detailed case studies, a vision of what sustainable resource use might look like and a range of specific policies to move countries in this direction. It is written from an EU/developed country perspective. If it has a key message, it is that pollution abatement must be allied with resource conservation to give globally improved environmental outcomes: end-of-pipe pollution abatement strategies alone can be counterproductive.

The starting point is an analysis of the different indicators and methods that can be used to describe what the authors term the socio-industrial metabolism. A minor criticism is that a number of descriptors like this are coined; while some of these descriptors work, sometimes a series of more common words might be more easily understood. Conventional economy-wide indicators of input, output and consumption are described and to these, the researchers have added indicators that incorporate the effect of land use, so that renewable resources can be more accurately analysed. This is particularly important considering biofuels, one of the detailed case studies that is provided. Incorporating such analysis, the researchers demonstrate the potential for net negative environmental impacts of first-generation biofuels that are produced in competition with food crops. The other case study is of platinum, which demonstrates the green paradox, that many products used in environmental applications have themselves a high environmental impact in their mining and extraction. Indeed the authors produce an interesting comparison of the environmental payback for a number of pollutants on the use of platinum, showing that in some areas the use of the metal in catalytic converters has a net negative impact on the environment. They conclude that end-of-pipe environmental solutions such as these often simply displace negative environmental impacts to another medium or geographical location, rather than give an overall positive environmental outcome.

Another message from the studies in the book is the need to take into account the environmental impact of imported materials in their countries of production. This is consistent with several other recent studies published in the UK, which point to the significant upwards trend in greenhouse gas emissions from the UK once imports have been taken into account. Thus the EU (including the UK) is essentially exporting much of its pollution, albeit often to willing countries with systems set up to favour export manufacturing, and then reimporting this embodied impact in products.

The researchers consider the availability of non-renewable resources. They conclude that problems arise for the 'biogeosphere' from the process of accessing these resources, rather than in their declining availability. The problem with renewable resources is largely over-exploitation (for example, over-fishing) and the use of large quantities of intensively cultivated land combined with high environmental impact of cultivation.

A vision of how to attain a steady state in the stocks of materials is outlined; a vision that seems to be a highly aspirational one, albeit populated with some examples, but some concepts seem too far away from current reality and not linked to the policies that might make them happen. The more near-term policy measures advocated in the last chapter largely relate to policies that can be pursued by the EU. Some of these are more illustrative and are statements of intent rather than realistic methods of attaining ambitious goals. In reality, realisation of objectives must come from organisations such as businesses, guided and incentivised by strong, long-term national legislation that gives clear indications of the desired direction of travel. The researchers, however, have set out the breadth and scale of the challenge of creating a sustainable resource management strategy, and demonstrated convincingly how early attempts have even been counterproductive. They have also indicated the direction that such a strategy will have to take – achieving resource conservation concurrently with pollution abatement, making changes at a systems level rather than just individual product or business improvements, creating lead markets and changing economic incentives.

Altogether this is a good introduction to the management of natural resources for developed countries suitable for the consultant or researcher.

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