1

PM-1 3 1/2" x 4" PHOTOGRAPHIC MICROCOPY TARGET
NBS 1010a ANSI/ISO #2 EQUIVALENT

PRECISIONSM RESOLUTION TARGETS

National Library
of Canada

Acquisitions and
Bibliographic Services Branch

395 Wellington Street
Ottawa, Ontario
K1A 0N4

Bibliothèque nationale
du Canada

Direction des acquisitions et
des services bibliographiques

395 rue Wellington
Ottawa (Ontario)
K1A 0N4

Document 100-100000

Document 100-100000

NOTICE

The quality of this microform is heavily dependent upon the quality of the original thesis submitted for microfilming. Every effort has been made to ensure the highest quality of reproduction possible.

If pages are missing, contact the university which granted the degree.

Some pages may have indistinct print especially if the original pages were typed with a poor typewriter ribbon or if the university sent us an inferior photocopy.

Reproduction in full or in part of this microform is governed by the Canadian Copyright Act, R.S.C. 1970, c. C-30, and subsequent amendments.

AVIS

La qualité de cette microforme dépend grandement de la qualité de la thèse soumise au microfilmage. Nous avons tout fait pour assurer une qualité supérieure de reproduction.

S'il manque des pages, veuillez communiquer avec l'université qui a conféré le grade.

La qualité d'impression de certaines pages peut laisser à désirer, surtout si les pages originales ont été dactylographiées à l'aide d'un ruban usé ou si l'université nous a fait parvenir une photocopie de qualité inférieure.

La reproduction, même partielle, de cette microforme est soumise à la Loi canadienne sur le droit d'auteur, SRC 1970, c. C-30, et ses amendements subséquents.

**SUSTAINABLE DEVELOPMENT, GLOBAL ECOLOGY
AND THE SPACE FOR LOCAL KNOWLEDGE:
WILDLIFE CONSERVATION IN NAMIBIA**

by

Peter W. Brundin

A thesis submitted to
the Faculty of Graduate Studies and Research
in partial fulfilment of
the requirements for the degree of

Master of Arts

Department of Geography

**Carleton University
Ottawa, Canada
January 1996**

© January 1996, Peter W. Brundin

National Library
of Canada

Acquisitions and
Bibliographic Services Branch

395 Wellington Street
Ottawa, Ontario
K1A 0N4

Bibliothèque nationale
du Canada

Direction des acquisitions et
des services bibliographiques

395 rue Wellington
Ottawa (Ontario)
K1A 0N4

Texte imprimé

Texte imprimé

The author has granted an irrevocable non-exclusive licence allowing the National Library of Canada to reproduce, loan, distribute or sell copies of his/her thesis by any means and in any form or format, making this thesis available to interested persons.

L'auteur a accordé une licence irrévocable et non exclusive permettant à la Bibliothèque nationale du Canada de reproduire, prêter, distribuer ou vendre des copies de sa thèse de quelque manière et sous quelque forme que ce soit pour mettre des exemplaires de cette thèse à la disposition des personnes intéressées.

The author retains ownership of the copyright in his/her thesis. Neither the thesis nor substantial extracts from it may be printed or otherwise reproduced without his/her permission.

L'auteur conserve la propriété du droit d'auteur qui protège sa thèse. Ni la thèse ni des extraits substantiels de celle-ci ne doivent être imprimés ou autrement reproduits sans son autorisation.

ISBN 0-612-08937-1

Name _____

Dissertation Abstracts International is arranged by broad, general subject categories. Please select the one subject which most nearly describes the content of your dissertation. Enter the corresponding four-digit code in the spaces provided.

--	--	--	--

U·M·I

SUBJECT TERM

SUBJECT CODE

Subject Categories

THE HUMANITIES AND SOCIAL SCIENCES

COMMUNICATIONS AND THE ARTS

Architecture 0729
Art History 0377
Cinema 0900
Dance 0378
Fine Arts 0357
Information Science 0723
Journalism 0391
Library Science 0399
Mass Communications 0708
Music 0413
Speech Communication 0459
Theater 0465

EDUCATION

General 0515
Administration 0514
Adult and Continuing 0516
Agricultural 0517
Art 0273
Bilingual and Multicultural 0282
Business 0688
Community College 0275
Curriculum and Instruction 0727
Early Childhood 0518
Elementary 0524
Finance 0277
Guidance and Counseling 0519
Health 0680
Higher 0745
History of 0520
Home Economics 0278
Industrial 0521
Language and Literature 0279
Mathematics 0280
Music 0522
Philosophy of 0998
Physical 0523

Psychology 0525
Reading 0535
Religious 0527
Sciences 0714
Secondary 0533
Social Sciences 0534
Sociology of 0340
Special 0529
Teacher Training 0530
Technology 0710
Tests and Measurements 0288
Vocational 0747

LANGUAGE, LITERATURE AND LINGUISTICS

Language 0679
 General 0289
 Ancient 0290
 Linguistics 0291
 Modern
Literature 0401
 General 0294
 Classical 0295
 Comparative 0297
 Medieval 0298
 Modern 0316
 African 0591
 American 0305
 Asian 0352
 Canadian (English) 0355
 Canadian (French) 0593
 English 0311
 Germanic 0312
 Latin American 0315
 Middle Eastern 0313
 Romance 0314
 Slavic and East European

PHILOSOPHY, RELIGION AND THEOLOGY

Philosophy 0422
Religion
 General 0318
 Biblical Studies 0321
 Clergy 0319
 History of 0320
 Philosophy of 0322
Theology 0469

SOCIAL SCIENCES

American Studies 0323
Anthropology
 Archaeology 0324
 Cultural 0326
 Physical 0327
Business Administration
 General 0310
 Accounting 0272
 Banking 0770
 Management 0454
 Marketing 0338
Canadian Studies 0395
Economics
 General 0501
 Agricultural 0503
 Commerce-Business 0505
 Finance 0508
 History 0509
 Labor 0510
 Theory 0511
Folklore 0358
Geography 0366
Gerontology 0351
History
 General 0578

Ancient 0579
Medieval 0581
Modern 0582
Black 0328
African 0331
Asia, Australia and Oceania 0332
Canadian 0334
European 0335
Latin American 0336
Middle Eastern 0333
United States 0337
History of Science 0585
Low 0398
Political Science
 General 0615
 International Law and Relations 0616
 Public Administration 0617
Recreation 0814
Social Work 0452
Sociology
 General 0626
 Criminology and Penology 0627
 Demography 0938
 Ethnic and Racial Studies 0631
 Individual and Family Studies 0628
 Industrial and Labor Relations 0629
 Public and Social Welfare 0630
 Social Structure and Development 0700
 Theory and Methods 0344
Transportation 0709
Urban and Regional Planning 0999
Women's Studies 0453

THE SCIENCES AND ENGINEERING

BIOLOGICAL SCIENCES

Agriculture
 General 0473
 Ag.onomy 0285
 Animal Culture and Nutrition 0475
 Animal Pathology 0476
 Food Science and Technology 0359
 Forestry and Wildlife 0478
 Plant Culture 0479
 Plant Pathology 0480
 Plant Physiology 0817
 Range Management 0777
 Wood Technology 0746
Biology
 General 0306
 Anatomy 0287
 Biostatistics 0308
 Botany 0309
 Cell 0379
 Ecology 0329
 Entomology 0353
 Genetics 0369
 Limnology 0793
 Microbiology 0410
 Molecular 0307
 Neuroscience 0317
 Oceanography 0416
 Physiology 0433
 Radiation 0921
 Veterinary Science 0778
 Zoology 0472
Biophysics
 General 0786
 Medical 0760

EARTH SCIENCES

Biogeochemistry 0425
Geochemistry 0996

Geodesy 0370
Geology 0372
Geophysics 0373
Hydrology 0388
Mineralogy 0411
Paleobotany 0345
Paleoecology 0426
Paleontology 0418
Paleozoology 0985
Palynology 0427
Physical Geography 0368
Physical Oceanography 0415

HEALTH AND ENVIRONMENTAL SCIENCES

Environmental Sciences 0768
Health Sciences
 General 0566
 Audiology 0300
 Chemotherapy 0992
 Dentistry 0567
 Education 0350
 Hospital Management 0769
 Human Development 0758
 Immunology 0982
 Medicine and Surgery 0564
 Mental Health 0347
 Nursing 0569
 Nutrition 0570
 Obstetrics and Gynecology 0380
 Occupational Health and Therapy 0354
 Ophthalmology 0381
 Pathology 0571
 Pharmacology 0419
 Pharmacy 0372
 Physical Therapy 0302
 Public Health 0573
 Radiology 0574
 Recreation 0575

Speech Pathology 0460
Toxicology 0383
Home Economics 0386

PHYSICAL SCIENCES

Pure Sciences
Chemistry
 General 0485
 Agricultural 0749
 Analytical 0486
 Biochemistry 0487
 Inorganic 0488
 Nuclear 0738
 Organic 0490
 Pharmaceutical 0491
 Physical 0494
 Polymer 0495
Radiation 0754
Mathematics 0405
Physics
 General 0605
 Acoustics 0986
 Astronomy and Astrophysics 0606
 Atmospheric Science 0608
 Atomic 0748
 Electronics and Electricity 0607
 Elementary Particles and High Energy 0798
 Fluid and Plasma 0759
 Molecular 0609
 Nuclear 0610
 Optics 0752
 Radiation 0756
 Solid State 0611
Statistics 0463

Applied Sciences

Applied Mechanics 0346
Computer Science 0984

Engineering
 General 0537
 Aerospace 0538
 Agricultural 0539
 Automotive 0540
 Biomedical 0541
 Chemical 0542
 Civil 0543
 Electronics and Electrical 0544
 Heat and Thermodynamics 0348
 Hydraulic 0545
 Industrial 0546
 Marine 0547
 Materials Science 0794
 Mechanical 0548
 Metallurgy 0743
 Mining 0551
 Nuclear 0552
 Packaging 0549
 Petroleum 0765
 Sanitary and Municipal 0554
 System Science 0790
Geotechnology 0428
Operations Research 0796
Plastics Technology 0795
Textile Technology 0994

PSYCHOLOGY

General 0621
Behavioral 0384
Clinical 0622
Developmental 0620
Experimental 0623
Industrial 0624
Personality 0625
Physiological 0989
Psychobiology 0349
Psychometrics 0632
Social 0451

The undersigned recommend to the Faculty of Graduate Studies
and Research acceptance of the thesis

**SUSTAINABLE DEVELOPMENT, GLOBAL ECOLOGY
AND THE SPACE FOR LOCAL KNOWLEDGE:
WILDLIFE CONSERVATION IN NAMIBIA**

submitted by Peter W. Brundin, B.Sc. (Hon)
in partial fulfilment of the requirement for
the degree of Master of Arts

Thesis Supervisor

Chair, Department of Geography

Carleton University

ABSTRACT

This thesis will examine the philosophical origins of global sustainable development and their influence on the present course of environmentalism. It is argued that sustainable development has created a global ecology which limits the space for the utilization of local knowledge and participation. It is further suggested that the larger the territorial view of environmental actors, the more constricted the discursive and socio-political space becomes for recognizing, defining and solving environmental problems.

The thesis utilizes a case study of a community-based natural resource management program in Namibia and its potential impact on the OvaHimba of Kaokoland within the context of a conceptual framework which challenges the underpinnings and validity of prevalent notions and practices of sustainable development.

ACKNOWLEDGEMENTS

There are many people who deserve recognition for their help with this thesis. First, I would like to extend my sincerest thanks to my supervisor, Dr. D.R. Fraser Taylor, for his constant support and encouragement during the course of the thesis. His willingness to give me the time I needed to write and then almost instant turnaround time was greatly appreciated. I would also like to thank OPIRG-Carleton for their financial assistance and CUPE 2323, the Carleton TA/RA Union, for the use of their printer.

I would like to warmly thank all the Namibians who took the time to participate in this study. I hope it is of some use to you. Special thanks go to Harry and Dominic for providing me with food, shelter and a sense of wonder while in Windhoek. I would also like to thank Tzjakapi Mangu for translating in Okangwati. And a big thank you to Benestus Humu and Jephta 'two-shot' Kaurimuje for their friendship, good humour and insights they provided on Herero/Himba culture while in Etanga and Opuwo.

This thesis was a long process for me and a number of people have made it bearable at one time or another. Thanks to: my sibs and their partners, and my parents, Bob and Gretchen Brundin, for their support, both financial and emotional all these years, and to my late grandmothers Dorothy Pauli and Eleanor Brundin for their continuing inspiration; all my first year colleagues, esp. robin, marina and fons; the 245 Nepean crew (jer, kevin, easton); CUPE 2323 (esp pam, steph, stuart, paul and michle); and of course everyone who has passed through 500 Metcalfe, lisa g, keith, gail, heather, stephine, lisa j, trish, issac, and kevin to name a few and forget too many.

Finally, without the help of four people this thesis never would have happened. Mary Liao who, encouraged and assisted me in developing a proposal for research in Namibia, opening up her house and home to me in the process. Christofer Wärnlöf from the University of Gothenburg, Sweden took me under his wing (and up to Kaokoland) when my finances collapsed in Namibia providing me with food, beer, wisdom and fun (and not necessarily in that order). Kim Winnicky redefined the meaning of friendship while we struggled to keep each other in the MA program. And, Mona Marshy supported and encouraged me through first-year course hell and throughout the struggle to write this thesis. My humblest thanks to all of you.

Errors and omissions to this thesis are, of course, entirely my own.

TABLE OF CONTENTS

	Page
Acceptance Sheet	ii
Abstract	iii
Acknowledgements	iv
Table of Contents	v
List of Figures	vii
List of Abbreviations and Acronyms	viii
 CHAPTER ONE -- INTRODUCTION	
1.1 Statement of Problem	1
1.2 The Local Context	2
1.3 Aims of the Research	4
1.3.1 Goals of the thesis	4
1.3.2 Objectives	6
1.4 Overview of Environment and Development	7
1.4.1 The development crisis	7
1.4.2 The environmental crisis	10
1.5 Organization of the Thesis	14
 CHAPTER TWO -- THE PHILOSOPHY OF SUSTAINABLE DEVELOPMENT AND THE RISE OF GLOBAL ECOLOGY	
2.1 Introduction	17
2.2 Scientific Rational of Sustainable Development	21
2.3 Progress and Scarcity	27
2.4 One World: The rise of global ecology	31
2.4.1 The new ecology	31
2.4.2 The co-option of environmentalism	32
2.4.3 The image of 'one world'	34
2.4.4 The hegemony of global ecology	37
2.4.5 Eliminating the local	38
2.5 Theoretical Framework	40
2.6 Reclaiming Space for the 'Local'	44
2.7 Development Directions	48
2.8 Participation	50
 CHAPTER THREE -- METHODOLOGY	
3.1 Choice of Methodology	55
3.2 Rapid and Participatory Rural Appraisal	58
3.2.1 Development of RRA/PRA	58
3.2.2 RRA/PRA methods and field work design	62
3.3 Limitations to RRA/PRA	66

CHAPTER FOUR -- CONTEXT OF THE CASE STUDY	
4.1 Namibia Historical Background	68
4.1.1 Physical geography	68
4.1.2 Colonialism and apartheid	71
4.1.3 SWAPO, war and Independence	73
4.2 Kaokoland Background	75
4.2.1 History	75
4.2.2 Physical and cultural geography	77
4.2.3 OvaHimba history and culture	79
4.3 Conservation in Africa	86
4.3.1 Historical background	86
4.3.2 Current directions	89
4.4 Conservation in Namibia	90
 CHAPTER FIVE -- CASE STUDY AND DISCUSSION	
5.1 Introduction	93
5.2 Research Process	95
5.3 Finding 1: Conservation Approaches from 'Above'	98
5.3.1 The LIFE Program	98
5.3.2 Draft Conservancy Policy for Communal Lands	105
5.4 Conservation in Namibia: global ecology?	107
5.5 Findings 2: Conservation amongst the OvaHimba	111
5.6 Implications of Institutional Wildlife Conservation in Kaokoland	116
 CHAPTER SIX -- CONCLUSION	
6.1 Summary	119
6.2 The Methodology Revisited	121
6.3 Concluding Remarks	123
 BIBLIOGRAPHY	125

LIST OF FIGURES

	Page
Fig 1. Spaces for knowledge, action and participation	41
Fig 2. Namibia and its neighbours	68
Fig 3. Precipitation in Namibia	70
Fig 4. Population centres in Kaokoland	76
Fig 5. Ethnic Dispersion in Kaokoland	81

LIST OF ABBREVIATIONS AND ACRONYMS

CBNRM	Community-based natural resource management
CMC	Community management committee
IIED	International Institute on Environment and Development
IRDNC	Integrated Rural Development and Nature Conservation
IUCN	International Union for the Conservation of Nature
LIFE	Living in a Finite Environment
MET	Ministry of Environment and Tourism
NGO	Non-governmental organization
PLAN	People's Liberation Army of Namibia
PRA	Participatory rural appraisal
RRA	Rapid rural appraisal
SADF	South Africa Defence Force
SWAPO	South West Africa People's Organization
SWANU	South West Africa National Union
TNC	Transnational corporation
UNCED	United Nations Conference on Environment and Development
UNITA	Union for the Total Independence of Angola
USAID	United States Agency for International Development
WCED	World Commission on Environment and Development
WWF	World Wide Fund for Nature

CHAPTER ONE: INTRODUCTION

1.1 Statement of the Problem

Since the late 1980s there has been widespread acceptance that environment and development issues are inextricably linked. Environment and development theory have been tied together in what is generally referred to as "sustainable development" approaches. Underlying this thesis is an argument that suggests the concept of sustainable development as conceived at the global level does little to address the fundamental causes of poverty and ecological degradation. Moreover, the concept of sustainable development as presented in the final report of the World Commission on Environment and Development (WCED) and the United Nations Conference on Environment and Development (UNCED) represents a co-option of the 'language of resistance' (Shiva 1993a) environmentalism once had. During the WCED and UNCED processes, sustainable development conceived of environmental problems on a global rather than local or regional scale, giving rise to what has been termed 'global ecology'¹ (Sachs 1993).

This thesis explores the possibility that 'global ecology' limits the space for the utilization of local knowledge, as well as the space for local communities to define

¹ Global ecology refers to the growing tendency for environmental degradation to be conceived as a problem in which all the world's peoples equal share equal blame and responsibility.

how they will participate or not participate in environmental projects. This space becomes more limited as the institutional frameworks within which local communities must act, adhere to more narrow conceptualizations of environmental problems. It is suggested that the larger the global view of environmental actors, the more constricted the discursive and socio-political space becomes for recognizing, defining and solving environmental problems. It is argued that environmental problems are better addressed at the local scale. This conceptual framework is outlined in chapter two and provides the context for an analysis of the potential of local wildlife conservation in Namibia among, in particular, the OvaHimba. Data were gathered during seventeen weeks of fieldwork in Namibia between December and April 1994-95. Data were collected through interviews in two OvaHimba communities in Kaokoland², and with representatives from non-governmental organizations (NOGs), government officials and academics.

1.2 The Local Context

The OvaHimba are Herero speaking pastoralists living in northwest Namibia and southwest Angola. Often referred to as 'traditional', mainly because they have not adopted western dress, the Himba are seen by most of Namibian society as 'backward' and in desperate need of 'developing' by most of Namibian society.

² Kaokoland, which along with parts of the former Damaraland, now comprises the newly named Kunene Region.

However, most of Kaokoland remains physically isolated and outside the cash economy. A low and very erratic rainfall, averaging between 300 mm and less than 100 mm per year (Namibia 1993), makes the practice of arable agriculture almost impossible and is often not adequate to ensure constant grazing. In the late 1970s and early 80s a severe drought, which killed 80% of the Himba's cattle, contributed to the almost complete elimination of wild game in Kaokoland. By the mid-80s a community game guard program was developed in western Kaokoland which formed the basis for the LIFE, Living in a Finite Environment, program in the 1990s.

Wildlife conservation has a long history in Namibia stretching back to German colonial times. In 1968 the South African administration introduced legislation transferring the ownership of wildlife on commercial lands (white areas) to ranchers. However, in communal areas wildlife remained, and continues to remain after Independence, in the possession of the State. It is illegal for anyone in communal areas to hunt wild game, with the exception of predators, without the specific permission of the State. In March 1995, legislation was approved by Cabinet that allows the formation of conservancies on communal lands - effectively transferring ownership of wildlife to members of the conservancy. This legislation will be a key component to my analysis.

In 1991 the Living in a Finite Environment (LIFE) program was initiated to support the development and implementation of a national program in community-

based natural resource management (CBNRM). The LIFE program is funded by the U.S. Agency for International Development (USAID) with matching grants from the World Wildlife Fund-US (WWF) and the Namibian Ministry of Environment and Tourism. WWF-US takes the lead in managing the program and serves as a 'buffer' between USAID and Namibian organizations. Program activities are implemented by the Ministry, local non-governmental organizations and other Namibian institutions. The LIFE program aims to "enhance the capabilities of poor, rural communities living on marginal lands to meet their basic human needs by increasing Namibia's resource base and managing its natural resources in a sustainable manner" (LIFE 1995).

1.3 Aims of the Research

1.3.1 Goals of the Thesis

The thesis will explore the growing perception among some environmentalists that ecological issues have been globalized as powerful institutions embrace the notion of environmental sustainability. According to this view, there is a growing tendency towards globalization in human institutions. This trend can most obviously be seen in economics, but I argue it is apparent in such things as language, diet, popular culture and, as this thesis will examine, environmental philosophy. As this globalization progresses it tends to overwhelm local and regional knowledge and action. It should be noted that it is recognized there are strong sub-national and regional movements

that wield considerable power, especially in politics. However, there is some indication that in many social institutions centralizing forces have a tendency to overwhelm or overpower decentralizing forces. Moreover, in Namibia, where the fieldwork for the thesis was carried out, this 'middle', or sub-regional structures do not exist.

The thesis therefore sets out an argument that explores the suggestion that current discourse on the environment is dominated by a conceptualization of ecological crises as necessitating a macro or global perspective and development measures. It examines the possibility that such a conceptualization dictates forms of environmental management and participation from above onto local communities, and encourages the reduction of specific local development approaches to the abstract approaches of the dominant global paradigm. It is suggested that often these macro approaches are based on narrow Western ideas and run counter to local environmental knowledge and management techniques.

The philosophical origins of the dominant Western paradigm, of which the global environmental approach is a part, are explored and critiqued. The attributes of global sustainable development are then examined and their influence on the present course of environmentalism is presented as a critique. It will be suggested that within the environmental movement the wider the scale of action, the more the discourse and debate on sustainability constrains the 'space' for the utilization of local knowledge in

problem solving and development and, I would suggest, actively conspires against it through the 'globalization of the local' (Shiva 1993a).

The thesis then presents a case study of a community-based natural resource management program in Namibia and its potential impact on the OvaHimba within the context of a conceptual framework which explores, and to some extent, challenges the underpinnings and validity of prevalent notions and practices of sustainable development. The LIFE program in Namibia, and its potential for development through conservation in the communities where fieldwork was carried out, is critically assessed for its potential to limit local forms of natural resource management (especially wildlife).

1.3.2 Objectives

The task undertaken in the thesis is to discover to what extent national and international actors emphasize more 'globalized' conceptualizations of sustainable development as compared to the approaches toward their environment of regional and grassroots actors, and, to what extent this influences local action.

A community-based natural resource management scheme in Namibia, with an emphasis of wildlife conservation, serves as a case study. Specific objectives are:

1. Examine government policy on wildlife conservation in Namibia.

2. Review the environmental approaches to wildlife conservation of the major actors in the LIFE program in Namibia.
3. Conduct field work in Kaokoland with select OvaHimba communities to determine:
 - a) community management practices associated with wildlife
 - b) general community attitudes, perceptions and concerns on wildlife conservation
 - c) community opinions on environmental problems associated with wildlife conservation
4. From above, explore the extent to which new legislation on conservancies, together with the LIFE objectives, will foster or hinder the inclusion of local attitudes and management practices toward wildlife in the OvaHimba communities in which fieldwork was undertaken.

1.4 Overview of Environment and Development

1.4.1 The development crisis

The 'age of development' has lasted little more than fifty years thus far. After WWII the Breton Woods institutions, the World Bank and IMF, were established to help 'underdeveloped' areas move into the 'modern era'. It was believed that those who were lagging behind needed development assistance to catch up to the leaders. This idea is rooted in the powerful assumption that all people of the world are moving along the same track, some faster, some slower, but all in the same direction.

This belief has its origins in the universalism of the European Enlightenment. The world was conceived as an economic arena where individuals and nations,

detached from the bonds of their communities, compete for a better position on the GNP scale. 'Progress' was deemed to be a universal, historical quest, defined by economic expansion and the continual acquisition of material goods (Capra 1982). The immense cultural diversity of the South was seen to be a hinderance to progress and development. Development, therefore, inevitably called for absorbing the difference in the world into an 'ahistorical and delocalized universalism of European origin' (Sachs 1992:104). Wolfgang Sachs (1993:5) notes that many areas required,

a cultural transformation, for many 'old ways' of living turned out to be 'obstacles to development'. The ideals and mental habits, patterns of work and modes of knowing, webs of loyalties and rules of governance in which the South's people were steeped, were usually at odds with the ethos of an economic society. In the attempt to overcome these barriers to growth, the traditional social fabric was often dissected and reassembled according to the textbook models of macro-economics.

After almost 50 years, it would seem that 'development' as an industry and an ideology is in crisis (Sachs 1992). The lofty goal of creating a level playing field so all the world's peoples would have a fair chance running the economic race has failed to materialize. The gap between front-runners and stragglers has not been bridged, but instead has widened. In the 1980s, the combined GNPs of the South shrank 15% while the industrial countries rose 80% (Sachs 1993:5). Moreover, the social conditions for the majority of the population in many countries have not improved in comparison with industrial countries over the last four decades. Life expectancy, infant mortality, problems of debt, falling commodity prices, falling per capita food

production, and growing urbanization with its attendant unemployment and poverty all speak to a failure in development theory and planning (Sachs 1992:i-vi).

A second problem with the notion of 'development' became more and more apparent in the 1970s and 80s. It became evident that the race toward progress was heading in the wrong direction. Development, as a 'modernizing project toward a higher social evolution', ran into an ecological wall (Sachs 1993:6). The oil crisis of the early 70s and the increase in industrial pollution clearly illustrated that there are serious environmental consequences as well as biophysical limits to economic growth and the uncritical application of technology.

In the 1970s, environmentalists argued that ecological degradation had gone hand in hand with economic expansion as commercial interests sacrificed environments in order to obtain raw materials, transform them into commodities, market them and dispose of the wastes. Growing concern and anger against the ravages of industrialization led to the creation around the world of many diverse groups demanding action take place to halt the destruction of their local environments.

1.4.2 The environmental crisis

During the 1970s, there was growing concern and debate about increasing levels of pollution and ecological degradation. A number of localized environmental catastrophes caught the public's attention and helped put environmental issues at the forefront of public consciousness. A 'green movement'³ emerged which was by no means homogenous in its ideas or actions. Environmentalism was, and still is, characterized by divergent approaches as to what are the causes of pollution and resource scarcity, and what actions should be taken to rectify them.

It is useful here to examine the various streams of environmental movements and thought. Many classifications of environmentalists and environmentalism have been attempted. O'Riordan's (1984) classification of ecological and technological environmentalism, or "ecocentrism" and "technocentrism", most clearly illustrates the underlying philosophical differences in approaches to environmental issues and actions. He argues that there is a broad spectrum of thought on the environment that can be grouped into two ideological camps - ecocentric and technocentric. These approaches are distinguished mainly by their attitudes towards nature and in their 'morality that tempers action' (O'Riordan 1984:1).

³ For a detailed analysis of the origin and significance of the green movement see: Pepper (1984, 1993); Yearley (1991); or Redclift and Benton (1994).

Technocentrism

Technocentric philosophy is rational and technocratic, having approaches to environmental problems which involve management, regulation and 'rational utilization' of resources. The natural world is seen as a storage container for 'natural resources' and 'raw materials' for human consumption. The goal of this form of environmentalism is to seek a harmonious relationship between humanity and nature through the application of technology. It does not question the most basic premise of modern society, notably, that humanity must dominate nature. Instead it seeks to facilitate this notion by developing techniques to 'mitigate' the damage created by the continued exploitation of the biosphere (Bookchin 1991).

O'Riordan (1984) subdivides technocentrists into Cornucopians and Environmental Managers. The former hold an unshakable faith in the ability of technology (and by extension the human mind) to overcome all problems of resource scarcity and environmental degradation⁴. Cornucopians are suspicious of attempts at participation in project planning and environmental assessments. They feel that economic goals define the rationality of project appraisal and policy formation. This technological optimism has been the general tone of big business interests for the past 15 years when confronted with their own environmental mess.

⁴ See for example Kahn (1982) or Simon (1981).

Environmental managers, on the other hand, represent the mainstream of environmentalism today. Some of the oldest and largest environmental groups in the world - such as the Audubon Society and Sierra Club - fall in this group.

Environmental managers believe that economic growth can continue if suitable economic adjustments are made to prices and taxes, and if proper legal safeguards are put in place to ensure a minimum standard of environmental quality. They believe strongly in using science (especially ecology and biology) as the basis for their environmental arguments. They seek participation from interested parties or representative groups in appraisal and lobbying processes (Pepper 1984:31).

Ecocentrism

"Ecocentric" positions are based on bioethics and utopian socialism, and directly challenge social and political institutions while advocating a more integrative relationship between humans and the natural world. Ecocentrics argue that at the heart of current ecological problems is the perception that humans and nature are two separate entities. Technocentric environmentalism is severely criticized for having a mechanist, instrumental outlook that sees 'nature as a passive habitat' composed of 'objects' such as animals, plants, and minerals, that must merely be rendered more 'serviceable to human use' (Bookchin, 1991:21). They lack faith in modern large-scale technology and its demands for 'elitist' knowledge and central state authority. Ecocentric environmentalism either explicitly or implicitly challenges existing

assumptions about progress which equate material prosperity with general wellbeing. They argue that industrial society must radically alter its relation to the natural world. O'Riordan (1984) identifies two divergent opinions on what relations should be altered in the ecocentric tradition.

"Deep" ecologists argue that humans need to reexamine our relationship with nature *per se*⁵. Nature, they contend, contains its own purpose which should be respected as a matter of ethical principle. The natural world exists not solely as a storage container for 'natural resources' and 'raw materials' for human consumption, but should be viewed as having importance equal to human institutions and life. The goal of deep ecology is the 'cultivation of a wider sense of self through the common or everyday psychological process of *identification* with others' (Eckersley 1992:61). It is this spiritual dimension of deep ecology that raises harsh criticism from proponents of what O'Riordan terms "self-reliance" ecocentrics⁶.

Self-reliance ecocentrics are concerned with analyzing social institutions and relations *among people* and how they interact and affect the natural world, rather than

⁵ For more on the theoretical underpinnings of deep ecology see: Naess 1973; Devall and Sessions 1985; Sessions 1987; and Fox 1990.

⁶ Murray Bookchin has been the most vocal critic of deep ecology, especially its aspects of New Age spiritualism and tendency towards misanthropism. For an example of his critique see Bookchin (1987). For a response to these criticisms see Fox (1989). Recently there has been an attempt within ecocentric environmentalism to find common ground: see Bookchin and Foreman (1991).

with humanity's direct relationship with nature⁷. In order to address the fundamental causes of ecological degradation, they argue, we need to consider the social causes and impacts of the human activities that underlie them. This in turn raises some important questions about the fundamental character of industrial society.

The divergent views in environmental thought are apparent in the attempt to synthesize environment and development into one theory. This is evident in the debate of the 1980s on the meaning of sustainable development (Adams 1991). It will be argued in Chapter Two that the environment position of mainstream sustainable development approaches is technocentric. Moreover, it is suggested that the philosophical basis of this thinking is antithetical to the incorporation of many forms of local knowledge, and thus, truly equitable bottom-up development.

1.5 Organization of the Thesis

Chapter Two outlines the theoretical context within which the case study will be analyzed. A critique of the historical origins of mainstream sustainable development thinking is presented. It is then argued that the challenge to industrial growth that ecocentric environmentalism posed in the 1970s has been co-opted by

⁷ Self-reliant ecocentrics have a long history in leftist politics. Early geographers in this tradition include Peter Kropotkin (1899) and Elisée Reclus (1977 [1895]). More current theoreticians include Bookchin (1990, 1991); Pepper (1993); Bahro (1984); and Roszak (1973).

mainstream sustainable development thinking. It is suggested that sustainable development has created a new, dominant form of environmentalism, a global ecology, which limits the space for local knowledge and participation.

In Chapter Three the methodology for the field work is discussed. A combination of participatory and rapid rural appraisal techniques were chosen as the appropriate methodological tools with which to undertake an inquiry into resource management practices (especially of wildlife) of the OvaHimba. The specific methods chosen, and the limitations of RRA/PRA, are then considered.

Chapter Four provides a background context to the case study. The physical geography and political history of Namibia and Kaokoland are presented, as well as the main cultural characteristics of OvaHimba society. An historical overview of wildlife conservation in both Africa and Namibia is then provided.

The case study is presented in Chapter Five. Details of the LIFE program and Namibia's new conservancy policy for communal lands are discussed, and the research findings from interviews in Kaokoland and Windhoek are reported. The findings are then analyzed within the context of the theoretical framework presented in Chapter Two.

Chapter Six presents the conclusions of the thesis. The methodology and theoretical framework are critically assessed in light of the research experience.

CHAPTER TWO

THE PHILOSOPHY OF SUSTAINABLE DEVELOPMENT AND THE RISE OF GLOBAL ECOLOGY

2.1 Introduction

The crisis in 'development' along with increasing ecological degradation prompted a reevaluation of the relationship between environment and development among a broad cross-section of decision makers in both the North and South. The concept of sustainable development has been used to link environment and development together into one theory. The term 'sustainable development' was first used in the International Union for the Conservation of Nature (IUCN 1980) publication World Conservation Strategy. However, it was only after the publication of the World Commission on Environment and Development's final report Our Common Future, in 1987, that the concept gained geopolitical significance to become the catchphrase it is today. Holmberg and Sandbrook (1992:20) report that,

since 1987, all manner of political leaders have talked about sustainable development, and reams of paper have been published on the subject; some seventy definitions are in circulation.

Adams (1991) identifies two ideological streams in the conceptualizations of sustainable development which parallel the divisions in environmental philosophy. He suggests that logical or reformist approaches to sustainable development are a product of the technocentric worldview. As such, 'development' is conceptualized within the

context of continued economic growth with only minor reforms of existing economic systems required. Sustainable development is thus "identified as a realistic means of maximising human benefit without significant environmental costs, and without threatening economic growth" (Adams 1991:3). The most popular and widely read reformist document is the WCED's, also known as the Brundtland Commission, final report, Our Common Future. The Commission defined sustainable development as "development that meets the needs of the present without compromising the ability of future generations to meet their own needs" (WCED 1987:43). What is meant by 'development', 'needs', or 'compromising the ability of future generations' is not explicitly defined. The ambiguity of the definition is one of the reasons, I would suggest, for the plethora of radically divergent philosophies that claim "sustainable development" as their own.

The WCED has greatly influenced policy makers in both the North and the South. It prompted governments, corporations and international lending agencies to consider the ecological impact of development policies, but to do so within the familiar dominant social paradigm. For example, the Brundtland report was the impetus for the creation of an Environment Department at the World Bank (United States 1990). However, this has not resulted in the creation of ecologically sustainable development projects (Rich 1989). Ecocentric environmentalists would argue this is because the primary concern of development agencies and governments is still bottom-line economics. Brundtland and other 'reformists' believe that poverty alleviation will come through economic growth, *limiting* ecological disruption via environmental

impact assessments and new technology (WCED 1987). By proposing that economic growth will solve not only ecological problems but poverty as well, ecocentrics argue that Our Common Future does not place enough weight on the socio-political context in which inequity and environmental degradation take place (Redclift 1987).

There is a wide range of ecocentric or 'radical' approaches to sustainable development. However, they all raise questions about the basic nature of the world economy. They question not only industrial civilization's underlying assumptions about nature and humanity's place within it, but also highlight issues of inequity and social justice that are inherent, it is argued, in the global political economy. Radical approaches, therefore, assume that issues of sustainability have socio-political dimensions as well as environmental ones. In the words of Robinson, et al., sustainable development has to do,

not simply with the alteration of certain social practices that give rise to unpleasant biophysical environmental consequences, but also with the underlying causes of those practices, and with the linkage between socio-political and environmental states. In other words, a sustainable society must be sustainable in both environmental and socio-political terms. (Robinson et al 1990:38)

Virtually all proponents of radical sustainable development call for the devolution of political and economic activity to smaller, more 'human-scale communities'. They argue it is at the local or community level that most people experience life (Bookchin 1991). That is, the majority of people are most dependent on the local economy, resources and social institutions for their quality of life. To be

compatible with the ideals of sustainable development, people must be able to decide for themselves how their local communities will be run, i.e., how their lives will be shaped.

Not surprisingly, the reformist versions of sustainable development have garnered the most acceptance amongst decision-makers and by extension have filtered into the mass media. Critics argue that the vagueness and catch-all meaning of these versions have turned 'sustainable development' into a pop-phrase, rendering it meaningless, or worse, an oxymoron (O'Riordan 1985). Others feel that to counter this critique rigorous effort must be put in to *precisely* defining it (Holmberg and Sandbrook 1992)⁸. I agree with the former point of view, and in an effort at clarity, will from here on refer to sustainable development in terms of the 'reformist' conceptions of sustainability.

It is worth noting that just as major works like the World Conservation Strategy (IUCN 1980) and Our Common Future (WCED 1987) not only popularized the term "sustainable development", they also shaped the parameters within which much of the debate on sustainability has taken place⁹. Environmental problems are

⁸ This, however, can become problematic since there is a wide gap between theoretical definitions and operational realities of implementing sustainable development.

⁹ For instance as in the 1992 United Nations Conference on Environment and Development (UNCED) in Rio de Janeiro or national policy positions on sustainable development. See for instance, United States 1990; Namibia 1993.

seen to be the result of over-intensive resource exploitation, inefficient technologies, and the failure to incorporate environmental 'credits' and 'debits' (such as genetic diversity and pollution) into economic planning. Development is conceptualized within the context of continued economic growth, with only minor reforms of the existing economic system required. In other words, sustainable development does not challenge the philosophical and scientific assumptions that the ecocentric environmentalists of the 1970s cited as major causes of ecological degradation.

2.2 Scientific Rationale of Sustainable Development

Reformist conceptualizations of sustainable development conceive environmental action within the traditional epistemology of western science. The natural world is seen as existing outside of human systems and subject to the laws of a neutral and objective science (Capra 1982). Environmental impacts can therefore be identified, isolated, and mitigated through the application of environmental assessments, and the introduction of efficient technologies and management techniques. The methodology of this approach, drawn from economics and the sciences of engineering and ecology, offers an ideology of control that has become quite popular within mainstream environmentalism and sustainable development thinking¹⁰. Solutions to environmental crises are seen to lie in the hands of environmental 'scientists' and planners.

¹⁰ See for example Barbier 1987; Pearce 1989; Clark and Munn 1986.

However, the reductionism of western science is criticized by ecocentrics as being the *cause* of much environmental damage. Moreover, this paradigm's claim to be value-free, and therefore value-neutral, has meant that sober consideration of the implications of new knowledge by practitioners of science has been largely non-existent. The inability of 'hard' science to adequately address ecological and social concerns stems from the philosophical foundations of science developed during the European Enlightenment (Capra 1982).

One of the early theoreticians of science, Galileo, combined scientific experimentation with mathematical language. For scientists to be able to describe nature mathematically, Galileo proposed that they limit themselves to studying only those properties which could be measured and quantified. He felt that other properties, such as, colour, sound, taste or smell, were subjective and therefore should not be included in scientific inquiry. As R.D. Laing says, "Out go sight, sound, touch and smell and along with them has since gone aesthetics and ethical sensibility, values, quality, form; all feelings, motives, intentions, soul, consciousness, spirit. Experience as such is cast out of the realm of scientific discourse" (Laing 1982:23).

The methodology of the new science was devised and actively promoted by Francis Bacon. Bacon stressed the inductive method, where one makes experiments and draws general conclusions which are then tested in further experiments, as being

the proper method in which to *validate* knowledge (Capra 1982). To be considered true, or valid, a piece of knowledge must be able to be tested in an experiment that, when repeated, produces the same results. The purpose of science also changed under Bacon's influence. Previously, the goal of science was the acquisition of wisdom, that is, understanding the natural order and living within it. Bacon advocated that the goal of science was the acquisition of knowledge to enable 'men'¹¹ to dominate and control nature. Thus, "knowledge is regarded not as an end but as a means, expressed and applied in technology, by which humans assume power over the material world" (Rees, 1989:3). This view of nature as an object to be dominated and controlled has had profound ecological implications.

Rene Descartes was deeply affected by the new science of Bacon and Galileo and attempted to create a new system of thought in accordance with the development of new knowledge. Descartes believed that all phenomena in the universe have a mathematical structure, and to him science is synonymous with mathematics. The method of building knowledge that Descartes postulates is analytic. It consists of breaking up thoughts and problems into pieces and arranging these pieces in some logical order. This reductionism or fragmentation in science has led to the belief that

¹¹ It is interesting to note that when referring to nature, which was often viewed as being female, Bacon's writings were extremely misogynist. Nature had to be "hounded in her wanderings," "bound into service," and made a "slave." The goal of the scientist was to "torture nature's secrets from her" (Merchant 1980:161).

all aspects of complex phenomena can be understood by reducing them to their constituent parts.

Descartes also believed that mind and matter are separate and fundamentally different. This has led to the concept of 'mind-body' dualism underlying much modern scientific thought. Scientists who adhere to the dualistic nature of mind and body can analyze the 'outside' world without having to consider either their own position in the world or the values, suppositions and experiences that they bring to an experiment. This separation of the mind from the physical world entrenched the split between humans and nature advocated by Bacon (Capra, 1982).

Thus, the material universe came to be seen as a machine. Nature worked according to mechanical laws and the entire universe could be explained by the workings of the various parts of the machine. This mechanist view of the universe became the dominant social paradigm of western industrial society. Far from being an epistemological accident, reductionism was a response to the needs of a particular form of economic and political organization (Shiva 1993b). There is a close link between modern economics and the scientific paradigm. The founders of modern economics owed much of their philosophy to the Cartesian paradigm (Capra, 1982; Rees, 1989).

Adam Smith, impressed with the success of the new science, applied the mechanical world-view directly to human affairs and institutions. Smith felt that if the natural world followed unseen forces which conformed to certain mechanical laws, so too must the economic world of humans. This reasoning underlies his notion of an 'invisible hand'. Decisions-makers, acting in their own self-interest, will be 'guided' by economic forces to choose the action that is most beneficial to society. As in the scientific paradigm, morality is not something to be considered by decision-makers. Indeed, Smith states that, "There are no ethical choices to make, only utilitarian judgements exercised by each individual pursuing self-interest" (as quoted in Rees 1989:4).

The idea of a mechanical economy raised the theoretical possibility of unlimited growth in an infinite universe; the machine could get bigger and bigger. Growth became the key to the modern economic system. The 'health' of a nation's economy and, as a consequence, the "social quality" of the country, is dependent on continued economic growth. That growth is firmly entrenched as *the* measure of progress is evident by the importance placed on the gross national product statistic as being the primary indicator of a nation's 'health'. Rates under 3% are considered sluggish even though a 3% increase in GNP implies a doubling of economic activity in just 23 years (Rees, 1989). It would seem that sustainable development has co-opted ecology's criticism of science and growth to recast them as the solution. By embracing the epistemology of science as the solution to environmental destruction,

the character of resistance that environmentalism once had is weakened. Vandana

Shiva writes that,

the uniformity of science permits knowledge of parts of a system to stand for knowledge of the whole. Divisibility permits context-free abstraction of knowledge, and creates criteria of validity based on alienation and non-participation, which is then projected as 'objectivity'. 'Experts' and 'specialists' are thus projected as the only legitimate seekers after and producers of knowledge. (1993b:24)

The many ecocentric writers of the 1970s challenged the assumption of unlimited growth in a mechanical universe. Popular books contested the accepted faith in the certainty of the scientific method to solve any and all problems, especially environmental ones (Schumacher 1973). In fact ecocentrics *attributed* ecological degradation to science's view of nature as something apart from human systems and, to its lack of ethical guidance in its quest for knowledge (Henderson 1978).

Reformist conceptualizations of sustainable development rehabilitate science as the answer to environmental crises. It is primarily through new, cleaner technologies (made possible by scientific research) and more efficient resource management that global environmental catastrophes can be avoided (WCED 1987). Reformist concepts of sustainable development, thus, co-opts ecocentric criticism of science and growth and recast them as the solution for creating a 'sustainable society'.

Indeed, as the environmental critique of economic development is embraced by the dominant power structures in society, the influence of rational environmental science has increased markedly in the literature on environmentalism. Sachs (1993)

contends that environmental knowledge is increasingly seen to lie *solely* in the hands of an eco-cratic elite. Environmentalism is being transformed from a 'knowledge of opposition to a knowledge of domination' (Sachs 1993: v). With its ideology of management and methodology of control, sustainable development is seen by a number of grassroots development organizations to be a continuation of Northern control over the development process in the South (Shiva 1993). Ideologically, mainstream conceptualizations sustainable development do not represent a change in the philosophical foundations of the dominant social paradigm.

2.3 Progress and Scarcity

At the root of the environmental crisis, ecocentrics argue, is a philosophical construct of progress that places nature and development in opposition. Reformist ideas of sustainable development do not question this most basic of notions. In fact, the WCED and UNCED processes reaffirmed the centrality of 'progress' in any future for the world's peoples. However, the modern idea of progress was contaminated by negative aspects from its inception. Behind the idea of progress lies what Hans Achterhuis (1993) terms 'the reign of scarcity'. Three 17th century philosophers were pivotal in linking scarcity with the notion of progress and shaping the direction that modernity was to take.

Once again, Francis Bacon was tremendously influential in providing the *raison d'être* for industrial modernization. In New Atlantis, Bacon conceives of a utopia where science and technology rule (1955 [1627]). Science and technology have no limits and the technological imperative, what is possible should be realized, is paramount. Achterhuis notes that, "...in Bacon's utopia the project of modern Western culture and technology was, from the outset, directed toward the transgression of every cultural and natural limit" (1993:105). Previously, utopias were always imagined within certain ecological and cultural limits. With Bacon, however, nature is totally enslaved to the power of 'mankind'.

Thomas Hobbes developed a theory of power described in his book Leviathan (1983 [1651]). Hobbes argued that power is a comparative phenomenon originating from a comparison between different people. The goods, the objects one seeks to obtain, are pursued not for their own sake, but because someone else also tries to get them. Power, therefore, is always obtained at the expense of someone else; riches are only important in comparison with what others have. This means that *everything* potentially becomes a scarce good.

Scarcity, the relation between limited means and unlimited ends is, according to Hobbes, caused by the continuous comparisons and strife between individuals and groups. The ends are unlimited because one must always surpass the ends of the others. (Achterhuis 1993:106)

This notion of scarcity set Hobbes apart from his philosophical predecessors.

Suggesting that unlimited desire is a natural quality in humans was new in human history. In this respect scarcity, arising out of limitless desire, is a modern

phenomenon coinciding with the development of modern economic society.

Previously, scarcity had been described as an episode of shortage; after Hobbes it became a general condition of humanity.

The other 17th century philosopher to discuss scarcity was John Locke.

However, Locke believe scarcity arose not in human social relations but instead was,

a quasi-natural fact, a perpetual relation between people and nature. For him scarcity simply spelled out the fact that earth and nature fail to provide enough for all. Therefore, we have only to produce more to alleviate or even to end scarcity. Economic growth and expansion are the answers to the threat of scarcity. (Achterhuis 1993:107)

With Locke nature loses its traditional connotation of a nurturing provider and instead is now viewed as humankind's primary enemy. Scarcity becomes the original condition of humanity, the blame for which rest not with Hobbes' human competition, but with nature. Progress, then, is interpreted as emancipation from scarcity.

Achterhuis contends that colonialism and expansion find their legitimation in scarcity (1993:107). Since nature does not provide enough to satisfy the desires of Europe, it is only 'natural' to seek to alleviate scarcity (and by extension, continue 'civilization's' historic march toward progress) by expanding control over the 'empty' lands of America and Africa.

But Hobbes suggested, unlike Locke and many environmentalists, that scarcity originates in human relations, it is, for the most part, *socially constructed*, and people trying to escape it, in fact, carry it with them.

By pursuing ever-more production and growth, the whole world of culture and nature was reduced to a field of scarce resources. Looking at the world in this way and above all acting in this way, Western society, in a few centuries, succeeded in establishing the regime of scarcity in almost all spheres of social and personal life worldwide. (Achterhuis 1993:109)

The image of nature used in much of the discourse on sustainable development is Lockean. Nature is viewed as a scarce resource that must be strictly managed. The same ideas of progress and scarcity lie at the heart of mainstream concepts of sustainable development. Because these ideas are seen as universal, valid in all parts of the world, other forms of living are made irrelevant to the logic of efficiency, economic growth and modernization. Survival is the goal in a world of scarcity (Achterhuis 1993). Cultural ways of life that are not directed at better survival are not seen to have a worth of their own; except perhaps as a passing tourist curiosity. The ethical arguments for self-reliance and self-determination seem to be hollow rhetoric in much reformist sustainable development thinking when compared to the emphasis placed on management, efficiency and the market. This appears to be the intended message to the Bruntland Commission when, at a public hearing in Brazil, a speaker from the floor admonished them,

You talk very little about life, you talk too much about survival. It is very important to remember that when the possibilities for life are over, the possibilities for survival start. And there are peoples here in Brazil, especially in the Amazon region, who still live, and these peoples that still live don't want to reach down to the level of survival. (WCED 1987:40)

2.4 One World: The rise of global ecology

2.4.1 The new ecology

The world is undergoing a period of mass extinction; there is a loss of not only biological diversity, but of *cultural diversity* as well. Languages are vanishing in much the same way as species. With species, plants and animals disappear from the historical record; with the demise of languages, entire cultures are vanishing from the history of civilization (Sachs 1992:102). Once species disappear, ecosystems break down; once languages die out, cultures decay.

The historical record has been marked by increasing diversity in all aspects of life. What is causing this recent "reversal of evolutionary logic" (Bookchin 1991) in biological and social systems? I suggest the answer is found in the logic of progress. The universalism of progress, manifested in the notion of economic growth based on rational science and technology, succeeds in homogenizing culture and diversity. Since science and the market are based on a system of knowledge about humans, society and nature that claims validity everywhere and for everybody, it belongs nowhere and can therefore penetrate everywhere (Sachs 1992:109). Thus, modernization and industrial development, with their attendant globalization of the economy, media and information, engenders cultural homogenization in all parts of the world (Finger 1993:4).

Environmental discourse and action has not been immune to the process of globalization. In recent years, two decades of the green movement are being erased. The 'local' is de-emphasized except in its relation to the 'global' environment when discussion ecological concerns. Suddenly, "it seems, only 'global' environmental problems exist, and it is taken for granted that their solution can only be 'global'" (Shiva 1993a:149). Sustainable development lays the foundations for a new kind of environmentalism - a global ecology¹².

2.4.2 The co-option of environmentalism

There has been a long history of opposition movements being co-opted by dominant forces in society and then used to justify further control by those same forces (Mies and Shiva 1993; Pepper 1993). Nicholas Hildyard (1993) contends that environmentalism was co-opted via major international conferences in the 1980s and 90s, notably the WCED and UNCED. This co-option occurred on two levels. On one level, emphasis was placed on blocking changes to structures or actions that could not be contained without a loss of power. For instance, in the biodiversity negotiations at UNCED, transnational corporations (TNCs) used their power to block any measures that might harm the interests of biotechnology companies or undermine the patenting of 'intellectual property' (Hildyard 1993:29).

¹² Again, it should be noted that here ecology is used not in its scientific sense, but rather as it is used in the field of human ecology or social ecology. That is, it refers to how human systems interact with the natural world.

On another level, the challenge of the green movement was contained in the face of growing awareness and popular support for ecological issues. The resistance to the change that environmentalism necessitated gave way to strategies for managing that change. According to Hildyard,

...UNCED saw a conscious attempt by corporate and other mainstream interests to 'capture' the debate on environment and development and to frame it in terms that suit their purposes. (1993:29)

Hildyard (1993:30-31) presents an excellent analysis of six strategies that were used to transform the debate on the environment at UNCED.

First, government and industry distanced themselves from past policies. Ecological degradation was portrayed as a recent phenomenon, one that had come to light through the work of *government* scientists, *international* institutions, and *industrial* planners. The past disappeared from view as they postured themselves as the new champions of environmental awareness.

Second, there was an attempt to deny the many conflicts of interests underlying the crisis. Neither the institutional framework of global society nor the material interests and values it reflects received serious scrutiny. UNCED promoted a rosy-tinted view of a world where all humanity is united by a common interest in survival, and in which conflicts of class, race, culture and gender are characterized as of secondary importance to humanity's supposedly common goals.

Third, environmental problems were removed from their local setting and placed in a global context giving currency to the view that *all* humans share a common responsibility for environmental destruction.

Fourth, by portraying environmental degradation as a global problem requiring global solutions, UNCED gave added impetus to those multinational interests who would extend their global reach. By definition, only international institutions and national governments were up to the task in hand.

Fifth, environmental problems were framed in terms of 'solutions' which only the North could provide. Capital, technology, expertise and economic growth, all under the control of the North, were presented as the solutions to the environmental crisis. [Note that these were the same solutions that the WCED suggested in 1987.]

And sixth, a crisis management mentality was inspired, in which the need for action was considered more important than deciding what action should be taken, by whom, on whose say-so and with whose interests paramount. The critical nature of the threat was used to justify giving those in power still more authority; to legitimize programs which remove control further from local people; and to sanction more management and top-down development.

This transformation of environmentalism from a 'knowledge of opposition to a knowledge of domination' was not contested by mainstream environmental groups at UNCED. In fact, they often contributed to it, reflecting the degree to which dominant power structures have captured environmentalism and reconstructed it into a tool to further their power. Where once environmentalism challenged the validity of basic Western concepts such as progress and science, it has now been recast so as to validate those very same notions. The impact of this new global ecology can be clearly seen in an analysis of one of the green movement's most powerful symbols.

2.4.3 The image of 'one world'

The image of the earth taken by the Apollo astronauts was used by environmentalists in the 1970s to symbolize the finiteness of the earth and remind people that there is no escape from the consequences of human action. As part of the co-option of the green movement's 'language of resistance' (Shiva 1993a), sustainable development alters the meaning behind the image of the blue planet. This has occurred on two levels.

First, sustainable development alters the frame of reference of environmental issues. Where once environmental awareness grew out of immediate local problems, more often than not, the language of sustainable development conceives of environmental issues, *a priori*, in a global context. This makes the most pressing environmental issues those that have immediate global consequences. Not surprisingly, the World Bank's Global Environment Facility, created at the UNCED conference, is concerned with only four issues: carbon dioxide emissions; ozone depletion; biodiversity; and ocean pollution, all 'global' issues. This has shifted the focus of mainstream environmental research and action away from local or regional problems to macro-scale analysis. Sachs (1993:18) notes,

Research on the biosphere is rapidly becoming big science; spurred by a number of international programs, 'planetary sciences', including satellite observation, deep-sea expeditions, and worldwide data processing, are being institutionalized in many countries.

Second, the use of the metaphor of the earth as a spaceship entrenches the concept of survival that runs through sustainable development thinking. It is the ultimate projection of Locke's notion of scarcity; even the entire planet does not have the resources to satisfy 'our' desires. The richness and diversity of nature and human culture is transformed into a dry uniformity at the global level. When viewed from the outside, it is easy to see the environment as an aggregate of resources. This has profound implications for devolution, empowerment and self-reliance of local communities envisioned by ecologists in the 1970s.

On a spaceship the majority of people can only be passengers. "Only the elite, 'the few', can be steersmen; the masses must simply put their fate in the hands of the leaders" (Achterhuis 1993:111). Local peoples' knowledge of their environment is irrelevant at the global scale. It is scientists and technocrats who are the managers of efficiency in the name of global ecology. Moreover, this picture of the earth implies that all humans share one destiny because we all inhabit one planet, further proof for the universalism of science and modernization. It provides an environmental knowledge that is faceless and placeless. The very title of the WCED's final report suggests that Our Common Future will look the same, whether for a Himba pastoralist or an EU politician. How the pastoralist and the politician can have a common future without one of them radically altering his or her way of life is not explained in the report. It does not matter from the global perspective; local realities are homogenized to conform to a vision of 'one world'. Inevitably it is the powerless, the marginalized, who will have to change to fit into 'our common future'. The image of the earth in discourse of global ecology, therefore, does not symbolize planetary consciousness. Rather it reflects the narrow interests of those actors who can project their reach globally. It "abstracts planet and peoples and puts in their place global institutions (Shiva 1993a:150)", consigning the realities of culture and power to oblivion.

2.4.4 The hegemony of global ecology

In 'global ecology' the world is perceived as a single homogenous space and sustainability is a problem of global environmental management. The question then arises, who will manage the 'global' environment and in whose interest? It must be remembered that the ideology of mutual interests that is the foundation of global ecology takes place under unequal terms (Sachs 1992). It is the powerful who can make their voices heard in this field of 'mutual interest'.

Through its global reach, the North exists in the South, but the South exists only within itself, since it has no global reach. Thus the South can *only* exist locally, while *only* the North exists globally. (Shiva 1993a:152)

Tariq Banuri (1993:50) notes that ecology is not stronger in the North than the South, but the latter is at a disadvantage in defining the international agenda.

The ability of the North to define the international agenda involves an attempt to move the agenda away from what German geographer Friedrich Ratzel termed *raubwirtschaft*, the fact that environmental damage is caused primarily by the rich and not the poor.

Over-exploitation of resources as a result of poverty is a central theme in much sustainable development thinking. Even critics of sustainable development conjure up this Hobbesian notion of scarcity (Redclift 1987). In global ecology, Ratzel's *raubwirtschaft* is lost; the poor's *future* demands become the justification for the necessity of environmental planning (Hildyard 1993). At UNCED the focus on future demands by the poor rather than the past actions of an over-consuming North helped to create a new economic space for the North (Shiva 1993a:151-152). The solution to

ecological devastation was seen to be a transfer of 'clean' Northern technology to the South. Thus, in order for China and India to satisfy demands for refrigerators, the Dupont corporation's newly patented CFC substitutes become the planet's saviour from ozone destruction. The fact that Dupont made billions by producing CFCs for years was irrelevant. By framing the debate on 'global' ecology in terms of the future rather than the past,

...the North gains a new political space in which to control the South.
'Global' concerns thus create the moral base for green imperialism. (Shiva 1993a:152)

It is inevitable that the claims of global management will conflict with the aspirations for cultural rights, democracy and self-determination in the South. It is easy for a movement which acts in the name of 'one earth' to become a threat to local communities and their life-styles. After all, has there ever, in the history of colonialism, been a more powerful motive for streamlining the world than the call to save the planet?

2.4.5 Eliminating the local

The vast diversity of culture and knowledge that exist in local places can not be fully expressed in a global space. The global only has meaning at the local level as an abstract set of values that may or may not conform to locally held ones. But as the discourse of 'the global' penetrates the local, it further legitimizes the authority

and control of higher orders - national, state, and district governments, international institutions and NGOs - since they are in a better position to grasp what planning is necessary to integrate the local into a 'global' world. Thus, the conception of 'global' is often disempowering at the local level since, as suggested above, it represents the narrow interests of elite institutions who have the ability to define the 'global' agenda. As governments hasten not to fall behind in the economic race, the space for self-determination at the local level is lost.

The globalization of environmentalism furthers this trend. The slogan, popular with today's environmentalists, 'think globally, act locally' can be interpreted to mean there is one image of the world to which all of humanity should aspire, one 'global' vision of humankind managing 'global' resources to ensure continued economic growth for all. This is at odds with the emphasis on devolution, self-reliance and equity extolled by the many environmentalists of 1970s (Schumacher 1973; Daly 1973). Global awareness was raised by some early environmentalists, but it was in the context of limits to growth. Reformist concepts of sustainable development have no such critique of growth, per se, when the global environment is invoked. There are streams of environmentalism today that stress conceptualizing the environment in local settings (Sale 1985), and lament the loss of cultural diversity that globalization creates (Bookchin 1991). However, the widely read environmental works of the past decade (WCED 1987; Clark and Munn 1986; Gore 1992) eliminate a detailed analysis of the local context in which environmental destruction takes place.

Thus, local is being de-emphasized in much environmental discourse, replaced by a concern for the biosphere. Lost in this shift is an analysis of the diverse *local* social and political contexts in which environmental destruction takes place (Bookchin 1991) and the effect that macro actors have in shaping these places (Redclift 1987). The 'global' is one particular local, a local that has been globalized (Shiva 1993a). Lost along the way, then, is environmentalism's ability to be an effective form of resistance against the destruction of local ways of living. Shiva (1993a:150) expresses this succinctly when she states that global ecology,

in addition to the legitimacy derived from co-opting the language of dissent, is the legitimization that derives from a false notion that the globalized 'local' is some form of hierarchy that reflects geographical and democratic spread, and to which lower order hierarchies should somehow be subservient.

If truly empowering 'sustainable development' is to take place in the South or North, environmentalists must carefully consider if their analysis and action serves to help local people prosper within their surroundings *in their own way*, or disempower them by placing decisions about the environment, and life, in the hands of outside experts.

2.5 Theoretical Framework

The 'global' discourse of environmentalism as it is defined through reformist concepts of sustainable development constrains the space for local knowledge, action, and participation. Moreover, this discourse serves to co-opt the language of resistance ecology had, transforming it into yet another form of control by the powerful over the marginalized. 'Global' ecology cannot help but have a narrow

Figure 1. Spaces for knowledge, action and participation

view of the possible. If we all are members of one, global, commons then we all have to abide by a common set of *usufruct* rights and obligations. The environmental negotiations of the 1990s have made it clear that those actors who can extend their reach globally (the powerful) define what those rights and responsibilities are. International conventions demonstrate that the interests of these global players is confined towards ensuring a continued supply of raw material to fuel economic growth.

Similarly, environmental NGOs, whose concern is the 'global' environment narrow the options for local peoples. The debate on environmental problems and solutions is confined within a small range of expert (Western) knowledge. Figure 1 demonstrates the consequence of global ecology. At the apex of the figure are global concerns. The range of knowledge and action is limited to a narrow space in the middle [a]. As one descends to smaller geographical areas, the space for knowledge, action and participation becomes more specific to the culture and physical geography of the place. When people at [b] are able to identify environmental problems and have the power to define the causes, then the range of possible solutions can cover the entire base of the pyramid [c]. National [d] or regional [e] 'ecology' act in much the same way as global ecology. Local interests and environments have been sacrificed for the 'national' interest for years (Mendes 1989; Berreman 1985; Johnston 1994).

However, tension exists both among and within levels of the figure. National states are hesitant to accept tenets of global ecology if they perceive their interests may be damaged. Similarly, regions and districts may disagree with national policy or directives. The same can be said for major international NGOs which work in concert with grassroots organizations in recipient countries. What is marked in these tensions is the unequal power relations between the levels. Invariably lower levels acquiesce in some form to the demands of higher levels. Through a combination of bribes, threats and minor concessions higher levels are able to shape the debate and dictate the action with respect to environmental problems. The tension between the

global and the national takes place between the collective interests of the North and elites in the South, and individual or small groups of nation-states, or perhaps more accurately, among the global institutions dominated by the North (the United Nations, World Bank, TNCs, etc) and nation-states.

Tension also exists within levels. There is little consensus on collective interests among countries of the North, such as the United States and the European Union, let alone between the North and the South. Tension also exists among community members on a local level. There are social stratifications based on class, gender, age and ethnicity that produce slightly different worldviews (Scott 1985). Reconciling a path a whole community could take may not always be an equitable arrangement. Additionally, the worldviews of the most marginal of local groups¹³ are in a state of flux as new technology is introduced (Thrupp 1989).

If local peoples' ways of living are to have any influence at the global level, space must be made at the top of the figure to include the vast diversity of knowledge that exists in the world. In recent years there has been a growing recognition among some development planners and environmentalists that local knowledge should be incorporated in development projects through the active participation of local communities. However, these concepts remain problematic. Reclaiming 'space' for local knowledge can take many forms. These issues are discussed in the following sections.

¹³ Here I am referring to primarily indigenous or tribal peoples.

2.6 Reclaiming Space for the 'Local'

The experience and knowledge of local peoples have only recently been incorporated into the formal structure of environmental planning in developing countries (Redclift 1987:150). Often this knowledge is dismissed as 'unscientific', 'unverifiable', or 'emotional' by scientists and planners who adhere to a rational, reductionist epistemology of environmental 'management' (Shiva 1991:26). However, there is a growing awareness that rural communities contain a vast reservoir of information regarding plant and animal behaviour, and of the existence of effective indigenous strategies for ensuring the sustainable use of local natural resources (Johnson 1992; Thrupp 1989; Brokensha et al 1980).

This knowledge is usually referred to as "traditional" environmental knowledge or "indigenous" knowledge. The use of the term 'traditional' implies that a static cultural knowledge has been passed down through the generations when in reality, societies are constantly changing and adopting new practices and technologies. Similarly, 'indigenous' fails to encompass nonindigenous groups such as rural peasants and subsistence fisherfolk who have acquired comparable knowledge and skills through hands-on experience living in close contact with their environments. I therefore prefer to use the term "local" or "community-based" environmental knowledge. Local environmental knowledge can be defined as:

a body of knowledge built up by a group of people through generations of living in close contact with nature. It includes a system of

classification, a set of empirical observations about the local environment, and a system of self-management that governs resource use. The quantity and quality of traditional [sic] environmental knowledge varies among community members, depending upon gender, age, social status, intellectual capability, and profession (hunter, spiritual leader, healer, etc.). (Johnson 1992:3)

DeWalt (1994:123) cites three arguments advocates of local knowledge give for assigning greater attention to these knowledge systems: the need to create more appropriate and environmentally friendly technologies; empowering people like farmers to have greater control over their own destinies; and creating technologies that will have more just socioeconomic implications. With the possible exception of the second reason, these reasons are very functionalist. Even among many proponents of local knowledge, it seems, the use of local knowledge is not seen as legitimate in and of itself; because it exists and is a part of local peoples' way of inhabiting the world.

Dianne Rocheleau (1991) notes that when the international scientific and development communities focus on local people's knowledge they often have separated it from the larger context of daily life, labour, and livelihoods.

Social scientists and ecologists alike often recast "indigenous knowledge" as an ethnographic artifact, as "unconscious ecological wisdom", or as part of the "environment" for the generation and introduction of new technology. (Rocheleau 1991:157)

So while they may recognize "the comparative advantage of local people" in their intimate understanding of their local environment, local knowledge is "problematic",

since, while it "is very rich in contextual detail", it has "little utility outside of particular places" (Kloppenburger 1991:531). That many researchers view local knowledge strictly in its practical usefulness to science or the market highlights the danger that this knowledge may become appropriated and exploited by Northern institutions and "packaged" into the models of Western science (Thrupp 1989).

With the growing commercial value of biodiversity, local knowledge in the South is seen as an untapped source of economic 'development'. However, serious misgivings must be raised about the equitability of any profit sharing between local peoples and powerful international institutions and corporations with a long history of neo-colonialist activity in the South. Indeed, resistance against bio-colonialism is at the forefront of local environmental organizing in the South (Raghavan 1995). Moreover, equitable compensation would be difficult not only because of the profit motive of Northern 'bio-pirates', but also because there is generally differential access to valued knowledge within a community.

Communities are not homogenous entities (Scott 1985: 43). They are divided by class, gender, age and sometimes ethnicity. Knowledge can be a source of power or privilege which can lead to social stratification and disparities among social groups (Thrupp 1989: 16). Thus, certain people will inevitably control more information than will others. The codification of this knowledge will certainly heighten tensions within communities.

Proponents of local knowledge are often criticized for idealizing local cultures living in harmony with their environment. There is a great deal of archaeological evidence to indicate that this is not always the case. A number of civilizations have collapsed due to over-exploitation of resources and ecological degradation. Perhaps the most telling example was the fall of the Mayan and Inca civilizations in Mezzo-America. It is not, however, the intention of this thesis to contrast local knowledge with that of the dominant global paradigm discussed in earlier sections. It is not asserted that local knowledge has an untapped economic potential, is more environmentally integrated, or is in any way better than the dominant form of science, economy and society. To do so would frame the debate within the confines of the discourse on 'global ecology'. Rather, it is argued that space must be made for local people to express their own knowledge because it is a part of their culture; *it is fundamental to who they are as a people, how they negotiate with the world.*

Development is a process of becoming. There are no fixed ends, no universal goals, to which all people should aspire. Development is "best defined in terms of the aspirations and values of people in their own social context and, in this sense, is probably only really meaningful at the sub-national level" (Taylor 1992: 214). Local people need to establish the legitimacy of their knowledge for themselves, as a form of empowerment (Thrupp 1989). Therefore, organizations and institutions which are working towards sustainable development must begin by listening to local people and understanding the ways in which they relate and utilize their environment.

2.7 Development Directions

Incorporating the environment into development implies incorporating cultures and cultural perspectives on the environment into the methodology of project development and implementation. If projects which are more compatible with social systems are to be designed, "the epistemologies of local people, including their ways of organizing their knowledge of their environment must be embraced by development organizations and funding agencies" (Redclift 1987:150-158).

A fundamental criticism of development projects is that they do not take sufficient account of the local environment and society in the target area and that there is a lack of participation and control on the part of the recipients. Seddon (1993:72) notes that projects run into difficulties "because they fail to consider in sufficient detail the complexities of local social dynamics and fail to appreciate their significance for the design and implementation of a successful project". Those responsible for designing projects are frequently foreign to the rural environment and prone to false assumptions which lead to inappropriate projects. Target populations, for example, are often taken to have the same values and reactions as the project designers, for example personal profit seeking. Concentration is on market and profit-orientated agricultural activities, while agriculture as a way of life within the traditional social group is largely ignored.

There is also a tendency to view rural society as homogenous and composed of 'average' farmers (Chambers 1988). For example, often it is only adult males' agricultural activities which are examined. In addition to the failure to take account of local socio-economic conditions, projects have frequently failed to actively involve target populations and solicit their views. Clearly the success of projects depends on the people themselves and their willingness to participate. 'Top-down' project approaches regularly ignore the potential of communities to actively identify and create solutions for themselves, debarring local initiative and fostering a passive attitude on the part of recipients.

In response to criticisms that they often failed to actively involve recipient populations, governments, official development agencies and NGOs have attempted to introduce greater flexibility into development interventions and make them more in tune with the needs of intended beneficiaries. Thus, there has been a shift away from top-down development to 'participatory local development'. Many development planners and theorists have called for 'bottom-up' development. That is, development should be seen as "essentially an indigenous process in which concepts of self-reliance and popular participation loom large" (Taylor 1992:233). Development from below, as outlined by Stöhr and Taylor (1981), emphasized self-reliance at the smallest possible scale. Development should aim towards the,

maximum mobilisation of each area's natural, human, and institutional resources with the primary objective being the satisfaction of the basic needs of the inhabitants of that area. (Stöhr and Taylor 1981:1).

This closely corresponds to the bioregionalism advocated by ecocentric thinkers of the time. Development from below has a tremendous influence on development theory and practice although it was criticized for being "utopian" and "neo-populist" by some (Taylor 1992). 'Development from within' is a refinement of the concept, recognizing the diversity of different actors *within* society (Mackenzie 1992). The core components to development from within are territoriality and participation. "Territory" is deemed to be the place, social relations, and power interactions which take place within a bounded space (Taylor 1992:241).

Development from within argues for the maximum utilization of the resources of a territory primarily for the satisfaction of the inhabitants of that territory. This includes both the physical and human resources of the local community. (Taylor 1992:245)

The other major component to development from within is participation. Indeed, participation has been a fundamental component to development in all bottom-up development theories. The inclusion of local knowledge, a central issue to this thesis, hinges on the type of participation advocated by outside actors. It is useful, therefore, to explore this concept in greater depth.

2.8 Participation

With the failure of many development projects and the popularization of new theories on development practice, a consensus was reached amongst international aid organizations, NGOs, fieldworkers and even repressive regimes that participation was integral to the successful functioning of development projects. A word which had

been systematically discarded previously by economists, planners and politicians abruptly lost is earlier subversive connotation (Rahnema 1992:117). Participation has the twin benefits of informing planners with information regarding the local environment and of securing the active involvement of the local people.

'Participation', then, has become an accepted concept and something to which any project proposal invariably refers. However, there are a number of different interpretations as to its meaning.

Participation is referred to under a wide variety of headings: peoples' participation, community participation, local participation, effective participation, etc.. The list of meanings given to the term is equally long, depending on the motivations of the 'development planners'. Strategies for achieving participation, then, vary according to the meaning attributed to the term. Obviously, equitable development requires the *consenting* participation of the poor. Induced or enforced participation makes it "almost impossible to move from mobilization to organization which can truly empower people and transfer voice to them" (Goulet, 1989:168). If 'development' is centred around, and indeed, for people who have been socially and economically marginalized, then national development goals must be sensitive to the needs of these communities.

Popular participation has been advocated as a more equitable form of development since it provides access to resources and input into macro decision-

making levels to those who are currently disempowered (Goulet, 1989). In his conceptualization of participation, Denis Goulet (1989) adopts the definition of Marshall Wolfe and the United Nations Research Institute for Social Development.

Participation is,

the organized efforts to increase control over resources and regulative institutions in given social situations, on the part of groups and movements hitherto excluded from such control. (Goulet 1989:165)

He classifies participation into a four-part typology; participation as a means to some objective or as an end in itself; the scope of the arena in which it operates (from very micro to mass participation); the originating agent for participation (grassroots, state, or some third party); and the moment at which participation is initiated (from initial identification of a problem to debating the merits of further mobilization). Equitable development entails "participation which starts at the bottom and reaches progressively upward into ever-widening arenas of decision making"(Goulet, 1989: 168).

Oakley (1991) notes that projects aiming at participation as a goal in itself must follow a path distinct from other projects. They should not proceed through a pre-established sequence of phases, nor should they be planned according to fixed time scales. Local people should form themselves into groups, based on existing patterns of local organization. These should act as groups for social action rather than simply as receiving mechanisms for project outputs.

This is a process that cannot be directed from outside (Rahnema 1992). Freire (1972) believes that for peoples' lives to be transformed in liberating ways they must transform them themselves. However, exponents of empowerment through participation also envision a role for external support in the form of a change agent or animateur. It is the role of the change agent to make people conscious of their strength through dialogue with people in communities as a learner as well as a teacher. Freire (1972:33) cautions that a change agent who fails to respect the view of the world held by local people will not be successful,

it is not our role to speak to the people about our own view of the world, nor to attempt to impose that view on them, but rather to dialogue with the people about their view and ours.

Participation and empowerment, however, remain problematic concepts. It seems there is a possible contradiction between the centrality given to change being directed from within communities and the need for an external input if the status quo is going to be altered. The use of Freire's 'agents of change' assumes that these agents are not themselves subject to biases reflecting power structures in society (Rahnema 1992). There is also a danger that they may become agents of domination, willingly or unwillingly directing the actions of the group. Rahnema (1992: 123) notes further that empowerment programs assume development intervenors possess the knowledge to empower which the disempowered lack,

when A considers it essential for B to be empowered, A assumes not only that B has no power....but also that A has the secret formula to a power to which B has to be initiated.

than it is to RRA. In short, RRA is an approach where the main objective is data collection by outsiders, while PRA is an approach where the main objectives are analysis, learning, planning and action by local people rather than by outsiders.

In this respect, the methodology of my field work with the ovaHimba had more characteristics of a RRA than a PRA. Some of the techniques used, such as the transects and mapping exercises, are emphasized in PRA while others like direct observation and semi-structured interviewing are stressed in RRA. While "in practice there is a continuum between an RRA and a PRA" (Chambers 1992:13) and it was my intention to take as participatory an approach as possible, as the research progressed the RRA techniques became more central while the PRA methods were eventually abandoned¹⁷. One of the dangers of using PRA as a methodology is that its current fashionability will result in work that clearly is not participatory being labelled PRA (Chambers 1994). This will water down the concept and lead to its co-option as a truly bottom-up methodology. Participation will come to mean participation in outsider's projects, as discussed in Section 2.7. So in the spirit of transparency I refer to my field work as an RRA rather than a PRA, although elements of both were present.

¹⁷ A fuller critique of the limitations of my methodological approach is done in section 3.3.

CHAPTER THREE: METHODOLOGY

3.1 Choice of Methodology

Field work, designed to explore how (or if) issues raised in Chapter 2 manifest themselves 'on the ground', was undertaken in Namibia from December 1994 to April 1995. There were two basic components to the field work. Approximately two months were spent in Kaokoland in the northwest of Namibia in two OvaHimba communities and the administrative centre, and two months in Windhoek collecting secondary source materials and conducting semi-structured interviews with government officials, academics and NGO workers.

At the outset it was decided to take a 'qualitative' methodological approach to data collection. This was done for a number of reasons. First, on a practical level, time and finances did not allow for the hiring of research assistants to conduct questionnaires in OtjiHerero and then translate them back into English. The use of formal questionnaires in English with the participants in Windhoek could have provided useful information, but I felt it was important to maintain a consistency in the methodology between the community-based research and the 'professionally-based' research.

Moreover, a primary aim of the field work was to contrast attitudes and perceptions between the two groups. In conducting a survey of community-based environmental knowledge, perception and practice, the aim is to understand how the environment is viewed in a local context. It can be difficult to transmit ideas and concepts to those who do not share the culture and experience of the local people. For instance, environmental knowledge is often revealed through stories and legends. Outside researchers may not ask the proper questions to obtain specialized environmental knowledge or even to grasp an accurate understanding of the general environmental ethic of the community (Johnson 1992:14). It is therefore essential that community-based environmental knowledge be documented as much as possible by local people themselves. A participant-driven approach enables subjects to articulate *their own* values and perceptions and helps to ensure that this information is interpreted accurately by outside researchers.

Most importantly, however, it is a fundamental right for people to have control over research that affects them, whether they are 'experts' or farmers. Traditional positivist research, using questionnaire surveys as the dominant or only research method, often approaches people as passive objects rather than active participants in shaping and being shaped by their physical and social surroundings (Maguire 1987:18). Often,

People find themselves on the margins not only in terms of resources. Knowledge production is also organized so that the views of a small group of people are presented as objective, as 'the Truth'. The majority of people are

excluded from participating as either producers or participants in the creation of knowledge. (Kirby and McKenna 1989:7)

The aim of this research was to do the opposite - to examine knowledge systems and abilities of people *in their own contexts, and in their own words*. Additionally, when doing cross-cultural research trust between researcher and respondents is vital. I was conscious of being a white outsider asking questions about values, attitudes and concerns of a people who have experienced generations of colonialism and apartheid. A desire to build trust and not appropriate the voices and knowledge of those taking part in the field work, as well as to make a conscious effort not to perpetuate the extractive relationships of apartheid and colonialism with my research led me to take a participatory approach.

It was decided to use a combination of rapid and participatory rural appraisal (RRA/PRA) techniques in analyzing community perception and concern about the environment in Kaokoland. A similar participatory approach using semi-structured interviews was conducted with professionals in Windhoek and Opuwo¹⁴.

¹⁴ Other techniques that were attempted in the Himba communities, such as transects and mapping, were not appropriate for the work in Windhoek.

3.2 Rapid and Participatory Rural Appraisal

3.2.1 Development of RRA/PRA

Rapid and participatory rural appraisal describes a group of methods designed to "enable local people to share, enhance and analyze their knowledge of life and conditions, to plan and to act" (Chambers 1994:953). Its development mirrored the changes in the 1980s in the rhetoric of rural development philosophy from top-down to bottom-up, from centralized standardization to local diversity. Rural research in developing countries was often seen as inflexible and insensitive to local conditions, producing conclusions that were inappropriate. Rapid Rural Appraisal (RRA) - regarded as the 'parent' of PRA - was developed in response to a desire for methods that were more responsive to the diversity and complexity of social and physical systems.

Chambers (1992:7, 1994:956) identifies three factors that led to the development of RRA. First was a dissatisfaction with the biases of "rural development tourism": *spatial* - stops near cities, or the centre of villages instead of the peripheries; *project* - where priority and attention are given to narrow project goals; *person* - meeting men rather than women, village elites rather than the poor; *seasonal* - doing research during dry cool periods rather than the hot wet season; and

diplomatic - not wanting offend by asking to meet poor people or visit impoverished areas.

Secondly, there was frustration with traditional methods of data collection. Conventional techniques such as statistical economic analysis, detailed soil surveys and social and economic surveys using standardized questionnaires were criticized for being expensive, lengthy, expert driven and having low levels of participation by local farmers (McClacken et al 1988:7-8). The third origin of RRA derived from,

the growing recognition by development professionals of the obvious fact that rural people were themselves knowledgeable on many subjects which touched their lives. What became known as indigenous technical knowledge (ITK)¹⁵ was then increasingly seen to have richness and value for practical purposes (Chambers 1994:956).

In the mid-1980's, RRA began to be criticized for being too extractive and non-participatory. RRA allow outsiders to gain information from local people; data which is then taken away and analyzed elsewhere. In asking the question 'for whose benefit?', it was apparent that local people still did not have control over the analysis and implementation of their knowledge. Participatory Rural Appraisal was developed rapidly in Asia and Africa¹⁶ in the late 1980s. In PRA, outsiders act as catalysts or facilitators who enable people to analyze, learn, make decisions and take action for themselves. The process of 'handing over the stick' is much more central to PRA

¹⁵ See International Development Studies (IDS 1979), and Brokensha et al, 1980 for early writings on local knowledge.

¹⁶ Most notably in India and Kenya.

than it is to RRA. In short, RRA is an approach where the main objective is data collection by outsiders, while PRA is an approach where the main objectives are analysis, learning, planning and action by local people rather than by outsiders.

In this respect, the methodology of my field work with the ovaHimba had more characteristics of a RRA than a PRA. Some of the techniques used, such as the transects and mapping exercises, are emphasized in PRA while others like direct observation and semi-structured interviewing are stressed in RRA. While "in practice there is a continuum between an RRA and a PRA" (Chambers 1992:13) and it was my intention to take as participatory an approach as possible, as the research progressed the RRA techniques became more central while the PRA methods were eventually abandoned¹⁷. One of the dangers of using PRA as a methodology is that its current fashionability will result in work that clearly is not participatory being labelled PRA (Chambers 1994). This will water down the concept and lead to its co-option as a truly bottom-up methodology. Participation will come to mean participation in outsider's projects, as discussed in Section 2.7. So in the spirit of transparency I refer to my field work as an RRA rather than a PRA, although elements of both were present.

¹⁷ A fuller critique of the limitations of my methodological approach is done in section 3.3.

The core methodological principles of RRA and PRA are the same, however. These principles are: **triangulation** - cross-checking data by using different sources, methods, and expertise; **a reversal of learning** - local knowledge is the basis of learning; **flexibility and innovation** - methods are added, combined and discarded as the research progresses, recognizing that it is impossible to identify all relevant questions or issues in advance; and **searching for diversity** - intentionally looking for and investigating differences in responses (Chambers 1992:14). Thus, there is no one formula to follow when doing an RRA. Rather, a number of methods are selected according to their applicability to the research problem.

Before my field work began a number of methods were selected that I believed were appropriate for my research project including use of secondary sources, semi-structured interviews, key informants, analysis of differences, transects, village social mapping, ranking exercises and participant observation. These techniques are described in the following section.

3.2.2 RRA/PRA methods and field work design¹⁸

Techniques used in an RRA study depend largely on the research objectives and available resources. As the time and financial resources available for this study were limited, I was restricted in what I could undertake.

In conducting a survey of community-based environmental knowledge, perception and practice, the aim is to understand how the environment is viewed in a local context. With this in mind, techniques that are useful in uncovering natural resource management practices and perceptions were employed. Semi-structured interviews were the foundation of the fieldwork, supplemented by the other methods described below.

Semi-structured Interviews: These are informal, guided interview sessions where only some of the questions are predetermined. Most of the other questions arise in response to answers of those being interviewed. Interviews can be conducted with individuals or in groups. Due to my obvious outsider status, and in an attempt to create a participatory atmosphere, I felt it better to facilitate discussion in an informal rather than a formal setting where the powerful tend to dominate conversation.

Secondary sources: Secondary pieces of information, both published and unpublished, that are relevant to the topic of the RRA are very helpful in preparing and suggesting paths of investigation. For the purposes of this thesis, government and NGO publications as well as unofficial consultant reports on northwestern Kaokoland and conservation in Namibia in general

¹⁸ The literature on RRA and PRA stresses that there is no rote formula, no methodological 'cookbook', to follow. One must be flexible and open to feedback as the appraisal is carried out. Nonetheless, as a neophyte researcher I found Mascarenhas 1991, and especially SLE-CATAD 1993, to be invaluable sources of information.

were collected at the outset of the research. Additionally, secondary sources gathered during the course of the field work remain vital in contextualizing information gathered by other means.

Key Informants: During the course of interviews local experts can be identified and sought out for more detailed questioning, follow-up interviews, or participation in transect walks or ecological histories. Using key informants in trend analysis can provide peoples' accounts of how environmental practices and concerns have changed over time.

Village Social Map: A social map is a map of a community or household drawn by the participants which focuses on social aspects. It is an ideal starting point to get an overview of the community. It can be used for the village as a whole or for a single household. This technique should preferably be done using groups, because the addition and combination of everybody's knowledge helps to establish a complete picture of the community.

Transect Walks/Mental Mapping: Researchers can effectively use transect walks to reveal environmental perceptions and values in oral-knowledge societies. With transect walks, key informants systematically walk along a predetermined route while the researcher listens, asks, and discusses whatever is thought important by the informant. A comparison among different informants' transect walks can provide clues to differences in perception, concern and knowledge with respect to gender, age and income.

Analysis of difference: This involves identifying differences among groups, including their problems and preferences. This includes contrast comparisons - asking one group why another is differently, or does something different and vice versa.

Participant Observation: Careful observation of daily life provides a great deal of insight to an outsider. Asking to participate in a task such as weeding or drawing water can help to break down the barriers between researcher and researched. Participatory research is best done while participating in village life.

There are general guidelines, which I employed, that should be followed when carrying out a method for an RRA (SLE-CATAD 1993:141-142).

- when employing a method, the facilitator should explain to the people very clearly why and how he/she is going to carry out the method before starting

- methods should be employed separately with younger/older women and younger/older men
- unplanned situations can be turned into a positive, for example, if a group of people are standing around during an interview with one person, it can be turned into a group discussion.
- interviews should not last longer than one half hour with individuals or one to one and a half hours with groups. Note carefully points of great discussion or conflict within a group.
- It is inevitable that in the course of discussing the research aims, during pre-testing and after initial field trials, some methods will be rejected, while others may be recommended. Participatory research must be flexible and innovative in the field.

Since I did not speak the local language while in Kaokoland, a translator/research assistant was hired to conduct interviews and to help in the final selection of appropriate methodologies, as well as to facilitate much of the actual primary research. Considerable effort was made to secure a person with a detailed knowledge of local culture. As an inquiry into gender differences was to be part of the research, it was hoped a female RA could be secured¹⁹. This proved to be exceedingly difficult and the research proceeded with male translators.

Interviews with professionals and key informants in Opuwo and Windhoek were done in English. Before all interviews or the use of other techniques I

¹⁹ While in Windhoek I was told that interviewing Himba women would be very difficult because of their role in Himba/Herero society. I found that while in mixed groups they would defer to men (although age and status of participants made this vary); by themselves or in groups of women and children they were more forthright than most men.

introduced myself and a brief explanation of the research was given (or an explanation of why I was interested in mapping or transects, if that was being done). After consent was given for the interview I asked if the interview could be taped. The Himba participants were very reluctant to be taped, often refusing, and I stopped attempting to tape my fieldwork in Etanga and Okangwati. Most of the English interviews were taped, except for the interviews with government officials in Kaokoland. All the latter requested they not be taped.

The confidentiality of my research was stressed continually while in the field. In my introduction I always stressed the rationale for my research, and what I would do with my data. Participants were informed that no proper names would be written down unless requested by the respondent. Socio-economic indicators of participants were coded and the codes kept with me at all times.

In this thesis, none of the participants requested they be identified by name. Interviews are therefore cited by code in the text. Interviews conducted in English are numbered one through twelve. Interviews conducted with a translator in Etanga and Okangwati are arranged using a four part code. The first letter refers to where the interview took place; A-Etanga, B-Okangwati. Three in-depth interviews were conducted with community game guards and were given a special designation of C.

The second letter indicates whether the participant(s) were male (M), female (F) or a mixed gender group (X)²⁰. The third letter designates whether the interview was with an individual (I) or with a group (G). The final number identifies the number of that particular interview type. For instance, AWI2 refers to the second individual interview with a woman in Etanga. A total of 25 individual and 24 group interviews were conducted in the two study areas. Twelve interviews were conducted in English.

3.3 Limitations to RRA/PRA

There are a number of limits to appraisal methodologies that affected the field work process in Kaokoland. First, it is very difficult to employ methods using a translator. Nowhere in the literature on RRA or PRA does it mention working through a translator, and it would seem obvious that using a translator in a PRA or participatory RRA runs counter to the ideals of the methodology. Much of the subtlety and nuances that occur during any method are lost. Without an adequate understanding of the local language it is naive to think a researcher can uncover in any depth the "hidden transcript" (Kirby and McKenna 1989) that is the basis for qualitative research.

²⁰ If no women participated the interview was recorded as a male group interview. More typically women would speak after the men.

Secondly, RRA and PRA are generally used as a first step in facilitating long-term development in a community. Their use as an academic tool is questionable to the extent that the appraisal often raises expectations in the community (Chambers 1994). If not followed up by action, the appraisal will once again be one of so many 'interventions' that have no consequences at all. Many times participants would ask me if I would help them "get the animals back". However, I was in no position to facilitate community-based wildlife development in my field study areas. In a real sense there was an exploitative relationship between the researcher and the participants.

Third, RRA and PRA are supposed to be conducted by a multi-disciplinary team. A wide variety of skills are brought to the appraisal. This is crucial to triangulation as well as to create 'optimal ignorance'. Working as an individual, it was apparent that these important elements were lacking in my fieldwork.

Finally, one of the key PRA or participatory RRA principles involves listening to and learning from people, and also letting the people themselves decide to a large extent what they wish to describe, what is important to them. This is necessary to let their 'voice' come through in the research. However, using appraisal techniques in an academic context, where the research objectives are largely pre-defined, means that the information solicited cannot be open-ended. Thus, there is a problem in using predefined objectives and having a goal of an open-ended approach.

CHAPTER FOUR: CONTEXT OF THE CASE STUDY

4.1 Namibia Historical Background

4.1.1 Physical geography

The Republic of Namibia is situated on the southwest coast of Africa, between latitudes 17.5° and 29° south (Fig. 2). The tropic of Capricorn bisects the country just south of the capital city, Windhoek. To the south, Namibia borders on the

Figure 2. Namibia and its neighbours

Source: Green et al 1991

Republic of South Africa, to the east, Botswana and to the north, the Peoples' Republic of Angola and Zambia. To the west Namibia has a coastline of about 1 600 km along the Atlantic Ocean and an exclusive economic zone extending 200 nautical miles out to sea (Namibia 1994).

Namibia is one of the least densely populated countries in the world. Its land area is some 824 000 km sq., roughly the size of Pakistan or Turkey, which have over 50 million people each (Ashley 1994). Namibia's total population is about 1.4 million, or about 1.7 people per square kilometre (Namibia 1994). Windhoek, the capital, is the largest urban centre with a population of approximately 320 000, or about 20% of the total population and perhaps half the total urban population (Sparks and Green 1992). Most of Namibia's population is in the north of the country, in the communal areas which were designated as 'homelands' under apartheid.

Namibia is an arid country with a hyperarid zone along the Namib coast. The Namib desert, stretching 1 400 kms along the Atlantic coast, is the world driest desert with an average rainfall of 50 mm per annum (Ashley 1994). Rainfall increases from the south and west towards the north-east, ranging from less than 50 mm to 700 mm (Fig 3). Only 8% of the country receives more than 500 mm per year, the minimum considered necessary for dryland cropping (Namibia 1994). With the exception of the extreme south-west, which can receive rainfall in any month of the year, the country falls within the summer rainfall region. In the north and east, at least 80% of the rain

Figure 3: Precipitation in Namibia

Source: Sparks and Green 1992

falls between December and March, while in the centre and south, 70% falls over six months. The rate of evaporation from open water is high, in the north about 2.6 m (420% in excess of rainfall) and in the south 3.7 m (1750% in excess of rainfall) (Namibia 1994). The aridity and variability of precipitation limits agriculture in most of the country except for the extreme northeast. Namibia has three natural vegetation biomes: the desert (16% of the land area), the savanna (64%) and the dry woodland (20%). These biomes are further divided into 12 vegetation types by the Ministry of Environment and Tourism (Namibia 1994). There are no perennial rivers within the interior of Namibia. The Kunene, Kavango, Kwando-Chobe and Zambezi Rivers are situated on the northern border and the Orange River on the southern border.

4.1.2 Colonialism and apartheid

Precolonial Namibia was composed of many different societies with different cultures and economic organizations. The Ovambo, with a mix of pastoralism and sedentary agriculture, were dominant in the north. Historians suggest that the Ovambo kingdoms were strongest in the 17th and 18th centuries, building a monopoly in trade over crucial commodities (Sparks and Green 1992). Located in the far north, the Ovambo maintained their autonomy from European influence much longer than most other Africans in Namibia. The other large population group in precolonial Namibia were the Herero. Occupying the central and southern regions of the country, they built their wealth on pastoralism (Sparks and Green 1992). The need for large tracts of land and water rights occasionally brought the Hereros into conflict with other groups, conflicts that intensified in the 19th century as groups displaced by European settlement pushed into Herero lands (Poewe 1985).

For years Namibia's barren coastline proved a barrier to penetration for European explorers bent on acquiring imperial colonies. Germany, a latecomer to the scramble for Africa, acquired control of what was known as South West Africa during the last quarter of the 19th century, making it a formal colony in 1884. The German government actively encouraged Germans to emigrate to Namibia and establish a ranching economy in the prime central and southern lands. By 1902 large numbers of whites were immigrating and Africans (especially Herero) were being

squeezed out as Germans, Afrikaners, and other whites sought larger and larger parcels of the best land (Sparks and Green 1992: 11). Laws were proclaimed that restricted African rights to land and water. Whereas the original land area of Namibia comprised some 82 million hectares, by as early as 1903 Africans had been confined to approximately 31 million hectares, while Europeans controlled 42 million hectares, including the best agricultural land as well as the rich mining areas (Green et al 1981:61-63).

In 1904, frustrated with the expropriation of their land and cattle, the arbitrary colonial judicial system, and widespread German racism, the Herero and Nama rebelled against German rule, which resulted in genocide against the Herero people. After initial success by the Herero, a new German military governor, General Louis von Trotha, issued orders for the annihilation of all Herero men, women and children. By the time a new policy of reconciliation, in 1907, some 65 000 Hereros, approximately 80% of the population, had been killed (Poewe 1985).

After the 1904-07 war, Germany imposed further restrictions on Africans; permits were required for cattle, males over ten had to carry a pass book or else be subject to arrest, and wage labour was mandatory (Cooper 1991). The effect of these laws was the creation of migrant wage labourers for the colonial economy. After South Africa invaded Namibia during World War One, some Africans hoped they would regain the land and rights they had lost under the Germans. This was not to

be, as Namibia was made a 'C' mandate trusteeship, to be administered by South Africa, for the League of Nations (Cooper 1991). South Africa pursued a policy of annexation. White inhabitants of Namibia were granted South African citizenship, the right to vote, and were represented in the South African parliament (Sparks and Green 1992:16). The system of segregation that had been established by the Germans continued under South Africa. In 1948, the National Party formally imposed apartheid on Namibia. Not only did this consolidate the system of migrant contract labour, but it also formalized the reserves first created by the Germans. Bantustans, or 'homelands', were created, and every black African was assigned to one.

4.1.3 SWAPO, war and Independence

Responding to the economic hardships and discrimination experienced by contract workers, the labour movement solidified in Namibia in the 1950s. The largest of the early labour organizations was the Ovamboland Peoples' Organization, which eventually developed into the South West African People's Organization (SWAPO) in 1959. SWAPO, together with the South West African National Union (SWANU) and the Herero Council led the resistance against apartheid. However, SWAPO differed from the other two organizations by accepting that violence may have to be part of an overall strategy to defeat apartheid (Cooper 1991).

In 1968, after the International Court of Justice failed to rule on whether apartheid violated the terms of South Africa's mandate, SWAPO's army, the People's Liberation Army of Namibia (PLAN), began to operate throughout northern Namibia (Soggot 1986). When the Popular Movement for the Independence of Angola came to power in 1974, SWAPO was able to establish bases in southern Angola, intensifying the conflict. South Africa responded by building up its military presence in Namibia, invading Angola, and supporting the National Union for the Total Independence of Angola (UNITA). At the height of the war, there was one South Africa Defense Force (SADF) soldier for every six adult citizens of Namibia (Sparks and Green 1992).

SWAPO was never a military threat to South Africa's continued occupation; however, it succeeded in forcing Namibia onto the international agenda. Moreover, it is estimated that the occupation cost South Africa over \$1 million a day, as well as created domestic trouble for the National Party (Soggot 1986). Finally, in 1988, an agreement was reached whereby South Africa would withdraw from Namibia and Cuba would remove its troops from Angola, paving the way for United Nations supervised elections in Namibia. November 6-10, 1989, Namibians finally ended over a century of colonization by electing SWAPO to a majority of seats in the new National Assembly (Cooper 1991). Formal Independence occurred March 21, 1990.

4.2 Kaokoland Background

4.2.1 History

Kaokoland, which along with parts of the former Damaraland is now part of the new Kunene Region²¹, is located in northwest Namibia (Fig 4). In 1855 Germany annexed South West Africa, but Kaokoland was later sold to the Kaokoveld Land and Mining Company of London for £45 000. In 1895 George Hartmann began extensive explorations of the area for the Mining Company. No deposits of value were discovered and the land reverted back to colonial control (Owen-Smith 1972). In 1922, Kaokoland was proclaimed a reserve for the respective tribes of Chiefs Oolog, Muhona Katiti and Kusupi by the South African administration. Six years later the area was also declared a game conservation area and annexed to the Etosha Game Reserve to comprise 34 000 square miles, the largest protected area in the world. In 1970, on the recommendation of the Odendaal Commission²², the western

²¹ In late 1992 regional boundaries were redrawn in an attempt to neutralize the apartheid past and more adequately reflect population concentrations. In spite of this, the weakness of the new Regional Administrations has meant that for practical purposes, the entity of Kaokoland continues to exist with a strong social, economic and cultural character. During my fieldwork every respondent referred to Kaokoland rather than to Kunene, and I have therefore retained the old designations in my maps and text.

²² This was a commission set up by South Africa to plan for Namibia's future socio-economic and administrative structure, in effect the creation of 'homelands' and the forced removal of Blacks to townships.

4.2.2 Physical and cultural geography

Topographically, Kaokoland can be divided into two major regions, the interior highlands and the western or pro Namib plains, which are divided by a deeply scored and broken escarpment (Malan and Owen-Smith 1934). The average altitude of the Kaoko highlands varies from 1 000 to 1 300 metres with peaks rising to over 1 800 metres in the north. Traversing the region are the deeply incised valley systems of the Hoanib River in the south, the Hoarusib in the west centre (the area of the field study) and the Kunene with its larger tributaries in the north (Walker 1978). The Kunene is the only perennial river in Kaokoland, with the Hoarusib and Hoanib flowing to the sea two or three times in a wet year. Eroded dolomite and limestone formations dominate the topography of the study area. The highly porous dolomite reduces water surface runoff resulting in few water courses. This lack of surface drainage systems is compensated for by a number of permanent springs typically associated with limestone and dolomite (Malan and Owen-Smith 1974).

In Kaokoland rainfall is predominantly of the summer convectional type, with the first scattered showers usually falling in late October or early November. A temporary lull sometimes occurs before the start of the main rains in January. The height of the rainy season is in March, when up to 275 mm have been recorded in Opuwo, but by the end of April the rains are finished for the year (Malan and Owen-Smith 1974). At Opuwo, the administrative centre of Kaokoland, the mean average

precipitation is 275 mm but the annual variation is considerable, ranging from a high of 675 mm to a low of 0 mm in 1980, the height of a three-year drought (Crandall 1992).

The population of the area as of 1991 was 26 176, representing 1.9% of Namibia's population (Healy 1994). This gives a population density of 0.41 persons/sq km., one of the lowest population densities in all of Africa. Eighty four percent of the population is rural, although Opuwo is growing rapidly (Healy 1994). Agriculture, primarily the raising of livestock, is by far the predominant economic activity. Cattle are central to the culture and social institutions of the inhabitants of Kaokoland and are rarely used for food as they are the main measure of wealth. Additionally, some cattle have religious significance, belonging either to the *okuruwo*, the holy fire (*ozondumehupa*), or to a particular ancestor (*omwaha zoviruru*) (Crandall 1991). However, as the cash economy grows, more traders are in the area buying livestock in exchange for money or goods, including alcohol (Healy 1994). The government is attempting to encourage a transition to commercial ranching, but has so far met with limited success (Interview 2,4,6).

The main factor in settlement patterns is availability of water and grazing land. The unpredictable pattern of rainfall led to a dependence on well-known water holes and springs, and consequently, settlement was around these sources of water while they lasted (Crandall 1992). Settlements were, therefore, temporary, with karals

moving when water or grazing became scarce. Beginning in the 1960s South Africa drilled boreholes and laid infrastructure, while Kaokoland was designated a Game Reserve. This led some people to take up permanent residency at formerly unsuitable sites. The drilling of boreholes increased in the 1980s as part of South Africa's campaign to win over the population in their war against SWAPO (Healy 1994:6).

The provision of boreholes has had a profound effect on life in Kaokoland. Karals are becoming permanent settlements with the cattle moved to semi-permanent cattle posts for part of the year. Severe over-grazing has resulted in many areas, to the point where the perennial grasses have been completely denuded (Healy 1994; Interview 5). This problem heightens the vulnerability of animals and people in an area prone to drought.

4.2.3 OvaHimba history and culture

According to Malan (1974) there are a number of different ethnic groups in Kaokoland including Himba, Herero, Tjimba-Herero, Zemba and Hakaona, Thwa, Tjimba and a small number of others such as Ovambo and Afrikaner²³. The Himba are transhumant pastoralists who have probably grazed their cattle in Kaokoland for

²³ Other anthropologists note that it was the policy of the South African Department of Bantu Administration to divide and classify Africans as part of their justification for the "homelands" created under apartheid, and one should read Malan's classification with a note of caution (per. comm. Wärlöf 1995).

centuries (Crandall 1992: 1). Women also plant maize during the rainy season, but this seems to have been a recent development in Himba practice, with frequent crop failures (Jacobsohn 1988; Healy 1994). The OvaHimba speak OtjiHerero, and indeed, consider themselves to be a part of the larger Herero community, both within Kaokoland and in the larger Herero community of Namibia. Malan (1974) sees the Himba and Herero as recent derivations of the same Herero stock. The two groups share many of the same social and cultural characteristics. However, although the Himba "consider themselves to be part of a larger Herero community, they maintain a separate identity; they are first and foremost, OvaHimba" (Crandall 1992:1).

What distinguishes Himba from Herero are some marked differences in material culture (Jacobsohn 1988). For instance, although young Himba men are westernizing their attire, most elder men and women of all ages wear leather aprons. Women, after reaching puberty, anoint their bare upper bodies, limbs, faces and hair with red ochre and butterfat. Herero women, on the other hand, are known for their conservative, 'Mother Hubbard' type dresses, inspired by those worn by wives of missionaries at the turn of the century. Himba and Herero domestic architecture also differs in Kaokoland. Herero houses are generally square or oblong with a thatched roof and perhaps a door which is high enough to walk through. Himba homes are usually domed-shaped and circular with low, tunnelled entrances (Jacobsohn 1988: 76-77). Additionally, it is much more common for Hereros to send their children to school, sell cattle, or convert to Christianity.

Figure 5. Ethnic Dispersion in Kaokoland

Source: Malan 1974

The history of the OvaHimba, indeed the cultural history of Kaokoland as a whole, is obscure. Malan (1973, 1974) asserts that the Hereros migrated into Kaokoland from Angola around 1550 without offering any evidence to support this date²⁴ (Crandall 1992). Malan then suggests that most of the Hereros continued migrating south to present-day central and eastern Namibia. From 1850 to 1870 the Herero who stayed behind in Kaokoland lost most of their cattle to raiding Nama tribes to the south. At the height of the raids a large number of impoverished²⁵ Hereros fled to Angola to seek refuge with the Nwgambe tribe.

The Nwgambe, also a pastoral people, looked down upon these pauperised wanderers and called them *ovahimba* (beggars) as they had come to beg residence and food. (Malan 1973: 83).

However, the Himba did not remain impoverished for long. By the turn of the century Oolog Tom, a great *omuhona*²⁶, organized the refugee Himba into an effective fighting force. In 1906 they were joined by a number of Herero fleeing the German Army after their defeat in the 1904-1907 German-Herero War (Poewe 1985). The Herero, who had adopted western dress, fought along-side the Himba with the aid of Portuguese weapons, supplied to Oolog in return for his support against tribes

²⁴ Wärlöf again warns against uncritically accepting dates from the Bantu Administration. Many African tribes were said to be recent migrants to Southern Africa, legitimizing white settlement and appropriation of African land. The date, 1550, coincides nicely with the start of white exploration and settlement in South Africa (per. comm. Wärlöf 1995).

²⁵ The loss of their cattle would have been devastating to the Hereros. Cattle are the central aspect of society, having religious and economic importance as well as being used for sustenance.

²⁶ A man who commands great respect for his wealth and wisdom.

resisting Angolan colonization. In 1920, Oolog and his followers crossed the Kunene back into Kaokoland (Malan 1973). The Herero followers settled mostly in the south and east, while the Himba²⁷ settled in the west and north (Fig 5).

The present territory of the Himba covers an extensive area of some 30 000 sq kilometres in Namibia and Angola, with the greater part of Himba territory, some 20 000 sq. kilometres, falling within Namibia (Malan 1974). It is roughly bounded by the Hoarusib River in the south, Ovambo in the east, the Namib desert to the west and the Kunene River as the northern boundary with Angola. The fieldwork was conducted in two communities, Etanga and Okangwati, as well as Opuwo (Ohopoho) (see Fig. 3).

The most significant feature of Himba social structure is the practice of double descent.

Double descent comprises the reckoning of unilinear descent through the mother and through the father, thus producing uterine kin groups called *omaanda* (sing. *eanda*) as well as agnatic groupings referred to as *oruzo* (sing. *oruzo*). (Malan 1974:118).

This system is not unilinear, but bilinear, since descent is traced through both lines. There is not a conflict between the matriline and the patriline because they represent entirely different functional interests. Residence patterns, religious activities and the exercise of authority in the family are organized according to the *oruzo*, while the

²⁷ A bit of a misnomer now, since they had acquired a great deal of cattle in the expeditions with Oolog and thus were no longer 'beggars'.

major economic function, the control and inheritance of wealth, belongs to *eanda* groupings (Malan 1974; Crandall 1991).

The OvaHimba in Kaokoland operate within a highly flexible common property regime. That is, access to land and water rights are held communally, although not necessarily in common. Access to veld fruits and hunting areas are theoretically available to all. The rights to specific portions of grazing land, and to some extent water sources, are acquired through a history of use. However, all of these rights are flexible and are tied in with a great many social functions as well as the particular dynamics of any specific community.

Cattle are of central importance to the Himba way of life. The utilization of grazing land, however, is totally dependent on the availability of water for their livestock. In order to cope with the unpredictable and variable rainfall of Kaokoland, Himba farmers do what pastoralists throughout dryland Africa do; they move to where the rains have fallen. Nomadic movements ensure that natural resources are given the time to regenerate when the rains come. Arid rangelands cannot be managed effectively by adhering to a single conservative stocking rate in a fenced area (Benhke 1994); rather, 'opportunistic management' is necessary. This means moving herds seasonally to areas of greatest rainfall and allowing livestock numbers to grow in good years. This will ensure that some survive the periodic droughts which decimate herds (Benhke 1994).

Until the 1970s most Himba were relatively unaffected by modern society. When SWAPO opened up a second front in Kaokoland, the SADF occupied the area in large numbers. A number of young men joined the SADF, thus becoming the first generation of Himba wage-earners (Jacobsohn 1991). Additionally, as part of their 'hearts and minds' campaign, the SADF provided boreholes to many communities. Having constant access to water combined with the fear the war produced resulted in a reduction in the amount of movement families undertook. Karals became more permanent as did winter cattle posts. This has contributed to denudation of grasses on which cattle depend (Healy 1994). When the worst drought on record struck Kaokoland between 1979 and 1981, the Himba lost over 80% of their cattle (Crandall 1992; Healy 1994). The lack of mobility that the war created, combined with the denuded state of grazing land, were partly responsible for the loss of so much of the Himba's wealth. In times of drought, Himba normally turn to hunting (which is looked down upon as a lower form of existence) in order to survive.

The early 80s drought had a major effect on the wildlife in Kaokoland. When the SADF entered the area poaching became a major problem and the central authority refused to take steps to control it. Indeed, many of the biggest poachers were members of the South African government (Walker 1978). As part of their war against SWAPO, the SADF issued between two to three thousand .303 rifles to Himba and Herero farmers in Kaokoland (Owen-Smith 1986). When the drought persisted, the now cattleless herdsmen turned their rifles on the surviving herds of

game. To make matter worse, the demand for rhino horn and ivory had increased dramatically in the Middle and Far East, and their black-market value had skyrocketed (Owen-Smith 1986).

By 1983, larger species of game, including black rhino, elephant, and lion had been virtually wiped out. Conservationists both within Namibia and around the world decried the loss of unique wildlife like the desert elephants and coastal lions. A program of incorporating selected Himba and Herero communities in wildlife conservation was developed in 1983. This program forms the basis of the field research. In order to put the case study into a larger context, a brief history of conservation in Africa in general, and in Namibia specifically, is presented in the next section.

4.3 Conservation in Africa

4.3.1 Historical background

Conservation in Africa has been centred almost exclusively around wildlife conservation. Moreover, conservation policies have tended to take a top-down approach with the goal of 'protection' or 'preservation' of wildlife. Wildlife conservation using this approach is usually unsympathetic to the needs of local people (IIED 1994). It is often militaristic, with armed and uniformed conservation officers

2 of/de 2

PM-1 3 1/2" x 4" PHOTOGRAPHIC MICROCOPY TARGET
NBS 1010a ANSI/ISO #2 EQUIVALENT

PRECISIONSM RESOLUTION TARGETS

whose main job is law enforcement and public relations (Anderson and Grove 1987).

Communities who have lived and utilized wildlife for thousands of years bear the costs of conservation, when 'ownership' is placed in the hands of the State.

Revenue from protected areas and tourist activities is usually directed to the government treasury and/or external entrepreneurs. Very little tends to be reinvested in these areas or surrounding buffer zones. (IIED 1994:11).

This style of management originated during the colonial period. Many Europeans viewed Africa as a 'Garden of Eden', providing the opportunity to experience the 'wild and natural' environment that no longer existed in the domesticated landscapes of Europe (Anderson and Grove 1987). Land was demarcated for national parks and game reserves to protect large animals and their habitats, without the consent of the local communities. Local people were seen as a threat to wildlife and forests and restricted from areas on which they previously depended for their livelihood. Colonial legislation banned traditional hunting rights and restricted the provision of hunting licences to local Africans (Ghai 1992:10-11). In the 1960s, many expatriate conservationists were worried about the consequences of independence. Conservation organizations, including what is now known as the World Wide Fund for Nature (WWF), were created as a means of pressuring governments to retain protected areas. Since independence, African governments have expanded protected areas. Moreover, the International Institute for Environment and Development suggests that they have remained dependent,

on external support and advice, and this has enabled Westerners to continue to dominate the conservation arena, according to their own priorities. (IIED 1994: 12)

Tourism has also become an important source of income for the governments of developing countries. However, the economic benefits from eco-tourism, such as game viewing and sport hunting, often by-pass local communities. Additionally, the growing movement towards 'global ecology' has prompted a number of emotional campaigns in developed countries aimed at ensuring the survival of fashionable species.

These campaigns have often propagated beliefs that reject most forms of consumptive wildlife utilization and have been promoted by international NGOs, which tend to be 'preservationist' in their approach to wildlife. (IIED 1994:12)

The controversy over the ivory ban clearly illustrates the conflict of values. Several countries, including Namibia (Interview 5, 9), perceive elephants as an economic resource that should be managed for the benefit of their populations, whereas many international conservation NGOs maintain elephants should not be exploited.

At times people have been removed from their lands and settled in entirely different climate zones (see for example Århem 1985). They are denied access to the resources that were fundamental to their way of life (Århem 1985). It is not surprising that conflicts between authorities and local people have occurred. Poaching, arson, and acts of vandalism can be seen as forms of resistance by marginalized people

(Scott 1985). For many years these conflicts were met with force by conservation officials with the implicit support of international NGOs.

4.3.2 Current directions

It has become increasingly clear that the top-down approach to wildlife management which emphasizes strict conservation of species and habitat has not always achieved its stated objectives (IIED 1994). Conflicts between local people and government authorities have escalated, forcing conservationists to reassess their ideologies and methods. Involvement of local communities is now seen as vital to the success of any conservation design. There has therefore been a shift from top-down approaches to more participatory approaches in recent years (IIED 1994).

New approaches build upon community structures and practices and then attempt to combine these "with scientific knowledge and technical expertise" (Jones 1995:7). They focus on common property resources and seek to strengthen common property management institutions and practices that have been weakened as a result of colonialism or population pressures (Mpofu 1991). The strategies for participatory approaches are varied, depending on conceptions of participation (see section 2.7), but most ensure some sort of benefits from conservation accrue back to local populations. Strategies include compensation, income generation, substitution, education, buffer-zone management, game ranching and empowerment (IIED 1994). All of these new

approaches seek to link conservation and rural development and draw heavily on the participatory methodologies of modern development theory (IIED 1994).

4.4 Conservation in Namibia

Existing literature on the pre-colonial utilization of wildlife in Namibia is scant. However, Yaron et al (1993:3) note that some sectors of the population were almost certainly wholly reliant on wildlife as their primary source of food. By the time the first European explorers, missionaries and traders entered the region in the late 17th and early 18th centuries, patterns of wildlife utilization in pre-colonial Namibia were distinguished by ethnic group and physiographic region. Among the Herero/Himba groups in Kaokoland, hunting was a secondary activity undertaken at the level of individual households and used to augment domestic diets in times of hardship, and particularly in years of drought (Yaron et. al 1993:12).

The first game reserves were proclaimed by the German colonial governor Von Lindequist in 1907 (Ashley et al 1994). These included the present Etosha National Park, the Namib desert and Kaokoland. With the exception of the desert preserve, all the areas proclaimed fell outside the so-called 'police zone', an area predominantly occupied by white settlers. Loss of access was thus felt most directly by the indigenous population, as all areas proclaimed were renowned for the richness of their wildlife (Yaron et al. 1993).

With the South African takeover of the country in 1915 there was a reduction in the amount of land allocated as nature reserves as reserves were de-proclaimed to create ethnic 'homelands'. Nonetheless, by 1965 the amount of land set aside for conservation (8.7%) was comparable with surrounding African countries (Ashley et al 1994). Under colonial rule, the Directorate of Nature Conservation of the South West African Administration administered the state-owned national parks, nature reserves and national recreational areas. The primary functions of the Directorate were care of the animal population; administration of licensed hunting; combatting of wildlife borne epidemics; research; and maintenance of recreational facilities (Yaron et al 1993:4). The Directorate perceived its role to be predominantly one of preservation rather than of conservation.

The protection of wildlife from human interference took priority over the development of any form of symbiotic relationship. the focus of conservation efforts, moreover, was predominantly on proclaimed reserves. Thus, for example, in 1967 the Directorate of Nature Conservation allocated more than 90% of its total national budget to the administration of the Etosha park. (Yaron et al 1993:4)

The most significant piece of legislation to be enacted under South African colonial rule was the Nature Conservation Ordinance No. 31 of 1967 (Jones 1995). Under the provisions of this Ordinance, commercial farmers (virtually all of whom were white) effectively gained full ownership of the wildlife on their farms. Although the off-take of wildlife was further regulated by an additional series of licensing provisions, "the net effect of this policy was to attach a real commercial value to game" (Jones 1995:2). With this incentive, many farmers sought to utilize 'their'

wildlife and, in turn, this led to the buildup of wildlife numbers in many areas outside of the national reserves (Jones 1995).

In contrast, within the designated communal areas hunting was officially prohibited. Under this system the important bushmeat in the diets of most of the indigenous population, especially during times of drought, declined to negligible levels. Hunting, for most households, became a clandestine activity which carried with it the risk of high penalties (Owen-Smith 1986). Despite these restrictions, however, wildlife numbers in the communal areas declined rather than increased during the decades leading up to independence. This was due to increased population pressure, a succession of droughts, and to widespread poaching by both the South African military and by those local community members who had acquired firearms through their association with the occupying forces (Yaron et. al 1993:9).

CHAPTER FIVE: CASE STUDY AND DISCUSSION

5.1 Introduction

A severe drought between 1979-81 decimated wildlife in Kaokoland. Either through the drought or poaching the populations of most big game species were eliminated in many areas. A plan designed to include local people in conservation efforts was set-up in 1983. The Namibian Wildlife Trust (NWT), an NGO funded by a variety of international donors, started what became known as the community game guard program (Owen-Smith 1986). Under this program, area headmen selected local men and appointed them as game guards who remained under their authority, but were supervised and given basic training by the NWT. Guards reported game numbers, location and poaching activities, and in return the NWT supplied the guards with food rations and a small monthly allowance (Gawanab-Minney 1992).

In 1987 the program was expanded in one Himba community to include tourist and small craft development²⁸ (Jacobsohn 1991). In this program a "democratic decision" was made that all adult men and women of the community would share the proceeds from a tourist levy. A committee comprised of the heads of the six families

²⁸ The area experienced an increase in tourism in the 1980s. Centuries-old heirlooms were being traded with tourists for a couple of bottles of wine or a blanket. In response to this, a small craft market was set up to sell Himba-made goods (mostly baskets and stools) to tourists (Jacobsohn 1991).

living in the area was formed to dispense the levy as well as serve as a liaison with tourist operators²⁹.

At independence, the new government of Namibia, looking to redress the inequity of colonialism and apartheid, was firmly committed to the development of communal areas. Tourism, especially eco-tourism, is viewed as one solution to bringing "economic growth and empowerment in communal areas while raising community commitment to conservation" (Ashley and Garland 1994:28). Namibia's unusually large diversity of wildlife is viewed to be a key component in attracting eco-tourists. Additionally, work was started on developing the potential role that consumptive³⁰ wildlife enterprises could play in communal areas (Yaron et al 1993; Ashley et al 1994). Legislation to facilitate and regulate the use of wildlife in communal areas was developed by the Ministry of Environment and Tourism (MET) (Jones 1995). This legislation will be discussed in Section 5.3.2.

²⁹ This overruled a suggestion by some of the younger men that the levy be shared among all adult men. The women at the meeting vehemently opposed this idea, preferring to entrust the levy to the six older, responsible family heads. (Jacobsohn 1991:218)

³⁰ A distinction is often made between consumptive and non-consumptive wildlife uses. Consumptive activities relate to trophy and sport hunting, culling, live game dealing and shooting for one's own consumption. Non-consumptive uses include photo safaris, ecological and waste assimilation functions, as well as indigenous and non-indigenous values associated with various species.

In conjunction with independence, a number of international funding agencies have begun working in Namibia. One program, Living in a Finite Environment (LIFE), is concerned with developing community-based natural resource management (CBNRM). Both the LIFE program and MET advocate the need for participation of local communities in communal areas in CBNRM projects, and have solicited input from the designers of the community game guard program in Kaokoland.

This combination of international funding agency and NGO, national government and NGO, grassroots NGO and local communities all involved in similar CBNRM development, served as a case study for the thesis. It provided a unique opportunity to examine whether or not the space for knowledge, action and participation at 'lower levels' is constrained by 'globalized' notions of sustainable development at 'higher levels'.

5.2 Research Process

Fieldwork was conducted in Namibia from December 1994 until April 1995. The first three and a half weeks were spent in the capital, Windhoek, reviewing RRA/PRA techniques and creating a detailed outline of the research plan. A complete draft of the research plan was developed and presented to members of ACORD, an NGO specializing in participatory methods training. It was mentioned that the research might be difficult to do with a translator, but the overall research design was

thought to be sound. Also during this time contacts with international and Namibian environmental NGOs were made.

The field plan was affected at this point when expected funds and logistical support were not available. This constrained the possibility for community-based research and severely limited where, and for how long, I could go. However, I was fortunate enough to meet an anthropology PhD candidate who was returning to Kaokoland to continue his research and who kindly assisted me with transportation, and with securing a translator, as well as providing invaluable insights into Himba/Herero culture.

Upon my arrival in Opuwo, interviews were arranged with key informants and a translator secured. As an analysis of gender difference in natural resource management was part of the original research plan, considerable time was spent looking for a female translator. This proved to be exceedingly difficult. A woman was eventually found, but the next day she was accepted into teachers' college and was no longer able to participate in the research. Two experienced male translators were hired for each of the study areas³¹. Interviews were then conducted with key informants regarding Himba culture and current conservation efforts in Kaokoland.

³¹ I was actually quite fortunate in my choice of translators. The mother of the translator who worked in Etanga was from the community. He was therefore knew the community well, having lived there for a number of years, and was well-liked and comfortable talking with all members of the community. Similarly, the other translator had spent the previous year working in Okangwati and knew the community well.

The fieldwork was then carried on in the study areas, four weeks in Etanga and two weeks in Okangwati. Chapter Three describes the research methodology; however, it should be noted that many of the techniques were not successful, and informal interviews proved to be the main source for data collection. The main reason for the marginal success of many of the appraisal techniques was the structural limitations in working through a translator. Many of the participatory methods, such as mapping and transects, are designed to facilitate animated discussion on a particular topic. It is during this discussion that many attitudes and concerns of the participants are uncovered. In attempting these techniques, my translators were not able to translate a good portion of most conversations. Even with the best of translators, I believe many of the nuances that are vital to good PRAs are lost on non-language speakers. Other factors that contributed to the lack of success of PRA techniques were my inexperience in facilitating these methods, as well as my failure to accurately convey to my translators the purpose behind the techniques we attempted.

It was therefore decided to rely mainly on informal interviews through most of the research. Typically an interview would start with an explanation that I was interested in what the person, or persons, used in the environment. Questions on access to the resources mentioned, and history of use and training would follow. Usually questions on wildlife would be asked, if not brought up by the participant. It should also be mentioned that for most of the fieldwork period a drought was

deepening, and many people were away at cattle posts. However, in Etanga groups of people would arrive for one or two days to deepen wells and water cattle and I was able to conduct approximately 15 individual and 17 group interviews. In Okangwati 10 individual and 7 group interviews were conducted.

After my fieldwork in the study areas, additional interviews were conducted with Ministry officials in Opuwo. Upon my return to Windhoek, interviews were conducted with the major actors in the LIFE program. A total of twelve interviews were conducted in English. The interviews are cited in the text according to the codes described in section 3.2.2.

5.3 Finding 1: Conservation Approaches from 'Above

5.3.1 The LIFE Program

The Living in a Finite Environment (LIFE) program was started in September 1992. It is a ten-million-dollar (US) program funded by the United States Agency for International Development (USAID), with matching contributions in kind by MET in Namibia and a 25% match in funds by the World Wide Fund for Nature (WWF) based in Gland, Switzerland. Through a cooperative agreement with USAID, WWF-US takes the lead in managing the LIFE program. It serves as the main implementing

agency, and as a liaison between AID and the Namibian participants in the program.

According to the WWF (1995:1), the goal of the LIFE program is to,

enhance the capabilities of poor, rural communities living on marginal lands to meet their basic human needs by increasing Namibia's resource base and managing its natural resources in a sustainable manner. The Programme strategy is to support local organizations in their efforts toward this goal by providing technical assistance, training and grant funding. Activities supported by the LIFE Programme include those that:

- empower and build the capacity of local communities in the target areas to manage and benefit from their natural resources;
- provide information for decision-making regarding community-based natural resource management
- contribute to the development and maintenance of the resource base for the purpose of sustainable use by and for the benefit of residents in the target areas; and
- strengthen and/or build institutions that support CBNRM at local or national levels.

The main actors involved in CBNRM work with the LIFE program are USAID, WWF, MET, and Integrated Rural Development and Nature Conservation (IRDNC)³². Interviews were conducted with each to solicit views on CBNRM and identify different perspectives among actors involved with LIFE on how local communities can participate in CBNRM projects. The results are presented below.

³² This is a grassroots NGO involved with local conservation efforts in northwest and northeast Namibia. One of the Directors of IRDNC was the prime mover behind the community game guard program in Kaokoland.

While USAID is not directly involved in the theoretical or practical development of CBNRM in Namibia, as the primary funder it does shape the context in which the program takes place. AID sees CBNRM as more of "a community development process". AID's role is to

help communities understand their need to manage their resources; to get benefits back from the resources so they manage them better and keep that cycle going (Interview 7).

The primary reason for CBNRM is economic. Wildlife is viewed as having "a high income return". As a by-product of income-generating schemes a effective incentive toward conservation is created in local communities. Conservation, then, is seen as a process where resources are managed efficiently "to keep the cycle going" (Interview 7). This emphasis on income generation and management closely echoes the discourse on sustainability heard from the WCED and at UNCED. One of AID's major goals is participation, creating "a participatory process". Participation consists of,

involving the community in trying to present what they think their problems are, and then how they resolve their local problems. This is kind of our American democracy kind of focus. You have to be able to talk to representative officials at the local level, the regional level and then the national level in order to be a participatory member of your society....So you have to involve local people in this process. (Interview 7)

Participation is designed to facilitate the inclusion of previously excluded communities into regulative institutions. It is, then, a means rather than an end in itself (Goulet 1989).

The WWF, in much the same way as AID, sees its role in developing CBNRM in Namibia as a process of,

increasing community awareness [of their environment] and their knowledge of different opportunities; assisting communities to organize and mobilize themselves in a communal, legally recognized body; [and then] to start providing skills to more effectively manage their resources in a partnership fashion with government. (Interview 8)

WWF is able to share their "personal and institutional experience" with Namibians in the development of CBNRM. However, WWF sees CBNRM as a more flexible program than AID. When developing CBNRMs,

we have to deal with each area specifically in order to meet the specific needs of that area, to capitalize on the specific strengths of that area, and overcome the specific weaknesses of that area and the social communities that are inhabiting that area. (Interview 8)

It is left up to the community itself to take the lead in defining its specific needs with regard to natural resource management.

you have to let the people take the lead so it's their program.....it is up to the people in that community to decide what the appropriate way to go is....it is important to build upon existing institutions and letting them evolve. (Interview 8)

This suggests that the WWF views participation as a goal in itself, what Rahnema (1992) calls genuine popular participation. However, there is evidence that the WWF also has the biases which reflect power structures in society that 'agents of change' can bring to projects (Rahnema 1992:213). When discussing the possibility of local communities setting quotas themselves, local knowledge is regarded as limited and needing to be incorporated with scientific methods. A large measure of control by outside experts is envisioned for any future CBNRM schemes.

There is an incredible myriad of indigenous knowledge that we have not harnessed yet....as of yet, there is no understanding of modern conservation methodologies.

so you have to marry the indigenous knowledge with the modern methodology of management of resources. And also put in place institutions that allow communities to allocate and manage their resources at a sustainable level.

there is a good understanding of how resources are traditionally conserved...but a lot of those methodologies are no longer effective, so there has to be some institutional structure put in place. (Interview 8)

Presumably it is the role of outside experts to harness and shape indigenous knowledge while teaching modern conservation methodologies. While there is a desire to create space for local structures in WWF's philosophy, there is also an assumption that they have the ability to "empower" communities.

The working relationship between WWF and Namibian groups was described as very good by WWF. There was some resistance to WWF initially, mostly stemming from its position advocating placing elephants on Appendix I of the CITES convention, which Namibia opposed³³. However trust has been built up by "basically letting Namibians drive the program" (Interview 8). WWF does frequently have to negotiate tense situations which develop between AID and Namibian organizations; this, to some extent, is its primary role. Tension between WWF and

³³ The Convention on International Trade in Endangered Species (CITES) placed elephants on Appendix I, the most restrictive category of the convention, over the objections of countries in Southern Africa -- South Africa, Botswana, Zimbabwe and Namibia. These countries argued that, while elephants were endangered in East Africa, the populations in Southern Africa required periodic culling and they wished to use the proceeds from ivory sales to support conservation programs (Interview 5). International conservation organizations, especially WWF, were instrumental in successfully lobbying for the placement of elephants on Appendix I.

AID mostly stems from time constraints and demands by AID for measurable results at the end of a program.

The Namibian Ministry of Environment and Tourism (MET) had been working on ways to grant rights over wildlife to communal areas before the LIFE program commenced. CBNRM is seen as an important method of sustainable income generation in much the same way it has been viewed by USAID (Ashley et al 1994). However, through interviews with academics and Ministry officials, it became apparent that other factors, such as redressing the inequities of the past, as well as developing more 'sustainable' methods of wildlife conservation were central to CBNRM development (Interviews 5, 9, 10). (MET's philosophy on CBNRM will be discussed more fully in section 5.3.2.) Since its inception, LIFE has been a major source of funds for Namibia's national CBNRM program. At present LIFE is supporting a "large chunk of the local projects and also giving support nationally" (Interview 9). MET has a good working relationship with most of the actors in LIFE.

WWF has not driven or pushed the program.....input from WWF has been within a very acceptable form of the technical assistance they are providing. (Interview 10)

However, with AID it's a constant battle to make sure there isn't interference. (Interview 10)

Members of Integrated Rural Development and Nature Conservation (IRDNC) have been developing and working on CBNRM at the local level since the early 80s.

IRDNC is the main implementing agency with communities and is involved in pilot projects in East and West Caprivi and Bushmanland. The foundation of much of IRDNC's projects is the setting up the community game guard programs.

Community game guard is a mechanism to get local people to take responsibility for their wildlife, instead of the Namibian government.....The early part of the program is building up trust; then providing skills they don't have to make them into genuine partners with government; only then can we work on facilitating social and economic benefits back to the community. (Interview 12)

The approach taken is again participatory. However, IRDNC tries to avoid biases when working with local communities. Its experience working directly with local communities is reflected in its philosophy.

Our philosophy to work with communities is that communities are very abstract, usually fragmented, usually factionalized. We try not to push our own agenda too hard. We work with the situation in that particular area as we find it. Where you were it's really traditional authority, local leadership, in other areas there is more, shall we say, modernized influence, with community development committees or other structures that have been set up that have political influence. What is important is to work with the situation as you find it; work with it. Try to get everybody together and build consensus. It is a long and hard process. (Interview 12)

There is some resentment by Namibians towards the high profile that LIFE has with respect to CBNRM in Namibia. The LIFE program is felt by IRDNC to have made an important contribution to the development of CBNRM in Namibia, but the international organizations are only in the country for a short period of time. WWF-US is viewed in a positive light, "very effective; have a lot of very constructive interaction; they have brought a lot of skill into this country" (Interview 12).

However,

AID, who has the money is another story. They have got their own agenda which is not the same as ours. They have got a strong American, capitalistic agenda. Which is fine for America, but this is Africa...and we don't think it's appropriate at face value. The other friction with AID is the time scale; they want to see results in X number of years.....To them LIFE may be a project, to us it money for the foundation of a much longer term program (Interview 12).

A recurrent theme in the interviews with the main actors in the LIFE program was the lack of legislation to give local people in communal areas real power over wildlife. Pilot projects could not proceed until there was a legal framework in place. On 10 March 1995, a conservancy policy for communal lands was passed by the Namibian Cabinet. Since this will be the future framework within which wildlife conservation, and CBNRM in general, will operate, the main points are presented below.

5.3.2 Draft Conservancy Policy for Communal Lands

In 1968, farmers in the commercial areas of Namibia were granted rights over wildlife if they met certain conditions. This proved to be very successful both as a financial option and as a conservation tool (Jones 1995). After independence, MET sought ways in which rights to wildlife could be extended to rural areas. In 1995, a policy on the formation of conservancies on communal land was passed by Cabinet, virtually assuring that it will become law by spring of 1996.

In its policy proposal the Ministry cites a number of key issues surrounding the formation of conservancies on communal lands (Jones 1995). First is the economic benefit from wildlife which could be used by rural communities to foster 'development'. Previous reports compiled a detailed analysis of the economic returns from various forms of wildlife utilization (Ashley et al 1994; Yaron et al 1993). Second, it is felt that by granting rights over wildlife to local communities conservation will be greatly enhanced. When local rural communities do not have clear rights, game becomes an open-access resource leading to potential over-exploitation. Third, rights that will devolve to rural communities are conditional. The Ministry retains substantial control over the formation of conservancies and the utilization of wildlife. Finally, rural communities are granted a large degree of latitude in defining who comprises the community, who is selected to serve on management committees, and the areal extent of the conservancy.

The highlights of the conservancy model for communal lands in Namibia are as follows (Jones 1995:14-17):

- Each conservancy should have the right to utilize wildlife within the bounds of the conservancy to the benefit of the community. The conservancy member will decide how these animals may be utilized.
- In order to gain rights, the conservancy must satisfy the MET that it has the capacity to manage wildlife resources:
 - it must be legally constituted
 - it must have clearly defined boundaries that are accepted by neighbouring communities and conservancies

- members of the conservancy will be defined by the community within the conservancy
- the MET must be satisfied that the members of the conservancy council (CMCs) are sufficiently representative of the community served by the conservancy
- The Ministry will hold the right to set sustained-yield quotas for the use of game animals.
- The Ministry will hold the power to withdraw all rights to game utilization from a conservancy if the conservancy shows itself irresponsible in the use of wildlife.

5.4 Conservation in Namibia: global ecology?

The classic top-down approach of wildlife conservation in Africa begins with an assumption that African game are unique and of value to the whole world, they are global resources (IIED 1994:55). Conserving wildlife for the whole world, as well as for future generations takes precedence over local issues and livelihood. A major justification for this approach is the conservation of biodiversity, a concept which is defined in global terms. It therefore tends to be natural scientists, who have skills utilizing Western scientific methods, who are put in charge of wildlife management initiatives, to the exclusion of local people. However, the IIED (1994:56) notes that,

community use of wildlife occurs whether it is acknowledged by authorities/outside or not. *Whose knowledge* of species and ecosystems becomes of strategic importance for identifying sustainable management systems. Community knowledge of wildlife resources and ecosystems, their change over time, and the degree of change communities are prepared to tolerate should become the focus for new work on the ecological effectiveness of community wildlife management.

To the extent that the LIFE program and MET's new conservancy policy attempt to involve local people, it is clear they are not working from a top-down philosophy. A genuine commitment to participation and the inclusion of local people in decision-making structures exists on all levels among these actors involved with wildlife conservation. In this respect major conservation efforts in Namibia do not represent the narrow interests, the 'globalized local' (Shiva 1993a), of northern environmentalists and biotechnology organizations. Nonetheless, the findings do suggest that the space for knowledge, action and participation is constrained by 'higher order' actors. Moreover, there is clearly tension between levels and within levels.

In interviews with international, national and regional NGOs, differences between organizations within the same level were mentioned. Tensions differed according to level, focusing on control internationally; environmental philosophy nationally³⁴; approach regionally³⁵; and access to resources locally.

Tension between levels was also apparent. Criticism of AID's input into the LIFE program was mentioned by the three other major actors. It was expressed in

³⁴ In interviews with national conservation NGOs the MET's "new openness" since independence was stressed. It was noted, however, that debate still existed between NGOs and the State on such matters as quota levels and culling methods. (Interview 11)

³⁵ This was mentioned as a difference in philosophy between a development NGO starting to work in conservation and a conservation NGO starting to work in development.

more critical terms as one moved to lower levels, indicating a stronger resentment towards the limited scope of AID's narrow "capitalist agenda". The Namibian organizations emphasised they had a good working relationship with WWF, but also mentioned consciously working on keeping LIFE a Namibian-driven project by placing outsiders "on probation" until they were comfortable with them. This could reflect that fact that the power relationship between WWF and MET is not as unequal as with USAID.

Indeed, in at least financial and resource terms, WWF is not the equal of MET. There has been a concerted effort by WWF, MET and IRDNC to work consensually, and the data is not clear as to whether there is tension as a result of different environmental philosophies among the three actors. The data does suggest that there is wide consensus on philosophical approach to wildlife conservation amongst the actors involved. However, they differ markedly on how they perceive the participation of local communities and the inclusion of local knowledge.

The interviews do suggest that there are difference in how CBNRMs are conceptualized. The space for genuine popular participation within CBNRM is conceived in narrower terms among the international and national organizations when compared with grassroots organizations. USAID views participation as a way to strengthen institutions, and vital to ensuring financial benefits return to local communities. CBNRM schemes are an important method of income generation for

local communities. On the other hand, WWF and MET see participation as a means by which local communities can participate in decision-making structures. However, embedded in WWF's and MET's philosophy on participation is an assumption that outsiders will assist communities by providing the knowledge for better management. Control is still maintained by outside experts or State authority.

Implicit in this assumption is a view that local people do not possess the knowledge, or at least the correct knowledge, to manage wildlife efficiently. There is a general interest in facilitating the continued existence of some forms of local social structures. This is reflected in the new conservancy law stipulating that local people will define who they are as a community, what members will represent them on community management committees, and what the areal extent of their conservancy is. However, to each of these points the Ministry attaches a caveat. The conservancy has to be of a size that is suitable for wildlife management, knowledge which the Ministry, not local people possess. Similarly, the MET maintains that community management committees must be "representative". What "representative" means remains to be defined. It is, admittedly, "a means in which MET can retain some control over conservancies" (Interview 10). How much control the MET will exert on local communities in the formation of conservancies remains to be seen. As the new legislation begins to be implemented in local communities, it will become clear if conservancies act to limit the space for local forms of knowledge and participation.

The approach the MET takes to conservancies is contrasted by the method taken by the grassroots organization. IRDNC use CBNRM both as a tool for conservation and for community development, development from within the community. Participation is seen as a slow process of talking to the community, building up trust and letting local people define how they wish to use wildlife. There appears to be more of a commitment, or at least an understanding, of the need for local people to *define* their future, if not as a human right, then to ensure that wildlife conservation is truly sustainable. Moreover, there is a much greater awareness of the difficulties that the diversity and complexity of local communities present when attempting to facilitate equitable development. Part of this undoubtedly is a reflection of working on a micro scale, directly with local people, rather than nationally on a policy level, or internationally on a theoretical level.

5.5 Findings 2: Conservation amongst the OvaHimba

The fieldwork process in Etanga and Okangwati attempted to let people describe in their own words, and in their own way, what resources were valuable to them, how access to these resources are distributed, as well as eliciting specific views on wildlife. A number of themes emerged from the data.

First, there was wide consensus on the most important resources. Invariably they were listed as water, grass, and wild fruit. Other important resources mentioned

were ochre that women spread on their bodies, perfume, salt, and wood. However, when ranking exercises were attempted the most common reaction was laughter. Comments like, "Why do you do this? We need them all to survive (AWG1)", or, "They are all equally important, not one more than another (AMG2)", were typical. This suggests that natural resources are not viewed in an analytical, segmented manner as is common in conservation theory and environmental analysis.

Determining who has the right to access specific resources is complicated. Upon initial questioning, the answer is generally, "I can go anywhere to graze my cattle (BMI1)", "Any direction, I can pick fruit (AWI4)". This is true to some extent, but rights of informal ownership, or proprietorship, of areas are developed through continual use. These rights are not held individually but collectively in a family group. If the grazing is good no one minds when someone passes through with a herd of stock. Similarly anyone can pick fruit off a tree as she/he passes by. If herder(s) wish to graze for longer on area that is traditionally used by someone else they must ask, "politely and gently", permission from the family head of that area to stay there for awhile (Interview 2). Permission is almost always granted. However, if it is perceived that newcomers are over-using a resource, or when resources become scarce through drought, proprietorship becomes more pronounced.

If they are picking too many fruit from a tree we use, then I will go to them and say, 'why do you take so much fruit'? I can take them to court. (AWI2)

Anyone can come to Etanga and graze their cattle.

Can someone from Ongongo come here now [during the drought]?

No. Not now. We do not have enough grass here.

Can Nd [a neighbour] bring his goats to your cattle post tomorrow?
 If it rains today, sure! Right now there is no grass...well very little. Not
 enough for my cattle. They are skinny and begin to die. He must stay at his
 cattle post. (AMIS)

Conflicts within the community over resources are dealt with by a council of elders under the authority of a Headman, who is usually an *omuhona*. Discussion and debate, which is almost always civil, takes place until consensus is reached. If consensus cannot be reached, the Headman will usually decide the matter. People, of course, are free to move whenever, or wherever they wish. However, if they move from one region to a region controlled by another Headman, they must first seek the permission of that Headman to settle in the region. After being accepted into the region, they can then begin the process of establishing a *karal* (Interview 2).

Since wildlife conservation was central to the framework of the thesis, questions on past use and current conditions were asked, if not brought up by the participants. A number of themes emerged from the data: loss, mistrust/fear, resentment, and dissatisfaction. The hunting of wild animals seems to have been governed by fewer social bonds than the utilization of other resources. That is, it was more a concern of the family group, rather than the dynamics of the *eanda*, *oruzo*, or community. This is perhaps because hunting was always viewed as secondary means of existence. It was often opportunistic; done when game was encountered while herding goats or cattle. Predators were also hunted when they threatened livestock or family. However, with the commodification of game, especially the valuable elephant

and rhino, in the 1980s, more territorial control began to be exerted over wild animals. This appears to have continued as game has become rarer and rarer.

Now there are no wild animals. No hunting because the young bought guns; they split themselves in different directions and hunt all the animals. Before a person could go anywhere to hunt; today there is more control over wild animals in traditional grazing areas. (AWG7)

Very few large game species still exist in the areas of fieldwork. There is a great feeling of loss at the absence of game not only as a food source, but as part of nature, part of life. "Animals are decorations for the world. Our children should see them (BMI2)", is a typical comment. This feeling of loss is compounded during times of drought. Before the drought broke, comments such as, "We go hungry now because there are no more animals (AWI2)", "We need them back (BWG1)" were frequent.

There is also much fear and distrust surrounding wildlife issues in Kaokoland. The State began enforcing anti-poaching measures more stringently in the early 1980s. When asked why people no longer hunted a frequent answer was, "Because Matwee³⁶ will put us in jail (AMG11, AMG6)". When asked what happened to all the animals the response was always, 'the drought killed them all'. Only a few people (in individual interviews) mentioned that poaching had been a problem. Since

³⁶ Matwee was the name given to the head of MET in Kaokoland. It means Big Ears, a misnomer since his ears are not really big but stick out dramatically from his head!

it is still illegal to hunt game in Kaokoland, there was some fear in talking about wildlife issues, especially poaching, to a white researcher. In Okangwati, where I did not spend as much time getting to know people before starting my research, a rumour started that I was one of "Matwee's spies". This is a reference to the community game guards that were created to involve local people in conservation.

A great deal of resentment has built up towards the State's policy on wildlife conservation.

We don't need them telling us when to hunt. (BMG3)

We already know when to hunt and when not to hunt. (AMI9)

They just keep apartheid on us. (BMG6)

When comments such as these were followed up, the participants became fearful and either terminated the interview, switched the subject, or added something to the effect of, 'but we listen to them anyway'. There is some evidence that resistance to State policy still occurs and game in the mountains are killed if the opportunity presents itself. A key informant went into considerable detail explaining how an animal could be killed and the meat hidden so as not to arouse the suspicion of game guards (AMI7).

Interviews with three game guards indicate that there is some dissatisfaction, not just on the part of many local people, but within the program itself. They stated that they had not been paid in a long time and were no longer going to Opuwo to

report to the MET. Instead they report to the Headman who then fines the 'culprit' a goat or heifer. The Headman then decides whether to tell MET or not. Moreover,

sometimes the Headman says to sons, "kill a giraffe because we have hunger", and Matwee can do nothing about it. (CMI2)

It is apparent that, while initially successful in ending widespread poaching, the community game guard program has not succeeded in involving more than a few local people in wildlife conservation. Fear and resentment towards the State regarding wildlife policy still exists after independence. Whether the new legislation enabling the formation of conservancies on communal lands or the involvement of the LIFE program in developing CBNRM in Kaokoland can change this remains to be seen. The potential impact of this new approach in Himba communities will be explored in the following section.

5.6 Implications of Institutional Wildlife Conservation in Kaokoland

Himba society is undergoing dynamic changes as 'modern' society infiltrates into Kaokoland. Many changes have happened rapidly and have had a detrimental effect on society, particularly the increasingly widespread availability of alcohol. However, rapid change is inevitable. The government is looking to develop the "primitive" Himba as they are an "embarrassment" to the rest of the country. Will the LIFE program or the new conservancy policy enable Himba communities to use their knowledge of wildlife, and allow them to dictate the degree of change they are prepared to tolerate?

The conservancy policy, as it is presently constructed, certainly has potential to create institutions in which Himba communities can negotiate with the State in traditional forms. These will be vital as the State encourages capital development, such as the marketing of cattle, in the future. By leaving the power to define who belongs in the community and who will participate on community management committees (CMCs) with local people, conservancies have the flexibility to retain some of the knowledge and character of local groups. This, however, also presents a problem.

Himba society is stratified, and it would be easy for dominant actors within communities to co-opt and control the direction of CMCs. If the primary function of CMCs is the distribution of financial benefit from wildlife, which is how CBNRMs are conceived presently, there is great potential for CMCs to be used for personal gain. As cash becomes more important to survival in Kaokoland, the previous checks on individual power, through such traditions as consensus building, inheritance rights and social bonds formed by the complex system of 'farming' out cattle, will weaken. By stipulating that CMCs must be 'representative', the State could ensure gender and wealth equity in the composition of CMCs, but then, paradoxically, it could be argued that this limits Himba communities' ability to define the 'limits of change they are prepared to tolerate'.

Another concern with the present design of the conservancy policy is the requirement that the boundaries of conservancies must be delineated over a manageable area. This goes against the fluidity of Himba migrations. Nomadic movements are required in the arid conditions of Kaokoland. Recent shifts in settlement patterns have been cited as the primary cause of ecological degradation (Healy 1994). By having to define specific boundaries, the permanent settlement of people might be further advanced. This only could lead to additional environmental stress. However, it appears that it is the State's intention to settle Himba and Herero pastoralists in order to facilitate the marketing of cattle (Interview 4,6; Namibia 1994). In this sense, conservancies could represent an enclosure movement by the State (Ecologist 1993).

- Barbier, E.B. (1987) 'The concept of sustainable economic development', Environmental Conservation. 14:101-10.
- Benhke, R. (1994) 'Natural resource management in pastoral Africa', Development Policy Review. 12:5-27.
- Berreman, G. (1985) 'Chipko: nonviolent direct action to save the Himalayas', South Asia Bulletin. 5(2):8-13.
- Bookchin, M. (1990) Renewing the Earth: The Promise of Social Ecology. London: Green Print.
- (1991) The Ecology of Freedom: The Emergence and Dissolution of Hierarchy. Montreal: Black Rose Books.
- Bookchin, M. and D. Foreman (1991) Defending the Earth: A Dialogue between Murray Bookchin and Dave Foreman. Boston: South End Press.
- Brokensha, D., D. Warren, and O. Werner.(eds) (1980) Indigenous Knowledge Systems and Development. Lanham MD: University Press of America.
- Capra, F. (1982) The Turning Point: science, society and the rising culture. New York: Bantam Books.
- Chambers, R. (1988) 'Sustainable Rural Livelihoods: a Key Strategy for People, Environment and Development', in The Greening of aid: sustainable livelihoods in practice. edited by C. Czech and L. Miles. London: Earthscan.
- (1992) Rural Appraisal: Rapid, Relaxed and Participatory. London: Institute of Development Studies.
- (1994) 'The origins and practice of participatory rural appraisal', World Development 22:7 pp. 953-969.
- Clark, W., and R. E. Munn. (1986) Sustainable Development of the Biosphere. Cambridge: U.P.
- Cooper, A. D. (1991) The Occupation of Namibia: Afrikanerdom's Attack on the British Empire. Lanham, MA: University Press of America, Inc.
- Crandall, D. (1991) 'The strength of the OvaHimba patrilineage'. Cimbebasia. 13:45-51.

Management and economic efficiency are useful aspects of conceptualizing environmental management, however it is uncertain as to whether these concepts are sufficient, and can be 'indigenized' in Himba society and made their own. If they remain foreign to community members, effective control over decision making will rest with outside 'experts'. If, on the other hand, CMCs facilitate an exchange of information and knowledge of scientific management techniques and indigenous practices and *usufruct* responsibilities takes place, equitable development can be said to be taking place.

There appears to be a conscious effort on the part of LIFE to allow local communities a great deal of latitude in the formation of micro-structures for conservancies on communal lands. In this respect conservation programs run counter to the argument that global ecology disempowers local areas. While it is true ultimate control still rests with higher levels, CBNRM in Namibia is not following the traditional path of conservation in Africa. The participation may not be of the type characteristic of equitable development that "starts at the bottom and reaches progressively upward into ever widening arenas of decision making" (Goulet 1989:168), but it is also not of the kind by which the State attempts to exert control in rural areas.

The results are thus inconclusive as to whether or not conservation in Namibia reflects the type of global ecology propounded in Chapter Two. In a sense it is too

early to tell if the LIFE program and the conservancy policy will shape and change the environmental knowledge of local communities in Namibia. The LIFE program is only in its initial stages, much initial effort having gone into strengthening institutional support for CBNRM. Many of the major issues are still to be faced by WWF, MET, and IRDNC. How questions such as the delineation of boundaries and definitions of 'community' and 'representative CMCs' are approached in the future will be the true test of how conservation in Namibia affects the space for local participatory development.

6.2 The Methodology Revisited

Limitations of time and money affected the quality of data collected. If fieldwork could have been conducted in one of the LIFE project areas, a direct analysis of community participation in and perception of the program could have been made. Similarly, more time spent with the main actors in LIFE would have yielded a fuller picture of the environmental philosophies of each actor and how these affect the program.

The analysis into conservation issues among the OvaHimba also had weaknesses. Limitations with respect to RRA/PRA as an academic methodology were covered in Section 3.3. It should be reiterated again that the attempt to take a participatory approach in order to uncover Himba attitudes and concerns about

wildlife was not always successful. Much of this rests, not with the translators, but with the translation process itself. The need to translate every minute or so creates a structural impediment to open-ended questioning. Only rarely was an animated participatory discussion stimulated. These happened with individuals or groups of people with whom I had already met and socialized with.

While "rapid" may be one feature of RRA, and at times necessary for financial reasons, it is not conducive to allowing villagers' views of the world to come through in the research process. All too often interviews ended up being question and answer sessions. Some of these problems were undoubtedly due to my inexperience as a researcher and interviewer. Many people were not particularly interested in wildlife issues, but rather, were more concerned about drought, and cattle issues. There was also some suspicion as to my motives.

The data gathered from professionals involved in conservation efforts in Namibia was not entirely effective for a comparative analysis among different actors. More structured interviews would have yielded data that could more easily be compared. In this respect, the decision to remain consistent in the methodological approach between pastoralists and professionals may have been in error. Despite these criticisms, the theoretical basis for rapid and participatory rural appraisal methodologies is sound and its choice as the approach for this thesis was the right one. To have taken a more top-down, 'outsider' approach would have defeated the

entire purpose of the thesis. It is, however, more difficult to conduct a bottom-up research methodology in practice than in theory.

6.3 Concluding Remarks

In this thesis I have attempted to explore various approaches to wildlife conservation in Namibia, with particular respect to their potential impact on the OvaHimba of Kaokoland. It has been argued that the environmental conceptions 'higher' level actors' possess represent narrow 'global' interests, and thus, constrain the space for local forms of environmental knowledge. The results were inconclusive. It cannot be stated that the major conservation actors in Namibia hold 'narrow' global interests, but at the same time the space for local communities to shape their own conservation regimes is limited, and controlled from above.

The data suggest that perhaps the argument was shaped in the wrong way. The question of whether the environmental conviction, *per se*, of any conservation group restricts local action does not quite have resonance with the day to day unfolding of rural life. At least it is buried deeply within people's daily lives and is not uncovered easily. Changes to worldviews are diffuse and differ greatly within a society according to age, gender, wealth, mobility and education.

A more useful question to answer is, to what extent do 'global' environmental actors use their environmental knowledge and concern to further extend political control in rural areas? The answer to this question is crucial for the OvaHimba of Kaokoland. Their way of life is undergoing rapid change, to the point where it is questionable if in twenty years, there will be a people who call themselves "Himba". Modern economics will change the social structure of Kaokoland. The Ecologist (1993:20) notes,

The expansion of modern state, international and market institutions entails a shrinking space for common property regimes. As political, social and ecological boundaries are erased, control is centralized or privatized, skills are made obsolete, people put at the service of industry or made redundant, and land is commercialized and/or placed under management.

It is perhaps too early to tell if conservancies on communal lands will act as enclosure movements by the State in Namibia. However, this could be a key factor in determining whether or not OvaHimba communities will be given the opportunities to control changes themselves or have it imposed upon them from outside. There is some evidence that centralizing forces are overpowering rural areas in Namibia. Conservation programs in general, and the LIFE program specifically, can provide an institutional framework in which 'traditional' forms of management and social organization can interact with State structures. How flexible this framework proves to be will determine whether or not conservancies act to stem this centralizing trend.

Bibliography

- Achterhuis, H. (1993) 'Scarcity and Sustainability', in Global Ecology: a New Arena of Political Conflict. edited by Wolfgang Sachs, Halifax: Fernwood Publications. pp. 104-116.
- Adams, W.M. (1991) Green Development: Environment and Sustainability in the Third World. London: Routledge.
- Anderson, D. and R.,Grove. (1987) 'The Scramble for Eden: Past, Present and Future in African Conservation', in Conservation in Africa: People, Policies and Practice. Cambridge: Cambridge University Press.
- Árhem, K. (1985) The Maasai and the State: The Impact of Rural Development Policies on a Pastoral People in Tanzania. IWGIA Document No. 52. Copenhagen: International Work Group for Indigenous Affairs.
- Ashley, C. (1994) Population Growth and Renewable resource Management: The Challenge of Sustaining People and the Environment. Research Discussion Paper 1. Windhoek, Namibia: Directorate of Environmental Affairs, Ministry of Environment and Tourism.
- Ashley, C., and E. Garland. (1994) Promoting Community-Based Tourism Development: Why, What and How?. Research Discussion Paper 4. Windhoek, Namibia: Directorate of Environmental Affairs, Ministry of Environment and Tourism.
- Ashley, C., Barnes, J., and T. Healy (1994) Profits, Equity, Growth and Sustainability: The Potential Role of Wildlife Enterprises in Caprivi and Other Communal Areas of Namibia. Research Discussion Paper 2. Windhoek, Namibia: Directorate of Environmental Affairs, Ministry of Environment and Tourism.
- Bacon, F. (1955 [1627]) 'New Atlantis' in Selected Writings of Francis Bacon. New York: The Modern Library.
- Bahro, R. (1984) From Red to Green: Interviews with New Left Review. London: Verso.
- Banuri, T. (1993) 'The Landscape of Diplomatic Conflicts' in Global Ecology: a New Arena of Political Conflict. edited by Wolfgang Sachs, Halifax: Fernwood Publications.

- Barbier, E.B. (1987) 'The concept of sustainable economic development', Environmental Conservation. 14:101-10.
- Benhke, R. (1994) 'Natural resource management in pastoral Africa', Development Policy Review. 12:5-27.
- Berreman, G. (1985) 'Chipko: nonviolent direct action to save the Himalayas', South Asia Bulletin. 5(2):8-13.
- Bookchin, M. (1990) Renewing the Earth: The Promise of Social Ecology. London: Green Print.
- (1991) The Ecology of Freedom: The Emergence and Dissolution of Hierarchy. Montreal: Black Rose Books.
- Bookchin, M. and D. Foreman (1991) Defending the Earth: A Dialogue between Murray Bookchin and Dave Foreman. Boston: South End Press.
- Brokensha, D., D. Warren, and O. Werner.(eds) (1980) Indigenous Knowledge Systems and Development. Lanham MD: University Press of America.
- Capra, F. (1982) The Turning Point: science, society and the rising culture. New York: Bantam Books.
- Chambers, R. (1988) 'Sustainable Rural Livelihoods: a Key Strategy for People, Environment and Development', in The Greening of aid: sustainable livelihoods in practice. edited by C. Czech and L. Miles. London: Earthscan.
- (1992) Rural Appraisal: Rapid, Relaxed and Participatory. London: Institute of Development Studies.
- (1994) 'The origins and practice of participatory rural appraisal', World Development 22:7 pp. 953-969.
- Clark, W., and R. E. Munn. (1986) Sustainable Development of the Biosphere. Cambridge: U.P.
- Cooper, A. D. (1991) The Occupation of Namibia: Afrikanerdom's Attack on the British Empire. Lanham, MA: University Press of America, Inc.
- Crandall, D. (1991) 'The strength of the OvaHimba patrilineage'. Cimbebasia. 13:45-51.

- _____. (1992) The OvaHimba of Namibia: A Study of Dual Descent and Values. Unpublished PhD. Thesis. Oxford: Oxford University.
- Daly, H. E. (1973) Toward a Steady-state Economy. San Francisco: Freeman.
- Devall, B. (1988) Simple in Means, Rich in Ends: Practising Deep Ecology. Salt Lake City: Peregrine Smith.
- Deval, B. and G. Sessions. (1985) Deep Ecology: Living as if Nature Mattered. Salt Lake City: Peregrine Smith.
- DeWalt, B.R. (1994) 'Using indigenous knowledge to improve agriculture and natural resource management'. Human Organization. 53:123-131.
- Dobson, A. (1990) Green Political Thought. London: Unwin Hyman Ltd..
- Eckersley, R. (1992) Environmentalism and Political Theory: Toward and Ecocentric Approach. Albany, NY: State University of New York Press.
- Ecologist, The (1993) Whose Common Future? Reclaiming the Commons. London: Earthscan.
- Finger, M. (1993) 'Politics of the UNCED Process', in Global Ecology: a New Arena of Political Conflict. edited by Wolfgang Sachs, Halifax: Fernwood Publications.
- Freire, P. (1972) Pedagogy of the Oppressed. Harmondsworth: Penguin Books.
- Fox, W. (1989) 'The deep ecology-ecofeminism debate and its parallels', Environmental Ethics. 11:5-25.
- _____. (1990) Toward a Transpersonal Ecology: Developing New Foundations for Environmentalism. Boston: Shambhala.
- Gawanab-Minney, T. (1992) 'Turning poachers into history', Africa South. June 1992.
- Ghai, D. (1992) Conservation, Livelihood and Democracy: Social Dynamics of Environmental Change in Africa. DP 33. New York: United Nations Research Institute for Social Development
- Goulet, D. (1989) 'Participation in development: new avenues', World Development, Vol.17, No.2, pp.165-178.

- Green, R.H., K. Kiljunen, and M-L. Kiljunen. (1981) Namibia: The Last Colony. Essex, UK: Longman Group Ltd.
- Gore, A. (1992) Earth in the Balance: Ecology and the Human Spirit. Boston MA: Houghton.
- Healy, T. (1994) Rural Appraisal of Natural Resources and Awareness Training for Communities Associated with New IMC Boreholes in Kunene. International Medical Corps: Windhoek, Namibia.
- Henderson, H. (1978) Creating Alternative Futures: The End of Economics. New York: Berkeley Publishing Corporation.
- Hobbes, T. (1983 [1651]) Leviathan. London: Everyman's Library.
- Holmberg, J., and Sandbrook, R. (1992) 'Sustainable Development: what is to be done?', in Making Development Sustainable: Redefining Institutions, Policy, and Economics. edited by Johan Holmberg, Washington D.C.: Island Press.
- Hildyard, N. (1993) 'Foxes in Charge of the Chickens', in Global Ecology: a New Arena of Political Conflict. edited by Wolfgang Sachs, Halifax: Fernwood Publications.
- IDS (1979) 'Whose knowledge counts?', IDS Bulletin. 10(2):10-55.
- IIED. (1994) Whose Eden? An Overview of Community Approaches to Wildlife Management. London: International Institute for Environment and Development.
- IUCN (1980) World Conservation Strategy. International Union for the Conservation of Nature. Gland: IUCN.
- Jacobsohn, M. (1988) 'Preliminary notes of the symbolic role of space and material culture among Himba and Herero herders in western Kaokoland, Namibia'. Cimbebasia. 10:75-99.
- _____. (1991) 'The Crucial Link: conservation and development' in Going Green: People, Politics and Environment in South Africa. edited by Jacklyn Cock and Eddie Koch. London: Oxford University Press.
- Johnson, M. (1992) Lore: Capturing Traditional Environmental Knowledge. Ottawa: International Development Research Centre.

- Johnston, B.J. (1994) Who Pays the Price? The Sociocultural Context of Environmental Crisis. Washington D.C.: Island Press.
- Jones, B. (1995) Wildlife Management, Utilization and Tourism in Communal Areas: Benefits to Communities and Improved Resource Management. Research Discussion Paper 5. Windhoek, Namibia: Directorate of Environmental Affairs, Ministry of Environment and Tourism.
- Kirby, S and McKenna, K (1989) Experience, Research, Social Change: Methods from the Margins. Toronto: Garamond Press.
- Kloppenburger, J. (1991) 'Social theory and the de/reconstruction of agricultural science: local knowledge for an alternative agriculture'. Rural Sociology. 56:519-548.
- Kropotkin, P. (1899) Ethics: Origins and Development. London: George G. Harrap and Co.
- Laing, R.D. (1982) The Voice of Experience. London: Allen Lane.
- LIFE (1995) Life Program: Operating Guidelines for the Steering Committee. Unpublished Living in a Finite Environment Policy Document.
- Mackenzie, F. (1992) 'Development from Within?: The struggle to survive', in Development from Within: Survival in Rural Africa. edited by D.R.F. Taylor and F. Mackenzie. London: Routledge.
- Maguire, P. (1987) Doing Participatory Research: A Feminist Approach. Amherst, MA: The Centre for International Education.
- Malan, J.S. (1973) 'Double descent among the Himba of South West Africa'. Cimbebasia. (B) 2:81-112.
- (1974) 'The Herero-speaking peoples of Kaokoland'. Cimbebasia. (B) 2:114-129.
- Malan, J.S. and G. Owen-Smith (1974) 'The ethnobotany of Kaokoland'. Cimbebasia. (B) 2:131-178.
- Mascarenhas, J. et al (eds) 1991 'Participatory Rural Appraisal: Proceedings of the February 1991 Bangalore PRA Trainers Workshop', RRA Notes. No. 13. London: IIED.

- McCracken, J., J. Pretty, and G. Conway. (1988) An Introduction to Rapid Rural Appraisal for Agricultural Development. London: International Institute for Environment and Development.
- Meadows, D. H. et al (1972) The Limits to growth: a Report for the Club of Rome's Project on the Predicament of Mankind. New York: Universe.
- Merchant, C. (1980) The Death of Nature: Women, Ecology, and the Scientific Revolution. San Francisco: Harper.
- Mendes, C. (1989) Fight for the Forests: Chico Mendes in His Own Words. London: Latin American Bureau.
- Mies, M., and Shiva V. (1993) Ecofeminism. Halifax: Fernwood Publications.
- Mopofu, T.P.Z. (1991) 'Managing Pasturelands under the Communal Land Tenure', in Planning for Management of Communal Natural Resources Affected by Livestock. edited by E. Portillo, L.C. Weaver and B. Motsamai. Lesotho: United States Agency for International Development, Lesotho Agricultural Production and Institutional Support (LAPIS) Project.
- Naess, A. (1973) 'The shallow and the deep, long-range ecology movement: a summary', Inquiry. 16:95-100.
- Namibia, Republic of. (1993) Namibia's Green Plan. Windhoek, Namibia: Ministry of Wildlife, Conservation and Tourism.
- _____. (1994) Report on a Workshop of the Directorate of Extension and Engineering, North Western Region for the Kunene Subdivision Strategic Planning. Directorate of Extension and Engineering. Windhoek: DEE.
- _____. (1995) Namibia's Environmental Assessment Policy. Windhoek, Namibia: Directorate of Environmental Affairs, Ministry of Environment and Tourism.
- Oakley, P. (1991) Projects with People: The Practice of Participation in Rural Development. Geneva: International Labour Office.
- O'Riordan, T. (1984) Environmentalism. London: Pion Limited.
- _____. (1985) 'Future directions in environmental policy', Journal of Environmental Planning. 17:1431-46.
- Owen-Smith, G. (1972) 'The Kaokoveld, last wilderness'. African Wild Life. (26):71-77.

- (1986) 'The Kaokoveld: South West Africa/Namibia's threatened wilderness'. African Wildlife. 40(3):104-113.
- Pepper, D. (1984) The Roots of Modern Environmentalism. London: Croom Helm.
- Pepper, D. (1993) Eco-socialism: From Deep Ecology to Social Justice. London: Routledge.
- Poewe, K. (1985) The Namibian Herero: A History of their Psychosocial Disintegration and Survival. Lewiston, NY: The Edwin Mellen Press.
- Raghavan, C. (1995) 'Ever Increasing Biopiracy by TNCs', South-North Developing Monitor. Posted by Third World Network Features. 1371/95.
- Rahnema, M. (1992) 'Participation', in The Development Dictionary. edited by Wolfgang Sachs, London: Zed Books Ltd..
- Reclus, E. (1977 [1895]) 'The Influence of Man on the Beauty of the Earth' in Radical Geography: Alternative Viewpoints on Contemporary Social Issues. edited by R. Peet. Chicago: Maaroufa Press.
- Redclift, M. (1987) Sustainable Development: Exploring the Contradictions. London: Routledge.
- Redclift, M and T. Benton (ed.) 1994) Social Theory and the Global Environment. London: Routledge.
- Rees, W.E. (1989) 'Sustainable development: myths and realities'. Unpublished paper presented at The Conference on Environment and Economy: Partners for the Future. Winnipeg. May 17-19.
- Rich, B.M. (1989) 'The greening of the development banks: rhetoric and reality'. The Ecologist. 19:44-52.
- Robinson, J., et al (1990) 'Defining a sustainable society: values, principles and definitions'. Alternatives. 17:36-47.
- Rocheleau, D. (1991) 'Gender, ecology, and the science of survival: stories and lessons from Kenya'. Agriculture and Human Values. 7:156-165.
- Roszak, T. (1973) Where the Wasteland Ends: Politics and Transcendence in Postindustrial Society. Garden City NY: Anchor Books.

- Sachs, W. (1992) 'One World', in The Development Dictionary. edited by Wolfgang Sachs, London: Zed Books Ltd..
- (1993) 'Global Ecology and the Shadow of "Development"', in Global Ecology: a New Arena of Political Conflict. edited by Wolfgang Sachs, Halifax: Fernwood Publications.
- Sale, K. (1985) Dwellers in the Land. San Francisco: Sierra Club Books.
- Schumacher, E. F. (1973) Small is Beautiful: a Study of Economics as if People Mattered. London: Blond.
- Scott, J. (1985) Weapons of the Weak: Everyday Forms of Peasant Resistance. London: Yale University Press.
- Seddon, D. (1993) 'Anthropology and Appraisal: The Preparation of two IFFAD Pastoral Development Projects in Niger and Mali' in Practising Development: Social Science Perspectives. edited by J. Pottier. London: Routledge.
- Sessions, G. (1987) 'The deep ecology movement: a review', Environmental Review. 11:105-125.
- Shiva, V. (1991) Ecology and the Politics of Survival: Conflicts Over Natural Resources in India. Tokyo: United Nations University Press.
- (1993a) 'The Greening of the Global Reach' in Global Ecology: a New Arena of Political Conflict. edited by Wolfgang Sachs, Halifax: Fernwood Publications.
- (1993b) 'Reductionism and Regeneration: A crisis in science' in Ecofeminism. edited by Maria Mies and Vandana Shiva. Halifax: Fernwood Publications.
- SLE-CATAD. (1993) Participatory Methods for Situation Analysis and Planning of Project Activities: Experiences with Women and Youth in the Communal Areas of Namibia. Berlin: Seminar für Landwirtschaftliche Entwicklung - Centre for Advanced Training in Agricultural Development.
- Soggot, D. (1986) Namibia: The Violent Heritage. London: Rex Collings.
- Sparks, D. L., and D. Green. (1992) Namibia: The Nation After Independence. Boulder: Westview Press.

- Stöhr, W.B., and D.R.F. Taylor (1981) 'Introduction', in Development from Above or Below? The dialectics of Regional Planning in Developing Countries. edited by W.B. Stöhr and D.R.F. Taylor. Toronto: John Wiley and Sons.
- Taylor, D.R.F. (1992) 'Development from Within and Survival in Rural Africa: A synthesis of theory and practice' in Development from Within: Survival in Rural Africa. edited by D.R.F. Taylor and F. Mackenzie. London: Routledge.
- Thrupp, L.A. (1989) 'Legitimizing local knowledge: from displacement to empowerment for Third World people', Agriculture and Human Values. 6(3):13-24.
- United States. (1990) Sustainable Development and Economic Growth in the Third World. Joint Committee Congress of the United States. Subcommittee on Technology and National Security. (1990) Washington D.C.: US Government Printing Office.
- Yaron, G., Healy, T. and Tapscott, C. (1993) The Economics of Living with Wildlife in Namibia. World Bank: Washington D.C.
- Yearley, S. (1991) The Green Case: A Sociology of Environmental Issues, Arguments and Politics. London: Harper Collins.
- Walker, C. (1978) 'Kaokoveld: who is doing the killing now?'. African Wildlife. 32(6):17-20.
- WCED. (1987) Our Common Future. Oxford: Oxford University Press.

END

0|4-06-9|6

FIN