The Physical Geography of Africa

edited by

W. M. Adams
A. S. Goudie
and A. R. Orme



OXFORD UNIVERSITY PRESS

SARCHI CHAIR LAW

This book has been printed digitally and produced in a standard specification in order to ensure its continuing availability

OXFORD

UNIVERSITY PRESS

Great Clarendon Street, Oxford OX2 6DP

Oxford University Press is a department of the University of Oxford. It furthers the University's objective of excellence in research, scholarship and education by publishing worldwide in

Oxford New York

Auckland Bangkok Buenos Aires Cape Town Chennai Dar es Salaam Delhi Hong Kong Istanbul Karachi Kolkata Kuala Lumpur Madrid Melbourne Mexico City Mumbai Nairobi Sáo Paulo Shanghai Taipei Tokyo Toronto

Oxford is a registered trade mark of Oxford University Press in the UK and in certain other countries

Published in the United States by Oxford University Press Inc., New York

© Oxford University Press 1996

The moral rights of the author have been asserted

Database right Oxford University Press (maker)

Reprinted 2003

All rights reserved. No part of this publication may be reproduced, stored in a retrieval system, or transmitted, in any form or by any means, without the prior permission in writing of Oxford University Press, or as expressly permitted by law, or under terms agreed with the appropriat reprographics rights organization. Enquiries concerning reproduction outside the scope of the above should be sent to the Rights Department, Oxford University Press, at the address above

You must not circulate this book in any other binding or cover And you must impose this same condition on any acquirer

> ISBN 0-19-823406-6 Printed in Great Britain by Antony Rowe Ltd., Eastbourne

Contents

List of Figures	
List of Plates List of Contributors	X
	xvi
A.T. Grove	xix
C. VITA-FINZI	
Tectonics, Geology, and Long-Term Landscape Development M. A. SUMMERFIELD]
2. The African Rift System C. K. NYAMWERU	18
3. Climate: Past and Present	2
A. S. GOUDIE	34
4. Environmental Change Within the Historical Period S. E. NICHOLSON	60
5. Climate Change Within the Period of Meteorological Records	88
M. HULME 6. Hydrology and Rivers	
D. E. WALLING	103
7. Lakes	122
W. M. ADAMS	122
8. Soils	134
O. AREOLA	late than more
9. The Geomorphology of the Seasonal Tropics	148
A. S. GOUDIE	
10. Biogeography	161
M. E. MEADOWS 11. Forest Environments	
A. GRAINGER	173
12 Savanna Environments	106
M. E. ADAMS	196
13. Desert Environments	211
N. LANCASTER	211
14. Coastal Environments	238
A. R. ORME	250
15. Wetlands	267
F. M. R. HUGHES	
16. Mountains	287
D. TAYLOR	
I.7. Mediterranean Environments H. D. ALLEN	307
18. Soil Erosion	
M. A. STOCKING	326
19. Desertification	242
A. WARREN	342
20. Biodiversity and Biodepletion	356
N. MYERS	330
21. Conservation and Development	367
W. M. ADAMS	
index	383

SARCHI CHAIR LAW