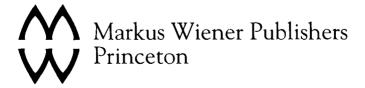
## Deforestation and Reforestation in Namibia

The global consequences of local contradictions

Emmanuel Kreike



## Contents

Acknowledgments			ix
Abbreviations xiii		xiii	
Maps xv	r		
Photos 2	ιvii		

## 1. Approaches to environmental change 1

Models of environmental change 4
The modernization paradigm 8
The declinist paradigm 10
The inclinist paradigm 14
Paradoxes of environmental change

## 2. Tree castles and population bombs 23

Tree castles and insecurity on the eve of colonial conquest 25

Portuguese violence and population fight into Ovamboland 29

Internal migration in South Africa's Ovamboland 30

Tree castles and deforestation in the 1920s to 1940s 35

Colonial concerns about overpopulation and deforestation in the 1950s 39

Population growth in Ovamboland 40

Woody vegetation resources by the close of the twentieth century 43

VI	CONTENTS

The political ecology of insecurity 51

Indirect environmental rule

3. Conquest of Nature: Imperial political ecologies

The colonial conquest of Nature: Direct environmental rule 66
4. Fierce species: Biological imperialism Invading microbes and virgin soil epizootics Invading microbes and virgin soil epidemics A plague of donkeys: Fierce invading equines Fierce indigenous creatures on the rampage  101
5. Guns, hoes and steel:
Techno-environmental determinism 113  Guns 114  Steel tools 121  Steel plows 127  Guns and steel in north-central Namibia 137
6. Naturalizing cattle culture: Colonialism as a deglobalizing and
decommodifying force 139  The cattle complex and environmental degradation 141  Ovambo cattle as global commodities 143  Cattle, culture and nature 144  Overstocking and biological time bombs 149  Colonial barriers: Conservation and fences 153  Grazing pressure and desertification 156  Livestock and deforestation 157  Commodification, deglobalization and deforestation 159
7. The Palenque paradox: Beyond Nature-to-Culture  Bush cities and the bush  162  'Bushmen' and the bush  168

CONTENTS VII

8. The Ovambo paradox and environmental pluralism 177

Deforestation in Ovamboland 182

Reforestation in Ovamboland 186

Environmental pluralism: Multiprocessual asynchronous environmental change 190

Bibliography 197 Index 217