

BREAKING NEW GROUND

BREAKING NEW GROUND

Mining, Minerals, and
Sustainable Development

The Report of the MMSD Project



EARTHSCAN

Earthscan Publications Ltd, London and Sterling, VA

First published in the UK and USA in 2002
by Earthscan Publications Ltd

Copyright © International Institute for Environment and Development and World Business Council for Sustainable Development, 2002

Extracts from this book may be reproduced for non-commercial purposes without permission provided full acknowledgement is given to the author and publisher as follows:

Mining, Minerals and Sustainable Development (MMSD) Project
Published by Earthscan for IIED and WBCSD

ISBN: 1 85383 907 8 paperback
1 85383 942 6 hardback

Printed and bound in the UK by Thanet Press Ltd
Design and layout by Spencer Landor and Asset Graphics
Cover photographs © MMSD and Rio Tinto plc

Photo credits: Adrian Arbib/Still Pictures: p. 291; Anglo American: pp. 123, 136, 185, 212, and 217; Alan Baker: p. 265; Anne-Marie Fleury: p. 197; Adrian Phillips: p. 165; Ben Sandbrook: pp. 3, 9, 13, 27, 33, 57, 85, 111, 141, 203, 269, 271, and 361; Frank McShane: p. 113; Gabriela Flores: p. 176; Klein/Hubert/Still Pictures: p. xiii; Luke Danielson: pp. 3, 147, 231, 233, 287, 313, 335, and 357; Meredith Sassoon: pp. 151, 160, 227, and 308; Peter Frischmuth/Still Pictures: p. 108; Richard Sandbrook: pp. 171 and 375; Rio Tinto plc: pp. 73, 255, and 295; Ron Giling/Still Pictures: p. 345; Silvia Kyeyune: p. 3; Tricia Caswell: pp. 3, 12, 31, and 369.

Earthscan Publications Ltd
120 Pentonville Road, London, N1 9JN, UK
Tel: +44 (0)20 7278 0433
Fax: +44 (0)20 7278 1142
Email: earthinfo@earthscan.co.uk
Web: www.earthscan.co.uk

22883 Quicksilver Drive, Sterling, VA 20166-2012, USA

Earthscan is an editorially independent subsidiary of Kogan Page Ltd and publishes in association with WWF-UK and the International Institute for Environment and Development

A catalogue record for this book is available from the British Library

Library of Congress Cataloging-in-Publication Data

Breaking new ground : the report of the Mining, Minerals, and Sustainable Development Project, May 2002.
p. cm.

Includes bibliographical references and index.

ISBN 1-85383-907-8 (pbk.) -- ISBN 1-85383-942-6 (hbk.)

1. Mineral industries--Environmental aspects. 2. Sustainable development. I. Mining, Minerals, and Sustainable Development Project.

TD195.M5 B74 2002

338.2--dc21

2002009551

Executive Summaries are also available in French, Spanish, and Portuguese from <http://www.earthprint.com>.

This book is printed on elemental chlorine-free paper. Metallic inks are used in the printing of this book. These contain aluminium particles along with colour pigments. The aluminium particles contained in the ink constitute approximately 20% of the ink compound. This ink does not do any more harm to the environment than other inks. Specific data relating to these metallic inks are available from the printers.

Mining, Minerals and Sustainable Development was a project of the International Institute for Environment and Development (IIED) in London, UK. The project was made possible by the support of the World Business Council for Sustainable Development. IIED is a company limited by guarantee and incorporated in England. Reg. No. 2188452. VAT Reg. No. GB 440 4948 50. Registered Charity No. 800066