# HUMAN-NATURE:

# CAN TRADITIONAL CUSTOMARY LAW CONTRIBUTE TO CLIMATE CHANGE ADAPTATION? A SOUTH PACIFIC STUDY


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# Contents

## *Abstract*

The voices, practices and knowledge of first peoples are increasingly being heard in response to the challenges presented by the impacts of climate change. These views tend to be siloed and not integrated into mainstream legal and management frameworks. The need to integrate their views on human-nature connections is based on the premise that first peoples and local communities have needed to constantly adapt throughout history to changing environments. Therefore, through their knowledge and laws, they may have much to contribute in terms of adapting to the changes imposed by global warming. This study travelled back to the origins of legal systems, to determine whether practices of traditional customary law might enhance contemporary adaptive approaches to the impacts of climate change. The South Pacific region, and specifically the Republic of Vanuatu, offered the critical attributes for this study. This region, while being one of the most vulnerable to climate change, has a deep history of adaptation. As customary practices diminish, the need to learn and consider how they may be applied, in contemporary contexts, gains urgency. This empirical and doctrinal study examined the potential contributions of traditional customary law and knowledge in rebuilding sustainable, coupled human - nature systems threatened by the impacts of climate change. The study found that this rebuilding process requires, guiding mechanisms to bridge the gaps between international law, principles, conventions, protocols, and their 'on-ground' application. Two such proposed tools, the *Declaration on Human Rights and Climate Change* and the *namele* mechanism, have been developed through this study. Both mechanisms integrate the practices and knowledge of first and local peoples, melding contemporary with traditional approaches to environmental management.

Keywords: adaptive co-management, customary law, legal mechanisms, first people, indigenous people, local communities, climate change

## *Statement of Candidate*

I certify that the work in this thesis, entitled *Human-Nature: Can Traditional Customary Law Contribute to Climate Change Adaptation? A South Pacific Study*, has not previously been submitted for a degree, nor has it been submitted as part of the requirements for a degree, to any other university or institution other than Macquarie University.

I also certify that the thesis is an original piece of research that has been written by me. Any assistance that I received in my research work and the preparation of the thesis itself has been appropriately acknowledged. In addition, I certify that all information sources and literature used, are referenced in the thesis.

Signed
**Kirsten Davies** March 2019

## *Acknowledgement*

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## *List of Abbreviations*

| | |
|---|---|
| ACM | adaptive co-management |
| ANU | Australian National University |
| BMP | best management practice |
| CHANS | coupled human and nature systems |
| CBDR | common but differentiated responsibilities |
| CBD | *Convention on Biological Diversity* |
| CCAMLR | *Convention on the Conservation of Antarctic* |
| COP | Conference of the Parties |
| EBM | ecosystem-based management |
| EIA | environmental impact assessment |
| EEZ | exclusive economic zone |
| FAO | Food and Agriculture Organization |
| FPLC | first peoples and local communities |
| GDP | gross domestic product |
| GNHRE | Global Network for the Study of Human Rights and the Environment |
| GHG | greenhouse gas |
| ICCPR | *International Covenant on Civil and Political Rights* |
| ICESCR | *International Covenant on Economic, Social and Cultural Rights* |
| ICJ | International Court of Justice |
| IUCN | International Union for Conservation of Nature |
| ID | intergenerational democracy |
| ILO | International Labour Organization |

| | |
|---|---|
| IMO | International Maritime Organization |
| INC | Initial National Communication |
| IPA | indigenous protected area |
| IPBES | Intergovernmental Science-Policy Platform on Biodiversity and Ecosystem Services |
| IPCC | Intergovernmental Panel on Climate Change |
| IPLC | indigenous peoples and local communities |
| ITLOS | International Tribunal for the Law of the Sea |
| LDC | least developed country |
| MPA | marine protected area |
| NAB | National Advisory Board on Climate change and Disaster Risk Reduction |
| NZ | New Zealand |
| OECD | Organisation for Economic Co-operation and Development |
| SDG | Sustainable Development Goal |
| SES | social-ecological systems |
| SIDS | small island developing states |
| SST | sea surface temperature |
| TEK | traditional ecological knowledge |
| TRM | traditional resource management |
| UN | United Nations |
| UNCED | United Nations Conference on Environment and Development |
| UNCLOS | *United Nations Convention on the Law of the Sea* |
| UNESCO | United Nations Educational, Scientific and Cultural Organization |

| | |
|---|---|
| UNEP | United Nations Environment Programme |
| UNFCCC | *United Nations Framework Convention on Climate Change* |
| UNICEF | United Nations International Children's Emergency Fund |
| US | United States |
| USYD | University of Sydney |
| WHO | World Health Organization |
| WMO | World Meteorological Organization |

# Publications, Awards, Appointments and Conferences

## PUBLICATIONS (included in this thesis)

**Davies, Kirsten**, 'Ancient and New Legal Landscapes: Customary Law and Climate Change, a Vanuatu Case Study' (2016) 18 *Asia Pacific Journal of Environmental Law* 43 [DOI ISSN 1385-2140

**Davies, Kirsten**, 'Changing Tides — A South Pacific Study' (2016) 2 *Journal of South Pacific Law* 104 [Ordinary Edition, ISSN 1684-5307; https://www.usp.ac.fj/fileadmin/random_images/home_middle_banners/emalus/JSPL/2016/Marine_Paper__Climate_Change__marine_ecosystem_and_Customary_Law_.pdf

**Davies, Kirsten**, Sam Adelman, Anna Grear, Catherine Iorns Magallanes, Tom Kerns and S Ravi Rajan, 'The Declaration on Human Rights and Climate Change: A New Legal Tool for Global Policy Change' (2017) 8(2) *Journal of Human Rights and the Environment* 217 [DOI: https://doi.org/10.4337/jhre.2017.02.03; ISSN: 17597196, Online ISSN: 17597188]

### Accepted

**Davies, Kirsten**, 'The *Namele* Mechanism' is accepted for publication in the special 10th edition of the *Jindal Global Law Review*, A Rosencranz and K Bansal (eds), *Reimagining Climate Change Governance with Alternative Regulatory and Policy Approaches* (April 2019).

## PUBLICATIONS (journal articles and book chapters, forthcoming or published during candidature and relevant to this thesis but not included)

### Forthcoming

**Davies, Kirsten**, 'Traditional Customary Law — A South Pacific and Climate Change Study' chapter for the book *Environmental Law and Governance in the Pacific: Climate Change, Biodiversity and Communities* (Routledge/Earthscan)

## In press

Rajan, R S, **K Davies** and C I Magallanes, 'Identifying Legal Claims to Human Rights and the Environment' in James R May and Erin Daly (eds), *Human Rights and the Environment: Indivisibility, Dignity, and Legality,* for the multivolume *Elgar Encyclopedia of Environmental Law* series (Editor-in-Chief, Michael Faure; Edward Elgar Press & IUCN Academy of Environmental Law).

## Published

**Davies, K**, A. Rajvanshi, Y Yeo-Chang, A Gautam, A Choi, A Masoodi, C Togtokh, H Sandhu, H Husain, J Cho, et al. 'Chapter 2' in M Karki and S Sonali (eds), *Nature's Contributions to People and Quality of Life. IPBES 2018: Regional and Subregional Assessment of Biodiversity and Ecosystem Services for Asia and the Pacific* (Secretariat of the Intergovernmental Platform for Biodiversity and Ecosystem Services, Bonn, Germany, in press)

Díaz, Sandra, Unai Pascual, Marie Stenseke, Berta Martín-López, Robert T Watson, Zsolt Molnár, Rosemary Hill, Kai M A Chan, Ivar A Baste, Kate A Brauman, Stephen Polasky, Andrew Church, Mark Lonsdale, Anne Larigauderie, Paul W Leadley, Alexander P E van Oudenhoven, Felice van der Plaat, Matthias Schröter, Sandra Lavorel, Yildiz Aumeeruddy-Thomas, Elena Bukvareva, **Kirsten Davies,** Sebsebe Demissew, Gunay Erpul, Pierre Failler, Carlos A Guerra, Chad L Hewitt, Hans Keune, Sarah Lindley and Yoshihisa Shirayama, 'Assessing Nature's Contributions to People: Recognizing Culture, and Diverse Sources of Knowledge, Can Improve Assessments' (2018) 359(6373) *Science* 270 [DOI: 10.1126/science.aap8826; ISSN 0036-8075 (print); 1095-9203 (web); American Association for the Advancement of Science (United States): https://www.ipbes.net/natures-contributions-people-ncp-article-ipbes-experts-science]

**Davies, K** and T Riddell 'The Warming War: Climate Change Threatening the Security of the Planet and the Sovereignty of Nations' (2017) Volume XXX, Fall Issue *Georgetown Environmental Law Review* 47

**Davies, K,** G Tabucanon and P Box, 'Chapter 20: Children, Climate Change, and the Intergenerational Right to a Viable Future' in N Ansell, N Klocker and T Skelton (eds), *Geographies of Global Issues: Change and Threat, Geographies of Children and Young People* (Springer Singapore, 2016) 8 [DOI 10.1007/978-981-4585-95-8_7-1]

**Davies, K,** '*Kastom*, Climate Change and Intergenerational Democracy: Experiences from Vanuatu' in Walter Leal Filho (ed), *Climate Change in the Asia-Pacific Region* (Climate Change Management Series, Springer International, 2015) 49 [DOI 10.1007/978-3-319-14938-7; ISSN 1610-2010 ISSN 1610-2002 (electronic); ISBN 978-3-319-14937-0 ISBN 978-3-319-14938-7 (eBook)]

**Awards and Appointments (relevant to this PhD study)**

**2018** Visiting scholar, Wildlife Institute of India

**2018** Appointed as an academic mentor for students from the International Support Network for African Development (ISNAD-Africa), University of Ibadan, Ibadan, Nigeria

**2017** Awarded the bronze medal by the Climate Law and Governance Initiative, Global Climate Law & Governance Essay Competition 2017, for the paper '*Namele* Mechanism'

**2016** Invited as a visiting scholar to Georgetown Law, Georgetown University, USA; researched climate change law

**2015–2018** Member of the Intergovernmental Platform on Biodiversity and Ecosystem Services (IPBES) and Coordinating Lead Author for the regional assessment on biodiversity and ecosystem services in the Asia and Pacific Region (nominated by the Australian Government)

**2015** Member of the IPBES, invited as one of 20 experts to scope the global assessment on biodiversity and ecosystem services (nominated by the International Council for Science [ICSU] and Future Earth)

**2014** Member of the IPBES, Expert Adviser scoping the regional assessment (nominated by Diversitas)

**CONFERENCES, PRESENTATIONS AND LECTURES (relevant to this PhD study)**

**Davies, K,** 2018, 'Declaration on Human Rights and Climate Change' (Presentation at the LAWASIA Conference, Cambodia)

**Davies, K**, 2018, 'The Perfect Storm: Findings from the IPBES Asia Pacific Regional Assessment' (ESP Conference presentation, Wildlife Institute of India, India)

**Davies, K**, 2018, 'The Warming War: Climate Change Threatening the Security of the Planet and the Sovereignty of Nations' (Lecture at Lady Shri Ram College for Women, University of Delhi, India)

**Davies, K,** 2018, 'The Warming War: Climate Change Threatening the Security of the Planet and the Sovereignty of Nations' (Lecture at OP Jindal Global University, India)

**Davies, K,** 2018, 'The Warming War: How Climate Change is Creating Threats to International Peace and Security' (National Climate Change Adaptation Research Facility (NCCARF), 2018 Conference, Australia)

**Davies, K,** 2018, 'Principles of Environmental Law' (Lecture at the Wildlife Institute of India, India)

**Davies, K,** 2018, 'Intergovernmental Platform on Biodiversity and Ecosystem Services: The Asia Pacific Assessment' (Lecture at the Wildlife Institute of India, India)

**Davies, K,** 2017, 'The Warming War: Climate Change Threatening the Security of the Planet and the Sovereignty of Nations' (Lecture for Macquarie University, *Climate Change: Policies Management and Adaptation* [GEOP805], Australia)

**Davies, K,** 2017, Conducted workshop on community engagement for the 'Phase III: Training on Climate Change Adaptation for Public Utilities', hosted by Sydney Water Corporation**,** Australia

**Davies, K,** 2017, 'The Warming War: Climate Change Threatening the Security of the Planet and the Sovereignty of Nations' (Presentation for the Law and Environment in Small States Conference, Queen Mary College, United Kingdom)

**Davies, K,** 2017, 'The Warming War: Climate Change Threatening the Security of the Planet and the Sovereignty of Nations', presentation at the XV World Small Islands Conference, Australia

**Davies, K,** 2016, 'Human Rights and Climate Change' (Keynote Speech for the Doctors for the Environment Conference, Australia)

**Davies, K,** 2016, 'Declaration on Human Rights and Climate Change' (Workshop presentation, *A Rights-Based Approach to Climate Change*, Queensland University of Technology, Australia)

**Davies, K,** 2015, 'Reframing Climate Change as a Social Problem' (Presentation at the Big History Institute Conference, Macquarie University, Australia)

**Davies, K,** 2015, 'Customary Law and Localised Climate Change Adaptation' (Presentation at the IUCN Academy of Environmental Law, 13th Annual Colloquium, *Forest and Marine Biodiversity*, Indonesia**)**

**Davies, K,** 2015, 'Linking Ecosystem Services to Local Livelihoods' (Keynote conference presentation at the International Conference, Seoul National University, Korea)

**Davies, K,** 2015, 'Intergenerational Equity and Justice' (Lecture at The University of Hamburg, Germany)

**Davies, K,** 2014, 'Human-Nature, Customary Law, Climate Change and the EcoCycle — A Vanuatu Case Study' (Presentation [in absentia] at Vanuatu — 34 Years of Independence Conference, School of International Law, University of Wroclaw, Poland)

**Davies, K,** 2014, 'Human-Nature, Customary Law, Climate Change Adaptation and the EcoCycle' (Presentation at the Climate Change Adaptation Conference, National Climate Change Research Facility, Australia)

**Davies, K,** 2014, 'Human-Nature, Customary Law, Climate Change and the EcoCycle — A Vanuatu Case Study' (Presentation at the 12th Annual Colloquium of the IUCN Academy of Environmental Law on this PhD research project, Tarragona, Spain)

# I INTRODUCTION

The increasing separation of people from nature, together with global population growth and changing value systems, have resulted in many of the planet's current environmental challenges, the most critical being the impacts of climate change. These impacts are now threatening the viability of life-sustaining ecosystems, including the future of human life on earth.[1] Adapting to this changing environment involves reconnecting communities to their life-supporting ecosystems. Such 'reconnection' requires a shift in paradigm to symbiosis, where people are integral to viable and sustainable ecosystems. This symbiotic relationship is often referred to as coupled human and nature systems (CHANS), defined as 'integrated systems in which people interact with natural components'.[2] The term highlights the divide between social systems and ecological systems as an artificial one.[3]

The need to rebuild stronger human-nature connectivity is supported through an 'ecosystems approach to law' that includes strategies of 'integrated management of land, water and living resources that promotes conservation and sustainable use in an equitable way.'[4] Equally, it invokes 'legal resilience', which requires improving adaptive capacity and the robustness of environmental law.[5] This rebuilding process is particularly critical in the contemporary context of the climate change and its impacts on people and nature. In 2018, the Intergovernmental Panel on Climate Change (IPCC) noted in its *Special Report on Global Warming of 1.5℃* that 'Climate-related risks to health, livelihoods, food security, water supply, human security, and economic growth are projected to increase with global warming of 1.5 °C and increase further with 2 °C.'[6]

This study posits that the rebuilding of new relationships with nature can be informed by the culture, knowledge and practices of indigenous peoples and local communities (IPLC). More specifically, this research examines one aspect of the law, the role of traditional customary laws as practised by indigenous peoples, and its potential contribution to climate adaptation measures.

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[1] John Liu, 'The Fasak EcoForestry Project: A New Day Dawning' in Patrick Durst (ed), *In Search of Excellence: Exemplary Forest Management in Asia and the Pacific* (Food and Agriculture Organization, 2005) 113.
[2] Jianguo Liu et al, 'Complexity of Coupled Human and Natural Systems' (2007) 317(5844) *Science* 1513.
[3] Carl Folke et al, 'Adaptive Governance of Social-Ecological Systems' (2005) 30 *Annual Review of Environment and Resources* 441.
[4] Conference of the Parties, Convention on Biological Diversity, *Decision V/6 by the Conference of the Parties at its Fifth Meeting, Nairobi, 15–26 May 2000*, UNEP/COP/5/23.
[5] Craig Anthony, Tony Arnold and Lance Gunderson, 'Adaptive Law and Resilience' (2014) 43 *Environmental Law Reporter* 10426, 10426.
[6] IPCC, 'Summary for Policymakers' in V Masson-Delmotte et al (eds), *Global Warming of 1.5* °C. *IPCC Special Report on the Impacts of Global Warming of 1.5 °C above Pre-Industrial Levels and Related Global Greenhouse Gas Emission Pathways, in the Context of Strengthening the Global Response to the Threat of Climate Change, Sustainable Development, and Efforts to Eradicate Poverty* (World Meteorological Organization, 2018) 11.

This is a challenge, given the global community has reached unprecedented levels of urbanisation and migration, with only few regenerative CHANS remaining.[7] Thus there is a need to conduct a study that is based in a region, the South Pacific, and a nation, the Republic of Vanuatu, where sustainable CHANS still exist and traditional customary law is practiced.[8]

The core overarching research question investigated in this study is, can traditional customary law contribute to climate change adaptation? To examine this question, the thesis first identifies the historic and contemporary role of traditional customary law in climate change adaptation. It then presents the views on this topic, captured through in-depth interviews with leaders from Vanuatu and legal academics from across the globe. Finally, it synthesises the literature and empirical data and looks to the future, and proposes how traditional customary law may contribute to climate change adaptation strategies for Vanuatu, the South Pacific and beyond.

## *1.1 Climate Change*

Climate change is threatening the stability of ecosystems and the maintenance of biodiversity across the world.[9] It is causing our oceans to warm and acidify,[10] heating our atmosphere[11] and changing the nature of ecosystems across the planet.[12] Predictions associated with the changing climate indicate that the frequency of extreme weather events, such as floods and droughts, will increase and intensify.[13] These impacts will have varying consequences, including land erosion, agriculture disturbances, diminished freshwater supplies, food insecurity, human health issues and increasing levels of poverty. [14] Small island developing states (SIDS), such as those in the South Pacific region, are 'front line' in terms of these vulnerabilities. The World Health Organization (WHO) led a 2015 assessment of climate change and health in Vanuatu which

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[7] Jonathan Xavier Inda and Renato Rosaldo (eds), *The Anthropology of Globalization: A Reader* (Blackwell Publishers, 2nd ed, 2002).
[8] Vandana Shiva, *Earth Democracy: Justice, Sustainability and Peace* (South End Press, 1st ed, 2005).
[9] Nicholas Stern, *The Economics of Climate Change: The Stern Review* (Cambridge University Press, 1st ed, 2007); Anthony Costello et al, 'Managing the Health Effects of Climate Change' (2009) 373(9676) *The Lancet Commissions* 1693; IPCC, *Climate Change 2007: Synthesis Report. Contribution of Working Groups I, II and III to the Fourth Assessment Report of the Intergovernmental Panel on Climate Change* (IPCC, 2007); Christopher B Field et al (eds), *Managing the Risks of Extreme Events and Disasters to Advance Climate Change Adaptation. A Special Report of Working Groups I and II of the Intergovernmental Panel on Climate Change* (Cambridge University Press, 2012); Thomas F Stocker et al (eds), *Climate Change 2013: The Physical Science Basis. Contribution of Working Group I to the Fifth Assessment Report of the Intergovernmental Panel on Climate Change* (Cambridge University Press, 2013).
[10] Monika Rhein et al, 'Observations: Oceans' in Intergovernmental Panel on Climate Change, *Climate Change 2013: The Physical Science Basis. Working Group I Contribution to the Fifth Assessment Report of the Intergovernmental Panel on Climate Change* (Cambridge University Press, 2013) 255.
[11] IPCC, 'Summary for Policymakers' in Rajendra Kumar Pachauri et al (eds), *Climate Change 2014: Synthesis Report. Contribution of Working Groups I, II and III to the Fifth Assessment Report of the Intergovernmental Panel on Climate Change* (Intergovernmental Panel on Climate Change, 2015) 2.
[12] Ibid.
[13] Government of the Republic of Vanuatu, 'Vanuatu Climate Change and Disaster Risk Reduction Policy 2016–2030' (Working Paper, Secretariat of the Pacific Community, 2015) 1.
[14] Ibid.

found that epidemics such as malaria, dengue, dysentery and diarrhoea are likely to increase. Additionally, implications for food and water security were identified.[15] These issues can be directly and indirectly linked to climate change.

The disruptions caused by climate change are driving major declines in biodiversity and impairing the ecosystem services we have historically relied upon to sustain our livelihoods.[16] The decline of coastal marine ecosystems provides a pertinent example. Warming and acidifying waters are bleaching coral reefs, changing ocean currents and reducing fish stock.[17] These impacts flow on to reduce food and economic security, with particular impacts on coastal subsistence (or partial subsistence) communities that rely on fish for their livelihoods.[18]

### *1.1.1 Climate Displacement and Migration*

Dunlop and Spratt described how the pressures on nature are predicted to escalate in the future. They noted that 'Global warming will drive increasingly severe humanitarian crises, forced migration, political instability and conflict …'[19] Climate change is a 'threat multiplier' that affects pre-existing vulnerabilities, for example, small low-lying islands are at higher risk of loss of territory from rising sea levels. Community vulnerability may be increased through food and water insecurity, threats to human health and an increase in frequency of extreme climatic events.

The effects of climate change will increase migration levels, which will exacerbate competition over natural resources. On average, 21.5 million people are displaced globally each year as a result of reductions in land, livelihood or food security.[20] The International Organization for Migration predicts that by 2050, the number of climate migrants could increase to between 25 million and 1 billion.[21] Additionally, this century may see up to 150 million climate displaced people in the Asian region.[22] Such displacements highlight the significant risk that people are facing as a result of climate change, especially communities in low-lying countries. If living

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[15] World Health Organization Western Pacific Region, 'Human Health and Climate Change in Pacific Island Countries' (Research Report, WHO Regional Office for the Western Pacific, 2015) 104.
[16] Edwin A Hernández-Delgado, 'The Emerging Threats of Climate Change on Tropical Coastal Ecosystem Services, Public Health, Local Economies and Livelihood Sustainability of Small Islands: Cumulative Impacts and Synergies' (2015) 101 *Marine Pollution Bulletin* 5, 8.
[17] Brett Scheffers et al, 'The Broad Footprint of Climate Change from Genes to Biomes to People' (2016) 354(6313) *Science* 719.
[18] Hernández-Delgado, above n 16, 7.
[19] Ian Dunlop and David Spratt, *Disaster Alley, Climate Change, Conflict and Risk* (Breakthrough National Centre for Climate Restoration, 2017) 1.
[20] United Nations Human Rights Commission Refugee Agency, *Frequently Asked Questions on Climate Change and Disaster Displacement* (6 November 2016) < http://www.unhcr.org/news/latest/2016/11/581f52dc4/frequently-asked-questions-climate-change-disaster-displacement.html>.
[21] John Campbell and Olivia Warrick, *Climate Change and Migration Issues in the Pacific* (United Nations Economic and Social Commission for Asia and the Pacific, 2014) 2.
[22] Ibid.

conditions deteriorate beyond repair, and states cannot protect human security, forced migration will continue to occur.[23] Climate-induced impacts are particularly detrimental for indigenous communities who maintain their identity through an intricate connection of culture to their land.

## *1.2 Mitigation and Adaptation*

In the context of global warming, it is widely agreed that human survival is dependent on adaptation and mitigation strategies.[24] Climate change mitigation refers to the reduction and eventual phasing out of greenhouse gas (GHG) emissions. Mitigation is essential to reduce the speed at which climate change is occurring, and to reduce the severity of its impacts.[25]

Notwithstanding efforts to mitigate GHG emissions, the present-day occurrence of climate change–induced impacts necessitates adaptation strategies. Climate change adaptation refers to any project, policy or measure with the aim of adjusting the behavior or nature of human and natural ecosystems to increase their resilience, and reduce their vulnerability, to climate change.[26] In light of this, mitigation is essential to reducing the speed and severity of climate change, while adaptation is critical to improving the ability of human and natural ecosystems to cope with a changing climate.

The IPCC has defined climate change adaptation as the 'adjustment in natural or human systems in response to actual or expected climatic stimuli or their effects, which moderates harm or exploits beneficial opportunities'.[27] It noted that few plans 'have explicitly included either adapting to climate change impacts or promoting adaptive capacity'.[28] Climate change adaptation is underpinned by the understanding that human survival and natural ecosystems are intrinsically connected.[29] As highlighted by Shiva, it is important to learn from communities, such as those in Vanuatu, that have traditionally managed natural resources as 'living cultures'.[30]

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[23] Ibid.
[24] Costello et al, above n 9; IPCC, above n 9; Field et al (eds), above n 9; Stocker et al (eds), above n 9.
[25] IPCC, 'Summary for Policymakers' in M L Parry et al (eds), *Climate Change 2007: Impacts, Adaptation and Vulnerability. Contribution of Working Group II to the Fourth Assessment Report of the Intergovernmental Panel on Climate Change* (Cambridge University Press, 2007) 7, 750.
[26] Ibid 20; *Rio Declaration on Environment and Development*, UN Doc A/CONF.151/26/Rev1 (14 June 1992) Glossary ('*Rio Declaration*').
[27] Intergovernmental Panel on Climate Change, 'Glossary of Terms' in M L Parry et al (eds), *Climate Change 2007: Impacts, Adaptation and Vulnerability. Contribution of Working Group II to the Fourth Assessment Report of the Intergovernmental Panel on Climate Change* (Cambridge University Press, 2007) 869, 869. [<https://www.ipcc.ch/site/assets/uploads/2018/02/ar4-wg2-app-1.pdf >].
[28] IPCC, above n 25, 20.
[29] Shiva, above n 8.
[30] Ibid.

It is recognised that indigenous peoples have a long history of interaction with the environment, and are often well adapted to coping with environmental uncertainty, variability and change.[31] Despite this, there has been little research conducted on the knowledge and understanding of people from the South Pacific in regard to adaptation that may have broader lessons for the global community.[32] Failing to consider how these communities have adapted to their changing environment may result in ineffective strategies for future adaptation plans. Thus, it is important to understand how different communities in the South Pacific are responding to climate change.[33]

The IPCC highlighted the need for climate change adaptation alongside the reduction of GHG emissions,[34] and anticipated that the reduction of emissions at current levels will not reverse many of the changes predicted to occur for centuries or millennium ahead.[35] In addition, scientists monitoring trends of global warming predict that current mitigation measures are inadequate for limiting rises in global temperature to below 2 °C.[36] These predictions highlight the importance of climate change adaptation measures, including legal measures, to enable people and ecosystems to adjust to the impacts of a changing climate.

## *1.3 The Law Responding to Climate Change*

International law, and specifically the *United Nations Framework Convention on Climate Change* ('*UNFCCC*'), plays a key role in directing international responses to climate change. It is specifically concerned with setting targets to limit rises in global temperature.[37] The *Kyoto Protocol* was developed in 1997 to address perceived shortcomings in the original *UNFCCC*. The Protocol was enacted in 2005, with the first commitment period from 2008–2012, to establish legally binding targets to reduce GHG emissions to a global average of five per cent.[38] In 2015, at the twenty-first session of the Conference of the Parties to the UNFCCC (COP 21),[39]

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[31] Douglas Nakashima et al, *Weathering Uncertainty: Traditional Knowledge for Climate Change Assessment and Adaptation* (United Nations Educational, Scientific and Cultural Organization, 2012) 63.
[32] Ibid 90.
[33] Patrick Nunn, *Climate Change and Pacific Island Countries*, Asia Pacific Human Development Report Background Series 2012/07 (United Nations Development Programme, 2012).
[34] Stocker et al (eds), above n 9.
[35] IPCC, above n 6. The report described how, within a century, the global surface temperature will increase between 0.3 and 4.8 degrees Celsius, with a mean increase of two degrees. It explained that the rate of sea level rise had accelerated faster than expected, and revised the previously predicted sea level rise to between 26 cm and 82 cm by 2100.
[36] Dunlop and Spratt, above n 19.
[37] *United Nations Framework Convention on Climate Change*, opened for signature 4 June 1992, 1771 UNTS 107 (entered into force 21 March 1994) ('*UNFCC*').
[38] *Kyoto Protocol to the United Nations Framework Convention on Climate Change*, opened for signature 16 March 1998, 2303 UNTS 148 (entered into force 16 February 2005) art 3(1).
[39] Conference of the Parties, UNFCCC, *Report of the Conference of the Parties on its Twenty First Session, Held in Paris from 30 November to 13 December 2015 — Addendum — Part 2: Action Taken by the Conference of the Parties at its Twenty First Session*, UN Doc FCCC/CP/2015/10/Add.1 (29 January 2016) ('Paris Agreement').

the *Paris Agreement* was accepted by all 196 State Parties; by 2017, 194 State Parties had lodged their commitments to reducing GHG emissions at COP 23.[40]

## *1.4 Customary Law*

The terms 'custom' and 'customary law' are often used synonymously. The latter term is often regarded as establishing a more formal standard, and hence deemed binding upon the community. Thus, while custom is what people of a particular cultural community 'habitually do', customary law is what 'they consider they are bound to do or not do because of the community's values or for fear of some unwelcome consequence.'[41] The New Zealand Law Commission defines customary law as 'the values, principles and norms that members of a cultural community accept as establishing standards for appropriate conduct, and the practices and processes that give effect to community values.'[42]

International customary law[43] is an extension of customary law, defined by *Statute of the International Court of Justice* art 38(1)(b) as 'evidence of general practice accepted as law.' It is determined by states' general practice and states' acceptance of the law. These two definitions of customary law highlight the distinction between what can be considered local or regional customary law, and what is held to be international customary law. Local or regional customary law does not represent a legal norm having the same hierarchy or enforceability as international customary law. However, it can represent the first stage of the formation of normative consensus or state practice.

In a domestic sense, local or regional customary law becomes binding domestic law only when the state incorporates it into the legal system, or recognises its mode of administration.[44] There are a number of ways for customary law to be recognised under state law. Broadly, the first is by way of formal recognition by the state, which can occur through the constitution, statutes or judicial decisions.[45] The second is by way of functional recognition, where customary law is not only formally recognised but subsumed within national law for 'particular purposes in defined

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[40] Conference of the Parties, UNFCCC, *Report of the Conference of the Parties on its Twenty Third Session, Held in Bonn from 6 to 7 November 2017 — Draft Decision — Fiji Momentum for Implementation*, UN Doc FCCC/CP/2017/L.13 (18 November 2017).
[41] New Zealand Law Commission, *Converging Currents: Custom and Human Rights in the Pacific*, Study Paper No 17 (September 2006) 47.
[42] Ibid.
[43] Some customary laws are recognised as *jus cogens*, while others may be adopted only by individuals or groups of states.
[44] Grant Follett, 'Defining the Formless: Customary Law in the Pacific' (2014) 39(2) *Alternative Law Journal* 125, 126; Erika Techera, 'Enhancing Legal Frameworks for Biodiversity Conservation in the Pacific' (2015) 21(1) *Pacific Conservation Biology* 87, 89.
[45] Miranda Forsyth, 'A Typology of Relationships between State and Non-State Justice Systems' (2007) 39(56) *Journal of Legal Pluralism and Unofficial Law* 67.

areas of law.'[46] The former method creates a regime of legal pluralism, while the latter results in the incorporation of customary law into state law.[47] For example, in Vanuatu, customary law is incorporated into domestic law through two articles in its constitution.[48] The third way of recognising customary law may be to rely on customary rules to interpret state rules or to resolve civil law actions.

The transition of international customary norms into international law is predicated on two elements, namely that the custom is considered ordinary state practice and *opinio juris sive neccessitatis*, meaning that states recognise the norm as binding.[49] Collectively, these two elements can elevate a norm to customary status. Repeated state practice of these norms indicates accession to such norms. A state may persistently object to a practice by actively rejecting and never relying on the custom for its own benefit.[50]

Further, an international customary norm does not necessarily require the accession of all states to its practice; rather, local custom may be recognised so long as it does not undermine sufficient participation with the purported international norm.[51] *Opinio juris sive neccessitatis* is also a necessary component to defining customary international law, and should be viewed as having equal value to state practice.[52] For example, in the *Legality of Nuclear Weapons (Advisory Opinion)*, the International Court of Justice (ICJ) found that this element is not satisfied simply because a state abstains from practice rather, a 'state of mind' affecting the state's decision to comply or not comply with the norm is required.[53]

It is important to distinguish between 'international law' and law that is binding as ratified in some form by a state, and between what is loosely termed 'soft law' and 'binding' or 'hard law'. Both sets of distinctions are the result of state sovereignty. For example, under European law the state is sovereign and makes laws. Underpinning but subordinate to these laws are legally binding private rules and binding international rules, and then non-binding private rules and international political instruments or traditions.

Three sources of international law indicate it is possible for local or regional customary law to become international customary law. The *International Labour Organization Convention* stipulates that the application of domestic law shall have due regard to indigenous customary

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[46] Law Reform Commission of Western Australia, *Aboriginal Customary Laws*, Report No 94 (2006) 71.
[47] Forsyth, above n 45, 70.
[48] *Constitution of the Republic of Vanuatu 1980* arts 47(1), 95(3).
[49] *Statute of the International Court of Justice* art 38(1)(b).
[50] *Anglo-Norwegian Fisheries case (United Kingdom v Norway)* [1951] ICJ Rep 116.
[51] *North Sea Continental Shelf (Federal Republic of Germany v Denmark) (Merits)* [1969] ICJ Rep 3.
[52] *Statute of the International Court of Justice* art 38; *Legality of the Threat or Use of Nuclear Weapons (Advisory Opinion)* [1996] ICJ Rep 226.
[53] Ibid.

laws.[54] The *United Nations Declaration on the Rights of Indigenous People* contains similar due regard provisions relating to the resolution of conflict and disputes concerning indigenous peoples.[55] Finally, the *Nagoya Protocol* provides that state parties must have consideration for indigenous customary law in the context of genetic resources.[56] While these sources of international law support the recognition of local or regional customary law, the requirements of state practice and *opinio juris sive neccessitatis* are still applicable.

This study focuses on traditional (or indigenous) customary law that has been practiced historically with regard to environmental protection. Indigenous or traditional customary law is defined in this study as those traditions and practices that have become enforceable within a community.[57] Customary law stems from the customary norms of a particular group of people.[58]

In this study, it is hypothesised that a deeper understanding of traditional customary law, based on the protection of CHANS, may improve the adaptive capacity of environmental law to respond to the impacts of climate change.[59]

## *1.5 Traditional Ecological Knowledge*

Traditional ecological knowledge (TEK) informs the development of customary laws. TEK is passed through generations and is central to the livelihoods of many indigenous communities. It is a continual experience 'of observation and interpretation',[60] a collection of customary practices and knowledge that evolves over time in an adaptive manner.[61] It is premised upon the principles of intra and intergenerational equity, as one generation passes its knowledge to the next. This continual knowledge chain adapts over time.

There is increasing recognition that TEK, together with scientific knowledge, is an invaluable basis for adaptation planning and disaster risk management.[62] Less focus has been placed on how

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[54] *Convention (No 169) concerning Indigenous and Tribal Peoples in Independent Countries*, opened for signature 27 June 1989, 1650 UNTS 383 (entered into force 5 September 1991) art 8 ('*ILO Convention 169*').
[55] *United Nations Declaration on the Rights of Indigenous Peoples*, GA Res 61/295, UN GAOR, 61st sess, 107th plen mtg, Supp No 49, UN Doc A/RES/61/295 (13 September 2007) art 40.
[56] *Nagoya Protocol on Access to Genetic Resources and the Fair and Equitable Sharing of Benefits Arising from Their Utilization to the Convention on Biological Diversity*, opened for signature 29 October 2010, [2012] ATNIF 3 (entered into force 12 October 2014) ('*Nagoya Protocol*').
[57] Jennifer Corrin and Donald Paterson, *Introduction to South Pacific Law* (Routledge, 2nd ed, 2007).
[58] Erika Techera, 'Customary Law and Community-Based Fisheries Management Across the South Pacific Region' (2010) 2 *Journal of the Australasian Law Teachers Association* 279, 281.
[59] Anthony, Arnold and Gunderson, above n 5, 10426.
[60] Mehdi Ghorbani et al, 'The Role of Indigenous Ecological Knowledge in Managing Rangelands Sustainability in Northern Iran' (2013) 18(2) *Ecology and Society* 15, 15.
[61] Fikret Berkes, Johan Colding and Carl Folke, 'Rediscovery of Traditional Ecological Knowledge as Adaptive Management (2000) 10(5) *Ecological Applications* 1251.
[62] Leonard Nurse and Rodger McLean, 'Small Islands' in Christopher B Field et al (eds), *Climate Change 2014: Impacts, Adaptation, and Vulnerability. Part A: Global and Sectoral Aspects. Working Group II Contribution to the*

a deeper understanding of the role of traditional customary law in these communities can inform adaptive capacity for climate change.

## *1.6 Human Rights and Climate Change*

It is widely argued that the fulfilment of human rights is linked to, and contingent upon, a secure, healthy and ecologically sound environment.[63] The impacts of climate change directly threaten the integrity of the environment and intensify existing and future injustices and inequalities.[64] These threats include the right of each generation 'to receive the planet in no worse condition than that of the previous generations'.[65]

Current injustices and inequalities are also implicated. As disadvantaged populations tend to live in geographical regions more susceptible to climatic risks, their socioeconomic vulnerabilities are exacerbated and the protection of their social and economic rights are adversely affected.[66] Climate change threatens the right to live by increasing hunger and malnutrition, diseases and displacement,[67] and influences — directly or indirectly — political and economic instability. Its impacts are threatening human security and adversely affecting human rights, including political participation and self-determination.

As a result of the impacts of climate change, both intra and intergenerational equities of indigenous people are often placed at greater risk when compared with non-indigenous peoples. In the context of historic social, economic and legal marginalisation, the dependence on access to land and resources by many indigenous groups means that their very existence is threatened by global warming. Moreover, the utility of the environment for future generations — indigenous or not — is undermined.

Existing legal mechanisms in response to climate change are largely top-down processes that marginalise the involvement and contribution of indigenous communities.[68] These mechanisms

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*Fifth Assessment Report of the Intergovernmental Panel on Climate Change* (Cambridge University Press, 2014) 1613, 1636.

[63] Costello et al, above n 9; Stephen Humphreys and Mary Robinson (eds), *Human Rights and Climate Change* (Cambridge University Press, 2010); Sam Adelman, 'Human Rights and Climate Change' in Gordon DiGiacomo (ed), *Human Rights: Current Issues and Controversies* (University of Toronto Press, 2016) 411.

[64] Snorre Kverndokk, Eric Nævdal, Linda Nøstbakken, 'The Trade-off between Intra- and Intergenerational Equity in Climate Policy' (2014) 69 *European Economic Review* 40, 41.

[65] Edith Brown Weiss, 'In Fairness to Future Generations' (1990) 32(3) *Environment: Science and Policy for Sustainable Development* 7, 10.

[66] Sacoby M Wilson et al, 'Climate Change, Environmental Justice, and Vulnerability: An Exploratory Spatial Analysis' (2010) 3(1) *Environmental Justice* 13; Seth B. Shonkoff et al, 'Minding the Climate Gap: Environmental Health and Equity Implications of Climate Change Mitigation Policies in California' (2009) 2(4) *Environmental Justice* 173.

[67] Ibid.

[68] Hannah Reid, *Community-Based Adaptation to Climate Change* (International Institute for Environment and Development, 2009) 13.

have tended to overlook their priorities, needs, knowledge and capacity[69] and are a contrast to traditional customary laws, which are more localised by nature and informed by past generations to protect current and future generations.

## *1.7 Ecosystem Approach and the Law*

In terms of climate change adaptation strategies, one option to consider in environmental law and governance is the ecosystem approach. This approach:

> requires consideration of the whole system rather than individual components. Living species and their physical environments must be recognized as interconnected, and the focus must be on the interaction between different sub-systems and their responses to stresses resulting from human activity. Not only does interconnectedness imply management approaches that are broad-based in a spatial sense; it requires as well that human interaction with and use of the environment respect the need for maintaining 'ecosystem integrity', in other words, the system's capacity for self-organization.[70]

The *Convention on Biological Diversity* ('*CBD*')[71] has advocated for the ecosystem approach and has developed associated implementation techniques and tools.[72] It defines an ecosystem as 'a dynamic complex of plant, animal and micro-organism communities and their non-living environment interacting as a functional unit'.[73] Its emphasis on the ecosystem approach has driven management strategies that are integrated and collaborative in style.[74]

As yet, ecosystems are not accorded status under international law.[75] International organisations and arrangements manage transboundary ecosystems,[76] while states retain sovereign rights over ecosystems within their borders. Legal and management challenges arise between the national and international levels concerning whether natural resources are the 'common heritage of mankind'.[77] This tension between the national and international levels presents barriers to the

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[69] Ibid.
[70] Jutta Brunnée and Stephen Toope, 'Environmental Security and Freshwater Resources: A Case for International Ecosystem Law' (1994) 5(1) *Yearbook of International Environmental Law* 41, 55.
[71] *Convention on Biological Diversity (Rio de Janeiro)*, opened for signature 5 June 1992, 1760 UNTS 143 (entered into force 29 December 1993) ('*CBD*').
[72] Conference of the Parties, Convention on Biological Diversity, *Decision V/11 by the Conference of the Parties at its Seventh Meeting, Held in Kuala Lumpur, from 9–20 and 27 February 2004*, UNEP/CBD/COP/DEC/VII/11 (13 April 2004).
[73] *CBD* art 2.
[74] Owen McIntyre, 'The Emergence of an "Ecosystem Approach" to the Protection of International Watercourses under International Law' (2004) 13(1) *Review of European Community & International Environmental Law* 1, 2.
[75] Jonas Ebbesson, 'The Rule of Law in Governance of Complex Socio-Ecological Changes' (2010) 20 *Global Environmental Change* 414, 420.
[76] Ibid; Duncan French, 'Developing States and International Environmental Law: The Importance of Differentiated Responsibilities' (2008) 49(1) *International Comparative Law Quarterly* 35, 40.
[77] Michael Lodge, 'Common Heritage of Mankind' (2012) 27 *The International Journal of Marine and Coastal Law* 733.

ecosystem approach, with adverse consequences for ecological and social outcomes.[78] Such barriers include the challenges presented by the integration of local culture, knowledge, practices and laws, such as traditional customary law, in to environmental laws and management tools .

## *1.8 Adaptive Co-Management*

Another option worthy of investigation is the concept of merging traditional and contemporary legal and governance systems to protect the environment. Hybrid or co-management approaches that combine traditional and Western resource management are increasingly being recognised as an optimal approach. Some countries have begun implementing such hybrid approaches. For example, Samoa has drafted local by-laws to establish community-owned protected areas, while simultaneously training local people to monitor and manage local biodiversity.[79] Co-management, or hybrid governance, is a governance strategy involving the sharing of rights and responsibilities among those who have a claim to an environment or natural resource.[80] It can also be described as 'adaptive co-management' (ACM), which has received considerable recent attention as a means of sustaining CHANS therefore building resilience and adaptive capacity.[81]

An ACM approach can build capacity and provide innovative institutional responses to climate change.[82] ACM enables community decision-making that accommodates the values, needs and interests of indigenous people and local communities in adaptation processes,[83] such as by integrating traditional customary law and knowledge into adaptation processes.[84]

## *1.9 South Pacific and Republic of Vanuatu*

South Pacific nations, particularly the Republic of Vanuatu, offer critical attributes for the study of customary law and climate change adaptation. Weiss noted that 'developing countries will very likely suffer the worst effects from climate change because they have least resilience and

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[78] Lawrence Juda, 'Considerations in Developing a Functional Approach to the Governance of Large Marine Ecosystems' (2010) 30 *Ocean Development and International Law* 89, 94.
[79] Erika Techera, 'Samoa: Law, Custom and Conservation' (2006) 3 *New Zealand Environmental Law Journal* 361.
[80] Per Olsson, Carl Folke and Fikret Berkes, 'Adaptive Comanagement for Building Resilience in Social–Ecological Systems' (2004) 34 *Environmental Management* 75; Ryan Plummer and Derek Armitage, 'A Resilience-Based Framework for Evaluating Adaptive Co-Management: Linking Ecology, Economy and Society in a Complex World' (2007) 61 *Ecological Economics* 62; Christo Fabricius et al, 'Powerless Spectators, Coping Actors, and Adaptive Co-Managers: A Synthesis of the Role of Communities in Ecosystem Management' (2007) 12(1) *Ecology and Society* 29.
[81] Ryan Plummer, 'The Adaptive Co-Management Process: An Initial Synthesis of Representative Models and Influential Variables' (2009) 12(2) *Ecology and Society* 24; Fabricius et al, above n 80.
[82] Plummer, above n 81.
[83] Derek Armitage, Fikret Berkes and Nancy Doubleday (eds), *Adaptive Co-Management: Collaboration, Learning, and Multi-Level Governance* (UBC Press, 2010) 3.
[84] Ibid 22.

capacity to adapt'.[85] Due to the geographical size, small economy and reliance on marine foods, any change in the global climate will significantly affect low-lying South Pacific inhabitants. While the global mean sea level rises at a rate of 3.2 mm per year, there are reports of a rise four times that rate in some Pacific Island regions.[86] Moreover, the South Pacific — of which the Vanuatu archipelago is a part — is experiencing ocean acidification, coral bleaching and intensifying weather patterns that are causing imminent, irreversible harm to small islands and their economies. [87]

Vanuatu is highly exposed to natural hazards, and is in the front line in terms of its vulnerability to the most severe impacts of climate change.[88] Compounding this vulnerability, Vanuatu is listed by the United Nations (UN) as a least developed country (LDC) and ranked first on the World Risk Index.[89] These vulnerabilities are further increased through population growth,[90] compromised food and water security, limited economic opportunities and potential threats to human health.[91]

SIDS, including those across the South Pacific, are recognised as being most vulnerable to the impacts of climate change, despite their nominal contribution to GHG emissions. SIDS tend to have unique socioeconomic and environmental vulnerabilities that can be exacerbated by changes in climate. Many of these small islands lack the infrastructure, institutional capacity and economic resources to adapt. [92]

The impacts of climate change on the region, such as rise in sea level, erosion, groundwater contamination, cyclones, heat stress and drought, all place severe stress on agricultural and aquacultural productivity, and therefore the economy.[93] In the South Pacific, agriculture and aquaculture are major industries, providing food for domestic consumption and exportation to international markets.[94] Moreover, many South Pacific rural communities have total or partial subsistence livelihoods that rely on healthy ecosystems for food security.

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[85] Edith Brown Weiss, 'Climate Change, Intergenerational Equity and International Law' (2008) 9 *Vermont Journal of Environmental Law* 615, 616.
[86] National Aeronautics and Space Administration, *Sea Level Change Observations from Space* (December 2017) National Aeronautics and Space Administration <https://sealevel.nasa.gov>.
[87] Nurse and McLean, above n 62, 1616.
[88] Ibid; Secretariat of the Pacific Regional Environment Programme, 'Vanuatu National Environment Policy and Implementation 2016–2030' (Working Paper, Government of the Republic of Vanuatu, 2017).
[89] Matthias Garschagen et al, *World Risk Report* (United Nations University, 2016) 46.
[90] United Nations, *Vanuatu National Assessment Report: 5 Year Review of the Mauritius Strategy for Further Implementation of the Barbados Programme of Action for Sustainable Development* (United Nations, 2010) 12.
[91] Johan Schaar, *The Relationship between Climate Change and Violent Conflict* (Working Paper, Sida, 2018) 15.
[92] Weiss, above n 85, 616.
[93] Jon Barnett, 'Dangerous Climate Change in the Pacific Islands: Food Production and Food Security' (2011) 11 *Regional Environmental Change* 229.
[94] Ibid 231–2.

Fisheries contribute up to 20 per cent of regional GDP, and provide the main source of protein for households.[95] Coastal impacts from climate change, such as increased water temperatures, ocean acidification and changes in salinity, currents and turbidity, create stresses for marine ecosystems.[96] These pressures can push ecosystems such as reefs, estuaries and mangroves, past their tipping points, and result in fundamental shifts in ecosystem health that are not sustainable for fishery populations.[97] In a report for the Secretariat of the Pacific Community, the likely impacts of climate change on Pacific fisheries were assessed, together with the adequacy of current climate and fisheries monitoring systems in the Pacific Islands.[98] To most successfully adapt to changes to fisheries, this report recommended that states commence with local understandings of ecological and climate processes before identifying scientific monitoring or other approaches that best fit local understandings.

## *1.10 Human-Nature Connections*

The South Pacific culture adopts the philosophy 'land is life, without land there is no life.'[99] This approach highlights the intricate relationship that people have with the land, sea and biodiversity. They recognise the need to be responsive and adaptive to the changing environment,[100] including the maintenance of laws and knowledge that are passed orally through the generations. South Pacific nations provide opportunities to study the interconnectedness between nature and people, because these communities have, throughout history, needed to protect life-sustaining ecosystems by adapting to changing environmental conditions. This is particularly the case with rural, often subsistence, communities which maintain connections with life-supporting environmental systems that are bound in culture.[101]

## *1.11 Traditional Customary Law in the South Pacific and Vanuatu*

Traditional customary law and ecological knowledge have been formalised into law in some South Pacific nations. For example, '[m]ost Pacific jurisdictions have constitutions that provide for the application of customary law … [a]rguably the Constitution of Vanuatu is the most

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[95] Ibid 232; Johann D Bell et al, 'Effects of Climate Change on Ocean Fisheries in the Tropical Pacific: Implications for Economic Development and Food Security' (2013) 119 *Climate Change (Special Issue)* 199, 201–02.
[96] Barnett, above n 93, 233; Bell et al, above n 95, 202–4.
[97] Barnett, above n 93, 233; Bell, above n 95, 202–4.
[98] MRAG Asia Pacific, *Monitoring the Vulnerability and Adaptation of Pacific Coastal Fisheries to Climate Change* (Report Prepared for the Secretariat of the Pacific Community. Marine Resources Division, May 2010) Brisbane, Australia.
[99] Eric L Kwa, 'Climate Change and Indigenous People in the South Pacific' (Paper presented at IUCN Academy of Environmental Law Conference on Climate Law in Developing Countries Post-2012: North and South Perspectives, Ottawa, Canada, 26–28 September 2008) 2.
[100] Ibid.
[101] Nakashima et al, above n 31, 7.

forceful in its advocacy of custom.'[102] A unique feature of the Constitution of Vanuatu is the 'high degree of hybridisation' in its combination of the Western legal system with 'the *kastom* chiefly system.'[103] Vanuatu's constitution is an example of 'legal pluralism' that combines customary law,[104] French civil law and English common law, and reflects the commonly adopted sustainability principle of intergenerational equity and justice 'to protect the Republic of Vanuatu and to safeguard the national wealth, resources and environment in the interests of the present generation and of future generations'.[105]

Custom — or *kastom* as it is known in Vanuatu — incorporates the religious beliefs and traditional Melanesian customs that play an integral part in the daily lives of many citizens, particularly those in rural communities. Custom informs environmental protection, attitudes, values, family and community structures, behavior and participation.[106] Additionally, it has the capacity to respond to changing environmental conditions and beliefs. The rules surrounding custom are more commonly referred to as 'customary law', or in the case of this study, 'traditional customary law'.

The incorporation of customary laws, such as those regulating marine resources in Vanuatu's legislative system, follows the legal pluralism model. In Vanuatu, there is constitutional recognition of two systems of law, domestic and customary law. Customary law derives from traditional practices rather than legislation passed by the state, and is recognised within the constitution by the nation's chiefs, who sit in the National Council of Chiefs, or the *Malvatumauri*.[107]

Although customary law is part of Vanuatu's formal legal system, it is often not enforced by the judiciary.[108] Challenges arise because customary law is often unwritten, not codified and orally

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102 Kenneth Brown, 'Customary Law in the Pacific: An Endangered Species?' (1999) 3(2) *Journal of South Pacific Law* 1.

103 Erika Techera, *Marine Environmental Governance: From International Law to Local Practice* (Routledge, 1st ed, 2012) 164.

104 Customary law is practiced within the constitution through the nation's chiefs who are recognised members of the National Council of Chiefs (*Constitution of the Republic of Vanuatu 2006*, c 5).

105 Gro Harlem Brundtland and Wayne Visser, *Our Common Future: The World Commission on Environment and Development* (Oxford University Press, 1987).

106 Francis Cassidy, 'Thoughts of Local Residents of Espiritu Santo on Australian Visitors' (Paper presented at the Academy of World Business, Marketing and Management Development, Gold Coast, Queensland, Australia, 13–16 July 2004); Giles Romulus and P H C Lucas, 'From the Caribbean to the Pacific: Community Conservation in Small Island States' (2000) 17(1) *The George Wright Forum* 47.

107 Chapter 8 of the *Constitution of the Republic of Vanuatu 1980* (c 5) is concerned with the justice system. It describes the Judicial Service Commission, which includes a representative of the National Council of Chiefs. It also states that 'Parliament shall provide for the establishment of village or island courts with jurisdiction over customary and other matters and shall provide for the role of Chiefs in such courts.' (art 52). Chapter 12 of the Constitution is dedicated to land ownership and is particularly critical for the role of traditional law. Article 73 states 'All land in the Republic of Vanuatu belongs to the Indigenous custom owners and their descendants.' In addition, 'The rules of custom shall form the basis of ownership and use of land in the Republic of Vanuatu' (art 74).

108 Jennifer Corrin, 'Accommodating Legal Pluralism in Pacific Courts: Problems of Proof of Customary Law' (2011) 15 *International Journal of Evidence and Proof* 1, 5.

transmitted.[109] Adding to these challenges, customs by their nature change over time and are interpreted differently, depending on chiefs and communities.[110] However, the perceived legal weaknesses of traditional customary law may also be its strength: it is adaptive. This study seeks to build on and extend the practice of legal hybridisation, and examine the potential role of traditional customary law in building adaptive capacity for climate change.

## *1.12 Methodology*

The study methodology was selected to respond to the key research question 'Can traditional customary law contribute to climate change adaptation?'

This cross-disciplinary study is largely a thesis by publication. It adopts doctrinal research and empirical methodologies, together with an extensive desktop literature review, to address the research question. The literature review involved the identification of literature pertaining particularly to fields of environmental governance and climate science. Such a mixed methods or triangulation approach, involving multiple sources of evidence, ensured high levels of confidence in the validity of the study's findings.[111]

### *1.12.1 Doctrinal Research*

The legal components of this study included the investigation of international and domestic law covering a range of legal disciplines, such as environmental, human rights, climate, constitutional and customary law. The doctrinal research focuses on legal doctrines and how they have been formed, together with analyses of legal rules.[112]

Doctrinal research is characterised by the study of legal texts, such as legislation, judicial articles, policies, case law, reports and journal articles. It involves 'a systematic exposition of the rules governing a particular legal category, analysis of the relationship between rules, explains the difficulty and, perhaps predicts future developments.'[113] This library-based methodology focuses on analysing primary and secondary materials.[114] Primary materials include legal sources such as legislation and case law;[115] secondary materials encompass the legal interpretations found in textbooks and journals. [116]

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[109] Ibid 23.
[110] Follett, above n 44, 127.
[111] Derek Layder, *Sociological Practice: Linking Theory and Social Research* (Sage Publications, 1998) 167–8.
[112] Sayed Hassan Amin, *Research Methods in Law* (Royston, 1992) 14.
[113] Terry Hutchinson, *Researching and Writing in Law* (Thompson Reuters, 3rd ed, 2010), 7.
[114] Ibid.
[115] Ibid.
[116] Hutchinson, above n 113.

### *1.12.2 Empirical Research*

The empirical, or qualitative, research component of this study involved conducting face-to-face in-depth interviews. The purpose of these interviews was to provide cultural, social, environmental, legal and political contexts for the study.[117] Qualitative research has the capacity to investigate perspectives in a rich in-depth and simultaneously contextual manner.[118]

The advantages of using interviews to collect data include 'flexibility, high response rate, easy administration, opportunity to observe nonverbal behavior, control over the environment, opportunity to record spontaneous answers, capacity for correcting misunderstandings of respondents'.[119]

There are disadvantages to this empirical method, including potential interviewer bias, additional cost and time relative to other methods, together with potentially less effectiveness and decreased anonymity.[120] These disadvantages are outweighed by an ability to gain a depth of understanding about a research topic that would not be possible using other methods.

The interview questions used in this study were broadbrush, with the aim of prompting individuals to share their personal views and experiences. With the assistance of universities, community organisations, government representatives and individuals, interviewees were recruited by purposeful selection and snowballing methods.[121]

The interviews were conducted during 2015 to 2017. Interviewees were asked questions designed to ascertain their views on the role of customary law in environmental management and climate change adaptation. Interviewees comprised two groups: 1) Vanuatu citizens and 2) legal scholars with expertise in environmental law, climate law, traditional customary law and/or constitutional law. Interviews conducted with Vanuatu citizens were designed to address the first area of enquiry in this study, surrounding how customary law has made a contribution to climate change adaptation. Interviews conducted with legal scholars focused on how traditional customary law can contribute to future climate change adaptation.

Interviews were conducted following the grant of ethics approval (Appendix 3) and written permission was received from potential interviewees who were previously provided with a project description. The purpose of these interviews was to capture a deeper understanding of the

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[117] Mike McConville and Wing Hong Chui (eds), *Research Methods for Law* (Edinburgh University Press, 2007) 5.
[118] Joanne W Creswell, *Research Design: Qualitative, Quantitative and Mixed Methods Approaches* (Sage Publications, 2008).
[119] Sotirios Sarantakos, *Social Research* (Macmillan Education Australia, 2nd ed, 1998) 266.
[120] Ibid.
[121] Creswell, above n 118.

application of traditional customary law in relation to environmental management, with the view to its potential application in legal frameworks for adaptation to climate change. All interview tools can be found in the appendices (see Appendices 1 and 2).

Each interview was audio recorded to assist with checking the accuracy of the interview transcripts. Once checking was done, the recordings were deleted. In cases when the participant preferred not to be recorded, comprehensive notes were taken instead. Translator services were offered to interviewees. Throughout the interview phase of the study, the researcher kept a journal that documented her responses and ideas to assist the final formulation of conclusions and identification of potential sources of bias.

Interview transcripts were de-identified, coded, collated and summarised. They were held in the researcher's password-protected digital files. Demographic information collected from interviewees were coded and entered into an Excel spreadsheet. Interview responses across all datasets were compared and contrasted for commonalities and differences to enable the identification of emergent themes.

The results of interviews with Vanuatu citizens can be found in Chapter V, and those with legal scholars in Chapter VI. Some of this interview data has been incorporated into a journal article, which forms Chapter VII.

### *1.12.3 Triangulation*

The final step involved collating, comparing and contrasting all sources of data. In social science, this process is referred to as 'triangulation' which involves using two or more research methods to investigate the same result or issue in question.[122] This method allows a researcher to analyse other datasets related to the same investigation to determine if the results are consistent. If each research method comes to the same result, it is more likely that the result is accurate and devoid of investigator bias and thus, engenders high level of confidence. In the case of this research, the literature, legislation, case law, case studies and empirical data were analysed to develop the research findings. This analysis can be found in Chapters V, VI, VII and VIII.

## *1.13 Limitations*

This interdisciplinary research spans across the fields of law and various sciences, such as climate and social sciences. In terms of the depth of investigation, its methods are a strength although it does entail some limitations.

[122] Martin Opperman, 'Triangulation — A Methodological Discussion' (2000) 2 *International Journal of Tourism Research* 141, 142.

The research is largely a thesis by publication, and as a result there is some duplication, particularly pertaining to the definition of terms and climate science at the start of each paper. In addition, while the term 'indigenous peoples and local communities (IPLC)' was used in Chapters II–VI, it was changed following a more recent publication (presented in Chapter VII) to 'first peoples and local communities (FPLC)'. As journal articles are stand-alone works, this content is required; however, it distracts from the flow and narrative of this dissertation as a whole. Additionally, as the journal articles have been published over a five-year period, some of the literature — particularly the data reported — has been superseded with more recent reports that became available at the time of submitting this thesis. Recent literature has been included in the unpublished content, such as the introduction and Chapter VII.

The oral nature of conserving and transmitting traditional customary law and its practices, across communities and down generations, presents research challenges in terms of the availability of written texts. This limitation was partially circumvented by conducting interviews with local chiefs and community members, which enabled the researcher to build a stronger firsthand understanding of customary law.

With the exception of the final paper (Chapter VII), which has been accepted for publication at the time of thesis submission, the empirical data collected for this study has not been included in published papers. This data will instead be used in future publications.

In Vanuatu, the responsibility for holding and enforcing customary law resides with chiefs, who are male. This meant that the majority of Vanuatu interviewees (66 per cent) were male, resulting in a gender bias.

The focus of this study was on the contributions of traditional customary law held and practiced by 'indigenous' peoples. During the period of this study, the researcher resolved to change from 'indigenous' to 'first' peoples. Thus 'indigenous' is adopted as a term in chapters one to six, then the change has been made in chapters seven and eight. The literature supports the utilisation of both terms, the change was made due to the researchers personal preference which was informed through discussions with colleagues and friends who are first peoples from across the world. Throughout the thesis, the importance of the knowledge and practices of 'local communities' who may, or may not, be indigenous, is recognised. However, it is beyond the scope of this research to investigate the role of 'local communities' in depth.

A further limitation surrounds the relatively recent recognition of the need to integrate adaptation measures into legal, policy and management responses to the impacts of climate change. This resulted in the availability of limited literature, case studies and judicial cases. To mitigate this

limitation, the scope of the literature review was expanded to include examples of how customary law and practices have assisted in the fields of environmental management and criminal law.

## *1.14 Statement of Significance*

The new contributions of this thesis are twofold. The first is the development of the *Declaration on Human Rights and Climate Change*. Kirsten Davies, the author of this thesis, was one of 13 scholars around the world, all members of the Global Network for the Study of Human Rights and the Environment, who developed the declaration; she was also the lead author of a journal article subsequent to the development of the declaration. This journal article forms Chapter IV of this thesis. Readers will note that the emphasis of this declaration and of the journal article is on the importance of including traditional customary law and TEK in responses to the impacts of climate change.

The second, and main contribution is a proposed new legal mechanism that was developed through the doctrinal and empirical research of this study. As the research progressed, it was clear that climate law became increasingly focused on international and domestic levels; for example, the *Paris Agreement* seeks voluntary commitments from nations to reduce GHGs emissions. While this top-down approach is important, Chapter VII proposes that a mechanism — called the *namele* mechanism — is required to bridge bottom-up and top-down environmental protection strategies. The research in developing this mechanism highlighted some of the many existing principles of environmental law, and noted the lack of mechanisms to guide their implementation. The importance of localised actions based on the knowledge and practices of IPLC is highlighted in Chapter VII to support the introduction of the *namele* mechanism. The implementation of this mechanism holds promise for much-needed, rapid responsiveness in the management of local ecosystems as they increasingly encounter the impacts of climate change. A paper describing the ideas and content in Chapter VII was entered into the Global Climate Law and Governance Student Essay Competition 2017, and awarded a bronze medal by the international Climate Law and Governance Initiative.

## *1.15 Structure of This Thesis*

This introductory chapter, **Chapter I**, introduces the core research question by exploring and defining the fundamental concepts that underlie traditional customary law and climate change adaptation. The inclusion of a human rights perspective is discussed in the context of current and future responses to the challenges of climate change. The rationales underpinning the coupling of human and nature systems — the ecosystem approach to management and ACM — are then

outlined. The South Pacific Region and the Republic of Vanuatu are introduced as the sites that will enable such an investigation of traditional customary law, climate change and climate change adaptation. Further, the empirical and doctrinal research methods and limitations associated with this study are outlined.

**Chapters II and III** describe the science, law, practices and case studies that illustrate the historical role of customary law in environmental adaptation. Chapter II focuses on 'ancient' and contemporary practices of traditional customary law. Chapter III builds the narrative by examining how traditional customary law is applied to managing marine ecosystems.

**Chapter IV** examines human rights approaches to climate change adaptation, including the rights of indigenous peoples and the inclusion of traditional customary law in laws recognised by the state. The *Declaration on Human Rights and Climate Change* is introduced, and a discussion of the theory and case law underpinning its development is included.

**Chapters V and VI** report on the analysis of the empirical data collected for this research. Chapter V focuses on the data collected through interviews with Vanuatu citizens, including chiefs and community leaders. Chapter VI reports on the data collected from legal academics who are experts in climate and/or traditional customary law.

In **Chapter VII**, the *namele* mechanism is proposed as a new operative tool with potential capacity to be informed by traditional customary law and enhance responses to the impacts of climate change through ACM. This mechanism has been developed in response to both the published literature and the unpublished empirical research undertaken for this study. Importantly, such a mechanism may have the capacity to bridge local-international responses to climate change.

The concluding **Chapter VIII** addresses the main research question and highlights how traditional customary law can make a contribution to climate change adaptation. It describes indigenous peoples' relationships with nature and their historic practices of adaptation to the environment, and their significance and applicability to the contemporary challenges presented by climate change. Significantly, this chapter discusses the important role of customary law in rebuilding contemporary CHANS that will facilitate adaptive responses to the impacts of climate change.

# II ANCIENT AND NEW LEGAL LANDSCAPES

**Publication Details**

Davies, Kirsten, 'Ancient and New Legal Landscapes: Customary Law and Climate Change, a Vanuatu Case Study' (2016) 18 *Asia Pacific Journal of Environmental Law* 43.

This chapter provides the legal foundation for this study. It situates the research in the Republic of Vanuatu and the South Pacific, and describes how the region's context lends itself to the investigation of traditional customary law, climate change and the environment.

The chapter describes the increasing trend to examine issues, such as climate change, through coupled human-nature or socio-ecological systems, which are the basis of traditional customary law. However, there remains a legal divide that limits the integration of customary law with domestic law. Although elements of legal dualism exist, such as the capacity to apply traditional customary law under the *Constitution of Vanuatu*, there is uncertainty as to how, and when, the judiciary can bridge this legal dichotomy. The consequence of such dichotomy has limited the growth of a pluralist system and led to customary law fitting within the evidentiary construct of national laws, rather than being integrated substantively. This paper explores the ancient legal landscapes of traditional customary law, and discusses how they may inform contemporary legal responses in challenging terrains, such as those concerned with climate change. It discusses the legal shifts, through case law, that are informing the construction of new legal landscapes that may assist future localised responses to climate change.

Pages 22-46 of this thesis have been removed as they contain published material. Please refer to the following citation for details of the article contained in these pages:

Davies, K. (2015). Ancient and new legal landscapes: Customary law and climate change, a Vanuatu case study. *Asia Pacific Journal of Environmental Law*, *18*, 43-67.

# III CHANGING TIDES

**Publication Details**

Davies, Kirsten, 'Changing Tides — A South Pacific Study' (2016) 2 *Journal of South Pacific Law* 104

This chapter continues to explore customary traditions, including traditional law and knowledge, and assess their capacity to assist contemporary adaptive environmental management strategies in response to the impacts of climate change. While Vanuatu is examined as a case study once again, the chapter broadens its analysis to the South Pacific region, with a focus on marine ecosystems.

The chapter examines the management of fisheries in the South Pacific within a legal web of international, domestic and customary management practices. The emerging issue of climate change was not anticipated nor conceived when the *United Nations Convention on the Law of the Sea* was drafted. Therefore, contemporary applications of the convention must adopt an interpretation that is facilitative of climate mitigation and adaptation. Customary practices present an opportunity for the hybridisation of management strategies. The chapter does not propose that a customary marine management approach replace Western management strategies. Rather, customary traditions can be employed within a broader scheme of legal and management frameworks to respond adaptively to the detrimental impacts of climate change. The emerging trend of employing such hybridised strategies can be seen in nations such as Vanuatu, Fiji and Samoa.

Pages 48-91 of this thesis have been removed as they contain published material. Please refer to the following citation for details of the article contained in these pages:

Davies, K. (2016). Changing tides–a South Pacific Study. *Journal of South Pacific Law, 2016*(2), 104-146.

# IV HUMAN RIGHTS, CUSTOM AND CLIMATE CHANGE

**Publication Details**

Davies, Kirsten et al, 'Declaration on Human Rights and Climate Change' (2016) 8(2) *Journal of Human Rights and the Environment* 217

The previous paper examined the past and present customary management of fisheries in the South Pacific, and suggested that it be placed within a broader schema of legal and management frameworks to respond adaptively to the detrimental impacts of climate change.

This paper broadens the discussion to add a human and non-human rights perspective. It takes a leap into the future by providing a substantive framework, the *Declaration on Human Rights and Climate Change*, to demonstrate how human rights more broadly can be transposed into instruments of action to respond to climate change. The declaration provides an example of how traditional customary law can be incorporated into adaptation responses to climate change, the subject of this thesis.

This paper introduces the *Declaration on Human Rights and Climate Change*, which consists of substantive and procedural principles and normative obligations. The simplification of environmental values to core principles seeks to bridge Western and non-Western legal thinking and traditions in an ecological paradigm that equally values different epistemologies. However, in a truly equal relationship, there remains a tension in how the two systems can operate effectively and equitably. This tension recurs throughout this thesis.

Pages 93-129 of this thesis have been removed as they contain published material. Please refer to the following citation for details of the article contained in these pages:

Davies, K., Adelman, S., Grear, A., Magallanes, C. I., Kerns, T., & Rajan, S. R. (2017). The Declaration on Human Rights and Climate Change: A new legal tool for global policy change. *Journal of Human Rights and the Environment, 8*(2), 217-253.

# V VOICES OF VANUATU CITIZENS

The previous chapter was focused at a global level. It highlighted the relationship between human rights and climate change, and described how custom, including traditional customary law, provides a method for traversing the anthropocentric focus that plagues contemporary environmental law. This unpublished chapter brings us back to Vanuatu. It presents the empirical data that further builds the evidence in response to this study's research question, 'Can customary law contribute to climate change adaptation?'

The following chapter presents the results of the first phase of interview data collection and analysis that is a part of the research component in this study. The voices and firsthand experiences of citizens and leaders of Vanuatu in relation to climate change, customary law and climate change adaptation are described. They are then linked, compared and contrasted to the literature reviewed for this thesis, and conclusions are drawn. These perspectives contribute an additional layer to the investigation of the research question.

## *5.1 Introduction*

The current and subsequent chapters present the empirical data that were captured through in-depth interviews. The broadbrush interview questions were designed to obtain the views of local people in relation to the research question, and their responses build upon the previous literature review and doctrinal research that was conducted for the development of the published papers in Chapters II, III and IV.

A total of 58 interviews were conducted (see Table 5.1). The interviewees comprised two groups: 1) Vanuatu citizens (Group 1) and 2) legal scholars (Group 2). Thirty-five Group 1 interviews were conducted in Vanuatu with chiefs, community leaders and government officials. Following these interviews, 23 Group 2 interviews were conducted with legal scholars from Australia, New Zealand, Vanuatu and the United States.

A total of 25 men and 10 women comprised the Ni-Vanuatu cohort (Group 1) of this study; their responses are reported in this chapter. The results of interviews with the 23 Group 2 legal scholars are described in Chapter VI. Group 1 comprised 12 chiefs based on the Islands of Espiritu Santo and Efate, 15 community leaders (two of these being local politicians) and eight government officials. All chiefs and many community leaders were male, resulting in gender bias in this group.

**Table 5.1: Distribution of Interviewees across Groups and Genders**

| Group 1: Ni-Vanuatu Citizens | | | |
|---|---|---|---|
| | **Male** | **Female** | **Total** |
| **Perspectives** | **(n)** | **(n)** | **(n)** |
| Chiefs | 12 | 0 | 12 |
| Community Leaders | 7 | 5 | 12 |
| Government Officials | 6 | 5 | 11 |
| **Group 1 Total** | **25** | **10** | **35** |
| **Group 2: Legal Scholars** | | | |
| | **Male** | **Female** | **Total** |
| **Country** | **(n)** | **(n)** | **(n)** |
| Vanuatu | 5 | 3 | 8 |
| United States | 4 | 3 | 7 |
| Australia | 2 | 2 | 4 |
| Indonesia | 1 | 0 | 1 |
| New Zealand | 1 | 2 | 3 |
| **Group 2 Total** | **13** | **10** | **23** |
| **Total** | | | **58** |

## *5.2 Responses to interview questions*

In extended face-to-face individual interviews, participants were asked to respond to eight broadbrush questions. The questions and summaries of their responses are as follows.

### *5.2.1 Question 1: As the planet faces the impacts of climate change, do you believe that customary law (kastom) can assist people to adapt? And if so how?*

Most interviewees believed that customary law can assist processes of adaptation in response to the impacts of climate change. Fifteen interviewees cited the historical origins of custom and its interconnections with nature. One said 'yes, because *kastom* looks back to the village, they don't manufacture things, they just plant things and they go [sic] over re-using their land again and again … instead of getting fertiliser from the shop. The *kastom* tells people how to live.' Another commented 'yes, you should research how our ancestors lived their lives in and with nature; this is our foundation today.'

Another interviewee explained the role of chiefs in guiding communities as they adapted to the impacts of climate change: 'in the village where I stay in the Banks [Islands], they are trying to work with the village people because the water system and the food are a problem. The chief is

doing this, everyone is doing what the chief wants.' This interviewee also highlighted the importance of 'educating chiefs regarding climate change'.

An interviewee explained the adaptability of custom: 'yes, people here live according to the weather and they adapt to climate change, they are always adapting in *kastom*.' A comprehensive response was provided by another female interviewee, who explained some of the pros and cons of custom knowledge and practices and described the role of climate and biological indicators that alert communities to imminent events, such as cyclones. Additionally, she expressed her concerns surrounding gender bias in relation to custom, explaining that women were unable to participate:

> I think yes and no. Yes, because traditionally there are climate indicators which can be used to determine weather, so in different islands they have different traditional weather indicators. For example, if they see certain birds flying, this means rain. Or when certain trees bloom, it could indicate a cyclone. No, because some existing *kastom* governance system can be limited. For example, in villages the women are not allowed to participate in decision-making. This can be a barrier regarding adaptation for a community.

Two interviewees did not believe that customary law could assist adaptive capacity for climate change, explaining that the problems they were experiencing with the impacts of climate change were beyond their adaptation practices. One chief explained that '*kastom* cannot help. *Kastom* can't block the cyclone when the sea moves; more and more, we cannot help this.'

### *5.2.2 Question 2: In Vanuatu, customary law is included in the nation's constitution and chiefs have legal power through the National Council of Chiefs. Do you believe this model is working well? Please describe the strengths and weaknesses of this system.*

An interviewee made a connection between peaceful communities and *kastom*: 'yes, the strength of this model is that in Vanuatu people still value the traditional system of chiefly authority. I believe this is why peace is maintained in our society. Vanuatu communities still have respect for the role of the chiefs, even in urban areas.'

Another interviewee commented that customary law is still strong and enforced in rural villages: 'back in the village the chief is the head of the community. Power at local level is still very strong.'

However, interviewees were generally sceptical about how customary law is enforced. In addition, the lack of legal power given to chiefs was noted to be problematic:

> The constitution doesn't give the chiefs the full power to make a decision, but it gives them power that people respect. If the chief gives me a penalty and I don't respect, this is bad. Now the government wants to get the chiefs close to the police. The government set up the *Malvatumauri* [Council of Chiefs] but they don't make the decisions, the government does.

Another interviewee concurred with this view: 'if someone stole something, the chief holds him now and the police come and the chiefs have little power. But some say the power is [still] in the chief.' An interviewee provided an example of legal pluralism in action and the challenges associated with it:

> an example of where the system breaks down, a young girl in Santo [Island of Espiritu Santo] was raped. Under *kastom* the family of the rapist paid 70 000 vatu to the family of the victim and both families agreed it was finished. Members of society said it was not finished and wanted the man punished under Western law. I think as society changes it's becoming harder and harder to keep the balance of Western and *kastom* systems.

A government official described attempts to strengthen the legal powers of the chiefs and the enforceability of customary law: 'Now the new *Land Management Act (2013)* has given the chiefs legal power. This law will help the chiefs to make decisions and not be afraid of civil law. We have a roadmap and we have implementation work plans for each island to revive their *kastom*.'

A government official (politician) discussed the influence of politics on *kastom* and proposed an option for effectively reconciling its position in a pluralistic legal system: 'We have been talking about a *kastom* senate. Politics is one of the main destroyers of everything we put forward. *Kastom* is all about respecting each other.'

### *5.2.3 Question 3: In Vanuatu, how strong are the practices of kastom and the powers of the chiefs?*

In response to this question on the strength of *kastom* practices, interviewees discussed their advantages and disadvantages. One man said:

> Two things about *kastom*. Bad thing, people make their own black magic. Good thing, is that chief gathers people together as a community. Like in some other islands like the Banks [Islands] where I come from, they still use the custom. Women cannot wear trousers; they must wear a skirt.

Fifteen interviewees agreed with the view expressed by an interviewee, that 'chiefs are still very powerful throughout Vanuatu. Through all the islands from Torres all the way through.' Another

interviewee said, ‘People do respect the chief. In some places the chief is the one that says what is happening, for example, if the chief says today we are doing the gardening. Chief is strong and respected, especially in some of the more remote islands.’

However, most interviewees believed that the power of the chiefs is diminishing, particularly in urban areas. For example, an interviewee said, ‘One thing is sad here in Santo, where the town is close, we are losing our customary respect. Chiefs are no longer important. Once anything happens we race to the police and put in a report, before the chief sorts out the problem. This has changed after independence.’

An interviewee reflected on the roles of *kastom* in maintaining community harmony, preventing crime and caring for the environment. She explained that *kastom* ‘is good because people respect each other. Then it stops crime and helps to look after the environment. You don’t cut trees everywhere.’ This view was reinforced by another interviewee, who said, ‘In the village we have no police and no prison, but the chief knows how to do it.’ He added that he was concerned about the changing influence of customary law and the power of the chief: ‘I want that [sic] *kastom* should be [sic] strong and hold the value, and the people should respect the chiefs. The reason we are getting more crime is because the chiefs are losing control.’

Interviewees described how chiefs enforce *kastom*. They provided examples, such as the practice by chiefs of placing ‘*tabu*’ or a ban, over a place or a plant they believe requires protection. One chief said ‘*tabu* looks after nature. You can ask the chief to put *tabu*, when they see the *namele* [leaves] they won’t go. If they put the *namele* [leaves] on the coconut, nobody can touch. The chief is helping them with the custom law.’ Interviewees explained that another way chiefs enforce *kastom* is through monetary fines of ‘30 000 or 50 000 vatu if they break *kastom* or *tabu*.’

Another interviewee explained the use of the *namele* plant to protect the marine environment, by placing *tabu* sticks within lagoons to prevent overfishing: ‘regarding fishing, we use the same leaf. We put it on stick and into the water to stop fishing. Only the chief can do this.’ The interviewee noted that the main objective of ‘*tabu* is about sharing with all people, e.g., fish, fruit.’

Variation in the practices of customary law across islands was explained by interviewees. One interviewee said, ‘The power of *kastom* and the chiefs varies from island to island. The more remote [the island], the stronger [*kastom* is], but there is still, everywhere, a general respect for the chief, very few would go against his ruling.’ Another interviewee supported this view: ‘It

varies across different provinces and islands. As you go further out to remote communities like the Banks [Islands], *kastom* is powerful.'

The issue of legal pluralism and potential subsequent conflict were raised when an interviewee noted that '[i]n some islands *kastom* law predominates, but in other islands *kastom* is not respected. They are under the influence of civil law, this is where the conflicts exist.'

Interviewees noted that monetary priorities are a factor contributing to a shift in values to Western-centric worldviews and systems. They explained that monetary priorities were leading to the diminishing number of sustainable livelihoods or people dependant on ecosystem services, and thus the influence of *kastom* was also diminishing One interviewee said, 'Women and families are becoming reliant on money because they need to make money for school fees and health.'

### *5.2.4 Question 4: Can you describe some of the ways kastom helps communities and individuals to live closely with nature and not deplete its resources?*

All interviewees described the role of *kastom* in binding people to nature. For example, one interviewee said:

> *Kastom* helps people in the ways people lived before. They plant their own food. They feed their own animals. *Kastom* is set up, they have their own rules and protect each other, and you don't have to make any problems in the community. I sometimes see chiefs stop people from fishing, then they will reopen [the lagoon/waterway] again. The other one they use is the *namele* leaf: that means don't touch it.

Another interviewee referred to the power of traditional medicine as one of the ways in which connections with nature are maintained in rural and urban contexts. He said that 'even people who live in town, we don't rely on traditional medicines, but we do use it.'

An interviewee noted that colonisation has affected *kastom* and the capacity of people to live within the bounds of ecosystems: 'Before, a long time ago, during my father's and grandfathers' time, people could live with nature. French government and English government came and the people cannot live with nature like before.' Another interviewee expressed the view that the knowledge and practices of living in harmony with nature 'are being lost with our old, wise village people'.

### *5.2.5 Question 5: Can you describe some of the ways that kastom guides people to adapt to the changing climate and environment?*

Most interviews agreed that *kastom* can assist with adaptation measures. They highlighted that *kastom* is not static; it is constantly adapting to changing conditions. For example, one community leader said:

> I definitely think that the chiefs adapt over the years to what they are seeing. A good chief, if he sees negative things happening, he will take action to counteract that. The chiefs certainly see their role as helping people surviving as best they can, so with any threats, they will adapt *kastom* to cover those problems.

The challenges of adaptation presented by the impacts of climate change were mentioned by eight interviewees. For example, one interviewee noted that '[n]ow since the weather is getting drier and long sunny periods, the people are needing to find many ways of finding water.'

The importance of bio-indicators in monitoring the status of, and trends in, ecosystems and their services was mentioned by two interviewees, in the context of tools to assist with environmental adaptation measures. They stressed the role of TEK. A government representative commented that, 'Traditional indicators inform cropping practices like ways of planting crops during wet and dry seasons. Farmers know which ones can withstand dry and wet, for example, varieties of taro.'

Three interviewees discussed the hierarchical process of becoming a chief. One interviewee explained, 'We call it smaller chief, middle chief and higher chief. You have to kill more pigs to become a higher chief. Then the people, the small children will listen to you, like in the classroom.'

The roles of spirituality and mythology in the context of environmental adaptation were mentioned by chiefs and community leaders. For example, one interviewee said, 'Yes, *kastom* can save the people, we call [it] magic, we can blow out the cyclone so it won't come here.' He continued by commenting on the influence of religion on the diminution of *kastom*, 'We got some old man he passed this one to us, but now too many religions, we lose our *kastom* and culture, but some of them still exist.' The contemporary mix of *kastom* and Christianity was described by an interviewee: 'Vanuatu with *kastom* legal systems is very unique; I don't think many countries have black magic, *kastom*, Christianity; all seem to oppose each other but all thrown into the pot it all seems to work.'

### *5.2.6 Question 6: Can you describe some of the changes that you have observed that you believe are due to the impacts of climate change?*

Resoundingly, all interviewees noted changes that they perceived to be attributable to the impacts of climate change. For example, they cited rises in sea level, changes in climatic patterns and the consequences of these changes on crop production. One interviewee said, 'Many things change in the sea, the sea is further up. Rain and sun change, too, many things change. Before we can have a good yam but now no good. Yams are no good because environment is no good.'

Another interviewee noted changes she had observed particularly over the past five years: 'In winter, sometimes you get cold, hot, it doesn't cold [sic] all the way. I think this has been over the past five years. We have some coconut growing near the beach; now the sea level has risen and washed over the coconuts.'

A chief from the Banks Islands said:

> Here, or in the Banks [Islands] you can see the changes. You can see the rising of the sea some of the places we dived below are now shallow. The problem is because all the fish that we have go away, run away, and all of the food is different now, it's more smaller [sic]. In Mota Lava all the breadfruit are now out of season, they will take another month.

Another interviewee was less confident that the changes he had observed were a result of climate change. However, his observations were consistent with that of many others:

> it's hard for me to say definitely that it is due to climate change, but I see changes in the environment that cannot be easily explained in any other way. The climate is nowhere near as predictable as it used to be. We can get rain when it's supposed to be dry everyone talks about the weather patterns being erratic. I think it's cooler at some times and hotter at others.

Ten interviewees stressed the problems associated with coastal erosion and food security. For example, one government representative explained that the problems involve '[l]ots of coastal erosions, others ones like food security issues. One is difficult for taro and manioc to grow. Pest and diseases due to changes of weather patterns … Extreme weather conditions, heavy rains are happening off-season.' A chief said, 'Erosion of the shore lines at the sea. Fruit seasons changed, like yielding all the year round instead of just at Christmas time, for example.'

Interestingly, one interviewee cited the benefits of the changing climate in noting that the 'advantages are trees are bearing fruit off-season, e.g., mangoes available for longer'. She added her concerns surrounding the health implications of climate change, observing that there was 'more vector-borne diseases more inland, used to be only coastal areas.'

### *5.2.7 Question 7: What do you think is the future of kastom in contemporary societies?*

Overwhelmingly, interviewees held the view that *kastom* is being lost. Eleven interviewees believed that young people were less interested; for example, one said, 'My belief in the *kastom* is, it will be finished, young people don't want to learn.' An interviewee said that 'before, the council works well, but now not so much. The tradition and the custom are not being followed. Young people, they need more something [sic], they like to walk around so they don't like to think about these things, good things.'

A community leader summarised *kastom* and the influence of Western culture and practices as follows:

> When the *kastom* was on its own in the 1600s it was perfect in relation to its ruling, judgments and operations. Then, when the missionaries and Westerners came in, they destroyed *kastom* and established their systems and became part of the breakdown of *kastom* which now we are trying to revive. Industrialisation has left the people lazy. They don't make the gardens at the right time. Some people are saying that Vanuatu is now in the poverty age. In the remote islands people still live off the land and there is plenty to eat. People are building more permanent structures using cement and we don't see the native way of construction. They feel that they are safe in these constructions, but they are not.

The need to preserve *kastom*, along with the differences in *kastom* practice between rural and urban contexts, was expressed by most interviewees. For example, a community leader said, 'For me, to say honestly, they need to be strong, or they will lose it. In Luganville and Port Vila they break their own customs, but in the village it's still strong.'

Another interviewee stressed the capacity of *kastom* to conserve nature: 'It will all be lost unless we proactively do something to conserve it for our future generations, especially good *kastom* practices that help us to maintain our environment positively for the future.' Another interviewee stressed the importance of embracing change while maintaining *kastom*: 'We must be careful in terms of accepting new concepts, it's ok to accept change but at the same time we need to consider *kastom* laws.' He continued to describe the collective benefits of *kastom*, saying that '[t]here are a lot of benefit [sic] of *kastom* law, for the community, *kastom* law brings people together.' He then raised concerns about the trend towards individualist societies compared with traditional collectivist societies that have previously predominated in Vanuatu: 'I can see more emphasis on the individual systems where the gaps [between communities and nature] get bigger. The poverty gap is growing between the rich and the poor.'

An elderly chief stressed the importance of education:

> In the *kastom* I can say a few things because many of us are still alive. *Kastom* is like an education school. Our government in every province in Vanuatu must try hard to find a way to train people in *kastom*. We must try hard to find a way for the old people to teach the young people, otherwise we will lose it. They can go into the *nakamal* or the school. When the *pikinini* born they can teach [them] how to kill pig and fowl and get married. Now, government and religion do marriage and [it is] not *kastom* anymore.

Seventeen interviewees attributed the demise of *kastom* to the influence of Western culture. For example, a community representative explained that she now operates in a Western culture and cannot return to a customary lifestyle:

> I think if everybody are [sic] not interested in Western style then *kastom* will be protected, but now it seems that we are interested in Western style so we forget *kastom*. If chief says I have to wear *kastom* dress, I am not going back there. It is hard to go back to *kastom*.

The links between custom and changing value systems were made by six interviewees. One said, 'I think ideally it's a great system and it reflects where the people are at this stage. At the same time, I think the values of the people are moving away from *kastom* to a more Western view.'

This theme of values was elaborated on in the following response: 'it's good that we have recognition of *kastom*, this is very important. It provides an avenue for voices, to national level.

A male community member highlighted his support of *kastom*, while noting the need for it to evolve. In particular, he raised concerns surrounding gender inequality: 'It's important that *kastom* law continues to find ways to take into consideration how it can still function, but include women. Women do not fish, so in the case of widows, they can only eat the shellfish, little things on the reef, this is their livelihood.'

The links between *kastom*, superstition and identity were explained by one community representative. He said, 'It would take a very long time for *kastom* to die here. It will change, but there are beliefs that the local people have that you could not convince them otherwise, like black magic. It's not a logical society, as a result *kastom* will survive for a long time. *Kastom* is very important regarding who we are!'

## *5.3 Analysis*

Interviewees' responses highlighted the significant role of *kastom* in the nation of Vanuatu. In line with the literature, community leaders, government officials and chiefs stressed the value of *kastom* in upholding long-term traditions and cultural activities. Some acknowledged the importance of *kastom* in climate change adaptation, while others were less convinced. The

challenges of regulating a pluralist legal system were evident to many interviewees, who also felt that the intersection of civil law and traditional customary law is heavily influenced by Western notions of adaptation. Nonetheless, the literature emphasised the benefits of a hybridised ACM approach to the challenges presented by the impacts of climate change.[123] The rationale behind this incorporates the honouring of local traditions which is more likely to engage communities with climate issues and hence have a higher likelihood of success. In this regard, both the literature and the experiences of these interviewees are consistent in outlining the importance of balancing — through the law — the traditional customs of local Ni-Vanuatu culture and the protection of natural systems threatened by climate change.[124]

Resoundingly, interviewees noted the changes they perceived to be attributable to the impacts of climate change. For example, they cited rise in sea level, changes in climatic patterns and the consequences of these changes on crop production, coastal erosion, food security and human health. These perceptions are supported by the scientific literature presented earlier in this thesis.[125] However, one interviewee identified the benefits of the changing climate, observing that trees are bearing fruit off-season; for example, mangoes are now available for longer periods. It is interesting to note that the prospect of migration due to climate impacts was not raised in these interviews; yet, it is a predominant theme in the literature.[126]

Interviews conducted with community leaders, government officials and chiefs revealed that most believed *kastom* could assist processes of adaptation to the impacts of climate change, in a variety of ways. They cited that one of the strengths of *kastom* was its historical origins in interconnecting people with nature. The literature discussed earlier in this thesis supports this human-nature connectivity as the basis of *kastom*.[127] The role of spirituality and mythology in the context of environmental adaptation was mentioned by chiefs and community leaders, who highlighted the importance of the fluidity of *kastom* and its capacity to adapt to changing conditions.

Interviewees also stressed the role of education and TEK in climate change adaptation. For example, they explained the importance of bio-indicators in monitoring the status and trends of

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[123] Armitage, Berkes and Doubleday (eds), above n 83, 3.
[124] Kirsten Davies, 'Ancient and New Legal Landscapes: Customary Law and Climate Change, a Vanuatu Case Study' (2016) 18 *Asia Pacific Journal of Environmental Law* 43, 64.
[125] Costello et al, above n 9; IPCC, above n 25; Intergovernmental Panel on Climate Change, '2012: Summary for Policymakers' in Field et al (eds), *Managing the Risks of Extreme Events and Disasters to Advance Climate Change Adaptation* (Cambridge University Press, 2012) 1; Cubasch et al (eds), 'Introduction' in T F Stocker et al (eds), *Climate Change 2013: The Physical Science Basis. Working Group I Contribution to the Fifth Assessment Report of the Intergovernmental Panel on Climate Change* (Cambridge University Press, 2013) 119.
[126] Kirsten Davies et al, 'The Declaration on Human Rights and Climate Change: A New Legal Tool for Global Policy Change' (2017) 8(2) *Journal of Human Rights and the Environment*' 217, 223; Dunlop and Spratt, above n 19.
[127] Kwa, above n 99.

ecosystems and their services, as tools that can be employed to assist with adaptation measures. However, there were dissenting voices. Two interviewees did not believe that customary law could assist, explaining that the problems associated with the impacts of climate change were beyond their adaptive practices and capacity.[128] Such opinions emphasises the need to utilise bottom-up approaches to climate change adaptation, such as through local management, that empower communities to conserve their environmental resources.[129]

Interviewees discussed the operation of legal pluralism in Vanuatu involving (Western) civil and traditional customary law. They noted that attempts have been made to strengthen the regulatory powers of chiefs and the enforceability of customary law; for example, through establishing the *Malvatumauri* [Council of Chiefs] and providing chiefs with powers, such as through the *Land Management Act (2013)*. This thinking is aligned to Techera who discussed empowering customary law through statues in Samoa. [130] Another suggested option for the future, was the inception of a *kastom* senate to strengthen customary law. Vanuatu's current operating state of legal pluralism was accepted by the interviewees as a means of protecting simultaneously the nation's resources and the interests of current and future generations.[131] However, such views appeared to differ from the literature, which cited the complexities associated with enforcement in the context of legal pluralism.[132]

In general, interviewees expressed a variety of views surrounding the enforcement of customary law. Some noted the lack of legal power given to the chiefs. Yet, many interviewees (15) confirmed that they believe the chiefs are still very powerful throughout Vanuatu, particularly in rural areas. They described chiefs enforcing customary law; for example, by placing '*tabu'* over a place or a plant they believe requires protection, then issuing a monetary fine if the *tabu* was infringed.[133] In this sense, the chief's actions may be seen as a means of adaptation to the imminent effects of climate change.[134] Another interviewee explained how the *namele* tree was used to protect the marine environment, through the placement of *tabu* sticks, covered in the leaves from the *namele* tree in lagoons to prevent overfishing.

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[128] Olsson, Folke and Berkes, above n 80; Plummer and Armitage, above n 80; Fabricius et al, above n 80.
[129] Armitage, Berkes and Doubleday (eds), above n 83, 3; Davies, Kirsten, 'Changing Tides — A South Pacific Study' (2016) 2 *Journal of South Pacific Law* 104.
[130] Follett, above n 44, 126; Techera, above n 44, 90; *Custom Land Management Act No 33 (2013)* (Vanuatu).
[131] Brundtland and Visser, above n 105; Erika Techera, 'Legal Pluralism, Indigenous People and Small Island Developing States: Achieving Good Environmental Governance in the South Pacific' (2010) 42(61) *Journal of Legal Pluralism and Unofficial Law* 171, 175.
[132] Sally Engle Merry, 'Legal Pluralism' (1988) 22(5) *Law and Society Review* 869, 869; Franz von Benda-Beckmann, 'Who's Afraid of Legal Pluralism' (2002) 34(47) *The Journal of Legal Pluralism and Unofficial Law* 37, 52; *Bob v Mala* [2015] VUCA 3; Civil Appeal Case 02 of 2015 (8 May 2015).
[133] Davies, above n 124, 53–54; Francis Hickey, 'Traditional Marine Resource Management in Vanuatu: Acknowledging, Supporting and Strengthening Indigenous Management Systems' (2006) 20 *SPC Traditional Marine Resource Management and Knowledge Information Bulletin* 1.
[134] Hickey, above n 133; Follett, above n 44, 127.

A different perspective was shared by an interviewee who made a connection between peaceful communities and *kastom*, by emphasising its role in the maintenance of community harmony, prevention of crime and care of the environment. The power of traditional medicine (as part of *kastom* or customary practices) was cited as one of the ways in which connections with nature are still being maintained in both rural and urban contexts.

Interviewees noted the need for a melding of new and old practices if *kastom* was to evolve and survive. In particular, they spoke of the need for greater equality for women and marginalised people. This issue is of interest in the context of contemporary and prominent gender-based inequalities associated with climate change in small island nations.[135] The influence of Western religion on *kastom* was perceived by interviewees as being very powerful. Interviewees explained that Vanuatu operates through a contemporary mix of *kastom* and Christianity. This mix and how it manifests in many aspects of the nation's contemporary culture, could be interpreted as an illustration of the states adaptive capacity.

Interviewees described the changing paradigm from the diminishing influence of *kastom*. Some attributed this to the lack of interest among young people. Others cited shifts in value systems from traditional to Western culture by reference to community constructs, which are now predominantly individualistic as opposed to the traditional collectivist notions characteristic of subsistence communities. An illustration of these shifts involves monetary priorities; for example, families needing employment and income to pay for school fees.

A significant factor affecting the influence of *kastom* was urbanisation. Consistent with the literature, interviewees felt that *kastom* was more influential in rural areas.[136] This opinion is likely influenced by the fact that many rural communities throughout Vanuatu still have subsistence, or part subsistence livelihoods.[137]

## *5.4 Conclusion*

Ni-Vanuatu inhabitants have exercised cultural activities and traditions that have extended back long before the visible effects of climate change were observed. Therefore, as is recognised by community leaders — it is essential to uphold the traditional customs of Vanuatu inhabitants through a contemporary mix of both civil law and customary law. Both the literature and the interviewees support the notion of legal pluralism in adapting to the impacts of climate change.

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[135] Davies et al, above n 126, 227.
[136] Inda and Rosaldo (eds), above n 7; Shiva, above n 8.
[137] Francesco N Tubiello et al, 'Carbon Financial Mechanisms for Agriculture and Rural Development: Challenges and Opportunities along the Bali Roadmap' (2009) *Climatic Change* 3.

While this notion consists of challenges, it also provides opportunities to extend the legal powers of community leaders and chiefs and in turn, the legal enforceability of customary law.

Community leaders, government officials and chiefs recognised the detrimental impacts of climate change on Vanuatu. They acknowledged the need for the law and its practice to adapt as the environment changes. They highlighted the importance of learning from communities that have traditionally managed natural resources in the context of contemporary adaptation measures. The power of *kastom* lies in educating and empowering local communities to conserve their environmental resources through a bottom-up approach. This places responsibility and accountability on local communities to manage the land, sea and ecosystems as the climate changes.

The interview responses of Vanuatu inhabitants summarised in this chapter highlight the necessity of adapting to the impacts of climate change. Interviewees generously shared their knowledge and experiences of traditional customary law, which forms part of *kastom*. In revealing that *kastom* is foundational to the maintenance of sustainable human-nature systems, this knowledge can offer valuable lessons to the broader global community as we struggle to consider new legal and management approaches to the unprecedented challenges presented by climate change.

# VI VOICES OF LEGAL ACADEMICS

The previous chapter reported on the analysis of the interview data that was collected from the first group of interviewees (Group 1). In that empirical chapter, chiefs, community leaders and government representatives from Vanuatu shared their views on the role of traditional customary law, climate change adaptation and human-nature connections. The analysis of this interview data found that some of the views and experiences of citizens and leaders of Vanuatu were supported by the literature, while those of others offered new perspectives.

This empirical chapter continues the process of examining and analysing the empirical data that was collected in this research, and is dedicated to the views of legal scholars who were interviewed for the study (Group 2). Their contributions add a legal dimension to the issue of the potential role of traditional customary law in adaptation responses to the impacts of climate change. These scholars contributed a range of perspectives surrounding the capacity of customary law to address the significant challenges presented by climate change. By probing in-depth the knowledge of these legal scholars, this chapter delves into the 'legal mechanics' of the research question.

## *6.1 Introduction*

Interviews were conducted with 23 legal scholars: eight from Vanuatu, four from Australia, one from Indonesia, three from New Zealand (NZ) and seven from the United States (US).[138] Thirteen of these interviewees were male and 10 were female (see Table 5.1). Interviewees have a variety of expertise in one or more of the areas of environmental law, climate law, human rights law, traditional customary law and constitutional law. Background information on this study was provided to the scholars prior to their interviews (Appendix 1), along with the clarification that the focus of this study is on traditional customary law, or the laws of indigenous peoples. Given this context, interviewees' use of the term 'customary law' can be understood as a reference to traditional customary law. Scholars from Vanuatu often referred to traditional customary law as '*kastom*' or '*kastom* matters'. The following summaries represent their responses to the five interview questions (Appendix 2).

[138] Seven interviews were conducted in the US because the researcher was a visiting scholar at Georgetown Law during her PhD candidature.

## *6.2 Summary of interviews with legal academics*

### *6.2.1 Question 1: As the planet faces the impacts of climate change, can customary law assist people to adapt to changing environments in the future? If you respond 'yes', 'no' or 'not sure' to this question, please explain in more detail.*

An Australian scholar believed that customary law could assist people to adapt to changing environments: 'indigenous people … are … better placed to adapt to the changing environment, because of their customary law practices and their traditional knowledge.' He then proceeded to describe the potential difficulties of such an approach, due to locality and cultural variations:

> there is a flipside to this however, because the customary practices can be quite separate from one group to another. For example, one cannot look at the Torres Strait Island peoples as though they are one. The same can be said for mainland Australian Indigenous people. I have experienced a lack of empathy between groups that may be steeped within their specific customary practices, and whether this may be a barrier to adaptation remains to be seen.

Scholars noted that the role of customary laws and practices underpin several legal cases, which have adopted 'the public trust doctrine'. One interviewee from the US said that 'these suits are mostly symbolic, and it is not clear that, even if successful, they would lead to substantive results. These suits do however, probably represent the best opportunity to use something resembling customary law to fight climate change in the US.' He further commented on the issue of enforceability: 'I am not optimistic that the US government would abide by environmental restrictions on its activities that were derived from customary law, as opposed to treaties to which it has consented.'

Another interviewee from NZ expressed his reservations surrounding the role customary law as a legal response to climate change:

> the law is an exercise of the sovereign power of the nation state. Thus, to talk of 'customary law' as if it were in some way equivalent, or even as if it were law, is often fundamentally deceptive. In our legal systems recognition by the state is a touchstone of legal authority. Within this context, in some jurisdictions that authority is awarded in a number of different ways, including through the custom of the Western legal system, recognising the customary norms of indigenous peoples. These norms often do contain some guidance as to how communities respond to changes in context, and to their own dynamics. However, it should be borne in mind that the communities themselves are often the subject of very significant change, not least of which is the ever increasing inexorable growth in the number of non-traditional people who use the resource, and the impact of cultural change within those communities themselves. As a result, without the underlying community cohesion that

> makes indigenous norms effective, and with the impact of technological change that removes one of the implicit impediments to ruthless exploitation of the world, it is often difficult to see that indigenous norms will be sufficiently robust to be able to handle the kind of challenges that they face.

Despite this interviewee's reservations, he still endorsed attempts to incorporate customary law in responses to climate change:

> That is not an argument against attempting to incorporate and use indigenous norms in the development of legal approaches to climate change. The justification for doing so is partly functional (for those communities where culture, and in particular the impact of outside forces, make those norms potentially useful), but more particularly an issue of social justice and respect for the rights of the person.

Another interviewee from the US presented a differing perspective pertaining to the future, by noting that in the absence of climate law, customary law 'will play the role, as the regulation, for which has not been regulated yet.'

A scholar from Vanuatu spoke about the different strength of customary law between rural and urban contexts:

> you would have to look at the two nations, urban and rural. In rural places, the power is strong. In urban locations, usually the chief is not present but will have a chief's representative. He may be a strong man, or he may not, it is very variable. *Kastom* is still observed in urban areas, especially dealing with disputes, such as over property, marriage, women or family relations. It is usual to call meetings. However, the power of the chief is not as strong in urban areas as it is in rural places.

### *6.2.2 Question 2: Can customary law assist communities to live closely with nature and decrease the exploitation of natural resources and creation of pollution in the future? If you respond 'yes', 'no' or 'not sure' to this question, please explain in more detail.*

Most interviewees agreed that 'there is a place for customary norms to allow people to live more sympathetically within the bounds of nature.' An Australian legal scholar illustrated his response in the following way:

> my experience with Torres Strait people and mainland Australian Aboriginal people is that there is a more innate connection between country and the resources it provides, and traditional knowledge … Along with teaching, passing down of knowledge, comes a level of respect that does not seem to exist among people where customary law has no place. …

> Australia's *Native Title* legislation is being used to recognise the connection between land and sea and Indigenous cultures. When native title rights are shown to exist, this appears to strengthen the conviction of the native title owners to become guardians of stewardship. Conversely, it strengthens aspirations for ownership of resources and their means to economic development.

Two interviewees described that the urgency of climate change demanded imaginative legal thinking, and that traditional customary law may have part to play in this process. A scholar from the US, for example, said: 'advanced law needs to understand that customary law has shown how adaptation has happened in the past. There is more to be learnt in terms of translating past practices into today's problems, [in a way] that could be creative.'

Most interviewees noted that human-nature connectivity 'is declining over time'. One scholar from the US was not sure about the role of customary law: 'it depends on the situation of the communities and nature itself.'

*6.2.3 Question 3: In Vanuatu, customary law is included in the nation's constitution and legal systems. Does this approach provide a model for international environmental law involving other nations and their Indigenous peoples in the future? Why? Or why not?*

Legal scholars from Vanuatu expressed concern with holding up the *Constitution of Vanuatu* as a model. While they agreed that traditional customary law is constitutionally recognised, they explained that there is a problematic gap in enforcement. For example, one scholar said, 'Yes, it [customary law] is recognised by the constitution, but it does not say what part it has to play.' Another scholar said:

> I guess it's better than not having it there [in the constitution], but not much better, there are no proper policies or actions. It is strange for a country that places so much emphasis on *kastom*, you would think they would try to give effect to it. I always think of Charles Dickens and the *Tale of Two Cities*. There is the urban nation and the rural nation and they don't seem to connect. In terms of constitutions, Tuvalu is more elaborate for civil and criminal proceedings; it has detailed applications. But Nauru is the one I think of, because it is so simple and straightforward.

Another interviewee referred to the lack of interpretive and legal mechanisms for the judiciary to consider matters of *kastom*: 'the constitution does not say anything about how to enforce *kastom*, not even in the island courts; if you look at their jurisdiction it doesn't say anything.' He proceeded to describe an anomaly:

> one curious exception, in regard to chiefly title disputes. Although the legislation does not say anything about *kastom* matters, they have taken it upon themselves to deal with issues of *kastom* title. Strangely, this seems to be acceptable to magistrates and island court. For example, in Mali there has been a longstanding dispute as to who is the paramount chief. The law does not say anything. They are using the courts because it is acceptable, but to me, it seems to be out of jurisdiction. The chief justice likes it because he likes the courts to be at the forefront, so he hasn't put a stop to this.

All scholars from Vanuatu highlighted that the judiciary and *Malvatumauri* are concerned about the lack of legal mechanisms to implement *kastom* matters. They pointed to the 'significant role [of customary law] in the ownership of land and that this [inclusion] is required by the constitution', and cited the example of the *Customary Land Tribunal Act 2001* as a mechanism that bridges the constitution and its enforcement, particularly in relation to land disputes. However, one scholar expressed concern surrounding the development of this Act:

> they [*Malvatumauri*] were not consulted and that was one of the reasons they were forever throwing darts at it. That has meant that the *Malvatumauri* has not played a significant role in national policy or lawmaking … The *Malvatumauri* wanted to introduce a second chamber because they felt they were being overlooked, but that wasn't accepted.

Another interviewee explained that the *Constitution of Vanuatu* does 'place *kastom* in a good position to be an effective part of the legislature.' He added that 'when I have spoken to judges about this, they say we need to wait for parliament to say something, and of course, they haven't.'

A legal scholar from Indonesia said that she believed 'in principle' that this was possible. However, she felt that in an Indonesian context with many Indigenous groups, it would be more complex to implement: 'for Indonesia, we have so many Indigenous people, all with different customary laws, so in the basic theory, it can provide a model, but in practice it is a little bit difficult.'

Scholars from the US and NZ agreed in the value of traditional customary law and the importance of its inclusion in constitutions. A typical comment from these scholars was made by a US academic: 'I would agree because the more one comes to understand the value of customary law, the more ready one is to listen to what it is saying.' Another US scholar added: 'I am not sure however, of the power of international environmental law, other than perhaps to encourage more states to integrate customary law into their legal systems.'

### *6.2.4 Question 4: As the global community adapts to the impacts of climate change, is there a future role for customary law in international environmental law in addressing:*[139]

*(a) the reduction of carbon emissions?*

One US scholar commented that:

> through the REDD+ scheme, there is a door open for social justice issues to be incorporated into the management of carbon emissions, and more particularly sequestration. Vanuatu does have the potential to benefit from such a program. However, it should be noted that within the design of this scheme there is no 'rights-based' recognition, so that any such adjustment would need to occur at the national level rather than at the program level.

An Australian scholar noted that 'there is always a role. Whether it becomes a powerful one or not, remains to be seen.' While a NZ scholar explained that:

> countries seem to be very interested in ensuring that they do not carry the global burden for action, so additional influence to act can only add value. If one county is influenced to act unilaterally, other countries might follow. It could be the influence of customary law that provides that impetus, but I do not think too many first world countries would be so influenced.

*(b) risk management?*

A US scholar explained that:

> [r]isk has a potential adverse effect upon things which are valued by people. What is valued by people is a function, not only of economics, but also of culture. Thus, in terms of risk identification, then customary norms are very important. What is recognised as valuable and therefore at risk by Western society, may well be quite different to that which would be recognised through the lens of traditional culture.

He proceeded to add that '[i]n terms of functional risk management, there may well be issues where traditional norms will activate action by local people, such as to protect iconic sites or species.'

A scholar from Vanuatu framed his response in the context of fisheries: 'Yes! Many countries will respond to customary law to protect fisheries resources from risks of overfishing once that law is recognised.'

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[139] Scholars generally found it difficult to respond to this question, so many elected to skip it.

*(c) disaster preparedness?*

The scholar from Indonesia noted that disaster preparedness tended to be locally based; thus, the role of traditional customary law could be useful in certain contexts. He added that the exception would be in the loss of nations, such as small islands that have become inundated by the sea. She felt that in these cases, there should be a global responsibility: 'there should be weight to a global effort in preparing for loss of country, as a result of rising sea level.'

A US scholar considered the American contemporary context:

> it is hard to imagine a modern American community that could cope with repeated tidal waves. People do adapt. On the American plains people have cellars they go to. They will build, with technology, buildings that will withstand cyclones. I wouldn't foreclose the idea that there is inspiration based on modern construction. I guess one thing I hear you saying is, it is coevolving with nature in so many ways; that we are continuing to build, is nonsensical. We should be listening to people who do know how to adapt. Current development creates a situation that is so different. I think the translation would be very difficult.

Other US scholars discussed the increasing problems of fires (e.g., in Southern California) and cyclones (e.g., Sandy and Katrina), and their impacts on loss of lives, compensation, rebuilding processes and public policy. One scholar questioned the government's liability in such disasters: 'if the science is predicting an increase in these catastrophic events, doesn't the government have a duty to respond? Could victims have a claim against the government for not acting and preparing?'

A scholar from Australia spoke of disaster preparedness in terms of the relocation and resettlement of climate displaced people: 'where do you move them to? Others may resent their arrival. I know there have been issues, like those in Alaska.'

*(d) If you responded 'yes' to any of these questions, can you nominate some of the ways that you believe customary law could be included in international environmental law?*

A scholar from NZ described the need for responsive legal systems: 'customary norms (and Western law) are instrumental — the key issue is what benefits for which people should be pursued, and then the next step is to determine how legal systems might be used to bring about these practical outcomes.'

An interviewee from the US commented on the complexity and effectiveness of international environmental law: 'There is already an extraordinarily complicated, and only marginally effective network of international conventions. Over time these are gradually being absorbed

into nation state law.' A scholar from Vanuatu described precedents that have involved traditional customary law, such as *UNCLOS* and indigenous rights: 'Pacific Island countries are actively involved in the development of the *Law of the Sea*, and also in projects concerned with Indigenous rights.'

A scholar from Australia highlighted the importance of economic imperatives in driving change:

> It should be noted however, that in a Western capitalist system, ultimately it is the flow of financial resources which is the key to what happens. From my point of view, much of the discussion which has taken place around rights and interests is empty rhetoric, because it really only touches upon the issue of what changes will occur to economic activity.

Another Australian scholar illustrated the role of traditional customary law in maintaining human-nature connectedness of indigenous peoples: 'Indigenous people believe that they are part of nature, so they have to protect nature. They have some customary laws which enforce this, such as fishing in a special area on a specific date, which can manage the fish stock.'

A US scholar offered his thoughts on the role of traditional customary law and existing instruments of internal law, particularly the *UNCLOS* and *CBD*:

> On the basis that the *Law of the Sea* undergo further development to include the recognition of customary rights and law, I think this may have some level of valuable influence. While one could argue that the *Law of the Sea* has not met the challenge of 'think global — act local', one could not argue with the role of the oceans and seas, including in terms of climate regulation, in supporting global populations. There are few international treaties that I am aware of that appear more like customary law than *UNCLOS*. There clearly will be a direct link between climate change and impacts on fisheries and this is likely to have a profound impact on humans globally, but what role can the *Law of the Sea* effectively play in this drama? It would certainly be more practical if the US acceded to the treaty, if not for fisheries management, then for the wide range of other issues that can be resolved at a global scale, such as impact of climate change on fisheries' capacity to provide protein. However, despite my apparent agreement, I carry a lot of reservation about the reality of integrating customary law into *UNCLOS*. Perhaps the *CBD* is a more viable vehicle for achieving collective action on the effects of climate change. Although again, the US may only be signatory, but not yet bound as a party.

Another US scholar added her thoughts on adaptation and tangible and intangible heritage, in the context of climate forced migration:

> I am interested in the adaption side regarding how to preserve cultural patterns and artefacts regarding people having to move. How do you perpetuate the preservation of their culture when you move them? Especially intangible heritage? We need some understanding of the ways in which we can reduce cultural harm when they need to move. We need to minimise disruption to their cultural heritage. They need to be prime participants as to how this will occur.

### *6.2.5 Question 5: Is there anything else you would like to add about the future role of customary law pertaining to international environmental law and climate change adaptation?*

A scholar from Australia raised his concerns surrounding tokenistic legal instruments:

> I have a very low opinion of armchair social justice activists who believe that all you need to do is to create a new international legal (or rather quasi-legal) instrument and you have thereby done something to benefit indigenous or other vulnerable people. Most of the time this is merely deceiving those people, and delaying practical action, thereby making it unlikely that when action is eventually taken, it will have any useful effect.

Contrary to this view, other scholars were more enthusiastic about the potential contributions of traditional customary law to climate adaptation measures. Examples of their endorsement are as follows: 'I assume that it will, because people have been living in sustainable ways. Paying attention to customary law is important. I am enthusiastic about this approach.' and 'Inclusion in the constitution is important for standing purposes, but it needs to be linked with enforcement mechanisms. For example, in the *Chile Constitution*, the right to clean air is coupled with the right to enforce.' An Australian scholar remarked:

> It is easy to be cynical about the effect of international treaties when it comes to global action, particularly given the unevenness of the global playing field of development. Integrating customary law into international treaties could possibly focus attention on traditional knowledge, which often extends further than is generally understood.

A scholar from Vanuatu highlighted the importance of the meaningful and appropriate engagement and participation of custom law holders. She explained that '[c]ustomary practices and customary law people have to be engaged, they have to genuinely participate.'

Another Vanuatu legal scholar felt that 'in the rural areas it [traditional customary law] will continue; in the urban areas, it must diminish, unless something is done to bring it more into the state legal system.' He agreed that in the context of Vanuatu and its paradigm of legal pluralism, a strengthening of the enforcement of customary law would have merits:

> I think it's a good idea, but we would need two courts. In urban areas problems are often with mixed people, for example, [the] Chinese. My thought of strengthening *kastom* is that we would have another court. There is an island court and there is supposed to be at least one chief on it, but even island courts are not given jurisdiction over *kastom*. You could require that *kastom* is applied. My view is to get rid of the island courts: their jurisdiction is very minor and often they are located in the same place as the magistrate's court. I think things can be done to strength *kastom*, but nobody has stood up to do this. This is reflective of the Ministers of Justice, who really have no idea about the courts. They have not been able to provide a leadership model. There is this duality with regard to many offences. It's not double jeopardy. There is a constitutional requirement, but what happens in the village has no legal standing. My understanding is that the chiefs try to deal with minor matters, then they try to keep away from serious matters that will go to the police. In rural areas where there are no police, the chiefs do have to act quickly to ensure harmony in the community.

While these comments do not relate directly to environmental protection nor climate adaptation, they do support the value of localised action or early intervention once a problem arises.

## *6.3 Analysis*

The interviewees largely supported customary law as a means of contributing to climate change adaptation measures. Similar to the literature, legal scholars believed that indigenous custom plays an important role in education and sustainable living. While the interviewees highlighted the challenges of developing one uniform customary law to assist communities with adapting to environmental changes, the literature provides insights and examples from Vanuatu with overcoming these difficulties. An example is the development of a hybrid constitution that incorporates both Western and traditional values. The literature emphasises the benefits of an ACM approach to climate change.[140] As the local traditions of communities are honoured in ACM, communities are more likely to engage with climate issues; hence increasing the likelihood of success of such an approach. Interviewees were resoundingly supportive of customary law playing a greater role in climate change adaptation, especially through integration with international law. Nonetheless, interviewees explained that challenges existed, to ensure that where customary traditions are legally recognised, they are also enforceable.

A number of interviewees noted that constitutional recognition is important to the enforcement customary law. A major identified challenge was its lack of standing. Some scholars proposed the development of a *Custom Act*, whereas others proposed a Custom Senate to address issues of enforceability. These suggestions were not identified in the literature previously discussed in this

[140] Armitage, Berkes and Doubleday (eds), above n 83, 3.

thesis pertaining to Vanuatu and the South Pacific. These ideas may be worthy of further investigation in the context of empowering indigenous voices, through traditional customary law, to respond to the challenges of climate change.

However, some scholars considered the role of native title as a means of strengthening local aspirations for ownership of resources and economic development. The literature corroborates the idea that improving customary recognition will result in communities having a greater sense of ownership.[141] The urgent nature of climate change demands imaginative legal thinking; through formal recognition, traditional customary law may have a significant future role in adaptation measures in response to the effects of climate change.[142]

Interviewees identified international treaties as an appropriate way to involve indigenous communities in the development of global guidance on climate issues. They stated that *UNCLOS* is a legal mechanism that incorporates traditional customary law and knowledge and therefore, provides a model that could be adapted for future climate change adaptation legislative models. Further, the literature described the importance of the *International Tribunal to the Law of the Sea* which enforces *UNCLOS*. This tribunal is significant in terms of being a potential legal model for future responses to climate change, as the *UNFCCC* does not have such an enforcement mechanism.

*UNCLOS* provides that states must adopt all measures necessary to ensure that activities within their jurisdiction are conducted in a manner that does not cause damage to other states and the environment.[143] These provisions make states liable to prevent damage, under international law. The role of international environmental law highlights the importance of voluntary guiding mechanisms, such as the *Paris Agreement*.[144] The integration of such international agreements, including the *Nagoya Protocol*, can help in guiding the equitable distribution of benefits, such as natural resources, across Western and non-Western nations.[145] However, the imperatives presented by climate change necessitate more than voluntary and guiding mechanisms, additional legally binding instruments are required to ensure that adaptation mechanisms succeed.

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[141] Food and Agriculture Organization of the United Nations, *Regional Fisheries Livelihoods Programme for South and Southeast Asia: Ten Lessons for More Effective Co-Management in Small-Scale Fisheries* (April 2013) <http://www.fao.org/3/a-ar468e.pdf>.
[142] *Progress towards the Sustainable Development Goals — Report of the Secretary-General*, Agenda Items 5, 6 and 18(a), 75th sess, UN Doc E/2016/75 (27 July 2016) 17–18; Division for Sustainable Development Goals, *Sustainable Development Goal 13: Take Urgent Action to Combat Climate Change and Its Impacts* (2017) United Nations Department of Economic and Social Affairs <https://sustainabledevelopment.un.org/sdg13>; Davies, above n 129.
[143] William Burns, 'Potential Causes of Action for Climate Change Damages in International Fora: The Law of the Sea Convention' (2006) 2 *McGill International Journal of. Sustainable Development Law and Policy* 1; Davies, above n 129, 116.
[144] Davies, above n 129, 117.
[145] Ibid; *Nagoya Protocol*, above n 56.

The literature supports the inclusion of traditional customary law, when applicable, as a foundation for international treaties to improve enforceability while maintaining cultural traditions and activities.[146] Nonetheless, some interviewees noted the tokenistic nature of international treaties, and stated that they are only marginally effective because of their lack of enforceability. In addressing this issue, one can point to Article 73 of the *Constitution of Vanuatu*.[147] This section, in accordance with *UNCLOS*, provides that 'All the land in the Republic of Vanuatu belongs to Indigenous custom owners and their descendants.'[148] The literature therefore highlights the opportunity for international treaties to be more inclusive of traditional customs in the global response to climate change.[149]

Many interviewees considered that the most appropriate way to incorporate customary law into climate change adaptation measures was to engage with indigenous communities themselves. Legal scholars interviewed for this study felt that traditional people can provide valuable insights because they have been living sustainably for thousands of years. The literature suggests that customary management practices have a higher rate of local acceptance and as a result, produce strategies with higher conservation value.[150]

Interviewee scholars proposed that through increased constitutional recognition, traditional customary law can gain greater standing. Article 78 of the *Constitution of Vanuatu* is an example of constitutional recognition that can enable customary [or island] courts to resolve issues regarding the land.[151] The literature notes that when indigenous people are included in decision-making processes, their support of parliamentary decisions and legislation is likely to increase.[152] Consistent with the literature, Vanuatu scholars interviewed for this study explained how the *Malvatumauri* [Council of Chiefs] plays an advisory role in the development of parliamentary bills that recognise common, civil and customary law.[153] The inclusion of traditional customary law in constitutions may provide an avenue to improving the standing of customary law on issues relating to climate change adaptation mechanisms.

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[146] Miranda Forsyth, 'Beyond Case Law: *Kastom* and Courts in Vanuatu' (2004) 35 *VUW Law Review* 427, 429.
[147] *Constitution of the Republic of Vanuatu 1990* art 73; Francis Hickey, 'Traditional Marine Resource Management in Vanuatu — Sacred & Profane: World Views in Transformation' in Nigel Haggan, Claire Brignall and Louisa Wood (eds), *Putting Fishers Knowledge to Work: Conference Proceedings August 27–30, 2001* (Fisheries Centre, University of British Columbia, 2003) 117.
[148] *Constitution of the Republic of Vanuatu 1990* art 73.
[149] Sarah Nykolaishen, 'Customary International Law and the Declaration on the Rights of Indigenous Peoples' (2012) 17 *Appeal* 111, 112.
[150] Merry, above n 132, 875; New Zealand Law Commission, above n 41, 47.
[151] *Constitution of the Republic of Vanuatu 1990* art 78; Davies, above n 129; Hickey, above n 147.
[152] Armitage, Berkes and Doubleday (eds), above n 83, 3; Davies, above n 129.
[153] *Constitution of the Republic of Vanuatu 1980* art 30(2); Lamont Lindstrom, 'Chiefs in Vanuatu Today' in Geoffrey White and Lamont Lindstrom (eds), *Chiefs Today: Traditional Pacific Leadership and the Postcolonial State* (Stanford University Press, 1997) 111, 214.

Resoundingly, the interviewees noted the challenges to enforcing customary law arising from diverse indigenous communities with different customs and traditions. This challenge was particularly evident when comparing the authority of chiefs in rural as opposed to urban communities. Typically, rural communities examine climate change issues through CHANS.[154] The CHANS approach considers the processes that keep human and nature systems operating by examining the way that humans interact with nature.[155] The literature supports the use of customary law as a means to restoring human-nature relationships.[156] The analogy of the *Tale of Two Cities* was used by one interviewee to describe the differences in human-nature connections and chiefly authority between different communities. He explained that in urban communities, the chiefs are rarely present. While in rural communities, the chiefs tend to have stronger power because of their ongoing presence, although this power appears to be diminishing.

Considering the array of traditions and cultures in indigenous communities, two scholars highlighted the difficulties of a uniform approach to climate issues. Problems arising from the application of customary law in Vanuatu has been highlighted in the literature.[157] These difficulties arise from an absence of one uniform body of customary law, and from the fact that judges and magistrates are often not experts in customary law.[158] The nature of customary law is its adaptability and thus, rules are changed according to given situations. Coupled with the challenges of its dynamic nature, customary law is often orally transmitted and not in the form of written rules.[159] For example, in Vanuatu much of the traditional knowledge of fishing communities is communicated orally.[160] Therefore, judges and magistrates often struggle to know when and how to apply customary law.[161] Despite these challenges, much of the literature supports the dynamic nature of orally communicated practices, as traditional indigenous knowledge is viewed as a grassroots approach that can guide policy discourse in sustainability.[162]

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[154] Liu et al, above n 2; Colin Amundsen, 'Coupled Human and Natural Systems: A New Perspective on Early Fishing and Fishing Cultures of Northern Norway' in Ramona Harrison and Ruth Maher (eds), *Human Ecodynamics in the North Atlantic: A Collaborative Model of Humans and Nature through Space and Time* (Lexington Books, 2014).
[155] Folke et al, above n 3.
[156] Liu et al, above n 2; Amundsen, above n 154; Folke et al, above n 3; Davies, above n 124, 44.
[157] David Weisbrot, 'Custom, Pluralism and Realism in Vanuatu: Legal Development and the Role of Customary Law' (1989) 13(1) *Pacific Studies* 65, 87; International Council on Human Rights Policy, 'Research Project on Plural Legal Orders and Human Rights' (Approach Paper, International Council on Human Rights Policy, June 2008), 9.
[158] *Banga v Waiwo* [1996] VUSC 5; Civil Appeal Case 001 of 1996 (17 June 1996).
[159] Hickey, above n 133.
[160] Ibid.
[161] Ibid; Davies, above n 124, 55.
[162] Nelson Chanza and Anton De Wit, 'Enhancing Climate Governance through Indigenous Knowledge: Case in Sustainability Science' (2016) 112(3) *South African Journal of Science* 1; Davies et al, above n 126, 243.

The interview responses revealed that most scholars believed the contribution of customary law to climate change adaptation measures requires genuine participation from indigenous communities.

One scholar identified the disparity between Western approaches to disaster preparedness and those of traditional peoples, and referred to the example of American efforts to adapt to the impacts of climate change by developing building technology to withstand cyclones. In SIDS, communities adapt to environmental change through the passing down of local knowledge and traditions. Techera noted that many traditional practices did not have conservation aims as understood through a Western worldview; rather, the practices focused on sustaining livelihoods, life-supporting ecosystems and cultural practices.[163]

Scholars spoke of the need to meld traditional with contemporary environmental management methods, known as ACM; much of the literature supports the success of such an approach.[164] They also identified a human rights–based perspective that may strengthen the role of traditional customary law and knowledge in climate change adaptation measures. Today there is widespread consensus in the international law and public policy discourse concerning the universality of human rights and dependence of all life forms on a healthy ecosystem.[165] Policy approaches increasingly recognise the growing social risks of climate change–driven vulnerabilities.[166] Climate justice mandates the importance of recognising that climate issues disproportionality affects the poor and vulnerable, such as those living in the South Pacific.[167] The goal of a human rights framework, namely the *Declaration on Human Rights and Climate Change*, is to promote a rights-based approach to climate change that seeks to integrate traditional activities and customs of indigenous people with Western approaches.[168]

## *6.4 Conclusion*

The interview responses highlighted the important role that traditional customary law may play in the future development of adaptive legal mechanisms and management tools in response to climate change. Through its body of knowledge and traditional practices, customary law has the capacity to engage communities, particularly at a local level where it is a part of the culture.

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[163] Techera, above n 131.
[164] Techera, above n 103; Davies, above n 129; Tubiello et al, above n 137.
[165] Tuula Honkonen, 'The Principle of Common but Differentiated Responsibility in Post-2012 Climate Negotiations' (2009) 18(3) *Review of European Community & International Environmental Law* 257, 257; Davies et al, above n 126, 219.
[166] *United Nations Convention on the Law of the Sea (Montego Bay)*, open for signature 10 December 1982, 1833 UNTS 3 (entered into force 16 November 1994) Preamble [para ] ('*UNCLOS*'); *CBD* Preamble [para ] 21 ILM 1261.
[167] Honkonen, above n 165, 257.
[168] Davies et al, above n 126, 219; Global Network for the Study of Human Rights and the Environment, 'Draft Declaration on Human Rights and Climate Change' <https://gnhre.org/declaration-human-rights-climate-change/>.

Some scholars raised the challenges that can arise from its inclusion, noting the capacity and limitations of customary law. Others described its dynamic adaptability as a strength, particularly in response to the localised impacts of climate change.

The imperatives presented by climate change necessitate both legally binding and voluntary mechanisms. The interviews and literature identified *UNCLOS* as a potential model of legal mechanisms in future responses to climate change, partly because it highlights the role of customary law. Additionally, unlike the *UNFCCC*, *UNCLOS* has a tribunal that oversees its enforcement. Other legal options include human rights and constitutional inclusions. It is equally important that voluntary mechanisms are considered. Ultimately, international treaties such as the *Paris Agreement* tend to guide the global community in matters such as sustainable adaptation practices. Guiding instruments such as the *Nagoya Protocol* increasingly recognise the importance of including the traditions and practices of indigenous peoples.

The interview data and literature revealed that ACM approaches to climate change may be key to developing optimal, localised adaptation measures. An ACM approach involves blending local culture — including traditional customary law, knowledge and practices — with contemporary science, technology and management approaches. The literature found that such a model has a high likelihood of success because of its bespoke design for each locality and community. A new operative mechanism that is based on ACM may assist much-needed ‘grassroots’ responses to the impacts of changing climate.

# VII THE *NAMELE* MECHANISM

**Publication Details**

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This paper was awarded a bronze medal by the International Climate Law and Governance Initiative in the Global Climate Law & Governance Student Essay Competition 2017.

This chapter builds upon the previous chapters, including the preceding two chapters of empirical data, and proposes the application of ACM as a method for integrating notions of custom into environmental law discourse. It brings this research to a culmination and draws together the key findings of the previous chapters. It investigates existing principles, agreements and conventions of international environmental law, particularly those relevant to climate change adaptation and the potential future role of traditional customary law and knowledge in adaptation mechanisms.

It is clear that traditional customary law can assist adaptive responses when it works 'in concert' with other components, such as contemporary adaptation approaches. The incorporation of traditional customary law into contemporary management responses leads this thesis to the examination of ACM, its significance and successful operation in case studies across several jurisdictions. The key findings of the empirical data add weight to the discussions underpinning the development of a new tool, the *namele* mechanism. Built upon an ACM framework, the methodological mechanism seeks to promote the integration of TEK and customary law with contemporary legal and management practices. Although the proposed mechanism is novel, this chapter suggests that it can be implemented within pre-existing legal frameworks. The findings in this paper provide a practical response to the overarching research question 'Can traditional customary law contribute to climate change adaptation?' by affirming the future role of traditional customary law.

***Abstract***

*This paper argues the need for enforcement and methodological mechanisms that bridge the gaps between legislation, principles, conventions, protocols and their 'on-ground' application. A new tool in environmental law for such a purpose is proposed in this paper, named the 'namele mechanism', and is developed to guide processes of adaptive co-management. This methodological mechanism has been built on platforms of traditional local knowledge and practices of first peoples and local communities, particularly those from Vanuatu and the South Pacific, where systems of traditional customary law are still being practised. Much thought underpinning its development was founded on the empirical data captured in 58 in-depth interviews with chiefs, community leaders, government representatives and legal scholars. The namele mechanism recognises the effectiveness of contemporary management practices that are informed by science and technology, as well as customary law and historic practices that may have been in situ for tens of thousands of years. The introduction of such a mechanism is supported by existing protocols and instruments such as the Nagoya Protocol and the United Nations Convention on the Law of the Sea. The rationale behind its approach promises to strengthen and innovate optimal environmental management approaches that are bespoke for specific places and communities. Such a mechanism will assist with the delivery of Sustainable Development Goals, in particular Goals 13, 14 and 15. Through a 'bottom-up' approach that focuses on the involvement of local communities in the protection of their local ecosystems, the namele mechanism will provide an important step towards the empowerment of first peoples and local communities as they adapt to changing environmental conditions imposed by global warming.*

**Keywords:** adaptive co-management, hybrid governance, environmental law, legal mechanisms, first peoples, local communities, climate change, customary law, Sustainable Development Goals

## *7.1 Introduction*

> There is a clear need to amalgamate local customary practices with aspects of modern conservation and management initiatives that operate on both national and regional scales. Yet, few countries have accomplished this successfully because there appear to be profound differences in the application, intent, and conceptual underpinnings of customary and modern practices.[169]

Our planet is facing a proliferation of environmental challenges; the most pertinent is the process of global warming and a changing climate, which is altering the nature of ecosystems and affecting the services that they have provided for communities over thousands of years. For example, marine ecosystems that have provided a variety of services essential to the livelihoods of coastal communities, such as food and income are deteriorating.[170] This 'major decline, and unprecedented regime shifts and disruption of ecosystems'.[171] is widespread, across marine, terrestrial and freshwater systems, jeopardising livelihoods, that are often, already vulnerable.

In the face of this challenge, there is an urgent need for communities to adapt and preserve while continuing to utilise marine and terrestrial ecosystems in a sustainable manner. Top-down processes, such as the *United Nations Framework Convention on Climate Change* ('*UNFCCC*') and the *Paris Agreement*, are an integral element of our international community's response to these problems. Top-down approaches to climate change commence 'at the highest conceptual level and [work] down to the details'.[172] Such approaches to problem-solving have created a host of legal principles and rules, and have contributed to mitigation and adaptation efforts. However, their processes are highly institutionalised, often rigid and removed from the realities of 'on the ground' implementation. Too often, they adopt a 'one-size-fits-all' approach that lacks nuance and flexibility for different localised contexts.

Bottom-up approaches are equally essential for overcoming the restraints of top-down processes in adaptation planning. These approaches are a type of 'community-led process, based on communities' priorities, needs, knowledge, and capacities, which should empower people to plan for and cope with the impacts of climate change'.[173] Utilising a bottom-up approach that blends customary law with Western legal practices may 'produce participatory systems that … provides

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[169] Joshua Cinner and Shankar Aswani, 'Integrating Customary Management into Marine Conservation' (2001) 140(3) *Biological Conservation* 201, 209.
[170] Hernández-Delgado, above n 16, 7.
[171] Ibid 8.
[172] Rafael Leal-Arcas 'Climate Change Mitigation from the Bottom Up: Using Preferential Trade Agreements to Promote Climate Change Mitigation' (2013) 7 *Carbon & Climate Law Review* 34, 39.
[173] Reid, above n 68, 13.

better environmental outcomes'.[174] Bottom-up approaches, often premised on customary law and traditional ecological knowledge (TEK), tend to engage public participation in environmental management and increase the efficacy of decision-making for adaptation, while reducing time and resource costs.[175] The ability of customary law to 'be adaptive and responsive' to community needs enhances its viability for climate change adaptation.[176]

The experiences and contributions of indigenous peoples and local communities (IPLC)[177] to climate adaptation mechanisms are increasingly recognised. Throughout the literature, legislation and case law, the terms indigenous, 'first peoples' and 'Aboriginal' are used interchangeably, depending on the jurisdiction. During the process of conducting the interviews for this study, several interviewees explained a preference for the term 'first peoples' rather than 'indigenous' as they perceived the former term to be more respectful. Therefore, the author of this paper has adopted the term 'first peoples and local communities' (FPLC) as her preferred substitute for the term 'IPLC'. However, due to quotations and other contextual references that cannot be changed, both 'indigenous' and 'first' peoples are used. While 'FPLC' includes both, it is important to discern the distinction between 'first peoples' and 'local communities'. The former refers to first peoples who hold deep cultural connections with the land and have developed traditional forms of customary law, ecological management and knowledge in connection with their environments. The latter, local communities, can include first peoples but also comprise a variety of settler populations with unique localised investment in and knowledge of ecosystems. International organisations such as the Intergovernmental Science-Policy Platform on Biodiversity and Ecosystem Services increasingly recognise 'the importance of indigenous knowledge and local knowledge to the conservation and sustainable use of ecosystems'.[178]

TEK involves a continual experience 'of observation and interpretation'[179] and is a collection of customary practices and knowledge that have evolved over time in an adaptive manner.[180] TEK itself is an evolving adaptive process in which the 'cultural traditions of change [facilitate] resource-use adaptation'.[181] For instance, in the Amazon delta, the TEK of farmer-fishers

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[174] Davies, above n 124, 65; see Techera, above n 44.
[175] Davies, above n 124; Cameron Holley, 'Public Participation, Environmental Law and New Governance: Lessons for Designing Inclusive and Representative Participatory Processes' (2010) 27(5) *Environmental Planning and Law Journal* 360, 362.
[176] Davies, above n 124, 65–66.
[177] Intergovernmental Science-Policy Platform on Biodiversity and Ecosystem Services, *Indigenous and Local Knowledge* <http://www.ipbes.net/work-programme/indigenous-and-local-knowledge>.
[178] Ibid.
[179] Ghorbani et al, above n 60, 15.
[180] Berkes, Colding and Folke, above n 61.
[181] Nathan Vogt et al, 'Local Ecological Knowledge and Incremental Adaptation to Changing Flood Patterns in the Amazon Delta' (2016) 11(4) *Sustainability Science* 611, 613.

involves a 'tradition of change' based on 'a wealth of knowledge of how local ecosystems respond to environmental change'.[182]

Practices in customary law often reflect coupled human and nature systems that engage with an ecosystem approach to increase resilience and adaptive capacity.[183] In general, customary law has the ability to create and implement 'norms, values, habits, practices and traditions' that are enforceable and 'heavily informed by traditional ecological knowledge'.[184] Contemporary environmental management practices can be merged with these traditional structures to enhance the efficacy of management programs.

This paper argues that a new methodological mechanism in environmental law, based on an adaptive co-management (ACM) approach, is required to guide and support localised ownership, management and self-determination in response to climate change. Such a mechanism has the potential to strengthen the implementation of legal principles. Therefore, it can provide a valuable contribution to the capacity of states — particularly small island developing states (SIDS) — to adapt to and mitigate the damaging effects of climate change. Plummer found that ACM can contribute to climate change adaptation by building communities' generalised adaptive capacity (characteristics that promote the ability to respond to almost any kind of challenge) as well as providing a novel institutional arrangement from which to generate adaptive responses.[185]

## *7.2 International Law, Traditional Customary Law and Knowledge*

Acknowledgement of the need to incorporate the rights of first peoples and customs in international regulatory regimes is increasingly prevalent. The *Rio Declaration* is foundational in recognising the role of first peoples in environmental management, a role which stems from their 'knowledge and traditional practices' and in addition, state parties should 'enable their effective participation.'.[186] *Agenda 21* recognises the importance of the 'holistic traditional scientific knowledge' that first peoples have developed over generations in the management of environmental resources;[187] it provides that their knowledge and participation should be

[182] Ibid 621, 612.
[183] Davies, above n 124, 45; Anthony, Arnold and Gunderson, above n 5, 10426.
[184] Davies, above n 124, 48; Joe McCarter and Michael Gavin, 'In Situ Maintenance of Traditional Ecological Knowledge on Malekula Island, Vanuatu' (2014) 27 *Society and Natural Resources* 1115.
[185] Plummer, above n 81.
[186] *Rio Declaration*, Principle 22.
[187] *Report of the United Nations Conference on Environment and Development*, A/CONF.151/26/Rev.1 (Vol I), Resolution 1, annex 2: Agenda 21 [26.1] (12 August 1992) ('*Agenda 21*').

empowered and incorporated at domestic legislative and policy levels to achieve sustainable development and environmental protection.[188]

The *United Nations International Declaration for the Rights of Indigenous Peoples* contains the right of first peoples to 'promote, develop and maintain their institutional structures and their distinctive customs …'.[189] In specific reference to the environment, article 29 holds the 'right to conservation and protection of the environment and the productive capacity of … resources' and mandates states to 'establish and implement assistance programmes for indigenous peoples for such conservation and protection'.

In the climate change discourse, there is growing consensus that first peoples are central to the efficacy of adaptation planning. Their strong reliance on natural resources and ecosystems means that the FPLC are extremely vulnerable to the effects of climate change.[190] To enable equitable decision-making for adaptation processes that incorporate and respect traditional knowledge, the United Nations Development Programme implemented 'Supporting the Meaningful Participation of IPLC in *UNFCCC* COP 21';[191] an outcome was that the *Paris Agreement* recognises the need to incorporate TEK.[192] Article 7(5) of the *Paris Agreement* holds that adaptation must be participatory and transparent, account for vulnerable groups and, where appropriate, is to be based on, and guided by, traditional knowledge.[193]

The *Indigenous and Tribal Peoples Convention* further outlines the obligations of state parties to assist in the 'full realization of customs and traditions', and stipulates that the application of domestic law should have 'due regard' for customs and customary law.[194] The *Nagoya Protocol* contains provisions for equitable sharing of benefits from the use of TEK and obligates states to take into consideration custom and customary laws.[195] The *Convention on Biological Diversity* ('*CBD*') contains a provision encouraging contracting parties to '[r]espect, preserve and maintain the knowledge, innovations and practices of Indigenous and local communities embodying traditional lifestyles relevant for the conservation and sustainable use of biological diversity'.[196] Leuzinger and Lyngard regard this provision as time-honoured recognition of the contributions

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[188] *Agenda 21* [26.3].
[189] *United Nations Declaration on the Rights of Indigenous Peoples*, GA Res 61/295, UN GAOR, 61st sess, 107th plen mtg, Agenda Item 68, Supp No 49, UN Doc A/RES/61/295 (13 September 2007) art 27, 34.
[190] United Nations Development Programme, 'Concept Note: Supporting Meaningful Participation of Indigenous Peoples and Local Communities in UNFCCC COP 21 in Partnership with the International Indigenous Peoples Forum on Climate Change (IIPFCC)' (Draft, United Nations Development Programme, 25 May 2015) 1.
[191] Ibid.
[192] *Paris Agreement*, Decision 1/CP.21 'Adoption of the Paris Agreement' [136].
[193] Ibid art 7(5).
[194] *Convention (No 169) concerning Indigenous and Tribal Peoples in Independent Countries*, opened for signature 27 June 1989, 1650 UNTS 383 (entered into force 5 September 1991) art 8.
[195] *Nagoya Protocol* art 12.
[196] Ibid.

of TEK to biodiversity, and state that its utility is 'more than a simple commodity; its maintenance and development is a cultural human right and indispensable to the survival of Indigenous and local cultures'.[197] The statements and views found in these international sources of binding and soft law demonstrate the increasing legal recognition of TEK and the imperative for the participation of first people.

## *7.3 Principles of Environmental Law*

Some key principles in environmental law are particularly relevant to climate change adaptation, including the integration principle, the prevention principle, the precautionary principle, the polluter pays principle, the public participation principle, the principle of common but differentiated responsibility, and the principle of inter and intra generational equity and justice.

### *7.3.1 Integration Principle*

The integration principle is one of the cornerstones of environmental law. The term was first used in 1972 in Principle 13 of the *Declaration of the United Nations Conference on the Human Environment* ('*Stockholm Declaration*'):

> In order to achieve a more rational management of resources and thus to improve the environment, States should adopt an integrated and coordinated approach to their development planning so as to ensure that development is compatible with the need to protect and improve environment for the benefit of their population.[198]

In Principle 13, the term 'integrated' was used to combine development and the environment as complimentary concerns, while Principle 14 held that 'rational planning' was a means of reconciling them.[199]

In 1992, Principle 4 of the *Rio Declaration* positioned 'integration' as a fundamental component of sustainable development, by noting that '[i]n order to achieve sustainable development, environmental protection shall constitute a central part of the development process and cannot be considered in isolation from it'.[200] Principle 12 further addressed the integration of environmental protection and trade promotion; by stating that 'States should cooperate to promote a supportive and open international economic system that would lead to economic

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[197] Marcia Dieguez Leuzinger and Kylie Lyngard, 'The Land Rights of Indigenous and Traditional Peoples in Brazil and Australia' (2016) 13(1) *Brazilian Journal of International Law* 418, 438.
[198] *Declaration of the United Nations Conference on the Human Environment*, UN Doc A/CONF/48/14/REV.1 (June 1972) Principle 13 ('*Stockholm Declaration*').
[199] Sumudu Atapattu, *Emerging Principles of International Environmental Law* (Brill, 2007) 130.
[200] *Rio Declaration* Principle 4.

growth and sustainable development in all countries, to better address the problems of environmental degradation'.

The formal international legal status of the term 'integration' has been debated. André Nollkaemper has shown that the term performs three main legal functions: 1) as an objective that underlies and inspires environmental law, 2) as a reference to encourage international institutions to comply and 3) as a normative principle.[201] The remaining principles outlined below were developed to give effect to the notion of integration.

### *7.3.2 Prevention Principle*

The emergence of the prevention principle in the 1970s marked a shift in environmental law. Rather than relying on the appearance of ecological problems, the prevention principle encourages the anticipation and avoidance of damage — or the reduction and elimination of risk — before it occurs.[202] This principle is an important partner to the polluter pays principle, which on its own does not compel polluters to reduce environmental damage.

The *Trail Smelter* arbitration of 1938–1941, in which Canada was found liable for damage caused by pollutants discharged by a foundry in its jurisdiction into US airspace, is widely considered the first legal manifestation of the prevention principle.[203] Canada was found liable because under international law, 'no state has the right to use or permit the use of territory in such a manner as to cause injury by fumes in or to the territory of another of the properties or persons therein'.[204] A state's obligation to anticipate transboundary pollution was reiterated in 1972 in Principle 21 of the *Stockholm Declaration,* which noted that states have 'the responsibility to endure that activities within their jurisdiction do not cause damage to the environment of other States or of areas beyond the limits of national jurisdictions'.[205]

The prevention principle is sanctioned by a large body of treaties and other legal instruments governing issues ranging from the marine environment and atmospheric pollution to climate and

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[201] André Nollkaemper, 'Three Conceptions of the Integration Principle in International Environmental Law' in Andrea Lenschow (ed), *Environmental Policy Integration: Greening Sectoral Policies in Europe* (Sterling, 2002) 22, 31.
[202] Nicolas de Sadeleer, *Environmental Principles: From Political Slogans to Legal Rules* (Oxford University Press, 2002) 61.
[203] Johan G Lammers, 'International and European Community Law: Aspects of Pollution of International Watercourses' in Winfried Lang, Hanspeter Neuhold and Karl Zemanek (eds), *Environmental Protection and International Law* (Graham and Trotman, 1991) 115, 117; Philippe Sands, *Principles of International Environmental Law* (Manchester University Press, 1995) 195.
[204] Cairo Robb, *International Environmental Law Reports* (Cambridge University Press, 1999) 310.
[205] *Stockholm Declaration* Principle 21.

biodiversity.[206] The principle is included in Principle 2 of the 1992 *Rio Declaration*, which holds that:

> States have, in accordance with the Charter of the United Nations and the principles of international law, the sovereign right to exploit their own resources pursuant to their own environmental and developmental policies, and the responsibility to ensure that activities within their jurisdiction or control do not cause damage to the environment of other States or of areas beyond the limits of national jurisdiction.[207]

The fact that prevention obligations have been put forward in so many conventions has made it possible for the International Court of Justice (ICJ) to conclude that it is a principle of customary international law.[208] However, the number and diversity of legal instruments that enforce the prevention principle complicate its implementation. Other principles that precede it, such as the polluter pays principle, offer the potential to strengthen the precautionary principle by indicating the actions to be taken.[209]

### *7.3.3 Precautionary Principle*

The precautionary principle is 'the intuitively simple idea that decision makers should act in advance of scientific certainty to protect the environment from incurring harm'.[210] According to Nicolas de Sadeleer, 'the distinction between the preventive and precautionary principles rests on the degree of uncertainty surrounding the probability of risk'.[211] While preventive measures are based on the objective and scientific assessment of risks, precautionary measures come into play when the probability of a suspected risk cannot be established.

The precautionary principle originated from the German concept of *Vorsorgeprinzip*, a concept used in West German legislation during the 1970s to justify the strengthening of policies to combat acid rain, global warming and marine pollution.[212] The first explicit international endorsement of the principle occurred in the 1987 *London Declaration* at the Second

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[206] Maurice Sunkin, David Ong and Robert Wight, *Sourcebook on International Law* (Cavendish, 1998) 30.
[207] *Rio Declaration* Principle 2.
[208] de Sadeleer, above n 202, 66.
[209] Ibid 90.
[210] Wes Jackson, *Protecting Public Health and the Environment: Implementing The Precautionary Principle* (Island Press, 1999) 23.
[211] de Sadeleer, above n 202, 75.
[212] Sonja Boehmer-Christiansen, 'The Precautionary Principle in Germany — Enabling Government' in Timothy O'Riordan and James Cameron (eds), *Interpreting the Precautionary Principle* (Earthscan Publications, 1994) 31, 38.

International Conference on the Protection of the North Sea.[213] Following this, in 1992 it was established in Principle 15 in the *Rio Declaration*, which states that:

> In order to protect the environment, the precautionary approach shall be widely applied by States according to their capabilities. Where there are threats of serious or irreversible damage, lack of full scientific certainty shall not be used as a reason for postponing cost-effective measures to prevent environmental degradation.[214]

While there is no agreed definition of the precautionary principle, or criteria to guide its implementation, it has been successfully invoked in several legal cases, including in Australia and New Zealand's 1999 suit against Japan for its alleged overfishing of southern bluefin tuna and the European Community's 2000 ban on hormone-fed beef.[215] Such cases indicate its controversial status and the contradictory relationship it may invoke between economic development, including trade, and the environment.

### *7.3.4 Polluter Pays Principle*

'Polluter pays' has been a dominant principle in international law since 1972, when it was first adopted in the Organisation for Economic Co-ordination and Development Council's (OECD's) *Recommendation of the Council on Guiding Principles Concerning International Aspects of Environmental Policies*.[216] The recommendation requires polluters to bear the external costs associated with their pollution. Polluters may internalise the costs completely, or shift the costs onto consumers. In both cases, the intervention of public authorities is required to enforce either the taxation corresponding to the economic value of the environmental damage or the regulatory standards that prohibit or limit the environmental damage associated with an economic activity.[217]

The principle has been adopted by both the OECD and the European Community, and is found in several multilateral conventions — the most significant and binding being the 1992 *Convention on the Protection of the Marine Environment of the Baltic Sea Area* ('*Helsinki*

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[213] Axel Luttenberger, 'The Role of Precautionary Principle in Environmental Protection of Coastal Area' (Scientific Paper, Biennial International Congress, Tourism & Hospitality Industry, University of Rijeka, Faculty of Tourism & Hospitality Management, May 2014) 70.
[214] *Rio Declaration* Principle 15.
[215] Simon Marr, 'The Southern Bluefin Tuna Cases: The Precautionary Approach and Conservation Management of Fish Resources' (2000) 11(4) *European Journal of International Law* 815; Jim W Bridges and Olga Bridges, 'Hormones as Growth Promoters: The Precautionary Principle or a Political Risk Assessment?' in Poul Harremoës et al (eds), *Late Lessons from Early Warnings: The Precautionary Principle 1896–2000* (European Environment Agency 2001) 149.
[216] Organisation for Economic Co-operation and Development, *Recommendations of the Council on Guiding Principles Concerning International Economic Aspects of Environmental Policies* (26 May 1972) <https://legalinstruments.oecd.org/Instruments/ShowInstrumentView.aspx?InstrumentID=4&Lang=en>.
[217] de Sadeleer, above n 202, 21.

*Convention*') and the *Convention for the Protection of the Marine Environment of the North-East Atlantic* of the same year.[218] In 1992, the polluter pays principle was incorporated into the *Rio Declaration*; Principle 16 of this declaration states that:

> National authorities should endeavour to promote the internalisation of environmental costs and the use of economic instruments, taking into account the approach that the polluter should, in principle, bear the cost of pollution, with due regard to the public interest and without distorting international trade and investment.[219]

This principle allows for the redistribution of funds and changes in behavior. However, critics have argued that it continues to support the idea that the right to pollute can be bought, and point out the difficulty of effectively targeting the polluter and assessing their levels of pollution.[220]

### *7.3.5 Public Participation Principle*

The public participation principle holds that members of the public should be able to participate in environmental decision-making processes. Public participation in environmental decision-making is facilitated by international laws that mandate public access to government information on the environment. The United Nations Economic Commission for Europe's *Convention on Access to Information, Public Participation in Decision-Making and Access to Justice in Environmental Matters* ('*Aarhus Convention*') is a key international legal document that encourages public participation.[221] The *Aarhus Convention* committed 40 European signatory states to increasing publicly available environmental information and enhance the ability of public citizens to participate in government decisions that affect the environment.

Principles 6–8 of the *Rio Declaration* further encourage public participation.[222] Meanwhile, Principle 10 requires that state parties not only enable public participation, but also inspire it. Thus, the *Rio Declaration* establishes minimum standards for the participation of civil society in decision-making on the environment. State parties must ensure information is accessible, that

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[218] *Convention on the Protection of the Marine Environment of the Baltic Sea Area*, opened for signature 9 April 1992, 2105 UNTS 457 (entered into force 17 January 2000) ('Helsinki Convention'); *Convention for the Protection of the Marine Environment of the North-East Atlantic*, opened for signature on 22 September 1992, 2354 UNTS 67 (entered into force 25 March 1998).
[219] *Rio Declaration* Principle 16.
[220] de Sadeleer, above n 202, 60.
[221] *Convention on Access to Information, Public Participation in Decision-Making and Access to Justice in Environmental Matters*, opened for signature 25 June 1998, 2161 UNTS 447 (entered into force 30 October 2001) ('*Aarhus Convention*').
[222] *Rio Declaration* Principles 6–8.

people have the ability to understand it and that they are aware of their right to participate in decision-making processes (indeed, that they are encouraged to do so).[223]

### *7.3.6 Principle of Common but Differentiated Responsibilities*

The principle of common but differentiated responsibilities (CBDR) refers to the 'endorsement of differentiated responsibilities between developed and developing States as a means of achieving both global environmental protection and sustainable development''.[224] To use the words of *Agenda 21* from the Rio Summit,[225] it 'take[s] into account the different situations and capabilities of countries'.[226]

The rationale for the principle of CBDR is that developed states have disproportionately contributed to environmental degradation and therefore, should be held disproportionately responsible for remedying the situation.[227] The impacts of climate change are affecting developing countries the most; countries with communities whose very livelihoods are reliant on stable and predictable climate systems. To compound their vulnerability, these nations have the least capacity to adapt[228] to the escalating threats posed by climate change.[229] In addition, their economic development is more vulnerable to the adverse effects of international responses to climate change adaptation, such as the limiting of GHG emissions: 'It is, therefore, unsurprising that striving for a global climate change regime has also created a new area of distributive conflict between developed and developing countries'.[230]

The principle of CBDR involves the application of the principles of equity and fairness in the context of climate change, and is intrinsically linked to issues of culpability, entitlement and capacity.[231] At the heart of the principle of CBDR is a common responsibility of all states — generally referred to as the shared responsibility of member states — to ensure that a particular environmental issue is dealt with as an issue of 'common concern'.[232] The principle recognises the global diversity of 'situations, circumstances and capacities, their historical contribution to a

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[223] Atapattu, above n 167, 137.
[224] French, above n 76, 35.
[225] Agenda 21.
[226] Ibid para 39.3(d).
[227] Nina Bafundo, 'Compliance with the Ozone Treaty: Weak States and the Principle of Common but Differentiated Responsibility' (2006) 21(3) *American University International Law Review* 461, 467.
[228] Jeffrey McGee and Jens Steffek, 'The Copenhagen Turn in Global Climate Governance and the Contentious History of Differentiation in International Law' (2016) 28 *Journal of Environmental Law* 37, 51.
[229] Tubiello et al, above n 137.
[230] McGee and Steffek, above n 228.
[231] Rachel Boyte, 'Common but Differentiated Responsibilities: Adjusting the "Developing"/"Developed" Dichotomy in International Environmental Law' (2010) 14 *New Zealand Journal of Environmental Law* 63, 70.
[232] *United Nations Convention on the Law of the Sea,* opened for signature 10 December 1982, 1833 UNTS 3 (entered into force 16 November 1994) Preamble; *CBD* Preamble; *UNFCC* Preamble.

problem, as well as their future development needs'.[233] There is some suggestion that the principle of CBDR may crystallise into customary international law;[234] however, it has yet to reach this status.

### *7.3.7 Intergenerational and Intragenerational Justice and Equity*

Intergenerational and intra generational justice and equity are the guiding principles of environmental law.[235] These principles derive from 'soft law' sources: the *Stockholm Declaration* (Principle 2), the *Rio Declaration* (Principle 3), the United Nations Environment Programme (Principle 6) are some examples.[236] The *UNFCCC* recognises intergenerational equity in article 3(1), which states that the protection of our climate is 'for the benefit of present and future generations of humankind, on the basis of equity …'.[237] Both intragenerational and intergenerational equity are 'separate but related' principles.[238]

Intergenerational equity provides for the rights and obligations of the current and future generations regarding the use of the environment.[239] It is premised on the notion that we 'hold the natural environment of our planet in common with other species, other people, and with past, present and future generations'.[240] In the context of sustainable development, the *Brundtland Report* conceptualised intergenerational equity as 'development that meets the needs of the present without compromising the ability of future generations to meet their own needs'.[241] The principle aims to ensure fairness in resource use and environmental conservation, in that future generations should not inherit an environment in a worse condition than that currently enjoyed by the present generation.[242] Weiss states that the components of intergenerational equity are

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[233] Honkonen, above n 165, 257.
[234] See generally Rowena Maguire, 'Incorporating International Environmental Legal Principles into Future Climate Change Instruments' (2012) 2 *Carbon and Climate Law Review* 101; *Gabčíkovo-Nagymaros Project (Hungary/Slovakia) (Judgment)*, [1997] ICJ Rep 7, 74–75 [140].
[235] Patricia Birnie, Alan Boyle and Catherine Redgwell, *International Law and the Environment* (Oxford University Press, 3rd ed, 2009) 121; Dina Shelton, 'Equity' in Daniel Bodansky, Jutta Brunee and Ellen Hey (eds), *The Oxford Handbook of International Environmental Law* (Oxford University Press, 2007) 639, 642; see Edith Brown Weiss, 'In Fairness to Future Generations and Sustainable Development' (1992) 8 *American University International Law Review* 19.
[236] *Stockholm Declaration* Principle 2; *Rio Declaration* Principle 3; *Institutional and Financial Arrangements for International Environmental Cooperation*, GA Res 2997, UN GAOR, 27th sess, Agenda Item 47, UN Doc A/Res/27/2997 (15 December 1972) Principle 6.
[237] *UNFCC* art 3(1).
[238] Catherine Redgwell, 'Principles and Emerging Norms in International Law: Intra- and Inter-Generational Equity' in Cinnamon P Carlarne, Kevin R Gray and Richard Tarasofsky (eds), *The Oxford Handbook of International Climate Change Law* (Oxford University Press, 2016) 185, 188.
[239] Ibid.
[240] Weiss, above n 65, 20.
[241] Brundtland and Visser, above n 105.
[242] Redgwell, above n 238, 188–9.

'non-discriminatory access to the Earth and its resources; … comparable options (reflected in the diversity of resources); … and comparable quality in the environment'.[243]

In addition to the *UNFCCC* and the *Stockholm* and *Rio* declarations, jurisprudence from international courts and tribunals supports the guiding authority of these principles. The *Bering Sea Fur Seals* arbitration, the *Gabčíkovo-Nagymaros Project* and the *Legality of the Threat or Use of Nuclear Weapons* advisory opinion, recognise the current generation's moral obligations of trusteeship over environmental resources for future generations.[244]

It is yet to be determined whether these principles have transcended their guiding status to become binding. In light of the intergenerational equity issues posed by climate change, it may be likely that these principles evolve to become binding obligations throughout the development of the climate change regime.[245] Therefore, in this paper they are considered environmental law principles.

## *7.4 Legal Mechanisms*

Legal mechanisms can be understood in a hierarchical sense. A distinction is made between what is considered a fundamental goal or *grundnorm*, objectives, principles and norms. These are in a legal hierarchy, where *grundnorm* sits at the apex and below it—in order of rank—are objectives, principles and norms. Discussion of the content and functioning of objectives and norms are beyond the scope of this article.

In an abstract sense, the *grundnorm* is 'a fundamental legal principle or norm against which all other legal norms can be assessed and validated'.[246] Common *grundnorms* are legal principles or fundamental norms such as human rights, *jus cogens* principles of international law and the broader principle of justice.[247] For the purposes of this paper, 'ecological integrity' is referred to as the *grundnorm* of international environmental law,[248] and this *grundnorm* is defined as 'the

[243] Oxford University Press, *Max Planck Encyclopaedia of Public International Law* (online at 9 February 2019) Intergenerational Equity, '3 Content of the Principle' [7].
[244] *Bering Sea Fur Seals case* (1893) 1 Moore 755; *Gabčíkovo-Nagymaros Project (Hungary/Slovakia) (Judgement)* [1997] ICJ Rep 7, 78 [141]; [1997] ICJ Rep 7 *Legality of the Threat or Use of Nuclear Weapons (Advisory Opinion)* [1996] ICJ Rep 226.
[245] Redgwell, above n 238, 199; Oxford University Press, above n 243, [35].
[246] Rakhyun E Kim and Klaus Bosselman, 'Operationalizing Sustainable Development: Ecological Integrity as a *Grundnorm* of International Law' (2015) 24(4) *Review of European and International Environmental Law* 194, 205; see Hans Kelsen, *Pure Theory of Law* (Reine Rechtslehre, 2nd ed, 1967) for jurisprudence on *grundnorms*.
[247] Kim and Bosselman, above n 246.
[248] See ibid for a discussion on the content of ecological integrity.

continued healthy or proper functioning of … global- and local-scaled ecosystems and their ongoing provision of renewable resources and environmental services'.[249]

Principles in environmental law represent the legal foundations for norms, and function as a conduit between abstract concepts and legal rules. Their primary function is to 'guide how something happens or works, or to operate as a rule that is to be followed''.[250]

A mechanism provides a process for implementation of the normative framework created by the principles. Its function is to operationalise the principles in a way that conforms with, and aspires towards, the *grundnorm*. They are considered subordinate to principles.[251] Generally, mechanisms are categorised into enforcement mechanisms and methodological mechanisms. Courts and tribunals such as the ICJ[252] or the International Tribunal on the Law of the Sea are examples of enforcement mechanisms that are premised on litigation. Coercive mechanisms include economic sanctions that are actively used by the World Trade Organization and the World Bank.[253] A contrasting approach to enforcement mechanisms is that followed by the World Bank's Global Environment Facility; here, compliance is incentivised through financial support for compliant state parties.[254]

Unlike enforcement mechanisms, methodological mechanisms use neither a carrot nor stick approach. Their purpose is to operationalise the standards or goals of principles. Several key methodological mechanisms under the climate change regime include financing, capacity building and technology transfer.

Another form of mechanism is 'regulatory', for example, environmental impact assessments (EIA).[255] EIAs are contained within numerous domestic statutes; for example, in Australia, it is in the *Environmental Planning and Assessment Act 1979* (NSW).[256] EIAs are also contained in provisions of international treaties, such as the *United Nations Convention on the Law of the Sea* (*UNCLOS*). They function as a regulatory mechanism that operationalises principles such as the prevention and precautionary principles.

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[249] Ibid 203; Simon A Levin and Jane Lubchenco, 'Resilience, Robustness, and Marine Ecosystem-Based Management' (2008) 58(1) *Bioscience* 27.
[250] Rob Fowler, 'The Foundations of Environmental Law: Goals, Objects, Principles and Norms' (Technical Paper No 1, Australian Panel of Experts on Environmental Law, April 2017) 34.
[251] Ibid 36.
[252] See Johanna Rinceanu, 'Enforcement Mechanisms in International Law: *Quo Vadunt*?' (2000) 15 *Journal of Environmental Law and Litigation* 147, 154–155.
[253] Ibid.
[254] Ibid 16.
[255] Fowler, above n 250, 36.
[256] *Environmental Planning and Assessment Act 1979* (NSW).

The role and interactions between a principle and its relevant mechanisms can be further illustrated by reference to the principle of CBDR. This principle guides the creation and implementation of legal rules in the *Kyoto Protocol* by creating different obligations for two sets of states — proportionate to their capacity — to mitigate their contributions to climate change.[257] The obligations that bind a state under the *Kyoto Protocol* are dictated by the principle of CBDR. Additionally, the principle is both given effect by, and guides, financing mechanisms, technology transfer and capacity building that a developed state must provide to developing states, pursuant to specific legal rules contained in the climate change regime.[258]

## *7.5 Adaptive Co-Management*

The need for new enforcement and methodological, mechanisms to assist with the implementation of the principles and legislative tools is becoming clear, particularly in response to climate change. The development of new mechanisms will enhance the efficacy of the climate change regime and its associated environmental management policies.

This paper considers the development of a new methodological mechanism that links the bottom-up knowledge and values of FPLC to the top-down constructs of environmental management and protection enshrined in regulatory instruments. It proposes that such a mechanism can be facilitated by an ACM model.

ACM is a strategy involving the sharing of rights and responsibilities among those who have a claim to an environment or natural resource.[259] Its popularity has been recognised by Singleton, who observed that 'it would be difficult to find any recent environmental policy initiatives that did not contain prominent references to the need to move away from "top down" directives and toward "consensus based" processes and community participation in planning, implementing and monitoring new policies.'[260]

### *7.5.1 Adaptive Co-Management and the Sustainable Development Goals*

A new mechanism based on ACM will assist with delivering the Sustainable Development Goals (SDGs). It is noteworthy that the SDGs were conceived in part to widen the scope of the Millennium Development Goals and to embrace environmental protection and peaceful and

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[257] See Lavanya Rajamani, 'The Principle of Common but Differentiated Responsibility and the Balance of Commitments under the Climate Change Regime' (2000) 9 *Review of European Community & International Environmental Law* 120.
[258] Ibid.
[259] Plummer, above n 81.
[260] Sara Singleton, 'Collaborative Environmental Planning in the American West: The Good, the Bad and the Ugly' (2002) 11(3) *Environmental Politics* 54, 54.

inclusive societies for all.[261] Of particular note is SDG 13: 'taking urgent action to combat climate change and its impacts.'[262] A bottom-up approach in relation to SDG 13 can support rapid, appropriate and affordable responses by FPLC. ACM can operate as a mechanism for achieving the targets of Goal 13, such as improved human capacity — and pertinently, the capacity of FPLC — for climate change adaptation.[263] The same may be said for SDG 15,[264] as ACM can promote the sustainable use of terrestrial ecosystems and improve biodiversity conservation. Integrating ACM in land use regulations can achieve SDG 15's target to equitably share the benefits of a given ecosystem. The ability to achieve the goals under the 2020 Agenda for Sustainable Development is dependent on implementation regimes, such as the that could be assisted by the development and implementation of enforcement and methodological mechanisms.[265]

### *7.5.2 Participation and Self-Determination*

Centralised top-down resource management discourages public participation and has made resource dependent communities increasingly vulnerable.[266] In contrast, ACM seeks to secure community participation in decision-making and expands the role of stakeholder states.[267] ACM treats public participation as the primary strategy for achieving the goals of co-management.[268] It can respond to the values and interests of a variety of actors, from FPLC to policymakers and resource managers.[269] It has the potential to reduce conflict and address power inequalities by democratising decision-making.[270] ACM has the capacity to support communities' pathways to self-determination; for example, some communities may wish to preserve traditional methods of ecosystem conservation, while others may wish to embrace new technologies.

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[261] Pamela Chasek et al, 'Getting to 2030: Negotiating the Post-2015 Sustainable Development Agenda' (2016) 25(1) *Review of European Community and International Environmental Law* 5, 8.
[262] Sustainable Development Goals Knowledge Platform, *Sustainable Development Goal 13: Take Urgent Action to Combat Climate Change and Its Impacts* (2017) United Nations Department of Economic and Social Affairs <https://sustainabledevelopment.un.org/sdg13>.
[263] Economic and Social Council, *Report of the Inter-Agency and Expert Group on Sustainable Development Goal Indicators*, UN ESCOR, 48th sess, Agenda Item 3(a), UN Doc E/CN.3/2017/2 (15 December 2016) Annex III 30–31 ('*Revised List of Global Sustainable Development Goal Indicators*').
[264] *Transforming Our World: The 2030 Agenda for Sustainable Development*, GA Res 70/1, UN GAOR, 70th sess, Agenda Items 15 and 116, UN Doc A/Res/70/1 (21 October 2015) 24.
[265] Chasek et al, above n 261, 13.
[266] Charles Zerner, *People, Plants, and Justice: The Politics of Nature Conservation* (Columbia University Press, 2000).
[267] Armitage, Berkes and Doubleday (eds), above n 83, 1.
[268] For a discussion on utilising public participation as the primary strategy for achieving goals of environmental law, see Ben Boer, 'Social Ecology and Environmental Law' (1984) 1 *Environmental and Planning Law Journal*.
[269] Folke et al, above n 3.
[270] Armitage, Berkes and Doubleday (eds), above n 83, 3.

### *7.5.3 Continuation of the Practices of First Peoples and Local Communities*

Marcia Dieguez Leuzinger and Kylie Lyngard have noted that:

> unlike many industrialized societies, traditional populations are oral cultures who do not write their knowledge down. They hold it in stories, songs, ceremonies and art; they transmit it verbally to younger people in cultural practices like hunting, harvesting and land management; and they develop it through observation and experiential learning ('learning by doing'). Indigenous peoples and local communities require access to land to carry out many of these practices. In all countries and for all traditional peoples, access to lands helps safeguard the knowledge and practices essential for biodiversity conservation. Future biodiversity conservation depends upon learning from the past; from peoples who have accumulated knowledge of the land and its resources, and sustained those resources over generations. Developing more efficient systems to secure traditional people's access to lands, whatever and wherever they are, is the only way to do it.[271]

By promoting and collaborating with FPLC, ACM ensures that access to land and the continuation of traditional and local knowledge and practices are honoured.

It should be noted that culture is fluid, constantly changing and adapting. ACM accommodates this fluidity and places the responsibility of environmental management in the hands of FPLC.

### *7.5.4 Effective Use of Resources*

A process that is developed for a specific local community and ecosystem will promote the effective use of resources and have a greater cost/benefit ratio.[272] The cost of management decreases as a result of the availability of 'social capital' within a local community.[273] Further, the use of traditional knowledge systems in resource management is conducive to a sense of local ownership and encourages cost-effective management.[274] Such ownership and management can be evidenced in the co-management of Uluru-Kata Tjuta National Park and Kakadu National Park, where first peoples have ownership over resource management. Programs such as the Indigenous Rangers Unit as well as ecotourism initiatives integrate community investment, social capital and ownership to create bespoke management programs that promote the effective use of protected park resources.[275]

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[271] Leuzinger and Lyngard, above n 197, 438.
[272] Jérôme Ballet, Kouaméken Koffi and Boniface Komena, 'Co-Management of Natural Resources in Developing Countries: The Importance of Context' (2009) 120 *Economie Internationale* 53, 56
[273] Ibid.
[274] Food and Agriculture Organization of the United Nations, above n 141.
[275] See Jocelyn Davies et al, 'Innovation in Management Plans for Community Conserved Areas: Experiences from Australian Indigenous Protected Areas' (2013) 18 *Ecology and Society* 14.

### *7.5.5 Case Studies of Adaptive Co-Management*

Scholars of ACM claim that ACM's ability to be fitted to particular contexts — indeed, its flexibility to do so — is its major drawcard.[276] There are several recent South Pacific case studies that demonstrate the successful application of ACM. Many Pacific Island societies retain customary governance systems, and the introduction of ACM to these systems has been integral to its successful implementation of conservation efforts in the region. The success of such efforts will help to build community resilience to the impacts of a changing climate.

*(a) Fiji*

The Kabulau District of Fiji has been utilising the ACM approach to manage a network of marine-protected area for over nine years. In 2011, management rules and boundaries for marine-protected areas were reviewed to improve the effectiveness of management and to strengthen the marine area's resilience to climate change.[277] Both the Wildlife Conservation Society and the local community underwent a series of consultations to restructure the network of marine-protected areas to achieve these goals.[278] This ACM strategy combined customary practices with contemporary fishery management principles by incorporating '*tabu*' areas (the periodic closure of fishery harvest areas) with permanent no-take zones.[279] It was one of the first instances of such type of management in the Oceania.

Management of the marine-protected areas utilised 'ecological surveys, design criteria, and extensive consultations with resource rights owners'[280] in designating the protected areas. This governance strategy has improved the resilience of these areas.[281] The factors that contributed to this positive outcome were identified as being: well-defined resource access rights; flexible systems of customary governance that are respected within the community; the presence and long-term commitment of co-management partners; a policy environment conducive to co-management; united approaches to traditional management with systematic monitoring; and district-wide coordination to broaden the spatial context for decision-making in ACM.[282]

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[276] Ryan Plummer and Atsuko Hashimoto, 'Adaptive Co-Management and the Need for Situated Thinking in Collaborative Conservation' (2001) 16(4) *Human Dimensions of Wildlife* 222; Armitage et al, 'Adaptive Co-Management for Social-Ecological Complexity' (2009) 7 *Frontiers in Ecology and the Environment* 95.
[277] Rebecca Weeks and Stacy Jupiter, 'Adaptive Co-Management of a Marine Protected Area Network in Fiji' (2014) 27(6) *Conservation Biology* 1234, 1235.
[278] Ibid.
[279] Ibid.
[280] Ibid.
[281] Ibid.
[282] Ibid.

*(b) Samoa*

Samoa has implemented a system for empowering and maximising the participation of first peoples in environmental decision-making, by synthesising customary law and practice with the legal regimes that govern marine biodiversity resource management.[283] Under customary law, coastal waters are the property of villages; therefore, customary law was used as a mechanism for conservation[284] and enabled the development of limits on overharvesting. These limits are implemented through customary *tabu* that facilitate the protection of marine resources where stock is threatened or declining.[285]

In the face of population increase, urbanisation and industrialisation, the sole application of customary management became ineffective in protecting marine biodiversity.[286] However, reliance on purely westernised management principles tend to isolate first peoples from the land.[287] Therefore, the best practice for resolving these conflicting systems was to combine 'western-style legislation and government policy with traditional Samoan governance structures, customary laws, knowledge, and practices'.[288]

*(c) Vanuatu*

In the early 1990s, an upsurge of traditional marine resource management by fishing villages was recorded by the Fisheries Department.[289] Only one of 26 villages surveyed had not introduced this form of management.[290] Despite the fact that only one species — trochus — was covered by government assistance programs, the effectiveness of conservation influenced villages to expand traditional forms of fisheries management to include a wider variety of species. This management process provides a model for creating and implementing cost-effective resource management that incorporates community participation with government assistance.[291]

Further, it illustrates how a localised inexpensive project, based on traditional knowledge, can achieve greater management efficacy compared to an expensive government-designed and

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[283] Techera, above n 79.
[284] Ibid.
[285] Ibid.
[286] Ibid.
[287] Commission on Human Rights, *Statement on the World Conference Against Racism, Racial Discrimination, Xenophobia and Related Intolerance*, UN ESCOR, 19th sess, Agenda Item 7, UN Doc E/CN.4/Sub.2/AC.4/2001/8 (20 June 2001) 2.
[288] Techera, above n 79, 377.
[289] Robert Earl Johannes, 'Government-Supported, Village-Based Management of Marine Resources in Vanuatu' (1998) 40(2) *Ocean and Coastal Management* 165; Vicki Vaartjes, Quentin Hanich and Aurelie Delisle, *Empowering Community-Based Ecosystem Approaches to Fisheries Management: Strategies for Effective Training & Learning* (University of Wollongong Books, 2015).
[290] Johannes, above n 121, 165.
[291] Ibid.

implemented program.[292] In this case, centralised management was recognised as being undesirable because of the remoteness of many coastal communities.

Information sharing was mutual: information learnt from villagers and local resource users was also fed into the management strategies of the Fisheries Department.[293] Examples of processes that have benefited from local input include the use of local knowledge of temporal trends in species population to enhance conservation strategies, and the use of knowledge of near-shore currents to guide the location of breeding preserves.[294] Management plans sought to balance local, social and economic needs with biological considerations, and avoided the use of rigid plans. This approach is functional for local contexts and allows the shortening of bans on harvests to improve cash flows for community projects or in the aftermath of cyclones.[295]

### *7.5.6 Adaptive Co-Management and Legislation*

In proposals to legislate ACM, it is instructive to draw from co-management arrangements that are already codified in law. Both management practice and legal cases concerning use of land and resources by first peoples in the US, Canada, New Zealand and Vanuatu illustrate the potential of an ACM mechanism to address current climate change challenges.

#### *(a) New Zealand*

In New Zealand, the government has attempted to recognise the assertion of fishing rights by Maori tribes.[296] Customary management of fisheries requires 'fish stocks to be held as communal property and managed to ensure enduring benefit to user groups and their successors.'[297] The right to fish stems from the non-binding *Treaty of Waitangi*, a mechanism that has been recognised throughout New Zealand's legislative history.[298] In response to overexploitation of fisheries, the government introduced a 1986 amendment that introduced a private property–based quota management system.[299]

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[292] Ibid.
[293] Ibid.
[294] Ibid.
[295] Ibid.
[296] Kristi Stanton, 'A Call for Co-Management: Treaty Fishing Allocation in New Zealand and Western Washington' (2002) 11(3) *Pacific Rim Law and Policy Journal* 745.
[297] Valmaine Toki, 'Adopting a Maori Property Rights Approach to Fisheries' (2010) 14 *New Zealand Journal of Environmental Law* 197, 198; David Symes, 'Towards a Property Rights Framework' in David Symes (ed), *Property Rights and Regulatory Systems in Fishing* (Blackwell Science, Australia, 1998) 257.
[298] Kristi Stanton, above n 296, 748; Toki, above n 297, 201, 205; see *Fisheries Act 1983* (NZ) s 88(2): 'nothing in this Act shall affect any Maori fishing rights'.
[299] *Fisheries Amendment Act 1986* (NZ).

The operation of this system was at odds with the principles of Maori customary law, such as collective intergenerational equity and environmental protection.[300] The Maori sought recourse through the judicial system, where the High Court of New Zealand recognised the customary foundations of Maori's fisheries rights to participate in the quota system, which had the contradictory consequence of loss of Maori rights to develop and manage fisheries resources.[301] A result of this judgment was an allocation of fisheries rights between the Maori and the government in the *Fisheries Act 1996*, which 'recognises Maori as one of the key stakeholder groups in New Zealand's fisheries, providing for the input and participation of Maori in fisheries management decision-making processes.'[302]

*(b) The Pacific Northwest: Canada and the United States*

In the Pacific Northwest, salmon plays a fundamental role in the economy, health, religion and culture of native communities.[303] In British Columbia (Canada), co-management of salmon is vital to the sustainability of this fishery resource and the preservation of First Nations' rights. Federal and provincial governments have a constitutional duty to consult First Nations communities where a government decision or action has the potential to affect treaty rights pertaining to the management of salmon.[304] It is legally recognised that government resource management decisions regarding salmon must integrate the values of First Nations.[305] Courts have opined that the use of formal and interim agreements between First Nations communities and the government have resolved tensions in resource management more effectively than continued litigation.[306] As such, co-management in Canada aims to 'integrate local and state management systems' to create partnerships in environmental conservation that achieve objectives compatible with First Nation ambitions.[307]

In the American state of Washington, the *Treaty of Point Elliot* is the foundation of Native American tribal rights to fish. The treaty has been a source of tension, primarily because of its colonial foundations and biased construction in favour of settlers. The 1970 case of *United States*

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[300] Toki, above n 297, 205.
[301] Ibid 207; see *Ngai Tahu Maori Trust Board v Director-General of Conservation* [1995] 3 NZLR 553 (CA).
[302] Food and Agriculture Organization of the United Nations, *Information on Fisheries Management in New Zealand* (February 1999) <https://www.critfc.org/salmon-culture/tribal-salmon-culture/>; see Kristi Stanton, above n 296, 754.
[303] Food and Agriculture Organization of the United Nations, above n 302; see Colleen Jacob, Tim McDaniels and Scott Hinch, 'Indigenous Culture and Adaptation to Climate Change: Sockeye Salmon and the St'át'imc People' (2010) 15(8) *Mitigation and Adaptation Strategies for Global Change* 859.
[304] *Haida Nation v British Columbia (Minister of Forests)* [2004] 3 SCR 511 (19 November 2004). Treaty rights are contained in the *Constitution Act 1982* (Canada) s 35.
[305] See *Delgamuukw v British Columbia; Regina v Sparrow* [1990] 1 SCR 1075 (31 May 1990); Kira Gerwing and Timothy McDaniels, 'Listening to the Salmon People: Coastal First Nation's Objectives Regarding Salmon Aquaculture in British Columbia' (2006) 19(3) *Society & Natural Resources* 259, 260.
[306] Cathy Robinson, 'Working Towards Regional Agreements: Recent Developments in Co-operative Resource Management in Canada's British Columbia' (2001) 39(2) *Australian Geographical Studies* 183, 189.
[307] Ibid 184.

*v Washington*[308] attempted to resolve some of this tension. There, the Court held that treaty rights were 'constitutionally enforceable and could not be abridged by state law' and that Native American tribes were entitled 'up to fifty percent of harvestable stock'.[309]

The decision further established the tribes' rights as co-managers of the State of Washington's fisheries.[310] Co-management operates through consensus between the tribes and the government.[311] Tribes draw on TEK when undertaking the collection of fisheries information, stream surveys, habitat restoration and customary enforcement.[312] The co-management scheme also enhances the skills of tribal fishery managers by creating management offices and departments of natural resources that benefit from the input of 'new technical perspectives'.[313]

Additionally, the scheme enhances knowledge and practice in fishery management, as 'local ecological conditions' are accounted for and traditional knowledge is integrated with Western science.[314]

## *7.6 Empirical Research*

Following ethics approval to conduct the research, a total of 58 in-depth interviews were conducted between 2015 to 2017. The purpose of these interviews was to explore differing perspectives, knowledge and experiences relating to the potential role of traditional customary law in climate change adaptation responses.

The interviewees comprised two groups: 1) Vanuatu citizens (Group 1) and 2) legal scholars (Group 2). Thirty-five Group 1 interviews were conducted in Vanuatu with chiefs, community leaders and government officials. Twenty-three Group 2 interviews were then conducted with legal scholars from Australia, New Zealand, Vanuatu and the United States (see Table 7.1).

[308] *United States v Washington* [1974] 384 F Supp 312 (WD Wash, 1974), 327.
[309] Kristi Stanton, above n 296, 758.
[310] *United States v Washington* [1974] 384 F Supp 312 (WD Wash, 1974), 327; Syma Ebbin, 'Enhanced Fit through Institutional Interplay in the Pacific Northwest Salmon Co-Management Regime' (2002) 26 *Marine Policy* 253, 255.
[311] Ebbin, above n 310.
[312] Ibid.
[313] Ibid 256.
[314] Ibid 258.

**Table 7.1: Distribution of Interviewees Across Groups and Genders**

| **Group 1: Ni-Vanuatu Citizens** | | | |
|---|---|---|---|
| | **Male** | **Female** | **Total** |
| **Perspectives** | **(n)** | **(n)** | **(n)** |
| Chiefs | 12 | 0 | 12 |
| Community Leaders | 7 | 5 | 15 |
| Government Officials | 6 | 5 | 8 |
| **Group 1 Total** | **25** | **10** | **35** |
| **Group 2: Legal Scholars** | | | |
| | **Male** | **Female** | **Total** |
| **Country** | **(n)** | **(n)** | **(n)** |
| Vanuatu | 5 | 3 | 8 |
| United States | 4 | 3 | 7 |
| Australia | 2 | 2 | 4 |
| Indonesia | 1 | 0 | 1 |
| New Zealand | 1 | 2 | 3 |
| **Group 2 Total** | **13** | **10** | **23** |
| **Total** | | | **58** |

In extended face-to-face interviews, Group 1 participants (citizens, leaders and government officials of Vanuatu) were asked to respond to eight broadbrush questions designed to capture their firsthand knowledge and experiences. Group 2 interviewees (legal scholars) were asked five questions that contributed their legal knowledge and ideas to the study .

The following summaries of the analysis are limited to interview discussions relating to what may positively, or negatively, contribute to the development of a new legal mechanism to facilitate climate change adaptation. The analysis involved comparing and contrasting the empirical data with the literature and legislation (including case law and case studies). This approach is known as 'triangulation': the use of two or more research methods to investigate the same issue in question.[315] Such a method allows a researcher to analyse other datasets related to the same investigation to determine consistency of results. If each research method arrives at the same result, it is more likely that the result is accurate and devoid of investigator bias. Thus, triangulation enables the researcher to determine 'levels of confidence' in the research results.

[315] Opperman, above n 122.

### *7.6.1 Group 1 Interviews: Summary*

Interviewees explained the influence of custom (or *kastom* as it is referred to in Vanuatu) on their livelihoods and identity: '*Kastom* tells people how to live.' They referred to the role of *kastom* — which includes traditional customary law — as guiding people to live within the limits of the resources that sustainable ecosystems can provide.

The links between *kastom*, superstition and identity were explained by one community representative: 'It would take a very long time for *kastom* to die here. It will change, but there are beliefs that the local people have that you could not convince them otherwise, like black magic. It's not a logical society, as a result *kastom* will survive for a long time. *Kastom* is very important regarding who we are!'

An interviewee commented on the role of *kastom* in the conservation of nature: 'yes, you should research how our ancestors lived their lives in, and with, nature; this is our foundation today'. Another interviewee stressed the capacity of *kastom* to conserve nature for future generations: 'It will all be lost unless we proactively do something to conserve it for our future generations, especially good *kastom* practices that help us to maintain our environment positively for the future.' Two interviewees expressed views to the contrary; they did not believe that customary law could assist climate adaptation. They explained that problems associated with the impacts of climate change are beyond the adaptation practices and capacity associated with *kastom*.

Interviewees explained the importance of the *namele* plant in the enforcement of traditional customary law. One chief said, '*tabu* looks after nature. You can ask the chief to put *tabu*; when they see the *namele* [leaves] they won't go [harvest a crop, pick fruit, fish in certain areas]. If they put the *namele* [leaves] on the coconut, nobody can touch. The chief is helping them with the custom law.' Another interviewee explained the use of the *namele* plant to protect the marine environment through the placement of *tabu* sticks; for example, these sticks are placed within lagoons to prevent overfishing: 'regarding fishing we use the same leaf. We put it on stick and into the water to stop fishing, only the chief can do this.' He noted that the main objective of '*tabu* is about sharing with all people, for example ,fish, fruit.'

Interviewees explained the adaptive capacity of *kastom* in the context of climate change. A community leader said, 'yes, people here live according to the weather and they adapt to climate change, they are always adapting in *kastom*'. A comprehensive response was provided by a government leader: 'I think yes and no. Yes, because traditionally there are climate indicators which can be used to determine weather, so in different islands they have different traditional weather indicators. For example, if they see certain birds flying, this means rain. Or when certain

trees bloom, it could indicate a cyclone. No, because some existing *kastom* governance systems can be limited. For example, in villages the women are not allowed to participate in decision-making. This can be a barrier regarding adaptation for a community.'

Interviewees stressed the importance of embracing change while maintaining *kastom*. A chief warned that '[w]e must be careful in terms of accepting new concepts, it's ok to accept change but at the same time we need to consider *kastom* laws.' A community leader said, 'I definitely think that the chiefs adapt over the years to what they are seeing. A good chief, if he sees negative things happening, he will take action to counteract that. The chiefs certainly see their role as helping people survive as best they can, so with any threats, they will adapt *kastom* to cover those problems.'

The adaptation challenges presented by the impacts of climate change were mentioned by eight interviewees. For example, a community leader said, 'Now since the weather is getting drier and long sunny periods, the people are needing to find many ways of finding water.'

### *7.6.2 Group 1 Interviews: Analysis*

Most Group 1 interviewees believed that *kastom* can assist adaptation to climate change, on the basis that *kastom* is founded on the notion of human-nature connectivity. This finding is supported through the literature pertaining to first peoples and their inseparable connections with nature .[316] This thinking can be expanded to the context of the importance of rebuilding viable and sustainable planetary ecosystems which are declining due to global warming. It gives carriage to the importance of including first peoples, and local communities in 'mainframe', climate discourse and actions.

Many of the interviewees recognised the necessity to change the laws in anticipation of changes to the environment. The literature simultaneously supports the role of TEK to assist communities to develop laws that uphold their traditions but also recognises the need for adaptation.[317]

*Kastom* is viewed as having adaptive capacity:[318] inhabitants see the visible changes in the environment and in response, adapt their cultural practices. It is recognised that learning from communities who have traditionally managed natural resources through subsistence living is important for educating future generations about the effects of environmental change.[319] The power of *kastom* through bottom-up approaches lies in educating and empowering local

[316] Intergovernmental Science-Policy Platform on Biodiversity and Ecosystem Services, above n 177.
[317] Davies, above n 124; Holley, above n 175, 362.
[318] Davies, above n 124, 45; Anthony, Arnold and Gunderson, above n 5, 10426.
[319] Davies, above n 124, 65; see Techera, above n 44.

communities to conserve their environmental resources while simultaneously conserving the traditional customs of the Ni-Vanuatu people.[320]

Therefore, interviewees' responses and the literature concord and support customary law as a means to place accountability and responsibility on community members to manage their land and their laws in response to climate change.[321]

### *7.6.3 Group 2 Interviews: Summary*

Group 2 interviewees explained how customary law can assist people to adapt to changing environments. An Australian scholar outlined the role that first peoples can play in education: 'Indigenous people, within their land and sea country, are in some ways better placed to adapt to the changing environment because of their customary law practices and their traditional knowledge'.

Nonetheless, there are challenges of such an approach due to cultural variations and variations in customary practices from one group of first people to another. At times, this interviewee noted, the lack of empathy between groups due to differing cultural practices may actually become a barrier to climate change adaptation.

Many interviewees provided justification for incorporating the norms of first people into the development of legal approaches to climate change. One scholar stated that the 'justification for doing so is partly functional (for those communities whose culture, and in particular the impact of outside forces, make those norms potentially useful), but more particularly an issue of social justice and respect for the rights of the person.' Another interviewee presented a different perspective by noting that the role of customary law may come into its own in the absence of climate law, explaining that it 'will play the role, as the regulation, for [that] which has not been regulated yet'.

Most interviewees agreed that 'there is a place for customary norms to allow people to live more sympathetically within the bounds of nature'. For example, according to a scholar from the US: 'advanced law needs to understand that customary law has shown how adaptation has happened in the past. There is more to be learnt in terms of translating past practices into today's problems, which could be creative.'

A scholar from Vanuatu raised the issue of including customary law in a constitution such as Vanuatu's in the absence of enforcement mechanisms: 'I guess it's better than not having it there

[320] Reid, above n 68.
[321] Davies, above n 124, 65.

[in the Constitution], but not much better, there are no proper policies or actions. It is strange for a country that places so much emphasis on *kastom*; you would think they would try to give effect to it.' Another scholar likened Vanuatu to Charles Dickens and the *Tale of Two Cities* to refer to the divide between the 'urban' and 'rural' parts of the nation that do not seem to connect. He highlighted that the closer human-nature connections that exist in rural localities are managed largely by customary law and traditional knowledge.

A scholar from New Zealand described the need for responsive legal systems: 'Customary norms (and Western law) are instrumental — the key issue is what benefits for what people should be pursued, and then the next step is to determine how legal systems might be used to bring about these practical outcomes.' The importance of shifting 'instrumental' legal systems to practical outcomes in the context of climate adaptation can be illustrated by human-nature connectedness in many first peoples communities. An Australian scholar noted that 'Indigenous people believe that they are part of nature, so they have to protect nature.'

### *7.6.4 Group 2 Interviews: Analysis*

The interview responses in this group highlighted the important role that traditional customary law can play in the future development of adaptive legal mechanisms and management tools in response to environmental change. A lesson from the interviews with legal scholars relates to the stronger connectedness of rural communities to nature, in comparison with urban communities. For example, a scholar from Vanuatu spoke about the role of *kastom* in urban communities in resolving disputes relating to property, marriage and relations. Therefore, the interview data and literature are consistent in identifying the potential role of ACM approaches to climate change that combine traditional customary law, knowledge and practices with contemporary science, technology and management approaches.[322] It was noted in both the literature and by the interviewees that customary law and TEK can play an integral role in educating communities about the processes that keep human and nature systems operating together.[323]

The effects of climate change necessitate the need for legally binding as well as voluntary mechanisms.[324] Legal scholars and the literature showcase the role of international law as being capable of guiding communities in matters such as sustainable adaptation practices.[325]

This research has found that while traditional knowledge is critically important, guiding mechanisms should increasingly recognise the importance of the traditional customs and

[322] Olsson, Folke and Berkes, above n 80; Plummer and Armitage, above n 80; Fabricius et al, above n 80.
[323] Liu et al, above n 2.
[324] See Lee Godden and Stuart Cowell, 'Conservation Planning and Indigenous Governance in Australia's Indigenous Protected Areas' (2016) 24(5) *Restoration Ecology* 692.
[325] Amundsen, above n 154.

practices of first peoples when developing legal instruments.[326] Ultimately, legal mechanisms based on ACM are key to the incorporation of customary law in effective adaptation processes that help communities respond to the impacts of climate change.[327]

### *7.6.5 Conclusions from Interviews*

Both groups of interviewees emphasised the necessity of upholding the traditions of first peoples if customary law is to become a part of an effective adaptation mechanism. Resoundingly, community leaders and legal scholars believed that there is a growing need to integrate traditional customs with innovative Western legal instruments and management practices. Community leaders and scholars advocated the use of ACM models as a response to localised climate change. Caveats on this approach involved the need for traditional customs to be preserved, coupled with the engagement of chiefs and community leaders at the outset of any new initiative.

The role of chiefs in communities is important for securing community engagement. As leaders of their community, the chief tends to be influential in guiding community action if they maintain an ongoing presence and engagement in decision-making that reflects the traditional customs of the Ni-Vanuatu inhabitants. Scholars support the idea of increasing chiefly legal power through a bottom-up or localised approach to enable chiefs to guide their communities more appropriately. In turn, such power is likely to improve community engagement on climate issues. Therefore, customary law was positioned as potentially beneficial to communities' adaptation to climate change, and regarded as a component of a broader management scheme.

## *7.7 A New Legal Mechanism Based on Adaptive Co-Management?*

This article has provided evidence from the literature, empirical data and doctrinal research, including case law, to support the need for the development of a new legal mechanism based on ACM. Further, adaptive responses to the impacts of climate change highlight the urgent need for such a mechanism.

In Vanuatu, the cycad known in Bislama (the local creole language) as *namele* (or the scientific name of *Cycas circinalis*) has spiritual and customary significance. Through *kastom*, local chiefs monitor and govern environmental health 'on the ground', including placing a *tabu* ,or a ban, on activities that impact detrimentally on communities and nature. The *tabu*, or ban, is recognised

[326] Dermot Smyth, *Indigenous Land and Sea Management — A Case Study* (Report prepared for the Australian Government Department of Sustainability, Environment, Water, Populations and Communities on behalf of the State of the Environment 2011 Committee) 3.
[327] Plummer, above n 81.

through the placement of *namele* leaves, in 'no-take' zones. The leaves may be attached to a *tabu* stick or a plant, such as a fruiting tree that is not yet ripe for picking. Local people recognise the importance of these rituals of *tabu* and the *namele* plant, and the consequences of not complying with these rules. Such a localised approach to protecting life-supporting ecosystems and managing human interventions with nature can assist the process of adapting to the impacts of climate change.[328] For example, in Vanuatu, customary laws in relation to fishing are enforced to provide marine resources the opportunity to recover. In particular, there are *tabu* areas or 'no-take' zones, in which harvesting is prohibited. These zones are often put in place by a chiefly authority, marked by *tabu* sticks and covered in *namele* leaves. Breaching such a *tabu* on these areas leads to monetary fines and supernatural retribution.

In addition to these 'no-go zones', there are customary protocols that control who can fish, where, when and the quantity and species of fish that can be harvested.[329] The *namele* plant has a double meaning: a single branch signifies *tabu* while a crossed pair of cycad leaves represents 'peace', such as that seen on the flag of Vanuatu.[330] Therefore, the *namele* mechanism is named after this sacred plant with the intention of honouring the customary laws and practices of people from Vanuatu and all first peoples.

### *7.7.1 Introducing the Namele Mechanism*

The (proposed) *namele* mechanism is defined as a dynamic 'grassroots' methodological mechanism based on ACM that will assist with responses to the impacts of climate change. The mechanism adopts a coupled human and nature systems approach that requires 'integrated systems in which people interact with natural components.'[331] This approach will build the resilience and adaptive capacity of communities and ecosystems while acknowledging the co-dependence of human and natural processes.[332] The mechanism has been developed as a bridging device that links bottom-up responses to top-down constructs of international environmental law, including the SDGs (particularly SDGs 13,14 and 15). As a legal mechanism or regulatory tool, the *namele* mechanism aims to operationalise principles such as equity, sustainable development and public participation, to aspire towards achieving ecological integrity in environmental management and climate change adaptation.

The *namele* mechanism prioritises responses at local levels and highlights the roles of FPLC as guardians monitoring and protecting the ecosystems in which they live. The mechanism will

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[328] Inda and Rosaldo (eds), above n 7.
[329] Techera, above n 44, 2.
[330] Boris Lariushin, *Cycadaceae Family* (CreateSpace Independent Publishing Platform, 2013) 8.
[331] Liu et al, above n 2, 1513.
[332] Amundsen, above n 154.

assist early and rapid responsiveness to the impacts of climate change. It will do so by prioritising localised environmental management approaches that incorporate the values, culture, knowledge and practices of FPLC, including their traditional customary laws and knowledge.

The mechanism will empower communities to carry out their environmental management responsibilities and care for the sustainable health of ecosystems at a local level (marine, terrestrial, fresh water and atmospheric ecosystems). It will recognise, honour and accommodate diverse worldviews, historic chains of environmental knowledge and differing management practices that have evolved over time, sometimes thousands of years, in the sustainable care of viable ecosystems. This means that 'community understandings of the local ecology' are fundamentally 'embedded in local culture, landscapes, seascapes and are "bespoke" to specific localities and communities.'[333]

Contemporary systems of environmental management and knowledge, including practices and knowledge based on technology, scientific monitoring and economic investments can then build upon the local customary foundations. In localities where traditional management practices, customary laws and knowledge are in situ and/or accessible, this foundation is given priority because of its proven adaptive capacity over time, cultural appropriateness and the investment and ownership of local communities. The *namele* mechanism will accommodate communities' right to self-determination and decision-making in the management of ecosystems. While some affected communities will embrace the uptake of new technologies and others may prefer to maintain more traditional approaches, this mechanism will ensure that the unique aspects of each ecosystem are specifically accounted for to increase the prospects of conservation and sustainability.

### *7.7.2 Next Steps*

Some scholars interviewed for this study raised concerns about the complexity of existing instruments of international environmental law and questioned the need for additional tools. In response to this concern, the mechanism will require further development, testing and evaluation to establish its potential value and applicability.

Other scholars warned against glorification of cultural and customary practices in the context of what are unprecedented challenges of climate change. While they may agree with the capacity of *kastom* to be dynamic and continually adapt, they noted that the impacts of climate change are unprecedented and may be beyond the adaptive capacity of traditional customary law. In response to this concern, the mechanism positions customary law, knowledge and practices,

[333] Davies, above n 129, 104.

within a broader schema of ACM that will incorporate contemporary methods such as technological applications.

A component of the next testing phase of the mechanism will involve an assessment in each locality to identify existing foundations for environmental management approaches, in the interest of rebuilding sustainable coupled human and nature systems. A further observation is that such a localised mechanism will have the greatest applicability to local government, while operating in tandem with domestic and international law and governance frameworks. Thus, the engagement of local government in the next phase of developing the mechanism will be crucial.

## *7.8 Conclusion*

The scientific and legal evidence presented in this paper, combined with the results from the empirical data, have highlighted the imperative for people to adapt to the impacts of climate change. The integration of contemporary and traditional legal and management practices as a response to this imperative was stressed by many interviewees. Historically, environmental law has been concerned with responding to tangible threats to the environment and proposing remedial action. More recently, principles such as the precautionary and polluter pays principle have recognised the significance of accommodating 'uncertainty', particularly in the context of global warming. All but two of the current principles of environmental law are somewhat abstract in their aims and do not offer practical steps to address climate change nor suggest adaptive approaches. Only one of the seven principles, the polluter pays principle, serves to legislate practical and operational measures.

It is clear that tools to operationalise principles and other legal instruments are required to respond to the urgent challenges presented by the impacts of climate change. This paper has acknowledged the need, in the context of climate change adaptation, for both top-down and bottom-up approaches to environmental protection. In addition, it has also identified a need to link local to higher level responses. To be effective, such instruments or mechanisms need to bridge the gaps between legislation, conventions, protocols, principles and their applications. The proposed *namele* mechanism has been developed in this study as one such tool, built on a platform of traditional and local knowledge and practices to guide local ACM processes. Such an approach is supported by legal instruments such as *UNCLOS* and the *Nagoya Protocol,* to name just a few. Incorporating the proposed *namele* mechanism into environmental law has the potential to strengthen existing principles and lead the global community along a pathway of localised, adaptive and collaborative action. This approach can be adopted by governments at all levels, as well as industries and communities.

While requiring testing and further development, the *namele* mechanism provides an important step towards the empowerment of FPLC as they respond to the threats posed by the impacts of climate change. As the global community adapts to changing environmental conditions imposed by climate change, a bottom-up approach promises much-needed, rapid and responsive care of local ecosystems: FPLC are nature's frontline guardians! The *namele* mechanism places increasing responsibility and accountability on their shoulders as the stewards of nature now, and into the future.

# VIII CONCLUSION

## *8.1 Introduction*

This concluding chapter summarises the study's response to the key research question: 'can traditional customary law make a contribution to climate change adaptation?' The cross-disciplinary investigation of this question traversed the literature, international and domestic law (including case law) and empirical data, spanning the disciplines of law, environmental science and ethno-ecology. The empirical data was collected through in-depth interviews conducted with chiefs, government representatives and community leaders from Vanuatu, and legal scholars from Vanuatu, Australia, the United States, Indonesia and New Zealand. The analysis of evidence collected for this study examined whether traditional practices of customary law, may, or may not, enhance contemporary adaptive approaches to the planet's greatest challenge — the impacts of climate change.[334]

The South Pacific Region — specifically the Republic of Vanuatu — offered the critical attributes for this study. This region, while being one of the most vulnerable to the impacts of climate change, has rich and long histories of adaptation that include practices of traditional customary law, which may offer guidance to the broader global community. It was hypothesised from the onset of this research, that lessons from traditional customary law and knowledge may assist contemporary responses to climate adaptation. One of the ways this might occur is in the protection and regeneration of coupled human and nature systems, which constitutes the core of traditional customary law and knowledge. This concluding chapter summarises the key findings from this study, responds to the overarching research question and identifies future research pathways.

## *8.2 Ancient and New Legal Landscapes*

Chapter II examined the ancient origins of customary law and their potential contributions to new legal landscapes. It highlighted how aspects of customary law, such as community-based social pressure, belief in spiritual or supernatural retribution, bans and taboos were often found to result in greater compliance than the enforcement of domestic legislation, particularly in the rural areas of Vanuatu and the South Pacific.[335]

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[334] Liu, above n 1.
[335] Michael Cox, Sergio Villamayor-Tomas and Yasha Hartberg, 'The Role of Religion in Community-Based Natural Resource Management' (2014) 54 *World Development* 46.

The challenges presented by legal pluralism and an 'ill fit' between customary and domestic law were identified.[336] However, an analysis of case law found a changing judicial paradigm with an increasing willingness of courts in Vanuatu to view traditional customary law as both fact and law.[337] A landmark (2015) Vanuatu case was cited in which the presiding judge noted that customary law can be recognised by the courts as both fact and law:[338] This case, along with other studies, provided the evidence of a changing trend in views, acknowledging that traditional practices can inform new legal landscapes.

It was found that the integration of traditional customary law with domestic (Western) law and contemporary best practice environmental management approaches can assist to create an adaptive legal system that will be required increasingly to respond rapidly to the impacts of climate change. The terms 'socioecological legal resilience' and the 'ecosystem approach to law' highlighted the importance of future legal constructs that recognise the inseparable relationships between people and nature. First peoples, such as those of Vanuatu, have long understood the importance of coupled human-nature systems to sustain their livelihoods. Thus, traditional customary law and ecological knowledge may provide an anchor for future relationships with nature that embrace technology, education and other contemporary strategies.

Chapter II stressed the importance of strengthening localised approaches to the restoration and protection of nature. It was explained that the knowledge and practices of peoples who have resided in the same place and protected ecosystems over many generations are valuable and should be recognised when developing climate adaptation responses. These people are the guardians of their land and seascapes. They hold the chains of environmental knowledge and play a critical role in responding to the future protection of the planet's threatened, life-supporting ecosystems. Additionally, this chapter found that customary law has the capacity to activate community engagement and participation in environmental protection. Finally, Chapter II concluded with the message that the urgency presented by climate change requires transitioning to a new legal paradigm. It proposed that the empowerment of the voices and cultures of first peoples will be the critical platforms from which new legal constructs to address climate change may emerge.

## *8.3 Changing Tides*

The application of traditional customary law to contemporary environmental management practices was further investigated in Chapter III, using the example of fisheries management

[336] See Merry, above n 132, 869; Benda-Beckman, above n 132, 52.
[337] See *Bob v Mala* [2015] VUCA 3; Civil Appeal Case 02 of 2015 (8 May 2015).
[338] Ibid.

across the South Pacific.[339] The problems presented by the impacts of climate change on fisheries were found to have dire implications for food insecurity across the South Pacific.[340] In response, this chapter identified contemporary adaptive management approaches that aim to protect the longevity of fragile marine ecosystems, sustain the livelihoods of local communities and respond to community needs.

Chapter III recognised that while law, education, technology and governance can assist in protecting marine ecosystems, Western conservation management strategies are often ineffective in SIDS if they fail to consider the cultural and socioeconomic features of the area.[341] Further, 'the research for this thesis found that strategies based on traditional knowledge have produced positive environmental results in the regions in which they are implemented, and can be much more cost-effective than Western strategies.[342] These traditional approaches also provided opportunities for greater enforcement due to effective monitoring by local communities.[343]

Although traditional marine management approaches have been successful, it is not suggested in Chapter III that customary approaches should replace Western conservation strategies. Instead, it is proposed that customary traditions should work with other legal and management mechanisms to respond to the impacts of climate change, and draws on the experiences in Vanuatu, Fiji and Samoa that are undertaking this integrated approach. This chapter also submitted that international legal instruments should require an ACM approach to address climate change. Overall, this chapter found that the successful approaches used by communities in the Pacific Islands are good examples of how customary law can be incorporated in an ACM conservation framework to address the challenges of climate change.

## *8.4 Human Rights and Climate Change*

The research for this thesis has found that traditional customary law and knowledge have the potential to make significant contributions to climate change adaptation. This potential is exemplified by the *Declaration on Human Rights and Climate Change* ('*Declaration*'),

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[339] Techera, above n 58.
[340] See Poh Wong et al, 'Coastal Systems and Low-Lying Areas' in Christopher B Field et al (eds), *Climate Change 2014: Impacts, Adaptation, and Vulnerability. Part A: Global and Sectoral Aspects. Contribution of Working Group II to the Fifth Assessment Report of the Intergovernmental Panel on Climate Change* (Cambridge University Press, 2014) 361; Michelle Lam, 'Consideration of Customary Marine Tenure System in the Establishment of Marine Protected Areas in The South Pacific' (1998) 39 *Ocean & Coastal Management* 97.
[341] Patrick Christie et al, 'Toward Developing a Complete Understanding: A Social Science Research Agenda for Marine Protected Areas' (2003) 28(12) *Fisheries* 22; Elinor Ostrom, *Governing the Commons: The Evolution of Institutions for Collective Action* (Cambridge University Press, 1990); Jules Pretty, 'Social Capital and the Collective Management of Resources' (2003) 302 *Science* 1912.
[342] Joshua Cinner et al, 'Periodic Closures as Adaptive Coral Reef Management in the Indo-Pacific' (2006) 11(1) *Ecology and Society* 31, 31.
[343] Ibid; Oceans and Law of the Sea, *The First Global Integrated Marine Assessment: World Ocean Assessment 1* (21 January 2016) 4 <http://www.un.org/Depts/los/global_reporting/WOA_RPROC/WOACompilation.pdf>.

introduced in Chapter IV. The *Declaration* reframes climate change through a human rights perspective and highlights the anthropocentric nature of environmental law. It offers a normative approach to establish responsibility for addressing the impacts of climate change on human and non-human rights, and seeks to re-establish healthy human-nature systems. Traditional customary law and knowledge have an integral role in such an approach.

Human rights are intrinsically threatened by climate change. It is essential that a rights-centred approach to climate change responses identify and address the unequal impacts that climate change has on vulnerable people, including women, children, first peoples and individuals in less developed countries.[344] The *Declaration* recognises this, along with the doctrine of inter and intragenerational equity, and to protect future life on Earth it appeals for a greater duty of care of the environment to be placed upon the current generation. This chapter delved into the need to address climate change within a human rights framework, recognising the impacts of climate change are sources of injustice for humans, non-human beings, ecosystems and the Earth in general. In light of the above, this study agrees that 'the ultimate realization of human rights in the age of climate crisis requires the full legal protection of the living beings and systems upon which human life depends.'[345]

## *8.5 Voices of Vanuatu Leaders*

This study has recognised the substantial contributions that traditional customary law can make towards climate change adaptation and environmental management more broadly. The evidence of these contributions was presented in earlier published papers related to this thesis and through the unpublished empirical data in Chapters V and VI. In Chapter V, we heard the voices of 35 chiefs, government representatives and community leaders from Vanuatu. Most interviewees believed that customary law can assist people and processes adapt to the impacts of climate change, drawing on the experience of their ancestors and traditional approaches in local responses to weather events. The interviewees recognised that laws and practices need to, and can, change to address the impacts of climate change. One interviewee indicated that 'people here live according to the weather and they adapt to climate change, they are always adapting in *kastom*'.

However, it was recognised that 'as society changes it's becoming harder and harder to keep the balance of Western and *kastom* systems.' One chief was of the view that customary law cannot address the impacts of climate change, stating that '*kastom* cannot help. *Kastom* can't block the cyclone when the sea moves; more and more, we cannot help this.' Many interviewees also

[344] See Davies et al, above n 126, 219.
[345] Global Network for the Study of Human Rights and the Environment, above n 168.

recognised that *kastom* is being lost with younger generations due to the influence of Western culture. However, it was noted that the influence of local chiefs remains; an interviewee noted that 'back in the village the chief is the head of the community. Power at the local level is still very strong.' While the creation of a co-management approach to climate change has difficulties, most interviewees emphasised the importance of traditional knowledge, its capacity to create localised mechanisms to address the impacts of climate change and to enforce them at a community level.

An analysis of these interviews found that a balance is required between utilising the traditional customs of Vanuatu and the Western law to protect natural ecosystems. Customary law can provide a bottom-up approach to empower local communities to conserve the environment. The interviewees tended to accept that legal pluralism can assist in protecting the environment and sustain the livelihoods of current and future generations; these views are supported by the literature in this field.[346] This chapter explained that, while legal pluralism is not without its challenges and limitations, it can extend the legal powers of local community leaders and chiefs to provide greater enforcement of customary law. This hybrid legal paradigm is an important recognition of the potential to create effective legal mechanisms that address the impacts of climate change, while still respecting and utilising traditional customs and knowledge.

## *8.6 Voices of Legal Scholars*

After interviews with leaders and community members, the discussions were extended in Chapter VI to the voices of 23 legal academics from Vanuatu and across the world. These scholars are experts in customary, climate and constitutional law, and provided perspectives on the capacity of customary law to address the challenges presented by climate change. They explained that in the absence of substantial shifts in normative thinking regarding climate change, the contributions of traditional customary law to policy and law will continue to be ignored. These scholars discussed the recognition of traditional customary law in international environmental law, and acknowledged that a responsive legal system based on localised action drawing from traditional practices will contribute positively to climate change adaptation. Their views support the findings in the literature that an ACM approach to climate change will benefit climate change action.[347]

The interviews with legal scholars highlighted the important role that traditional customary law can have in the development of legal mechanisms to address challenges of climate change. Customary law can engage communities at a local level and use local knowledge to implement

[346] Brundtland and Visser, above n 105; Techera, above n 131, 175.
[347] Armitage, Berkes and Doubleday (eds), above n 83, 3.

methods of adaptive environmental management. One scholar indicated that 'Indigenous people … are … better placed to adapt to the changing environment, because of their customary law practices and their traditional knowledge'. Further, scholars identified that this knowledge can be used to create mechanisms to address climate change. Another scholar noted that '[i]ntegrating customary law into international treaties could possibly focus attention on traditional knowledge, which often extends further than is generally understood.'

These interviews also raised issues that were previously identified in this study's investigation of the literature on Vanuatu and the South Pacific; for example, the proposal of a *Custom Act*, or a Custom Senate, to improve the enforcement of customary law. These ideas should be further investigated to evaluate their ability to respond to the challenges of climate change. The interviewees and their suggestions align with findings in literature that greater recognition of customary law will result in communities having a greater feeling of ownership and accountability.[348]

The interview data, along with findings in other literature, support the idea that ACM approaches that use both customary law and Western law can have great utility when addressing the challenges of climate change. Such an approach could blend traditional customary law with science, technology and management approaches to create successful climate change responses. The literature supports the use of traditional customary law as a means to develop international law with the aim of to improving the enforceability of international law while maintaining and valuing traditional knowledge.[349] As put by one scholar, 'customary norms (and Western law) are instrumental — the key issue is what benefits for which people should be pursued, and then the next step is to determine how legal systems might be used to bring about these practical outcomes.' Overall, these interviews found that a co-management approach uniting the international legal framework in the climate change regime with customary knowledge may have great success in responding to the impacts of climate change at a local level.

## *8.7 A New Adaptive Co-Management Mechanism*

Chapter VII presented the culmination of the empirical and doctrinal research undertaken for this thesis. It suggests that ACM mechanisms are required to adequately address the impacts of climate change. An ACM mechanism ultimately seeks to operationalise principles such as equity, sustainable development and public participation to enhance the prospects of climate change adaptation. Current regulatory responses, such as the *UNFCCC* and the *Paris Agreement*, are criticised for having a top-down implementation that is removed from local community

[348] Food and Agricultural Organization of the United Nations, above n 141.
[349] Forsyth, above n 146, 429.

needs and priorities. Thus, this study proposes a mechanism that becomes a bridge for bottom-up experiences and knowledge and top-down instruments, leading to the conception of the *namele* mechanism.

The *namele* mechanism offers a tool to shift responses to the impacts of climate change through a bottom-up, or localised, approach to conservation management practices. By treating public participation as the primary method for achieving co-management and integrating traditional ecological knowledge into management practices,[350] the mechanism can tailor adaptive measures to fit local ecosystems, community values and priorities and promote self-determination in decision-making. Being tailored to localised priorities and contexts means that rather than applying a generic management approach, adaptation approaches are matched to the specific needs of complex ecosystems.[351] This mechanism needs to recognise and prioritise localised environmental management approaches that incorporate the values, culture, knowledge and practices of IPLC.[352] The incorporation of the proposed *namele* mechanism in international environmental law can strengthen existing legal principles and climate action by recognising the importance of localised, adaptive and collective action and empowering local communities to take relevant and necessary action to address the impacts of climate change relevant to their location.

## *8.8 Future Research Pathways*

This final chapter, Chapter VIII, considers the findings from this study holistically to identify opportunities for further research and study to strengthen and critique the ideas outlined in this thesis. In interviews with legal scholars, it was suggested that imaginative legal thinking and the incorporation of traditional customary law can play a part in creating effective adaptive management processes that can suggest mechanisms to enable urgent action to address climate change. For example, a scholar from the US said: '[A]dvanced law needs to understand that customary law has shown how adaptation has happened in the past. There is more to be learnt in terms of translating past practices in to today's problems, that could be creative.' Further research can be conducted into the past practices of communities in other jurisdictions to those studied in this thesis. Research can be undertaken to consider the opinions and practices of, and

[350] See Boer, above n 268, 249; Leuzinger and Lyngard, above n 197, 438; Armitage, Berkes and Doubleday (eds), above n 83.
[351] Per Olsson, Carl Folke and Thomas Hahn, 'Social-Ecological Transformation for Ecosystem Management: The Development of Adaptive Co-management of a Wetland Landscape in Southern Sweden' (2004) 9(4) *Ecology and Society* 2; Julia Baird, Ryan Plummer and Örjan Bodin, 'Collaborative Governance for Climate Change Adaptation in Canada: Experimenting with Adaptive Co-Management' (2016) 16 *Regional Environmental Change* 747; Armitage, Berkes and Doubleday (eds), above n 83.
[352] See Plummer, above n 81.

suggestions for, improving the participation of local citizens in other climate change–affected communities.

Local community members of Vanuatu noted that the connection between humans and nature has been declining over time and becoming lost under a Western influence. Similarly, some of the scholars interviewed for this study raised concerns as to the complexity of existing international environmental law instruments, and questioned the need for additional tools.

In response to this concern, the *namele* mechanism will require further development, testing and evaluation to establish its potential value and applicability to climate change adaptation methods. Its further testing and assessment in different localities will be required. Importantly, its development will also require input from local government representatives as this is the level of government that will be most involved in its future implementation.

Other interviewees warned of the glorification of customary practices and culture, and pointed out their limitations in the context of the unprecedented challenges presented by climate change. While they agree with the capacity of customary law to be dynamic and adaptive, they noted that the impacts of climate change may be beyond the adaptive capacity of traditional customary law. In response to this concern, the mechanism has positioned traditional customary law and knowledge and practices, within a broader scheme of ACM that will incorporate contemporary methods, such as technological innovations, to address climate change collectively.

Some interviewees emphasised the importance of educating chiefs on climate change and engaging the broader local community, including ensuring greater involvement of women in the process. A future research pathway can be to identify practices that encourage greater community engagement in climate change–affected communities.

## *8.9 Conclusion*

This study has presented the evidence of the implicit exposure that is slowly being granted to traditional customary law within mainframe legal systems. However, it was found that there remain tensions surrounding the integration of customary law and knowledge with contemporary Western legal systems. The case studies of legal pluralism, outlined in this thesis, described a changing paradigm which recognises the potential value of customary law in climate change adaptation. In light of the urgency for action in response to the impacts of global warming, this study highlighted the need for more substantive recognition. This can be achieved that through developments in international and domestic law, together with management and governance systems. The importance of ACM practices — particularly in domestic jurisdictions — was

highlighted as a method to integrate traditional customary law and knowledge with contemporary scientific and management methods, and produce practical outcomes.

To assist the integration process, this research has developed two new tools that draw on the existing principles of international environmental law and recognise traditional customary law. The first, is a guiding instrument, the *Declaration on Human Rights and Climate Change* which can assist adaptation on international, regional and domestic levels. The Declaration was developed by an international group of scholars, of which the author of this thesis was one.

The second, and the main new contribution from this research, is a methodological tool, the *namele* mechanism which has been designed to assist adaptation 'on the ground'. A key objective of this mechanism is to create a 'two way' bridge between the instruments of international environmental and climate law, and their localised application. The origins of the *namele* mechanism were founded in the empirical research undertaken for this study and in particular the interviews with Vanuatu chiefs. Literature and case law collected through this research then supported the mechanisms development.

Both tools present models of how traditional customary law can be integrated into climate change adaptation measures. Two other Vanuatu specific options emanated from the empirical data. These were the establishment of a *Custom Act* , which could aid the integration and application of traditional customary law, and the establishment of a Custom Court to enable the local enforcement of *kastom* applicable to each community.

As evidenced in this thesis, traditional customary law can be dynamic and adaptive to the needs of local communities and the environment. The current climate change regime can be improved by incorporating traditional approaches in law and ecological management practices that involve local communities throughout the entire process. As a scholar interviewee from Vanuatu explained, **'**Customary practices and customary law people have to be engaged, they have to genuinely participate in a context in which they feel comfortable and offer valuable insights.'

Substantive recognition is required, both in international and domestic jurisdictions, to meaningfully integrate traditional customary law and knowledge in to climate adaptation. Of the most critical importance is the protection of, life sustaining, human- nature systems for present and future generations. Traditional customary law and knowledge has demonstrated its capacity to protect these systems. Its increasing integration in to the climate regime will lead to much needed grass roots outcomes with the capacity to rapidly respond to the impacts of climate change as they develop. However the level of influence of traditional law, knowledge and practices on adaptation will depend on the context, particularly the cultural context. For example,

the level of influence of traditional customary law in rural Vanuatu is likely to be very different from that in urban Sydney. That said, much can be learnt in contemporary Western contexts from first people, many of whom understand how to live in harmony with nature. Quoting one US scholar interviewed in this study, traditional customary law 'will play the role, as the regulation, for [that] which has not been regulated yet.' All efforts are required now, to reconnect life-sustaining human and natures systems, this can be achieved by listening to, and acting on, the voices of first peoples from Vanuatu, and across the world.

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# *Appendices*

## *Appendix 1: Information sheet and consent form*


Macquarie School of Law

Faculty of Arts

MACQUARIE UNIVERSITY NSW 2109

Australia

Email: kirsty.davies@ mq.edu.au

**Chief Investigator:** Associate Professor Shawkat Alam

Interview Participant Information and Consent Form

**Name of Project:** Human-Nature. What value can customary law contribute to future international environmental legislation pertaining to climate change adaptation? a Vanuatu case study

You are invited to participate in a study. The purpose of the study is to develop a better understanding of the potential role of customary law in climate change adaptation. Practices of customary law in Vanuatu surrounding environmental protection will be a special focus of study.

The study is being conducted by Associate Professor Shawkat Alam and Dr Kirsten Davies of the Macquarie School of Law, Faculty of Arts at Macquarie University. Dr Davies is the primary contact and her phone number is: +61 (0)2 9850 8334 and email is: kirsty.davies@mq.edu.au.

If you decide to participate, you will be asked to answer some questions about customary law and climate change by one or two researchers from Macquarie University. This will be a face-to-face interview and will take approximately 45 minutes. You will be asked a series of questions and if you agree, a voice-recording device will be used to record your responses. This recording will assist with transcribing your interview. You can request that the researchers not use an audio recorder if you prefer. No photographs or video recordings will be made. No discomfort or risk to you is likely to occur in responding to these questions, and you can ask questions of the researchers at any time.

Participation in this study is entirely voluntary. You are not obliged to participate and if you decide to participate, you are free to withdraw at any time without having to give a reason and without consequence.

Any information or personal details gathered in the course of the study are confidential, except as required by law. No individual will be identified in any publication of the results. The data will only be available to the researchers from Macquarie University directly involved with the project. A summary of the results of the data can be made available to you on request. A report of the study may be submitted for publication but individual participants will not be identifiable in such a report.

When you have read this information Dr Kirsten Davies will discuss it with you further and answer any questions you may have. If you would like to know more at any stage, please feel free to contact:

Dr Kirsten Davies, Co- Investigator, email: kirsty.davies@ mq.edu.au
phone: +61 (0)2 9580 8334,

This information sheet and consent form is for you to keep.

I, (*print name*) _____ have read *(or, where appropriate, have had read to me)* and understand the information above and any questions I have asked have been answered to my satisfaction. I agree to participate in this research, knowing that I can withdraw from further participation in the research at any time without consequence. I have been given a copy of this form to keep.

**Name of the Project:** Human- Nature. What value can customary law contribute to future international environmental legislation pertaining to climate change adaptation? – a Vanuatu case study

**Chief Investigator:** Associate Professor Shawkat Alam, Macquarie School of Law Faculty of Arts.

In giving my consent I acknowledge that:

1. The procedures required for the project and the time involved have been explained to me and any questions I have about the project have been answered to my satisfaction

2. I have read the Participant Information and have been given the opportunity to discuss the information and my involvement in the project with the researchers

3. I understand that that my participation in this project is voluntary; a decision not to participate will in no way affect me and I am free to withdraw my participation at any time

4. I understand that my involvement is strictly confidential and that no information about me will be used in any way that reveals my identity

5. I understand that audio recordings during the interview will be made as part of the study for transcription purposes.

Participant's Name:_____

(Block letters)

Participant's Signature:_____ Date:

Investigator's Name:

(Block letters)

Investigator's Signature:_____ Date:

The ethical aspects of this study have been approved by the Macquarie University Human Research Ethics Committee. If you have any complaints or reservations about any ethical aspect of your participation in this research, you may contact the Committee through the Director, Research Ethics (telephone (02) 9850 7854; email ethics@mq.edu.au). Any complaint you make will be treated in confidence and investigated, and you will be informed of the outcome.

**(cross out where necessary) INVESTIGATOR'S / PARTICIPANT'S COPY**

## *Appendix 2: Demographic form and interview questions*

Demographic form

This study will look at the potential role of customary law in building closer human and nature relationship's including how it can assist people to adapt to the impacts of global climate change. Of special emphasis will be the role of customary law in climate change legislation. Participation in this study is entirely voluntary. You are not obliged to answer any question that you would prefer not to. You can choose to withdraw at any time without having to give a reason and without consequence. Your answers are confidential.

About you: *Please mark with a cross the information that best describes you.*

**1.** Gender ☐ Male ☐ Female ☐ Other

**2.** How old are you, in years? _____

**3.** In which country are you a permanent resident? *please specify*

_____

**4.** How long have you resided there? *please specify in years*_____

**5.** Do you consider yourself to be an Indigenous person?

☐ Yes ☐ No ☐ Not sure

**5a**. If you responded 'yes', please list your tribal group.

_____

**6.** Is customary law practiced in your community? ☐ Yes ☐ No ☐ Not sure

**7.** Do you consider yourself to be a leader of customary law?

☐ Yes ☐ No ☐ Not sure ☐ Retired

**7a.** If you responded 'yes' to practicing customary law (including retired), please list the number of years you have been in practice _____

**8.** Do you have a particular area of expertise in customary law?

☐ Yes ☐ No ☐ Not sure

**8a.** If you responded 'yes' to practicing an area of expertise in customary law, please describe:

_____

**9.** Are you a practicing lawyer?

☐ Yes ☐ No ☐ Sometimes ☐ Retired

**9a.** If you responded 'yes' to practicing lawyer please list the number of years you have been in practice

_____

**9b.** Do you work for: ☐ Government ☐ Corporate ☐ Not for Profit ☐ Other

**9c.** If you responded 'yes' to practicing law (including retired practitioner), do you have expertise in a specific area? *Please describe*:

_____

**10.** Are you a professional person whose role requires developing or working within legal frameworks?

☐ Yes ☐ No ☐ Sometimes ☐ Retired

**10a.** If you responded 'yes' to professional person please list the number of years you have been in this type of role_____

**10b.** Do you work for: ☐ Government ☐ Corporate ☐ Not for Profit ☐ Other

**10c.** If you responded 'yes' to professional person please describe your role

_____

**10d.** If you responded 'yes' to professional person (including retired professional), do you have expertise in a specific area? *Please describe:*

_____

**11.** Are you an academic?

☐ Yes ☐ No ☐ Sometimes ☐ Retired

**11a.** If you responded 'yes' to being an academic please list the number of years you have been in academia _____

**11b.** If you responded 'yes' to being an academic (including a retired academic), do you have expertise in a specific area? *Please describe:*

_____

**11c.** If you responded 'yes' to being an academic (including a retired academic) please list the university/college/ school and faculty where you spend most of your time

_____

Interview Questions

1. As the planet faces the impacts of climate change, can customary law can assist people to adapt to changing environments?

2. Can the customary law assist communities to live closely with nature and decrease the exploitation of natural resources and creation of pollution?

3. In Vanuatu, customary law is included in the nations Constitution and legal systems. Does this approach provide a model for future international environmental law involving other nations and their Indigenous peoples?

*Note the following questions 3a/, 3b/, 3c/ and 3d/ are only for Vanuatu based interviewees

3a/Please describe the strengths and weaknesses of including Kastom in legal systems Vanuatu.

3b/ How strong are the practices of Kastom and the powers of the chiefs today?

3c/ Can you describe some of the ways Chiefs and Kastom guide people as they adapt to changing climates and environments?

3d/ Can you describe some of the ways Chiefs and Kastom guide people as they prepare for natural disasters (for example tidal waves)?

4. As the global community adapts to the impacts of climate change, is there a future role for customary law in international environmental law in:

   a/ the reduction of emissions?

   b/ risk management and disaster preparedness?

*Note the following questions (4c & 4d) are for legal practitioners and academics only

4c/ If you responded 'yes' to either of these questions, can you please nominate some of the ways that you believe customary law can be included in international environmental law frameworks?

4d/ If you responded 'no' to either of these questions, can you please describe why you don't believe it is possible to integrate customary law into international environmental law frameworks?

5. Is there anything else you would like to say about the future role of customary law, international environmental law and climate change adaptation?

*Thank you for your time and knowledge.*

## *Appendix 3: Ethics approval*

# Conditions Met Final Approval - 5201400621(R)

1 message

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**Faculty of Arts Research Office** <artsro@mq.edu.au> Wed, Jun 18, 2014 at 9:25 AM

To: Associate Professor Shawkat Alam <shawkat.alam@mq.edu.au>

Cc: Faculty of Arts Research Office <artsro@mq.edu.au>, Dr Kirsten Jane Davies <kirsten.davies@students.mq.edu.au>

Ethics Application Ref: (5201400621) - Final Approval

Dear Associate Professor Alam,

Re: ('Human-Nature. What value can customary law contribute to future international environmental legislation pertaining to climate change adaptation? A Vanuatu case study')

Thank you for your recent correspondence. Your response has addressed the issues raised by the Faculty of Arts Human Research Ethics Committee. Approval of the above application has been granted, effective (18/06/2014). This email constitutes ethical approval only.

If you intend to conduct research out of Australia you may require extra insurance and/or local ethics approval. Please contact Maggie Feng, Tax and Insurance Officer from OFS Business Services, on x1683 to advise further.

This research meets the requirements of the National Statement on Ethical Conduct in Human Research (2007). The National Statement is available at the following web site:

http://www.nhmrc.gov.au/_files_nhmrc/publications/attachments/e72.pdf.

The following personnel are authorised to conduct this research:

Associate Professor Shawkat Alam
Dr Kirsten Jane Davies

NB. STUDENTS: IT IS YOUR RESPONSIBILITY TO KEEP A COPY OF THIS APPROVAL EMAIL TO SUBMIT WITH YOUR THESIS.

Please note the following standard requirements of approval:

1. The approval of this project is conditional upon your continuing compliance with the National Statement on Ethical Conduct in Human Research (2007).

2. Approval will be for a period of five (5) years subject to the provision of annual reports.

Progress Report 1 Due: 18th June 2015
Progress Report 2 Due: 18th June 2016
Progress Report 3 Due: 18th June 2017
Progress Report 4 Due: 18th June 2018
Final Report Due: 18th June 2019

NB: If you complete the work earlier than you had planned you must submit a Final Report as soon as the work is completed. If the project has been discontinued or not commenced for any reason, you are also required to submit a Final Report for the project.

Progress reports and Final Reports are available at the following website:
http://www.research.mq.edu.au/for/researchers/how_to_obtain_ethics_approval/human_research_ethics/forms

3. If the project has run for more than five (5) years you cannot renew approval for the project. You will need to complete and submit a Final Report and submit a new application for the project. (The five year limit

on renewal of approvals allows the Committee to fully re-review research in an environment where legislation, guidelines and requirements are continually changing, for example, new child protection and privacy laws).

4. All amendments to the project must be reviewed and approved by the Committee before implementation. Please complete and submit a Request for Amendment Form available at the following website:

http://www.research.mq.edu.au/for/researchers/how_to_obtain_ethics_approval/human_research_ethics/forms

5. Please notify the Committee immediately in the event of any adverse effects on participants or of any unforeseen events that affect the continued ethical acceptability of the project.

6. At all times you are responsible for the ethical conduct of your research in accordance with the guidelines established by the University. This information is available at the following websites:

http://www.mq.edu.au/policy/

http://www.research.mq.edu.au/for/researchers/how_to_obtain_ethics_approval/human_research_ethics/policy

If you will be applying for or have applied for internal or external funding for the above project it is your responsibility to provide the Macquarie University's Research Grants Management Assistant with a copy of this email as soon as possible. Internal and External funding agencies will not be informed that you have approval for your project and funds will not be released until the Research Grants Management Assistant has received a copy of this email.

If you need to provide a hard copy letter of approval to an external organisation as evidence that you have approval, please do not hesitate to contact the Faculty of Arts Research Office at ArtsRO@mq.edu.au

Please retain a copy of this email as this is your official notification of ethics approval.

Yours sincerely

Dr Mianna Lotz
Chair, Faculty of Arts Human Research Ethics Committee
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Macquarie University
Balaclava Rd
NSW 2109 Australia
Mianna.Lotz@mq.edu.au