using land to grow crops for food and in conversion of natural or semi-natural landscapes. The aim of this book is to map routes of sustainable bioenergy use and to provide guidance for policy makers to develop a framework for sustainable use of biomass for energy.

The book builds on a special report by the German Advisory Council on Global Change (WBGU). It examines, in detail, the issues surrounding bioenergy from a global perspective and depicts differing motives of industrial, newly industrializing and developing countries in connection with use of biomass for energy. More than 60 bioenergy pathways are assessed, including traditional biomass use, biogenic wastes, and residues and energy crops, in terms of their contribution to global shift towards sustainable energy systems.

A comprehensive summary for policy makers is provided at the start of the book (in the preamble), but is not mentioned in the Contents so could be missed. Policy recommendations given are aspirational and laudable, but a slight criticism is that this chapter could be improved by more fully taking into account the reality of current market structures and technical maturity of various bioenergy processes.

In conclusion, the book provides an excellent resource for those working in this area and for students of environmental technology, in addition to providing thought-provoking material for policy makers.

Elaine Booth

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Soil Quality and Biofuel Production. By R. Lal and B. A. Stewart. Boca Raton Fl, USA: CRC Press (2010), pp. 201, £82.00. ISBN 978-1-4398-0073-7.

This book addresses a highly controversial area of science, namely the long-term ecological sustainability of biofuel production. From this perspective the book is very timely and should be read by anyone interested in the current debate surrounding the selection of options for greenhouse gas mitigation. The editors nicely bring together 27 authors, largely from Austria, USA and Brazil, in a series of eight chapters to present a state-of-the-art review of soil properties and processes impacted upon by biomass crop harvesting. Overall, the book takes a global view although some authors do focus on their own national data to exemplify key issues. The chapters address the ecological consequences of a range of biofuel/bioenergy production systems. It offers advice for maintaining soil quality in such systems and achieving economic balance in the competition for arable land between food and biofuel production. One strong aspect of the book is that each chapter contains a good final summary allowing the reader to become quickly versed with the major issues. The final synopsis chapter also highlights current major areas of uncertainty and future research directions. It clearly highlights the complexity in assessing the sustainability of biofuel production systems and the need to take a holistic view.

In summary, the book is well written and contains lots of valuable information. The presentation and figures are of high quality and the book contains a wealth of information suitable for a range of audiences. In my opinion this book represents a worthy purchase although the price is somewhat restrictive for students. It will make good reading for many agronomy, plant nutrition and agricultural extension professionals.

Davey Jones

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Soil Biochemistry. By K. Haider and A. Schaffer. Enfield, NH, USA: Science Publishers (2009), £40.00, pp. 116. ISBN 978-1-57808-579-8.

Micro-organisms are of fundamental importance in soil development and productivity, and therefore, in turn, of prime significance for agriculture and human health. This book gives an account of the important processes that are driven by microbial activity in soil, and is an updated translation of the book originally published in German. It is clearly written, albeit with a rather abrupt or note-like style (perhaps a consequence of the translation), but this makes presentation of key facts and statements very clear. The book opens with a survey of soil properties and methods for microbe quantification, with two chapters then detailing aerobic and anaerobic organic matter decomposition, with emphasis on plant materials. N, S and P turnover in soil is then