



<http://researchspace.auckland.ac.nz>

ResearchSpace@Auckland

Copyright Statement

The digital copy of this thesis is protected by the Copyright Act 1994 (New Zealand).

This thesis may be consulted by you, provided you comply with the provisions of the Act and the following conditions of use:

- Any use you make of these documents or images must be for research or private study purposes only, and you may not make them available to any other person.
- Authors control the copyright of their thesis. You will recognise the author's right to be identified as the author of this thesis, and due acknowledgement will be made to the author where appropriate.
- You will obtain the author's permission before publishing any material from their thesis.

To request permissions please use the Feedback form on our webpage.

<http://researchspace.auckland.ac.nz/feedback>

General copyright and disclaimer

In addition to the above conditions, authors give their consent for the digital copy of their work to be used subject to the conditions specified on the Library Thesis Consent Form.

Traditionalizing Sustainable Development: The Law, Policy and Practice in Papua New Guinea

Eric Lokai Kwa
Faculty of Law
The University of Auckland

Abstract

In 1987, the World Commission on Environment and Development published its long awaited report: "Our Common Future". The report contained a detailed discussion of global environment and development problems and a set of recommendations which the Commission suggested could alleviate many of those problems. At the core of the Commission's recommendation was the 'sustainable development' concept which the Commission strongly suggested countries should adopt as the principal vehicle for overcoming many of the global environmental and social ills.

But, what is sustainable development? What are its core values? How can sustainable development be utilized to arrest and resolve global societal problems? Does sustainable development have a universal application? Under what conditions can sustainable development be successfully implemented? These are some of the key issues that are addressed in this research paper.

In this paper I look at the origin and definition of the sustainable development concept and identify the relevant principles of the concept. I also identify the tools that are necessary for the implementation of the concept. The underpinning of my argument is that sustainable development can be successfully implemented by countries particularly developing countries because the concept has strong roots in traditional cultures which are dominant in developing countries. I explore this position and the various issues that have been identified above by adopting Papua New Guinea (PNG) a developing country as a case study.

Dedication

*To the two great men who humbly gave up their life comforts that I and my siblings could find happiness in life – **Rev. Peter Katu Kwa** and **Col (Rtd) Fred Aikung Kwa** and the two women who accepted me as their son **Ms. Elise Katu Kwa** and **Ms. Elizabeth Kamgi Aikung Kwa**.*

Acknowledgements

Many people played various roles in encouraging me and assisting me in pursuing my PhD Program. These people have a special place in my heart and life. These people range from family, friends, colleagues and government, private and non-governmental organization officials. I offer them my sincere thanks and gratitude.

I thank my God the Almighty, my Lord and Saviour Jesus Christ and the Holy Spirit for all the wisdom and knowledge, protection and guidance in my entire life and especially in completing this degree so that I can be used as an instrument by Him to bring Glory, Honour and Praise to his Great Name.

In all my struggles and joys my beloved wife Enaha Peri Kwa has faithfully and patiently been by my side. Enaha has been and continues to be my friend, wife and colleague. This paper could not have seen the light of day without the loving support and continuing encouragement by Enaha. All my successes are equally hers while any failures are my own.

My lovely daughters Jolyn Kwes Kwa, Galki Dika Kwa and now beautiful son Rabam Aruatoua Kwa have quietly been patient with me and give me the strength and hope to succeed. These three are the apples of my eye. My challenges, joy and happiness belong equally to them.

I pay gratitude to my mum, Gelau Martha Kwa and father Yapi Kwa. They were used by God to bring me into this world. My brothers and sisters contributed immensely in various ways to develop me personally both in body and spirit. A big wave of thank you to Peter Katu Kwa and Elise Katu (my "parents"); Fred Aikung Kwa and Elizabeth Aikung; Elijah Kelamu and Geam Kelamu; Sam Kwa Kelamu; Orpha Pepi; Naomi Wilkins and Dr. Chris Wilkins; Freda Doe; Janet Lokai; Jane Kaisam; Florence Kwa; Jack Kwa; Miti Garai Kelamu; Dr. Issacc Ake; Glenda Mais; Jenny Mais; Arpi Joe Tali; Silas Tali; Yal Ase and Peter Samuel. My aunties Sop Mais; Akang Yaking; and my uncles Aunga Ben Yal; Mais Nabon; Ray Waesa and Issacc Teo. I also want to thank all the sons and daughters of the Sal clan particularly the Kwa, Sambure and Yaing families.

Thanks also to Enaha's parents and relatives for their enduring support: Arua Henao; Dika Henao; Dou Henao; Mea Henao; Sibona Douveri and family; Rocky Douveri and family; Bruce Douveri and family; Edmond Mada and family; Babu Hebou and family; Babu Moale and family; Glenda Gari and family; and Dr. Alec and Peri Eckeroma and family.

Two very important men deserve all my thanks and gratitude for the successful completion of this dissertation – my Supervisors, **Associate Professor Klaus**

Bosselmann and **Professor David Williams** of the Law Faculty, Auckland University. These two professors provided me with unlimited support and placed great confidence in my ability to undertake and complete the program. I am deeply and forever indebted to them.

A special thanks to mum Anne Cochran (aka Ana Kila) for her love and care for me and my family during the critical stages of my study. She challenged my ideas and provided invaluable comments to the very first draft of this thesis. Her comments and tender loving care have helped me to submit a presentable work. I also want to thank Mr. DJ Thompson of Auckland for proof reading the final draft of this thesis. He did a wonderful job in ensuring that I submitted a good thesis. While in New Zealand, Mr. Doug Tennent of the Waikato University Law Faculty has been a true friend, brother and colleague, to me and Enaha and an uncle to our children. Thank you, Doug Tennent, for all the help and support.

I thank all my colleagues and friends who played a pivotal role in my success: Mr. Tony Regan; Associate Professor Owen Jessep; Dr. John Nonggorr; Associate Professor John Luluaki; Dr. Lawrence Kalinoe; Dr. Joseph Ketan; Mr. Gerhard Linge; Dr. Harry Aigeleeng; Professor Don Chalmers; Mr. George Muroa; Mr. Lyons Putupen; Mr. Paraka Pena; Mr. Alphonse Malipu; Mr. John Duguman; Dr. Alphonse Gelu; Professor Mathias Sapuri; Professor Lance Hill; Professor Otto Nekitel; Dr. Ikenna Nwokolo; Mr. Wilfred Golman; Mr. T Gumoi; Dr. Billy Manoka; Dr. Bernard Minol; Associate Professor Simon Saulei; Professor Martin Tsamenyi; Professor David Farrier; Mr. Martin Berry; Mr. John Duguman; Dr. David Kavanamur; Dr. Steven Winduo; Mr. Sakerep Kamene; Mr. Biana Kanasa; Mr. Mange Matui; Mr. Kisokau Poweseau and Mr. Hostine Korokoro.

My Christian friends also helped me through spiritual encouragement and prayer. These people I treasure very much. My special thanks to Mr. Peter Hairoi and family, Mr. Andrew Kwimberi and family, Mr. Marlon Kulinead and family, Mr. Oshea Akjopazi and family, Rev. Timothy Luke and family; President Sommy Setu and family, Rev. Meggan Zerriga, Mr. Davis Steven and family, Mr. Enoch David and family, Mr. Kari and Ms. Lora Kukuna, Mr. Solomon Tedella and family, Mr. Ulukile Masiane and family, Mr. Dick Quax and family; Mr. Paul and Ms. Karen Bonnington, Ms. Geita Sharma and family; Mr. Yakue Mazi; Mr. Johnny Yap; Mr. Samuel Banake; Ms. Tavinia Gaok; Mr. Mera Minei; Mr. Keith Kone; Mr. Taylor Mark; Ms Primas Kapi, Ms Kaia Verona and Ms Gwen Maru; the members of the Lutheran Students Congregation at UPNG and the members of the Mountainside Lutheran Church of Auckland.

Funding for my fieldwork in Milne Bay was provided by my elder brother Col (Retd) Fred Aikung Kwa. The fieldwork in Madang was funded by The Nature Conservancy (TNC). My ongoing work with the Kimbe Bay Protected Area Project is also generously supported by TNC. A big thank you also to Dr. Wari Iamo, the Secretary of the Department of Environment and Conservation and his officers (especially, Mr. John Genolagani, Dr. Navu Kwapena, Mr. Barnabas Wilomt, Mr. Veari Kila, Mr. Goro Gigmai) for having the faith in me by engaging me as a consultant in developing the draft

National Biosafety and Biotechnology Policy and Bill which for the first time – through the law and policy framework - addressed the sustainable development concept and are discussed throughout this thesis. Without their support I would not have applied theory to practice during the duration of my study.

The Librarians, Ms. Miriam Walo, Acting Law Librarian, Mr. Joe Nanguan of the Michael Somare Library, Mr. Tom Dangiaba of the PNG National Court Library, Ms. Mary-Rose Russell of the Davis Law Library at the Auckland University were very helpful.

I also acknowledge and thank the staff of the University of Papua New Guinea and the UPNG Law School and the Auckland University and the Auckland University Law School for their support and encouragement. Furthermore, I acknowledge and thank the people of New Zealand expressed through the New Zealand Overseas Development Agency (NZ Aid) for generously providing me a scholarship to undertake the doctoral program.

Table of Contents

| | |
|---|----------|
| Traditionalizing Sustainable Development: The Law, Policy and Practice in Papua New Guinea | i |
|---|----------|

| | |
|---|------------|
| <i>Abstract</i> | <i>ii</i> |
| <i>Dedication</i> | <i>iii</i> |
| <i>Acknowledgements</i> | <i>iv</i> |
| <i>Table of Contents</i> | <i>vii</i> |
| <i>List of Tables and Figures</i> | <i>xi</i> |
| <i>Abbreviations</i> | <i>xii</i> |

| | |
|-----------------------------------|----------|
| Part I. Introduction | 1 |
|-----------------------------------|----------|

| | |
|--|----------|
| <i>Chapter 1 Sustainable Development: from Where and for Whom?</i> | <i>2</i> |
|--|----------|

| | |
|--|----|
| Introduction..... | 2 |
| Sustainable Development from Where? | 6 |
| Sustainable Development for Whom? | 12 |
| What about Other Ideas?..... | 14 |
| Why take a socio-cultural approach to law? | 15 |
| Summary | 17 |

| | |
|--|-----------|
| Part II. Sustainable Development Theory | 18 |
|--|-----------|

| | |
|--|-----------|
| <i>Chapter 2 Evolution of the Sustainable Development Theory</i> | <i>19</i> |
|--|-----------|

| | |
|---|----|
| Introduction..... | 19 |
| The Dilemmas of Development..... | 19 |
| The Modern Evolution of Sustainable Development..... | 26 |
| The Stockholm Conference on the Human Environment..... | 29 |
| The World Commission on Environment and Development (WCED) | 32 |
| The United Nations Conference on Environment and Development (UNCED)..... | 35 |
| Defining Sustainable Development | 42 |
| The Road to Johannesburg 2002: World Summit on Sustainable Development..... | 47 |
| Critical Events Post-WSSD | 47 |
| The World Summit on Sustainable Development | 52 |
| Summary | 54 |

| | |
|---|-----------|
| <i>Chapter 3 Principles of Sustainable Development.....</i> | <i>57</i> |
|---|-----------|

| | |
|-------------------|----|
| Introduction..... | 57 |
|-------------------|----|

| | |
|--|-----|
| The Dilemmas of Sustainable Development..... | 58 |
| Sustainable Development and the Law..... | 61 |
| The Duty of States to Ensure Sustainable Use of Natural Resources..... | 63 |
| The Principle of Intergenerational and Intragenerational Equity..... | 65 |
| The Principle of Common But Differentiated Responsibilities..... | 72 |
| The Precautionary Principle..... | 75 |
| The Principle of Public Participation and Access to Information..... | 78 |
| The Principle of Good Governance..... | 81 |
| The Principle of Integration..... | 82 |
| Is Sustainable Development a Principle of International Law?..... | 84 |
| Summary..... | 85 |
| Chapter 4 <i>Developing a New Paradigm: Ethics and Sustainable Development . 87</i> | |
| Introduction..... | 87 |
| The Ethical Dimension of Sustainable Development..... | 88 |
| Emergence of Ecological Integrity..... | 90 |
| Ecological Integrity and Traditional Cultures..... | 96 |
| Summary..... | 100 |
| Chapter 5 <i>A Paradigm Change: Traditionalizing Sustainable Development.... 104</i> | |
| Introduction..... | 104 |
| Traditional Knowledge and the Environment..... | 105 |
| The Role of Traditional Knowledge in Promoting Sustainable Development..... | 111 |
| Recognition of Traditional Knowledge in International Law..... | 111 |
| Promoting and Strengthening Traditional Knowledge in the South Pacific..... | 116 |
| Making Traditional Knowledge Work in the South Pacific Region..... | 121 |
| Traditional Knowledge and Sustainable Development in PNG..... | 123 |
| An Overview..... | 123 |
| Presence of SD Principles in Traditional or Local Societies..... | 124 |
| Indicators of Sustainable Development in Traditional or Local Societies..... | 127 |
| Application of Sustainable Development in Traditional Culture..... | 133 |
| Threats to Traditional Knowledge, Practices and Innovations..... | 138 |
| Protection of Traditional Knowledge, Practices and Technologies..... | 141 |
| Summary..... | 147 |
| Chapter 6 <i>Sustainable Development Strategies and Indicators 149</i> | |
| Introduction..... | 149 |
| Sustainable Development Strategies..... | 150 |
| Why Develop NSDS..... | 151 |
| Developing a NSDS..... | 154 |
| Developing Sustainable Development Indicators..... | 161 |
| The Need for SDI..... | 162 |
| Development of Model Indicators..... | 164 |

| | |
|---|------------|
| Strong versus Weak Sustainability | 169 |
| Developing National Indicators | 174 |
| Strengthening NSDS and SDI through Law | 175 |
| Summary | 177 |
| Part III. Implementing Sustainable Development In Developing Countries: The Challenges | 180 |
| <i>Chapter 7 Dilemmas of Development In Papua New Guinea.....</i> | <i>181</i> |
| Introduction..... | 181 |
| Brief Political History of PNG..... | 181 |
| The Demographic and Social Situation in PNG | 191 |
| The Environment of PNG | 206 |
| The Development Problem of PNG..... | 214 |
| Summary | 222 |
| <i>Chapter 8 Sustainable Development in Papua New Guinea: A Myth?</i> | <i>224</i> |
| Introduction..... | 224 |
| PNG's Involvement in the Integration of Sustainable Development at the International Level..... | 224 |
| Translating International Commitments into Domestic Action..... | 226 |
| PNG's Sustainable Development Policy | 231 |
| Sustainable Development Law | 250 |
| Developing a National Sustainable Development Strategy | 264 |
| Summary | 270 |
| Part IV. Internalizing Sustainable Development..... | 273 |
| <i>Chapter 9 Localizing Sustainable Development</i> | <i>274</i> |
| Introduction..... | 274 |
| Defining Sustainable Development: From Rhetoric to Reality | 274 |
| Establishing the Principles of Sustainable Development: The Challenge..... | 284 |
| Summary | 291 |
| <i>Chapter 10 Sustainable Development in PNG: From Rhetoric to Reality.....</i> | <i>292</i> |
| Introduction..... | 292 |
| The Kimbe Bay Marine Protected Area Project | 293 |
| Implementing Sustainable Development in Papua New Guinea | 300 |
| Integration | 301 |
| Access to Information and Public Participation in Development..... | 307 |
| Ecological Integrity..... | 313 |
| The Precautionary Principle..... | 314 |

| | |
|--|------------|
| The Principle of Intergenerational Equity..... | 315 |
| Traditional Knowledge and Values | 315 |
| The Rights of Local Communities..... | 316 |
| Summary | 318 |
| Part V. Conclusion | 320 |
| <i>Chapter 11 The Way Forward</i> | <i>321</i> |
| Introduction..... | 321 |
| Implementing Sustainable Development | 322 |
| The Challenge | 326 |
| <i>Bibliography</i> | <i>329</i> |
| <i>Annexes</i> | <i>353</i> |

List of Tables and Figures

Tables

| | | |
|-----|---|-----|
| 1. | Indicators of Sustainable Development in Traditional Societies..... | 128 |
| 2. | Traditional Forest Resources and Their Disposal..... | 133 |
| 3. | Answers to the Question about Forest Resources Use..... | 135 |
| 4. | Basic Comparison between Developed and Developing Strategy Process..... | 155 |
| 5. | Testing Countries..... | 164 |
| 6. | CSD Theme Indicator Framework..... | 165 |
| 7. | Some Economic, Social and Environmental Indicators for Papua New Guinea..... | 192 |
| 8. | Health Demography of South West Pacific Countries..... | 196 |
| 9. | Ensure Environmental Sustainability..... | 204 |
| 10. | Numbers of Plants and Their Uses..... | 207 |
| 11. | PNG's Response to Sustainable Development..... | 229 |
| 12. | Tok Pisin Definition of Sustainable Development..... | 276 |
| 13. | Definitions of Sustainable Development by Public Servants..... | 277 |
| 14. | Targeted Ecological Systems – Kimbe Bay MPA..... | 295 |
| 15. | Desirable and Undesirable Attributes in Planning for Local Community Development..... | 298 |
| 16. | Development Plans..... | 302 |
| 17. | Development Planning and Implementation in Papua New Guinea..... | 303 |
| 18. | Implementing National Plans through Kimbe Bay MPA..... | 304 |
| 19. | Main Provisions of the Talasea Marine Environment Management Act and Their Impact on National Plans and National Institutions..... | 305 |
| 20. | Rights of Local Communities..... | 317 |

Figures

| | | |
|-----|--|-----|
| 1. | The Position of Ecological Ethics in Development Planning in Developing Countries..... | 99 |
| 2. | Traditional Worldview..... | 108 |
| 3. | The Percentage Level of Presence of Sustainable Development Principles in Papua New Guinea..... | 125 |
| 4. | Concept of Strong Sustainability..... | 173 |
| 5. | Map of Papua New Guinea..... | 182 |
| 6. | Protected Areas Regime in Papua New Guinea..... | 261 |
| 7. | Implementing Sustainable Development in Papua New Guinea since 1975..... | 269 |
| 8. | Knowledge of Sustainable Development by Papua New Guineans..... | 278 |
| 9. | Site of the Kimbe Bay Marine Protected Area Project..... | 294 |
| 10. | Conducting the Final Workshop in Kimbe (July 2004)..... | 311 |
| 11. | Stakeholders at July 2004 Kimbe Workshop..... | 312 |

Abbreviations

| | |
|----------|---|
| ACIAR | Australian Centre for International Agricultural Research |
| ADB | Asia Development Bank |
| AusAid | Australian International Aid Agency |
| BPOA | Barbados Plan of Action |
| CBD | Convention on Biological Diversity |
| CI | Conservation International |
| CITES | Convention on International Trade in Endangered Species |
| CRC | Constitutional Review Commission |
| CROP | Council of Regional Organizations in the Pacific |
| CSD | Commission on Sustainable Development |
| DEC | Department of Environment and Conservation |
| DSD/DESA | Division for Sustainable Development, Department of Economic and Social Affairs |
| EIA | Environmental Impact Assessment |
| EMS | Environmental Management Strategy |
| ESCAP | Economic and Social Commission for Asia and the South Pacific |
| FAO | Food and Agriculture Organization |
| FFA | Forum Fisheries Agency |
| GDP | Gross Domestic Product |
| GEF | Global Environment Facility |
| HDI | Human Development Index |
| GHG | Greenhouse Gases |
| ILA | International Law Association |
| ILO | International Labour Organization |
| IMF | International Monetary Fund |
| IUCN | International Union for the Conservation of Nature |
| JPOI | Johannesburg Plan of Implementation |
| MDG | Millennium Development Goals |
| MEA | Multilateral Environmental Agreements |
| MND | Mahonia Na Dari |
| MTDS | Medium Term Development Strategy |
| NAR | National Assessment Report |
| NBSAP | National Biodiversity Strategy and Action Plan |
| NEC | National Executive Council |
| NGO | Non-governmental Organization |
| NSDS | National Sustainable Development Strategy |
| OECD | Organization for Economic Cooperation and Development |
| OECS | Organization of Eastern Caribbean States |
| PIC | Pacific Island Countries |
| PREP | Pacific Regional Environment Program |
| REA | Rapid Ecological Assessment |
| SD | Sustainable Development |

| | |
|--------|--|
| SDI | Sustainable Development Indicators |
| SIDS | Small Islands Developing States |
| SOPAC | South Pacific Applied Geoscience Commission |
| SPC | South Pacific Commission |
| SPREP | South Pacific Regional Environment Program |
| TNC | The Nature Conservancy |
| TRIPS | Trade Related Intellectual Property Rights |
| UN | United Nations |
| UNCED | United Nations Conference on Environment and Development |
| UNCHE | United Nations Conference on the Human Environment |
| UNCTAD | United Nations Conference on Trade and Development |
| UNDP | United Nations Development Program |
| UNEP | United Nations Environment Program |
| UNESCO | United Nations Economic and Social Commission Organization |
| UNFCCC | United Nations Framework Convention on Climate Change |
| UNGA | United Nations General Assembly |
| UPNG | University of Papua New Guinea |
| WCED | World Commission on Environment and Development |
| WHO | World Health Organization |
| WSSD | World Summit on Sustainable Development |
| WTO | World Trade Organization |
| WWF | World Wildlife Fund |