

Indigenous Peoples, Consent and Benefit Sharing

Rachel Wynberg • Doris Schroeder
Roger Chennells
Editors

Indigenous Peoples, Consent and Benefit Sharing: Lessons from the San-Hoodia Case

 Springer

Editors

Dr. Rachel Wynberg
Environmental Evaluation Unit
University of Cape Town
Environmental & Geographical
Science Building
South Lane, Upper Campus
Private Bag X3
Rondebosch 7701
South Africa
rachel@iafrica.com

Roger Chennells
Chennells Albertyn
Attorneys, Notaries & Conveyancers
44 Alexander Street
Stellenbosch 7600
South Africa
scarlin@iafrica.com

Prof. Doris Schroeder
Centre for Professional Ethics
University of Central Lancashire
Preston
Lancashire
PR1 2HE
United Kingdom
dschroeder@uclan.ac.uk
and
Centre for Applied Philosophy
and Public Ethics
The University of Melbourne
Victoria 3010
Australia

Front Cover: © Louise Gubb/Corbis

Back Cover: *Hoodia gordonii* with young, unopened flowers, Ceres-Karoo, South Africa

Photographer: David Newton

Additional material to this book can be downloaded from <http://extra.springer.com>.

ISBN 978-90-481-3122-8 e-ISBN 978-90-481-3123-5
DOI 10.1007/978-90-481-3123-5
Springer Dordrecht Heidelberg London New York

Library of Congress Control Number: 2009930524

© Springer Science+Business Media B.V. 2009

No part of this work may be reproduced, stored in a retrieval system, or transmitted in any form or by any means, electronic, mechanical, photocopying, microfilming, recording or otherwise, without written permission from the Publisher, with the exception of any material supplied specifically for the purpose of being entered and executed on a computer system, for exclusive use by the purchaser of the work.

Printed on acid-free paper

Springer is part of Springer Science+Business Media (www.springer.com)

*For Our Children
Rebecca, Guy, Oliver,
Clara and Sebastian Chennells
Art and Mia Wynberg van der Lingen*

Preface

When one of our leaders informed an academic conference in 1997, ‘The San will no longer be researched,’ he spoke for us all. Our leaders had decided that we would never again be guinea pigs or objects of research, no matter how well meaning.

This study, however, is a collaborative project that is of clear benefit to the San. We were approached by the Universities of Central Lancashire and Cape Town to participate in a joint project funded by the Wellcome Trust to research and analyse the *Hoodia* case, with a special focus on benefit sharing and decision-making. It was clear to us that an objective view of the entire case, comparing it with other experiences elsewhere, would be very useful.

When the San challenged the CSIR on their patent in 2001, we were ignorant about our rights to traditional knowledge, and about intellectual property and international law. Not surprisingly, mistakes were made as we negotiated and concluded two benefit-sharing agreements over the following years, using the best knowledge available to us at the time.

Indigenous peoples elsewhere in the world supported us, and wanted to know more about how the *Hoodia* case was progressing. ‘What about benefit sharing?’ they asked. ‘How are your decisions being made? What do the San feel about the *Hoodia* agreements?’ And many other questions, to which we did not know all the answers.

We hope that this book will be useful, and that it answers many of these questions.

Collin Louw
Chairperson
Working Group of Indigenous Minorities in
Southern Africa (WIMSA)

Acknowledgements

This book would not have been possible without the support and help of a number of big-hearted organisations and individuals. Our sincere gratitude goes to the Wellcome Trust, whose research funding enabled us to undertake an in-depth analysis of the *Hoodia* case. Thanks in particular to Bella Starling from the trust, who discussed funding options with us, and to Tony Woods, Liz Shaw, Jackie Titley and Paul Woodgate for their support later.

The fairy godfather of this book is Fritz Schmuhl, our Springer editor, who combines a profound passion for books with speed and efficiency. Most importantly, though, his magic with Springer's sales department meant that the book became available in an affordable paperback version right at the outset. Thanks, Fritz!

Close collaboration with San representatives and San institutions made it possible to obtain commentary on our progress throughout the research project and avoid the one-sidedness that led Maori Linda Smith to declare that ‘“research” ... is probably one of the dirtiest words in the indigenous world's vocabulary’ (Smith 1999). On the contrary, the San adopted our research project as their own and helped generate and disseminate research results for and with us. Particular mention needs to be made of Andries Steenkamp, the chair of the South African San Council, whose vision, energy and humility supported the project throughout. Other San leaders who were closely involved and to whom we are most grateful are Collin Louw, Anna Festus, Mario Mahongo, Zeka Shiwarra, Jason Marende, Dawid Kruiper and, of course, the two colleagues who co-authored chapters of this book, Victoria Haraseb and Mathambo Ngakaeaja. Before research began, the Working Group of Indigenous Minorities in Southern Africa (WIMSA) approved its aims, objectives and fieldwork details, as did the Botswana government for research undertaken in that country.

Special thanks are due to all the people who helped Dr. Saskia Vermeylen with her fieldwork in Namibia and South Africa for their kindness, generosity of spirit, dedication and great sense of humour. Sincere thanks also to Richard Wicksteed, the creative mind behind the *Hoodia* DVD; Paul Wise, the most gifted and meticulous copy editor of them all; Meryl-Joy Wildschut and Grace Humphreys from the South African San Institute (SASI) for organising meetings in South Africa; Paula Watson for her efficient accounting of project resources; Samantha Williams and Roger Chennells for their fluent interpretation between English and Afrikaans on various

occasions; Miltos Ladikas for helping secure research funding and for his advice on empirical research questions; Eileen Martin, dean of the Faculty of Health at the University of Central Lancashire, for letting Doris travel to the Kalahari rather than stay at home to teach; the Centre for Applied Philosophy and Public Ethics (CAPPE) for Doris' very generous research time Abduraghman Isaacs for very reliable logistical services in Cape Town; Albert Schroeder for racing Graham Dufield and Julie Cook Lucas to our COP 9 dissemination event at the CBD meeting in Bonn; Samantha Williams for reporting on the Molopo Lodge event and assistance with fieldwork; Jack Beetson for wise words on benefit sharing, as always; Carolina Lasén Díaz and Pamela Andanda for early input into the project; Cyril Lombard of PhytoTrade Africa for ongoing insights and discussions about the *Hoodia* industry; David Newton of TRAFFIC for assisting with *Hoodia* policy work; and Carl van der Lingen, Armin Schmidt and Judy Beaumont (our partners) for serving as sounding boards for ideas and keeping home fires burning.

Thanks also to all authors, in particular those who compared the situation in their own countries with the San *Hoodia* case. Participants attending San-!Khuba workshops at Kalk Bay, Molopo Lodge and Upington, especially those who travelled for days at a time, are gratefully acknowledged for their vital inputs. Nanette Fleming assisted a team of talented amateur actors in putting on an unforgettable performance at the Molopo workshop. Axel Thoma, former coordinator of WIMSA, was an active supporter of the San struggle to secure rights to *Hoodia*, and continues to assist where possible behind the scenes.

Many individuals involved in trading or regulating *Hoodia* were interviewed for this research, often giving generously of their time and knowledge. It is impossible to name all of them, but in particular we would like to acknowledge the following for the open way in which they shared information. In South Africa, Elsabé Swart of the Northern Cape Department of Tourism, Environment and Conservation; Paul Geldenhuys, Melanie Simpson and Kas Hamman of CapeNature; Conrad Strauss of the Tankwa Karoo National Park; Helena Heystek and Marthinus Horak of the Council for Scientific and Industrial Research (CSIR); George Bowes; Robbie Gass of the Southern African *Hoodia* Growers Association; Rikus Muller of the Grassroots Group; Kobus Engelbrecht; Kersten Paulsen of the trading company BZH; and Danie Nel of Afriplex. The input of Kevin Povey of Unilever and Simon MacWilliam ('Mac') of Phytopharm is also gratefully acknowledged.

In Namibia we are grateful to the following people for explaining the intricacies of the region's 'green diamonds' and the difficulties of regulation and enforcement: Jörn and Adria Miller of the *Hoodia* Growers Association of Namibia (HOGRAN); Dougal and Kirk Bassingthwaighe; Bianca Braun and members of the Kalahari *Hoodia* Growers; Nico Visser of Hardap; Martin Cloete of Blouberg; Steve Carr and Gillian Maggs of the Namibian National Botanical Research Institute; Johnson Ndokosho of the Ministry of Environment and Tourism; Pierre du Plessis and Dave Cole of the Centre for Research Information Action in Africa – Southern African Development and Consulting (CRIAA SA-DC); and Charles Musiyaleka, chief control warden for nature conservation in Keetmanshoop. The drunken tales of two *Hoodia* smugglers, one an ex-policeman, provided light entertainment in Mariental.

At the Environmental Evaluation Unit, University of Cape Town, Associate Professor Merle Sowman showed constant enthusiasm for the project and was an invaluable sounding board; Fahdelah Hartley managed logistics with remarkable efficiency and goodwill; Quinton Williams, Penny-Jane Cooke and Paula Cardoso provided excellent research support; Shanaaz Saban kept the books in good shape; and Ntombovuyo Madlokazi helped with organisation of the Upington workshop. Additional financial support was provided to Rachel Wynberg by South Africa's National Research Foundation (NRF) for her ongoing research on the San-*Hoodia* case, although any opinion, findings and conclusions or recommendations expressed in this book are those of the authors and the NRF does not accept any liability for them.

Finally a note about a potential conflict of roles. One of the three editors, Roger Chennells, was personally and directly involved in the *Hoodia* case, as the main attorney representing the San in negotiations with the patent holder. To avoid any perception of bias or misrepresentation, he was not involved in reviewing or changing those sections that commented on the negotiations and related matters.

Wellcome Trust

The Wellcome Trust is an independent charity funding research to improve human and animal health. Established in 1936 and with an endowment of around £13 billion, it is the United Kingdom's largest non-governmental source of funds for biomedical research. This project was funded by the Medical Humanities stream. All opinions, findings, conclusions or recommendations expressed in this book are those of the authors and not of the Wellcome Trust.

Reference

Smith LT. Decolonizing methodologies: research and indigenous peoples. London: Zed Books; 1999. p. 1.

Contents

Part I Community Consent and Benefit Sharing: The Context

1 Introduction	3
Rachel Wynberg, Doris Schroeder, and Roger Chennells	
2 Justice and Benefit Sharing	11
Doris Schroeder	
3 Informed Consent: From Medical Research to Traditional Knowledge	27
Doris Schroeder	
4 Protecting the Rights of Indigenous Peoples: Can Prior Informed Consent Help?	53
Graham Dutfield	
5 Bioprospecting, Access and Benefit Sharing: Revisiting the ‘Grand Bargain’	69
Rachel Wynberg and Sarah Laird	

Part II Learning from the San

6 Green Diamonds of the South: An Overview of the San-<i>Hoodia</i> Case	89
Rachel Wynberg and Roger Chennells	
7 Policies for Sharing Benefits from <i>Hoodia</i>	127
Rachel Wynberg	
8 The Struggle for Indigenous Peoples’ Land Rights: The Case of Namibia	143
Saskia Vermeylen	

9 Speaking for the San: Challenges for Representative Institutions 165
 Roger Chennells, Victoria Haraseb, and Mathambo Ngakaaja

10 Trading Traditional Knowledge: San Perspectives from South Africa, Namibia and Botswana..... 193
 Saskia Vermeulen

11 Putting Intellectual Property Rights into Practice: Experiences from the San..... 211
 Roger Chennells

12 Sharing Benefits Fairly: Decision-Making and Governance..... 231
 Rachel Wynberg, Doris Schroeder, Samantha Williams, and Saskia Vermeulen

Part III Reflections

13 The Role of Scientists and the State in Benefit Sharing: Comparing Institutional Support for the San and Kani 261
 Sachin Chaturvedi

14 The Law is Not Enough: Protecting Indigenous Peoples’ Rights Against Mining Interests in the Philippines 271
 Rosa Cordillera A. Castillo and Fatima Alvarez-Castillo

15 Benefit Sharing is No Solution to Development: Experiences from Mining on Aboriginal Land in Australia 285
 Jon Altman

16 Human Research Ethics Guidelines as a Basis for Consent and Benefit Sharing: A Canadian Perspective 303
 Kelly Bannister

17 The Limitations of Good Intent: Problems of Representation and Informed Consent in the Maya ICBG Project in Chiapas, Mexico 315
 Dafna Feinholz-Klip, Luis García Barrios, and Julie Cook Lucas

Part IV Conclusions and Recommendations

18 Conclusions and Recommendations: Towards Best Practice for Community Consent and Benefit Sharing 335
 Rachel Wynberg, Roger Chennells, and Doris Schroeder

Index..... 351

List of Figures

Fig. 2.1	Domains of Justice.....	16
Fig. 3.1	Informed Consent Roles: Ideal Scenario	30
Fig. 3.2	Prior Informed Consent Roles: Simplified Scenario.....	31
Fig. 6.1	Licence and Benefit-Sharing Agreements Developed Between the San, CSIR, Phytopharm and Unilever.....	97
Fig. 6.2	The Distribution of <i>Hoodia</i> Species and Occurrence of the San in Southern Africa.....	105
Fig. 6.3	Benefit Sharing and Value-Adding Under the San-CSIR-Phytopharm-Unilever Agreements.....	108
Fig. 6.4	Benefit Sharing through SAHGA and the <i>Hoodia</i> Value Chain Based on Trade of Raw Material.....	111
Fig. 6.5	Flowering <i>Hoodia gordonii</i> , Ceres (Karoo), Western Cape, South Africa.....	120
Fig. 7.1	Process Prescribed by the ABS Regulations to Obtain a Bioprospecting Permit or Bioprospecting Export Permit	135
Fig. 9.1	An Organogram of the Kuru Family of Organisations	175
Fig. 9.2	An Organogram of the South African San Council	180
Fig. 12.1	Decision-Making in the Allocation of Funds from the San- <i>Hoodia</i> Trust	250

List of Tables

Table 3.1	International Guidelines Requiring Informed Consent	30
Table 3.2	International Guidelines Requiring (Free) Prior Informed Consent from Indigenous Communities.....	32
Table 3.3	Process for Obtaining Community Permission to Develop a Vaccine Study Site	44
Table 6.1	Chronology of the Commercial Development of <i>Hoodia</i>	98
Table 6.2	Benefit-Sharing Payments to the San- <i>Hoodia</i> Trust from the CSIR, Paid into the Trust Bank Account on 11 May, 2005	110
Table 7.1	Key Laws and Policies Pertaining to ABS and the Use, Trade and Conservation of <i>Hoodia</i> in South Africa, Namibia and Botswana.....	130
Table 10.1	Responses to Commodification of Medicinal Knowledge: Breakdown by Gender, Community, Country and Income	199
Table 12.1	Democratic and Traditional Indigenous Decision-Making: A Comparison	238
Table 12.2	Expenditure of Milestone Payments Received from the CSIR by the San- <i>Hoodia</i> Trust.....	245
Table 13.1	Comparison of San and Kani ABS Agreements between Stakeholders.....	269
Table 15.1	Schematic Representation of Development Challenges for Indigenous Beneficiaries of Agreements	297

List of Boxes

Box 3.1	Human Guinea Pigs.....	34
Box 3.2	Consent and Cultural Differences.....	35
Box 5.1	Regulating the Protection and Commercial Use of Traditional Knowledge	75
Box 6.1	What is <i>Hoodia</i> ?	119
Box 7.1	The Legal and Institutional Framework for Bioprospecting and ABS in Southern Africa.....	133
Box 12.1	Conflict Resolution among the San	236
Box 12.2	The Molopo (San-!Khoba) Declaration.....	252
Box 14.1	The Alangan People.....	273

Contributors

Jon Altman Jon Altman is the inaugural director of the Centre for Aboriginal Economic Policy Research established at the Australian National University (ANU), Canberra, in 1990. He has an academic background in economics (University of Auckland) and anthropology (ANU) and has been researching indigenous economic development and policy issues since 1977. Of particular relevance to his contribution here are the book *Aborigines and Mining Royalties in the Northern Territory* (1983), a review of the Aboriginal Benefits Trust Account that he chaired for the Australian government (1984), his participation in the Review of Native Title Representative Bodies (1995) and his role as independent expert for the Kakadu Region Social Impact Study (1996 and 1997).

In the 1990s, he reviewed a number of Aboriginal royalty associations including the Naborlek Traditional Owners Association (1994), the Gagudju Association (1996) and the Ngurratjuta Association (1998). More recently, he participated in the review of the Century Mine Agreement (2002) and between 2002 and 2007 headed an Australian Research Council project, 'Indigenous Community Organisations and Miners: Partnering Sustainable Regional Development?' Since 2006, he has participated in the international comparative study 'Identity, Power and Rights: The State, International Institutions and Indigenous Peoples' sponsored by the United Nations Research Institute for Social Development.

Kelly Bannister Kelly Bannister, M.Sc., Ph.D., is director of the POLIS Project on Ecological Governance and an adjunct professor in the Studies in Policy and Practice Program, Faculty of Human and Social Development, at the University of Victoria in British Columbia, Canada. An ethnobotanist by training, her main research interests are ethics and indigenous intellectual property rights in research involving biodiversity and traditional knowledge. She is particularly interested in institutional policy development for collaborative research between universities and Aboriginal communities. Her current research explores the ethics of community-based research and community protocols as a tool for facilitating equitable research practices. She has authored several book chapters, journal articles and reports on ethical and legal issues in ethnobotanical research. She is chair of the Ethics Committee of the International Society of Ethnobiology (<http://ethnobiology.net/>) and contributes to national policy development for biodiversity and for research ethics involving

Aboriginal peoples. She is involved in several federally funded research projects, including the Project for the Protection and Repatriation of First Nation Cultural Heritage (www.law.ualberta.ca/research/aboriginalculturalheritage/) and the Intellectual Property Issues in Cultural Heritage Project (<http://cgi.sfu.ca/~ipinch/cgi-bin/>).

Fatima Alvarez-Castillo Fatima Alvarez-Castillo is a professor of politics, research and ethics at the University of the Philippines, Manila. Apart from teaching, she undertakes research, training and advocacy. Her work over the past three decades has focused on the human rights of the marginalized and powerless. These include those who are discriminated against by reason of their gender, ethnicity or social class. The approach she uses for teaching, training, research and advocacy has always been participatory and enabling: she is inspired by Paolo Freire's empowering pedagogy.

Rosa Cordillera A. Castillo Rosa Cordillera A. Castillo teaches anthropology at the University of Manila, Philippines. She graduated with a MA in anthropology from the University of the Philippines, Diliman, following a degree awarded with academic honours. She temporarily stopped teaching at the university to complete ethnographic field work in a community on a small Philippine island. She is also actively engaged in campaigning for indigenous peoples' rights, starting as an undergraduate student of anthropology and later as a technical staff member of Anthropology Watch, Inc., a non-governmental organization (NGO) that helps indigenous peoples in the Philippines attain their rights. Her engagement with this NGO enabled her to visit several indigenous communities, which has given her valuable exposure to the variety of human rights issues faced by marginalized indigenous communities in the Philippines. She is currently a board member of the Anthropological Association of the Philippines, the only professional organization of anthropologists in the country. Her area of interest is the anthropology of human rights.

Sachin Chaturvedi Dr. Sachin Chaturvedi is a fellow at the Research and Information System for Developing Countries, a think tank with the Ministry of External Affairs in New Delhi, India. He is working on trade facilitation and World Trade Organization negotiations with the United Nations Economic and Social Commission for Asia and the Pacific in a project comparing seven countries. His areas of specialization include trade and economic issues related to technology and national innovation systems, and linkages with frontier technologies such as biotechnology.

He is the author of two books and has published several research articles in various prestigious journals. He has worked at the University of Amsterdam in a project supported by the Dutch Ministry of External Affairs on international development cooperation and biotechnology for developing countries, has been a member of the Independent Group on South Asian Cooperation Committee of Experts to evolve a framework of cooperation for the conservation of biodiversity in the South Asian

Association for Regional Cooperation region, and is on the editorial board of the *Biotechnology and Development Monitor*, the Netherlands, and the *Asian Biotechnology and Development Review*, India.

Roger Chennells Roger Chennells has been an attorney in private practice in South Africa since 1980, first in Durban and since 1984 in Stellenbosch. Over this period he has worked in various legal fields, ranging from commercial and constitutional law issues to labour, land, environmental and human rights law, with an emphasis on public interest law affecting rural communities.

Early cases revolved around police and state brutality, workplace discrimination and the rights of farmworkers and those living in informal settlements to housing security. Prior to 1990, most of his legal work involved representing and protecting those who opposed the apartheid state. During this period he became an active practitioner of alternative dispute resolution as a means of achieving fair outcomes to legal problems. After the emergence of a democratic state in the early 1990s, he began to represent indigenous peoples, initially in their struggle for the restitution of land and heritage rights from the state. He represented the ≠Khomani San community in their claim for land in and near the Kgalagadi Transfrontier Park in the Kalahari. During this time he began to assist the San peoples in the region with the formation of a regional organization that would represent their rights in Botswana, Namibia and South Africa. It was clear to the San that rights over land were closely associated with their entire heritage, and advocacy for San rights began to focus on issues of culture, heritage and intellectual property rights.

During the United Nations International Decade of the World's Indigenous People (1995–2004) he became an advocate for the emerging intellectual property and heritage rights of indigenous peoples, at times representing indigenous groupings elsewhere in Africa, as well as in Australia and Jamaica.

During 2001 the San became aware that their traditional knowledge had been used in the patenting of active constituents of *Hoodia* by South Africa's Council for Scientific and Industrial Research, and Roger Chennells was requested to assist them in challenging the patent. The San had not been consulted nor did they stand to benefit from the patent. During the ensuing years the San achieved various milestones in the protection of their intellectual property rights, some of which form the subject matter of this book.

Julie Cook Lucas Julie Cook Lucas has a special interest in issues around user representation and involvement in the development and delivery of health services, and the relationships between academia and activism. She developed national women's health initiatives at the UK National Health Service Health Education Authority in the 1980s and ran award-winning campaigns for the NGO Women's Environmental Network in the 1990s. She has worked for a range of NGOs, most recently providing women's mental health services, and as a community health representative. Her postgraduate research in the Philosophy Department at Lancaster University (1995–1998) examined the tensions between activism and academia, theory and practice. She joined the Centre for Professional Ethics as a researcher in 2005.

Graham Dutfield Graham Dutfield is professor of International Governance at the University of Leeds, United Kingdom. He has authored or co-authored five books on intellectual property, genetic resources, traditional knowledge and the life science industries, and edited two others. His latest publication is *Global Intellectual Property Law* (Edward Elgar). A second edition of *Intellectual Property Rights and the Life Science Industries* will be available during 2009 (World Scientific Publishing). His current research interests include innovation and creativity in law, economics, anthropology and history; the politics of intellectual property; history of patent law and the life science industries; intellectual property and genetic resources, traditional knowledge and folklore; and the TRIPS (Trade-Related Aspects of Intellectual Property Rights) Agreement and public health. He has served as a consultant or commissioned report author for several governments, international organizations, United Nations agencies and non-governmental organizations. He has a D.Phil. from the University of Oxford.

Dafna Feinholz-Klip Dafna Feinholz-Klip, with a B.A. and an M.A. in Psychology and a Ph.D. in Research Psychology from the Universidad Iberoamericana, Mexico, also has a master's in Bioethics from the Universidad Complutense, Madrid. She has studied at the Kennedy Institute of Ethics and the Harvard School of Public Health. She is currently executive director of the National Commission of Bioethics in Mexico and a member of the National Research System.

She has wide experience as a member of research ethics committees in Mexico and internationally. She was a member of the international team that wrote the World Health Organization's *Operational Guidelines for Ethics Committees that Review Biomedical Research* (2000) and was responsible for its translation into Spanish. She is founder and former chairperson of the Latin American Forum for Ethics Committees for Health Research (FLACEIS).

In 2005 she represented Mexico at UNESCO (the United Nations Educational, Scientific and Cultural Organization) intergovernmental meetings of experts to finalize the Universal Declaration of Bioethics and Human Rights. Since 2008 she has been Mexico's representative at the Steering Committee on Bioethics (CBDI) of the Council of Europe. As well as writing and teaching about bioethics, she serves as a peer reviewer and a member of the advisory board for prominent bioethics journals.

Luis García Barrios Dr Luis García Barrios has worked for 23 years at ECOSUR-San Cristóbal (El Colegio de la Frontera Sur, San Cristóbal de las Casas), a multi-disciplinary research centre in the highlands of Chiapas, Mexico, where he has worked extensively as an agroecologist with indigenous and mestizo farmers in the tropical mountains of Mexico. He has published in the fields of ethnobotany, the ecology of intercropping, agroforestry, silvopastoral systems, functional biodiversity in agriculture, rural development, socio-environmental systems, the dynamics and self-organization of complex systems, participatory agent-based modelling and sustainability evaluation. He actively participated in the International Cooperative Biodiversity Group (ICBG) Maya project from 1998 to 2000 as co-principal investigator of the community development subprogramme.

Victoria Haraseb Victoria Haraseb was born in the Outjo district of Namibia, on the way to the ancestral land of the Hai//om San peoples in and around the Etosha National Park. In 1997 she was appointed by the Hai//om Traditional Authority as their secretary, and she has been a community activist ever since. She played an important role in research that was done in the Hai//om community on cultural resource mapping and also contributed to a booklet, *Voices of the San*. She has attended several training workshops through the Working Group of Indigenous Minorities in Southern Africa (WIMSA) and has represented the San in several international forums concerning human rights, traditional knowledge and environmental issues. She has also participated in United Nations processes on indigenous peoples.

She has worked at WIMSA for the past 10 years as the regional education assistant, promoting San access to education and the position of San women. She has also served on various boards, including the Outjo Development Trust, and as vice-chair to WIMSA and the Community Empowerment and Development Association. She is currently enrolled for a degree in Business Administration through the Management College of Southern Africa.

Timothy Hodges Timothy Hodges is co-chair of the Working Group on Access and Benefit Sharing (ABS) of Genetic Resources under the United Nations Convention on Biological Diversity (CBD). Elected to this position in March 2006, he is co-chairing negotiations on an international ABS regime aimed at concluding in 2010.

Prior to assuming this position, he was Canada's National ABS Focal Point. In this capacity, he led Canada's delegations to the CBD's ABS working group meetings over several years and also had overall responsibility for the Canadian government's national ABS policy initiative. As such he chaired the federal government's ABS committee and co-chaired the Federal-Provincial-Territorial ABS Working Group.

Mr Hodges is a career diplomat. Much of his professional career has focused on bilateral and multilateral environmental, economic and trade negotiations. Over the past 25 years, he has been involved in a wide range of international files relating to technology transfer, science policy, biotechnology, intellectual property rights, biodiversity, indigenous issues, climate and global change and circumpolar affairs, negotiated under the United Nations, the G8, the World Trade Organization, Asia-Pacific Economic Cooperation, the Organization of American States, the Organisation for Economic Co-operation and Development and numerous other international instruments and forums.

Sarah Laird Sarah Laird is the director of People and Plants International, working in the field of forest and biodiversity conservation. In part her work has focused on building equity into the genetic resources trade and developing policies to guide access and benefit-sharing under the Convention on Biological Diversity. Publications in this field include *Biodiversity and Traditional Knowledge: Equitable Partnerships in Practice* (Earthscan, 2002) and *The Commercial Use of Biodiversity: Access to Genetic Resources and Benefit-Sharing* (with K. ten Kate, Earthscan, 1999). She also

undertakes and manages research and applied projects on non-timber forest products, primarily in Africa, and since 1997 has also undertaken ethnobiological research around Mount Cameroon with Bakweri and other groups living in the area.

Mathambo Ngakaeaja Mathambo Ngakaeaja was born of a Tswana father and San mother at D'kar, a farm in the western Kalahari of Botswana. Since graduating with a B.Sc. in Geology from the University of Botswana, he has worked continuously for the San peoples, first as manager for the Dqae Qare Game Farm, part of the Kuru organizations, until 1998, and subsequently as coordinator for the Botswana chapter of the Working Group of Indigenous Minorities in Southern Africa (WIMSA) until 2007. He has represented the San in numerous international forums, and has engaged extensively over the past decade with the international indigenous peoples' movement as well as with United Nations processes on a broad range of issues including indigenous peoples' human, environmental and intellectual property rights.

He has served as a board member of Kuru Savings and Loans, San Arts and Crafts, the Botswana Khwedom Council, the !Khwatla San Education Centre and the Southern African *Hoodia* Growers Association.

Doris Schroeder Doris Schroeder is professor of Moral Philosophy in the Centre for Professional Ethics at the University of Central Lancashire and a professorial fellow in the Centre for Applied Philosophy and Public Ethics at the University of Melbourne. Her background is in philosophy, politics and economics. Prior to joining academia, she worked as a strategic planner for Time Warner. Her main areas of interest are international justice, human rights, benefit sharing and global bioethics. She was the principal grant-holder for the San-!Khuba research project.

Saskia Vermeulen Dr. Saskia Vermeulen is a lecturer at the Lancaster Environment Centre, Lancaster University, UK. Her research is focused on studying the cultural property rights of indigenous peoples from a socio-legal perspective. She has conducted fieldwork in southern Africa, specifically engaging with the commodification of cultural practices and the protection of both the tangible and the intangible heritage of indigenous peoples. Her work is inspired by critical legal studies, legal anthropology and discourses of post-colonialism. In her most recent work on museum practices, she explores the concept of giving a voice to indigenous peoples through new media art and 'cybermuseumology' as alternative curatorial practices for indigenous peoples. Her research on intellectual property rights and traditional knowledge and indigenous museum practices has been published in internationally acclaimed journals.

Samantha Williams Samantha Williams is a full-time student reading for a doctorate at the University of Cape Town. She completed her undergraduate and master's degrees at the University of the Western Cape. In 2005 she was appointed as a junior researcher at the Environmental Evaluation Unit, University of Cape Town, and participated as a research assistant in the San-!Khuba project. Samantha's research interests include issues related to coastal access, sustainable rural livelihoods and small-scale fisheries.

Rachel Wynberg Dr. Rachel Wynberg is a senior researcher and deputy director at the Environmental Evaluation Unit, University of Cape Town. Trained as both a natural and a social scientist, she has worked widely on environmental policy and strategy, specializing in the commercialization and trade of natural products, and the integration of social justice into biodiversity concerns.

Over the past 15 years she has worked closely with several governments, international organizations and NGOs to formulate appropriate policy frameworks for biotrade, access and benefit-sharing; intellectual property rights and traditional knowledge; and community-based natural resource management. She is actively involved in civil society movements, and is trustee and founding member of two South African non-governmental organizations, the Environmental Monitoring Group and Biowatch South Africa. She holds two master's degrees from the University of Cape Town and a PhD from the University of Strathclyde.

In 1997 she came across the *Hoodia* patent filed by South Africa's Council for Scientific and Industrial Research, did research to uncover the traditional use of the plant and began a campaign through Biowatch to alert the media and the San to the exploitative use of this knowledge. She has been involved in research relating to *Hoodia* and its commercialization for the past 10 years.

Foreword

This book arrives at a critical juncture in the history of genetic resource use and policymaking – not only in southern Africa, but across that continent and, indeed, around the world.

The volume's arrival also coincides with the growing awareness and concern over the loss of biological diversity and what this loss means for the health of the planet and survival of the human species.

At first glance, such global and momentous concerns might appear remote in relation to the 'San-*Hoodia*' story. But, in fact, in this unfolding drama of *Hoodia* and its many embroiled stakeholders, the book's contributors depict a microcosm of the global debate over genetic resources, traditional knowledge, bioprospecting and economic and social development.

This book will prove highly instructive to the providers and users of genetic resources and associated traditional knowledge around the world who share the frustrations and disappointments, as well as the expectations and desires, of the *Hoodia* stakeholders. The significance of this book, however, goes beyond the myriad lessons it has to offer to those involved in similar cases in other parts of the world.

Importantly, this book serves as a timely and substantive reminder to those negotiating a new international regime on Access and Benefit Sharing (ABS) under the United Nations Convention on Biological Diversity (CBD). ABS, and all its attendant issues, is about real people – in local and indigenous communities, on farms, in public research laboratories and business boardrooms – struggling to feed families, fuel economies, cure diseases, conserve biodiversity, address injustices and account to shareholders. This book brings readers' feet to the ground and we are reminded by many of the volume's highly respected contributors that ABS is about the well-being of communities, the universal struggle for just societies and the desire for fair deals.

The San-*Hoodia* story is far from over and, indeed, the nature of its ending is far from clear. With the opportunity that this book brings to share the complexities and importance of the San-*Hoodia* case with the world, the stakes have never been higher for the indigenous communities, farmers, governments and firms involved. The question remains: Is it practicable to develop and implement a fair and equitable ABS model involving a range of stakeholders in a multijurisdictional context? We anxiously await an answer.

And in the complex international ABS regime talks an equally challenging question may be posed. How will the Regime assist in generating the mutually acceptable outcomes sought in cases such as *San-Hoodia*? The answer, of course, lies with the ABS regime negotiators and they would do well to study closely the pages of this insightful and provocative volume.

Timothy J. Hodges
Co-Chair
Working Group on Access and Benefit Sharing
United Nations Convention on Biological Diversity

List of Acronyms

ABS	Access and Benefit Sharing
ABTA	Aboriginals Benefit Trust Account
AICRPE	All India Coordinated Research Project on Ethnobiology
ALAMIN	Alyansa Laban sa Mina or Alliance Against Mining
AVP	Arya Vaidya Pharmacy
BMC	Business Management Committee
CAH	Consejo Aguaruna Huambisa
CBD	Convention on Biological Diversity
CEGA	Cape Ethno-Botanical Growers Association
CIHR	Canadian Institutes of Health Research
CIOMS	Council for International Organizations of Medical Sciences
CIPR	Commission on Intellectual Property Rights
CITES	Convention on International Trade in Endangered Species of Wild Fauna and Flora
COMPITCH	<i>Consejo Estatal de Organizaciones de Médicos y Parteras Indígenas Tradicionales de Chiapas</i>
CONAP	Confederación de Nacionalidades Amazónicas del Perú
CPA	Community Property Association
CRIAA SA-DC	Centre for Research Information Action in Africa – Southern African Development and Consulting
CSIR	Council for Scientific and Industrial Research
ECOSUR	El Colegio de la Frontera Sur
FDA	Food and Drug Administration
FPIC	Free and Prior Informed Consent
FPK	First People of the Kalahari
FTC	Federal Trade Commission
GMP	Good Manufacturing Practice
ICBG	International Cooperative Biodiversity Groups
ICESCR	International Covenant on Economic, Social and Cultural Rights
IGC	Intergovernmental Committee on Traditional Knowledge, Genetic Resources and Folklore
IKS	Indigenous Knowledge Systems
ILO	International Labour Organisation

IPACC	Indigenous Peoples of Africa Coordinating Committee
IPHR	Indigenous Peoples and Human Rights
IPR	Intellectual Property Rights
IPRA	Indigenous Peoples Rights Act
ISE	International Society of Ethnobiology
IWGIA	International Workgroup for Indigenous Affairs
JBDF	Ju/wa Bushman Development Foundation
KAMTI	Kaisahan Mangyan Tadyawan Inc
KFO	Kuru Family of Organisations
MCA	Minerals Council of Australia
MNL	Molecular Nature Limited
NBAC	National Bioethics Advisory Commission
NCIP	National Commission of Indigenous Peoples
NGO	Non-Governmental Organization
NIH	National Institutes of Health
NSERC	Natural Sciences and Engineering Research Council of Canada
OCCAAM	Organización Central de Comunidades Aguarunas del Alto Marañon
OMIECH	Organización de Médicos Indígenas del Estado de Chiapas
PIC	Prior Informed Consent
PRECIS	Pretoria Computerised Information System
PROCOMITH	Programa de Colaboración sobre Medicina Indígena Tradicional y Herbolaria (Collaborative Programme in Traditional Indigenous Herbal Medicine)
PROMAYA	Promotion of Intellectual Property Rights of the Highland Maya of Chiapas
R&D	Research and Development
RAFI	Rural Advancement Foundation International
RRL	Regional Research Laboratory
SAHG	South African <i>Hoodia</i> Growers (Pty) Limited
SAHGA	South African <i>Hoodia</i> Growers Association
SAHRC	South African Human Rights Commission
SANAMA	Samahan ng Nagkakaisang Mangyan Alangan
SASI	South African San Institute
SEMARNAP	<i>Secretaría de Medio Ambiente, Recursos Naturales y Pesca</i>
SHDC	Sustainably Harvested Devil's Claw Project
SSHRC	Social Sciences and Humanities Research Council of Canada
SWAPO	South West Africa People's Organization
TBGRI	Tropical Botanic Garden and Research Institute
TRIPS	Trade-Related Aspects of Intellectual Property Rights
UCLAN	University of Central Lancashire
UCT	University of Cape Town
UNDP	United Nations Development Programme
UNESCO	United Nations Educational, Scientific and Cultural Organization
WHO	World Health Organization

WIMSA	Working Group of Indigenous Minorities in Southern Africa
WIPO	World Intellectual Property Organization
WMA	World Medical Association
WSSD	World Summit on Sustainable Development
WTO	World Trade Organization

Part I
Community Consent and Benefit Sharing:
The Context

Chapter 1

Introduction

Rachel Wynberg, Doris Schroeder, and Roger Chennells

The story of *Hoodia* has captured the world's imagination. A plant used by the San to quench thirst and possibly hunger for centuries suddenly enters world markets as an appetite suppressant. Pictures from the Kalahari of poverty-induced thinness mingle with pictures of obese Westerners. A showcase for the Convention on Biological Diversity (CBD) in terms of the conservation of biodiversity, sustainable use and fair and equitable benefit sharing? Alas, not quite. But it is a showcase for the challenges that indigenous communities, national and international policymakers, and industry face in realizing the letter and the spirit of the CBD. This book explains why.

Few other bioprospecting cases have started as dramatically as the *Hoodia* case did, with a leading article in a British newspaper citing the perceived extinction of the San, and few have gone through as many ups and downs. The world's largest pharmaceutical company, Pfizer, undertook to bring *Hoodia* to market, then withdrew from the task. Next, Unilever, one of the largest multinational food manufacturers, aimed to add *Hoodia* to its slimming range, yet also withdrew after 4 years of research and an investment of more than €20 million. Meanwhile, natural *Hoodia* habitats were ravaged to supply material for a booming market while commercial growers committed themselves to sharing some of their profits with the San. Hidden behind the hype of this case are highly valuable lessons applicable beyond southern Africa.

R. Wynberg (✉)

Environmental Evaluation Unit, University of Cape Town, Private Bag X3, Rondebosch 7701,
Cape Town, South Africa
e-mail: rachel@iafrica.com

D. Schroeder

UCLAN, Centre for Professional Ethics, Brook 317, Preston PR1 2HE, United Kingdom
e-mail: dschroeder@uclan.ac.uk

R. Chennells

Chennells Albertyn: Attorneys Notaries and Conveyancers, 44 Alexander Street, Stellenbosch,
South Africa
e-mail: scarlin@iafrica.com

This book, the result of a 2.5-year project funded by the Wellcome Trust, and its accompanying DVD, presents the first in-depth account of the *Hoodia* benefit-sharing case. It is unique in bringing together disciplines that to date have never engaged collectively on the dilemmas of just how prior informed consent and benefit sharing are effected in practice. This has included the academic fraternity of philosophers applying its mind to questions of justice in the CBD; those in legal disciplines interrogating the use of intellectual property rights to protect traditional knowledge; environmental scientists analysing the extent to which the case reflects the intent of the CBD and national policies; anthropologists grappling with questions of how and whether knowledge should be commodified; and, uniquely, those with knowledge of other benefit-sharing arrangements throughout the world bringing their collective expertise to compare and contrast their experiences with those of the San.

The book is divided into three main parts. Part 1 contains articles of an overarching nature, which describe the setting and the challenges in the brave new world of business between indigenous peoples and the bioprospecting industry. Part 2 contains articles specifically focused on the San-*Hoodia* benefit-sharing case. The rich findings articulated in the first two sections are discussed and debated by a range of experts in Part 3, to tease out the similarities and differences between the San-*Hoodia* case and others. The book concludes with a synthesis of main points and specific recommendations.

Following this introduction, Chapter 2 queries the ethical foundation of the CBD. Doris Schroeder is the first philosopher to ask how benefit sharing fits into philosophical debates of justice. Why should it be just to restrict the 'common heritage of humankind' rule by giving sovereignty over biological resources to national governments and requiring prior informed consent and benefit sharing? The chapter looks at questions of justice in exchange (e.g. traditional knowledge for royalty payments) and those of global distributive justice. It argues that the CBD is an example of a set of social rules designed to increase social utility. This imposition of rules, which adds a new bureaucratic layer to biodiversity access, is ethically justified as long as the international economic order is characterized by serious distributive injustices, reflected in the enormous poverty-related death toll in developing countries. Any ethical attempt to redress the balance in favour of the disadvantaged, as the CBD does, has to be welcomed. By legislating for a 'justice in exchange' system covering non-human biological resources and traditional knowledge in preference to the tacit 'common heritage of humankind' principle, the CBD provides a small step forward in redressing the balance. The author concludes that the convention presents just legislation sensitive to the international relations context of the twenty-first century. However, its implementation is enormously challenging.

One of the main implementation challenges relates to the requirement of consent. Obtaining informed consent has become an essential part of modern medical practice. Today, patients and research subjects are actively involved in medical decision-making and are no longer expected to defer responsibility to paternalistic, benevolent doctors. Since the early 1990s, the concept has also been employed systematically in connection with indigenous peoples' rights of self-determination.

The CBD, for instance, requires that prior informed consent be obtained from indigenous communities before their traditional knowledge, innovations and practices may be accessed. Chapters 3 and 4 by Doris Schroeder and Graham Dutfield respectively introduce the wider discourse on informed consent. Schroeder provides a useful overview focusing on a comparison between informed consent in medicine and that in the field of natural product development. After describing the necessary stages of concluding a consent process, Schroeder argues that the similarities between obtaining informed consent in the medical context and obtaining prior informed consent according to CBD requirements are strong enough to warrant mutual learning. Such learning is particularly appropriate when dealing with the inherent power imbalances between medical staff and research subjects, and the similar imbalances between bioprospectors and indigenous communities.

Following this overview chapter, Dutfield provides an analysis of what prior informed consent means in practice when accessing traditional knowledge and biological resources. Using a case study approach, his chapter shows why applying prior informed consent requirements in very diverse cultural settings and tense political contexts can be immensely challenging. Even with the best intentions and the most carefully drawn-up plans, things can go wrong, as Dutfield illustrates convincingly with a case from Peru. He also shows that prior informed consent may not be a requirement in many cases because a great deal of knowledge and resources are already in free circulation and can no longer be attributed to a single originator community or country. This should not, he argues, lead to the conclusion that there can be no moral obligations even in the absence of legal ones. While prior informed consent may not resolve biopiracy satisfactorily in all cases, it can nevertheless be a useful concept. Effective, culturally appropriate, transparent and flexible prior informed consent procedures should be seen as a necessary but not a sufficient requirement for the establishment of more equitable bioprospecting arrangements.

The challenges of obtaining prior informed consent are replicated when negotiating benefit-sharing agreements. In Chapter 5 Rachel Wynberg and Sarah Laird set the wider international context of bioprospecting, access and benefit sharing, and describe the fraught policy process that has evolved since the adoption of the CBD in 1992. Notwithstanding the abundance of new policies and laws to control access to genetic resources and ensure fair benefit sharing, their effectiveness has been questionable. The complexity and diversity of bioprospecting activities and commercial players are often poorly recognized, and policy has lagged behind the practice of bioprospecting. Moreover, the vast range of issues involved – from trade to conservation, intellectual property, biotechnology and traditional knowledge – has resulted in the policy process becoming a forum for much wider concerns dealing with globalization, corporate behaviour and the disparities between rich and poor. Some of the key issues that remain unresolved in the run-up to finalizing an international regime on access and benefit sharing revolve around compliance, and whether or not patent holders should be obliged to disclose the origin of biological resources and knowledge in patent applications; the scope of the agreement, and whether or not it should go beyond the CBD to address biochemicals and derivatives; and even its purpose.

Part 2 takes the book to its main focus: the San, their cultures and institutions, their use of *Hoodia* and, importantly, the benefit-sharing agreements they have entered into with the South African-based Council for Scientific and Industrial Research (CSIR) and the Southern African *Hoodia* Growers Association (SAHGA). In a comprehensive analysis, the historical detail of the San-*Hoodia* case is reported in Chapter 6 by Rachel Wynberg and Roger Chennells, who introduce the San and chart the history of *Hoodia* development, its patenting by the CSIR and the flurry of activity after the infamous comment quoted in the British *Observer* that the San were extinct. The process of developing a benefit-sharing agreement between the San, the CSIR and the SAHGA is described in detail, along with the elaborate processes that have been followed to secure San representation, develop a representative trust and set in place mechanisms to distribute resources fairly. As Wynberg and Chennells note, the challenges of implementation are substantial, and are exacerbated by regional differences in benefit-sharing policies and highly unstable *Hoodia* markets, more especially in light of Unilever's decision to terminate its involvement.

The complexities of access and benefit sharing and their interface with government regulation, conservation and compliance are well illustrated in Rachel Wynberg's Chapter 7 on policy frameworks for *Hoodia*. *Hoodia* is a biological resource that is shared across national political boundaries, in particular those separating Namibia, South Africa and Botswana, and knowledge of the plant is similarly shared by communities straddling these boundaries. Yet each country is involved in diverse initiatives to commercialize the plant and has different policy approaches to prior informed consent, commercialization, benefit sharing, conservation and the recognition of indigenous peoples. Regional strategies to control illegal trade, develop benefit-sharing approaches, obtain prior informed consent from communities and cooperate on value-adding and marketing are vital constituents of a viable industry, especially in the face of increasing international competition.

One of the policies that differ between countries with San populations is support for land claims. While South Africa is broadly supportive of San land rights and has transferred six Kalahari farms to the San as part of its land reform programme, the San continue to be dispossessed of land in Botswana and encounter difficulties in realizing their land claims in Namibia. In fact, the San are Namibia's poorest, most vulnerable group, living as scattered itinerant labourers, often on the outskirts of cities or settlements. Yet, as Saskia Vermeylen shows in Chapter 8, indigenous peoples often explicitly link rights over knowledge, culture, natural resources and land. Traditional knowledge is seen as closely tied to land and its resources; in fact, such knowledge encapsulates spiritual experience and deep relationships with the land.

In order to claim rights, be they land rights or rights over cultural heritage, indigenous peoples must become organized and empower themselves. Drawing on their considerable experience of working with the San, Roger Chennells, Victoria Haraseb and Mathambo Ngakaeaja show in Chapter 9 that strong institutions are essential to realizing rights in practice. Chennells, Haraseb and Ngakaeaja examine the status of the San as the poorest and most dispossessed peoples in southern Africa and raise the question: why have they collectively been unable to compete