Critical Issues

Imaginative Research in a Changing World

Environmental Ethics

Sustainability & Education

Edited by

Estelle L. Weber

Inter-Disciplinary Press

Publishing Creative Research

Environmental Ethics, Sustainability and Education

Critical Issues

A *Critical Issues* research and publications project.
http://www.inter-disciplinary.net/critical-issues/

The Ethos Hub
'Environmental Justice and Global Citizenship'

Environmental Ethics, Sustainability and Education

Edited by

Estelle L. Weber

Inter-Disciplinary Press

Oxford, United Kingdom

http://www.inter-disciplinary.net/publishing/id-press/

The *Inter-Disciplinary Press* is part of *Inter-Disciplinary.Net* – a global network for research and publishing. The *Inter-Disciplinary Press* aims to promote and encourage the kind of work which is collaborative, innovative, imaginative, and which provides an exemplar for inter-disciplinary and multi-disciplinary publishing.

Inter-Disciplinary Press, Priory House, 149B Wroslyn Road, Freeland, Oxfordshire. OX29 8HR, United Kingdom.
+44 (0)1993 882087

British Library Cataloguing in Publication Data. A catalogue record for this book is available from the British Library.

ISBN: 978-1-904710-74-5
First published in the United Kingdom in eBook format in 2009. First Edition.

Table of Contents

Introduction and Overview

The 8th Global Conference on Environmental Justice and Global Citizenship was held at Mansfield College, Oxford University England in July 2009. This e-Book is designed to collate and reflect on the proceedings of the conference, which focused on the topics of environmental ethics, sustainability and education. These works aim to explore the role of ecological and environmental thinking in the context of contemporary society and international affairs. They also assess the implications of our understanding of fairness, justice and global citizenship.

The inter-disciplinary and multi-disciplinary approach was underpinned by the attendance of lawyers, researchers, non-government organisation representatives, education professionals, philosophers and the presence of young graduates and researchers. Research studies and representative attendance covered much of the globe, drawing from Australasia (Indonesia, Papua New Guinea, The Philippines and Australia), Antarctica, South America (Venezuela), Africa (Uganda) Europe (e.g. Finland, Malta) and the UK.

The papers cover a wide spectrum of issues and subjects that explore and challenge many concepts at the cutting edge of these disciplines. The equity, engagement and collaborative context built into Inter-Disciplinary Net conferences allow a broader approach, focusing on key themes to further advance ecologically and culturally sustainable initiatives and improve implementation in relevant institutions. 'Environmental justice' is conceived broadly as reflecting not only justice in the context of human communities but also towards other species, ecosystems, habitats, landscapes, succeeding generations and the environment as a whole.

The inclusive nature of the discussions as well as the development of a collaborative network is significant in these times as we emerge from the stagnant stage of recent years. The diversity of challenges involved in addressing environmental, cultural and political issues were brought to the attention of delegates through different subjects, ideas, observations and experiences from around the world. The atmosphere during the conference was one of awareness and acceptance, focusing our efforts on cutting edge concepts and practical implementation strategies. The ambience was enthusiastic, encouraging and highly empowering. In this situation it is most important to be tolerant, inclusive and sensitive while providing feedback.

Due to Inter-Disciplinary Net's requirement for complete attendance at the conference by the authors, for publication of their work, a number of quality papers were not able to be included in this e-Book. The practice of multi- and trans-disciplinary collaboration is a core ethic valued by Inter-Disciplinary Net. The process of involvement and active participation can

establish a dynamic network for exploring and synthesising environmental potential to help mobilise a sustainable reality.

Overview

The e-Book is structured in a dynamic manner to maximise the connections between topics, challenges and inherent questions, to encourage the exchange of dialogue and building of new equitable, adaptive and tolerant attitudes and approaches. The first part of the e-Book comprises works strongly based on themes of environmental justice and ethics. These papers set the scene and provide thought provoking material to raise challenging and highly sensitive issues, to give voice to some important issues and insightful perspectives. The structure follows as it appears in the e-Book body, with each paper summarised and reflected upon.

The first paper in this eBook by *Linda Hadfield 'Crisis? Which Crisis?',* gave the group a comprehensive overview on the impacts of the global economy, drawing on ideas of sustainability and the complexity of natural systems. Predictions made by Thomas Malthus are discussed as well as the ideology of progress in terms of how technology influenced agricultural production. Linda puts this all into perspective drawing ethical insights by contrasting the prosperity experienced by a few generations that have resulted in global scale and long term degradation. This paper provides a theoretical overview of the concepts and events that constitute the current condition of our world, in a sense it prepares the ground for the following papers to explore further.

'Immigrants in Their Own Country-Finns Living in Aland' by *Anna-Liisa Kuczynski* is the second paper. This detailed account of Finnish speakers in Aland, their wishes, relations and communications, includes recorded interviews. Aland's autonomy and self-government is discussed and how Swedish becoming the official language changed the situation for Finns, raising issues of human rights and minority groups. The particular focus of this work is the use of language and sense of identity. The social constructionist view that identity is formed in the interaction with significant others, is considered in relation to this context.

While this paper is less environmentally themed than others, it raises fundamental issues and concepts of equity, minority groups and identity. This example in effect teases out a heightened awareness of social inequality and demonstrates how inequity is inbuilt into many social and political systems, shedding light on the nature of the dominant paradigm and the structures that continue to reinforce it.

The third paper of Part One is *'Antarctica: Common Resource or Developer's Dream?'* by *Jane Vebitsky*. The research paper offers a detailed account into the political and legal aspects of Antarctica. Jane highlights the somewhat incompatible joint uses of tourism and scientific research. Two

proposals on the seemingly impending exploitation of Antarctica's resources are discussed: whether to continue to commercialize and privatise or adopt an attitude of benefit sharing to revive a sense of the global commons.

This paper revives and adapts an interesting approach to resource management devised many years ago and shows how differing interests can co-exist under an ethically informed regime. It also puts our present exploitative disposition in perspective, realistically discussing how current decision-making affects our future.

The fourth paper *'Climate Change and the Construction Industry'* by *Francine Baker* considers climate change law in the UK, and focuses on the likely impacts of the Climate Change Act 2008 on the property/construction industry. Francine refers to developing corporate awareness of the advantages of making climate change commitments and the many challenges faced by the property/construction industry. While discussing climate change law, this paper also looks at the crucial role of the built environment in attaining environmental justice. She suggests it is not only good policy-making that is needed to assure this, it also requires best practices to be exercised co-operatively with ethical intentions and accountability of all stakeholders, involving a broad representation of community and industry.

The fifth paper is by *Bridget Lewis* on the topics of *'Environmental Rights, Justice and Climate Change'*. The impact of climate change on human rights is the central theme examined, looking at experiences of Torres Strait Islanders in Australia. In a similar tone to the previous study, it proposes that human rights law can offer a framework for combating climate change by using normative principles to set priorities and evaluate policies. Attention is brought to the central injustice (that it is those who have contributed least to climate change that will be most burdened) from a human rights perspective. This has great implications for the argument that at the heart of environmental issues are ethical ones.

The final paper for this section looks at environmental justice and ethics in regards to domestic legal issues drawing from the Australian experience. *Brad Jessup* writes on *'Investing the Law with an Environmental Ethic: Incorporating Environmental Justice into Domestic Environmental Laws'*. Brad makes reference to the origin of law being hybridized from both archaic judicial principles and modern legislatures. Though it is recognised that a marginal shift has occurred in accepting the importance of sustainable development, biological diversity and the precautionary principle in common law countries, in creating the foundations of domestic environmental law, he exposes the primary drive of law as still being pro-development without ethical and environmental considerations. The inclusion of environmental justice theories and an environmental ethic in legal principles and processes can be achieved by further considering species conservation laws and

avoiding environmental discrimination. This paper builds upon the previous paper by further providing substantiation for the need of environmental law to be ethically based.

The second part of the e-Book brings together a range of related topics, namely Citizen Advocacy, Engagement, Traditional Ecological Knowledge and Sustainable Development. This section offers a more applied and intrinsic insight into the complexities of dealing with stakeholders and indigenous people in the pursuit for sustainable development. The variety of case studies in Part Two, provides a comprehensive overview of different accounts and approaches, the common emphasis being on meeting challenges, revealing sensitivities and arriving at reasonable alternatives to enact what has long been discussed.

The paper presented by *Harriet Nalukenge* introduces the second part of the e-Book. Her paper; '*Environmental Ethics is Key to Sustainability in a Contemporary Society'*, discusses key topics such as intrinsic value and moral duty. Harriet examines the views of Eco-feminists and the radical, social and deep ecologists. Indigenous Knowledge Systems are touched on in terms of how they inspire new thinking that will ensure respect and compassion for nature. The concluding suggestion refers to the importance of governance as opposed to property rights in initiating change.

Harriet presented this pragmatic yet detailed account on significant contributors and recent thinking in environmental ethics. This provided an insight into the fundamentals of environmental ethics. This paper tied many themes together and represented how relevant such notions are in contributing and shaping our response to the challenges we face. In essence, this paper is a connecting piece between the topics in part one and two.

The paper by *Agung Sugiri* called '*Redressing Equity Issues in Natural Resource Rich Regions: A Theoretical Framework for Sustaining Development in East Kalimantan, Indonesia.'* follows. The central theme discussed is inequity, which manifests in differing forms in this study including inequitable distribution of benefits and un-sustainability derived from over exploitation of natural resources. Agung demonstrates in his approach to redressing these issues that environmental and social objectives and outcomes are intertwined. The proposal made to meet the challenges presented is a theoretical framework for public policy reformation. The application of equity is suggested through four functions: benefit distribution, production function, non-production function and reinvestment in sustainability.

The next paper is by *Caroliza Tulod-Peteros 'Is There a Place for Mediation and Other Consensus Building Processes in Environmentally Threatened Communities in the Philippines'*. This case study encompasses the themes of citizen advocacy, the engagement process, and attempts to contribute to sustainable development. She shares the approach of a

corporation called Mediators Network for Sustainable Peace using mediation and other consensus building processes in communities faced with environmental threats or conflict. Commonalities were identified to further the mediation process. The power balance is a key component in this work; questions are raised relating to possible outcome and overall benefits.

The paper titled; *So you Say: 'Ecological Knowledge vs. Economic Need in South America'* was delivered by *Noomi Mozard* as a case study. The study took place in Venezuela on Lake Maracaibo; the paper examines the difficulty of reconciling what is ecologically informed with the existing practices and perceptions of the local environment. Duckweed, pollution and salinity threaten the viability of fish populations on which the local communities rely. The responsible government agency, Institute for Control and Conservation of the Lake Maracaibo Basin, work to restore the lake and educate the local people. It is proposed that by understanding perceptions and constraints, ecological awareness and practices can be increased and can help facilitate sustainable development and protection of the environment. This paper gave a realistic insight into the varied perceptions of stakeholders, defusing some idealistic notions and presenting existing challenges to be better tended to.

Elizabeth Conrad presented a co-authored paper called *'Incorporating People's Perception into Landscape Planing: Ethical Challenges in Dealing with Diversity of Opinion within a Community.* This relates to the papers by Caroliza and Judy. The study incorporates people's responses from a landscape character mapping exercise carried out on the Mediterranean island of Gozo. It included the perception of landscape and desired future visions. Questions are raised as to how a consensus can be made and what views (popular or specialist) should be reflected in policymaking and landscape planning.

Louis Cassar presented a co-authored paper on *'The Role of Stakeholder Engagement in Conservation: Integrating Ecological Sciences and Participatory Methods in a Mediterranean Island Context'*. Louis discusses the motivations of conservation practices for biodiversity preservation rather than for the more holistic concept of sustainability. Showing how landscape management can include cultural dimensions, Louis suggests incorporating expert opinion can bridge the existing gap and the participatory process using soft systems techniques of systemic sustainability analysis and identifying pressures on a landscape scale.

The last paper for this section is *'Indigenous Land Management in a Modern World: A Case Study from Papua New Guinea'* by *Estelle Weber.* It is recognised that poverty can adversely impact ecological sustainability, thus conservation planning organisations (The Nature Conservancy) should aim to improve livelihoods while maintaining cultural and ecological sustainability. In formulation and application of field methods, the challenges inherent in

this project were treated with high cultural sensitivity, according to the bioregional context to ensure lasting successful conservation and resilient and adaptive governance.

This study examines and implements a strengthening mechanism for conservation co-operatives (structure and governance) in the unique context of the Northern Adelbert Mountains near Madang and suggests that similar techniques can be used in other contexts providing local specialisation is accounted for. It demonstrates how important it is to improve property rights and developed land use management plans in conjunction with traditional peoples and government. This initiative theoretically seeks and practically facilitates a reasonable alternative to more exploitative practices (mining and logging industries) by securing tangible benefits for conservation or incentives for good land management.

These case studies are closely interconnected, involving different combinations of the issues and themes covered in this section. They seek to further the empowerment and participation of citizens in working towards ecologically sustainable development. Together these papers present valuable insights and applied methods that are concurrent with ever adapting environmental ethics and site specific needs.

The third and final section covers an equally crucial component of these discussions, environmental education. These papers move beyond the limitations of ineffective conventional practices, formulating innovative directions and approaches, according to current needs and future visions.

The first paper in the third section is *'Virtue Ethics, Biodiversity and Environmental Education'. Paul Knights* discussed education with an academic philosophical basis. He advocates that instilling virtuous characteristics through field based environmental education evokes awareness and empathy towards other species. Such training has the potential to transform moral character, which informs crucial ethical decisions.

During the conference it was contested that bringing youth into contact with the already degraded landscape would merely further reduce its resilience. One possible resolution posed was that this theory could be enacted without negative side effects by engaging youth with ecologically restorative works through action learning.

'The Problem with Consensus: The Contested Terrain of Sustainability in a University Setting' is the next paper. *Rogers and Shepherd* explore environmental ethics and sustainability in different teaching contexts. The pursuit for consensus is discussed and identified as problematic due to the loss of personalised attributes that give meaning to what is determined as right or wrong. It is proposed that the debates arising from the attempt to reach consensus, impinge on the students' ability to engage in transformative learning experiences. The argument put forward is that diversity and

tolerance should be encouraged to allow students to appreciate diversity thus contributing to the learning and capacity of students to be open to change.

This was an important insight as this approach is one, which really laid down the idea of ethics as a guiding principle to be cultured in the upcoming generation. Rarely are such pragmatic and effective accounts given of the role of education in addressing the challenges of today. This has implications for the other delegates involved in law and natural education; it also has the potential to influence those institutions dealing with capacity building.

Erika Techera gave the paper entitled; '*Teaching Environmental Law: Curriculum and Methodologies'*. This involves practical suggestions on improving students' ability to meet future challenges through a more inter-disciplinary approach that better addresses the increasing interconnections and complexities of this discipline.

This pragmatic account with clearly delineated recommendations is readily comprehended and can be implemented through university law departments. While it is specific to the topic of education, this provides an example of exactly how important inter-disciplinarity is in modern times in addressing the complex challenges that are arising. This was an essential notion throughout the conference and was very clearly delivered in Erika's paper.

The final paper is by *Anders Schinkel 'State Neutrality and Compulsory Environmental Education'*. This paper looks at environmental education as a part of moral education. It proposes an interpretation of state neutrality and suggests a principle of ecological neutrality: "the state should be neutral with regard to ecologically acceptable conceptions of the good, but need not be neutral with regard to ecologically unacceptable conceptions of the good." Rawls is discussed in Hailwood's paper and is critiqued here. The paper recognises that this is not totally compatible with liberal neutrality and considers what level of compulsory environmental education is acceptable within state neutrality. Moderate anthropocentrism is chosen rather than eco-centrism.

Essentially this paper inquires into a contentious issue and examines under what guiding philosophical paradigm it can operate. The common link is that environmental issues have a moral basis and that teaching and knowledge is not enough alone to address the challenges. Both ethics and justice is incorporated in discussions of power relations, non-human animals and between generations in a similar manner to Paul Knights.

Overall the emphasis of the conference on outlining challenges promoted reflection and progress with these previously limiting aspects to cultivate new ground for the future we now feel is in our hands. It is hoped that conversing between diverse and interactive themes and exploration of common challenges, builds the momentum of these efforts to synthesise an

ethically informed and practically effective approach to address the issues that define our time.

Estelle L. Weber
2009

PART I

Environmental Ethics and Justice

Crisis? Which Crisis?

Linda Hadfield

Abstract
Recent events in the global economy have focused the minds of rulers and ruled alike on the future of an economic system predicated on growth. Despite the increasing currency of the term sustainability, when evidence of the unsustainability of dominant systems becomes all too apparent, the impacts are greeted with confusion, incredulity and frantic efforts to restore growth.
However, the present crisis of the economic system is a shadow of a set of interlinked, impending, and long predicted, crises of the physical world: resource depletion, water shortage, soil deterioration, the accumulation of non-degradable waste and climate change. Thomas Malthus predicted that human populations would grow to the point at which they were curtailed by the starvation of the masses, because while the growth of populations is geometric, that of food production is arithmetic. Although the simplicity of this thesis has been apparently overturned by the development of various technologies over the last three centuries, there is a kernel of fundamental truth, which we neglect at out peril.
This paper will draw on ideas of economic growth and sustainability, as well as more recent thought on complexity and the nature of complex systems, to consider how the ideology of progress through technology has brought prosperity for some over a few generations at the expense of long term degradation on a planetary scale.

Key Words: Economic growth, sustainability, complex systems.

*****

1. Introduction

Recent events in the developed Western economies, particularly the UK and USA, with the collapse of several major banks and a consequent reduction in available credit, have led to a situation of crisis in the so-called real economy, with businesses and jobs in decline. This paper will not seek to examine in detail the causes and consequences of the crisis, but to place it within the context of the wider environmental crisis. It is arguable that the crisis of capitalism has long been predicted, or at least predictable, if not in detail, then in general outline. Similarly, a number of linked crises, of climate change, pollution, resource depletion and over-population may be anticipated in the not too distant future.

The paper will draw on the concepts of complex systems in order to look at the contradictions and controversies within the rhetoric and discourse surrounding these issues, which mitigate against their solution.

2. The Malthusian Prediction

When Thomas Malthus published his Essay on the Principle of Population in 1798, he resoundingly earned for the developing field of political economy the title: "the gloomy science". Malthus argued that the human population, if allowed to grow unchecked, would eventually outstrip the supply of food needed to sustain it, the outcome being starvation and misery.[1] The growth of population without limits is a positive feedback, in which each generation contains more potential parents than the one before, and so on and on until the carrying capacity of the food source is reached. The ineluctable consequence of this is that the population, which could not be held back by restraint, is forcibly depleted by starvation, perhaps assisted by its fellow horsemen, war and pestilence.

It can be seen as a testament to human ingenuity that, over two centuries after Malthus' insight, a significant portion of humanity is living life far above the subsistence level. The current world population of 6.78 billion people would have been as unimaginable to Malthus as the technology, which now permeates daily life.[2]

It is to technology that these remarkable facts can be ascribed. The Agrarian Revolution of the 18th century, with the introduction of new crops and methods such as selective breeding and crop rotation, increased the productivity and yield of agriculture at a time when demand for food was growing in order to feed the workers in the factories of the industrial revolution. A similar effect was to be observed in the middle of the 20th century with the Green Revolution, the development of new methods of agronomy, the use of artificial fertilisers and pesticides and the increasingly industrialised farming of livestock. Another contributory aspect is the demographic transition, an outcome of complex factors including the development and widespread use of contraceptives and changes in the education and status of women, which have led in developed countries to the reduction of birth rates, in some cases to below the replacement rate.[3]

3. Models of Economic Growth

The immediate Malthusian catastrophe therefore appears to have been averted, or at least overtaken by other events. The Industrial Revolution and concomitant increase in agricultural productivity also ushered in the period of economic, as well as simple population, growth. Economic growth is the increase in the value of goods and services produced in an economy over time. It may be caused by increasing inputs (labour, capital and materials) or increasing the rate of productivity, i.e. the amount of output,

which can be produced from those inputs, usually linked to technological change.

The essence of the free market capitalist system is competition. Multiple firms compete in the market place to satisfy the demands of consumers. It is widely accepted that potential demand is infinite, but effective demand, that demand which is backed up by funds and which can hence be converted into purchases of goods and services, is limited.[4] This leads to a situation in which all firms in an industry compete to satisfy that demand. According to neo-classical economics, it is the most efficient firms, those with the lowest unit costs, who can hence charge the lowest price to cover those costs and make enough profit to stay in business. If excess profits are being made, other firms will enter the market and compete to satisfy the available demand. Those firms which are unable to compete on price will eventually collapse, leading, in theory, to a situation of equilibrium in which unit price to the consumer is equal to the marginal cost of production.

For Marx, however, this benign state of affairs (from the consumer's point of view) was unlikely to persist for long. He envisaged that capitalistic producers would constantly strive to drive down costs, primarily labour costs, or wages. He foresaw that the capitalist system was inherently prone to periodic crises, in which weaker firms would be driven to the wall and bought up by the more successful firms. Technological development was not benign, or even neutral, but a means by which capitalists could replace workers and cut wages. Eventually, he envisaged a situation in which capitalism itself would be destroyed by this constant competitive striving.[5]

Schumpeter characterised this driving force within capitalism as "creative destruction". In advanced economies, products, companies, industries and sectors have a life cycle which involves initial dynamism and growth in the exploitation of a new market, continued development, perhaps to market dominance, but eventually to decline as other firms and markets arise to meet new opportunities.[6]

Crucial to the onward march of capitalism in this regard is the availability of robust demand, in terms of effective demand, the ability of consumers to purchase the goods and services produced. Stepping back from the closed world of economics to the broader perspectives of the world at large, it becomes clear that those consumers are in fact the same people, entrepreneurs and labourers, who are involved in the productive side of the economy. When the force of creative destruction leads to the closure of firms, the spending power of those consumers who were employed by the firms concerned is, at least temporarily, removed from the market. This was the great insight of Keynes, who argued that an economy in recession would fall into a catastrophic vicious circle of declining demand, declining consumption, declining production and a further decline in employment, unless demand was stimulated by creating opportunities for employment.[7]

Galbraith, a colleague and follower of Keynes, but writing twenty years after him, from the perspective of the post-war boom, observed that consumption, the creation of demand, had overtaken production of scarce goods as the driving force of the economic system, to such an extent that a whole industry had arisen whose primary purpose was the stimulation or creation of demand to keep the wheels turning, i.e. the advertising industry.[8]

4. The Consequences of Economic Growth

The purpose of the foregoing brief and selective summary of economic thought is to raise a number of issues:

- The economic system is dependent on growth, fuelled by consumption.
- When considered over time, the economic system is dynamic, and products, firms and industries rise and fall.
- Technological development is crucial in finding new ways and driving down the costs of meeting old demands, but also in developing new demands to generate more growth.

  The emphasis on growth leads to outcomes, which are treated in conventional economics as externalities, to be dealt with outside the system.

A. Pollution

The most commonly cited externality is pollution, often considered primarily as unwanted side effects generated during the production process itself, such as emission of waste products to the air or water. Efforts to reduce, ameliorate or absorb such pollutants were developed over the last half of the twentieth century, usually after the negative impacts were finally recognised and their significance acknowledged by the political system. Given that the first law of thermodynamics states that energy can neither be created nor destroyed, such processes often involve the transfer of the pollutant in question from one medium to another, for example the use of scrubbers to remove undesirable chemicals from gaseous emissions. However, pollution should be considered more broadly to cover the full life cycle of the product, including transport/delivery, packaging waste, energy consumption in use over its lifetime, and final disposal.

The management of pollution is governed by political, social and economic considerations as much as, if not more so than, technological or scientific ones. In complex systems terms, it may be considered as an interlinked or co-evolutionary set of processes in a number of different spheres: biological; scientific; perceptual; political/economic; and behavioural. Changes, which occur in biophysical systems, may initially not

be observed, or only by marginal groups whose concerns are perhaps not taken seriously. Gradually, through a process of knowledge emergence, the changes may be better recognised and understood, a process which accelerates if and when the subject is considered worthy of further study and research investment. However the nature of such effects is often highly uncertain and controversial, at least initially. As the issues come to be discussed more widely, with concerned individuals and groups raising the profile, perceptions among policy makers and public may shift. Often the mass media have a role to play in this, if issues become considered as *causes célèbres*, although the attention may be short lived, and is as likely to be opposed as supportive. The question of public trust may be crucial in determining public response, and political support for an issue may be counter productive in influencing individual behaviour, as can be seen with the public backlash against climate change policy, in which government actions are seen in some quarters as too little too late, but in others as an over-reaction to an uncertain scientific need, and a cynical excuse to increase taxes.[9]

Changes in perceptions therefore may or may not have the effect of changing individual behaviour, which may or may not act to resolve the original problem, but may also lead to unanticipated and unintended consequences or emergent effects. Change processes in all these systems may continue to affect each other incrementally over time, but history suggests that major changes in perceptions and policy, including changes to the managing institutions, rarely occur without the stimulus of external shocks, or triggers.

B. Limits to Growth

Increased pollution is not the only negative impact of the growth model. One, which is closely related, is that of resource depletion, typified by the concept of "Peak Oil". Peak oil refers to the point of maximum production of oil, after which production begins to decline, and can be applied to production from an individual field, country or the planet as a whole. Globally, peak oil has been predicted to occur around 2020, although pessimistic assessments anticipate an earlier peak, or possibly that it has already occurred.[10]

A report sponsored by the Club of Rome and published in 1972 used computer models to simulate and predict the future impacts of five major processes: world population, industrialization, pollution, food production and resource depletion[11]. The predictions generated from the models were severe, suggesting that if rates of consumption continued unchecked, the depletion of non-renewable resources would lead to a catastrophic collapse of the world economic and social system, characterised by mass unemployment, declining food production and a crash in population numbers. The report was widely

criticised at the time for the nature of its assumptions and for being alarmist, and did not lead to any notable revisions of policy and attitudes towards economic and population growth. However, recent revisions to the report, and other studies comparing its predictions with historical developments over the last thirty years, suggest that its overall predictions of the relationship between human consumption and the earth's carrying capacity have been borne out, and that although in the 1970s when the initial report was produced, there was still some leeway to change policies and behaviour in order to avert the ultimate catastrophe, that opportunity has now been lost.[12]

C. Social Impacts of Creative Destruction

The churning of the economy through the decline and fall of firms and industries may be regarded either as the freeing up of resources for the development of new opportunities, or the destruction of communities, particularly when job losses are concentrated in a particular geographical area. For an individual, the experience of unemployment can be devastating, and will also have a knock-on effect on their family. Economists distinguish between frictional unemployment, which is a temporary state while an individual is between jobs, and structural unemployment caused by long term change in a particular industry, which may mean that laid off workers have to retrain or move away from the area in order to find work. In a buoyant economy, new opportunities for employment in a similar job and/or industry may be available. Long-term unemployment may lead for an individual to loss of social networks, deterioration in physical and mental health, and family breakdown. More generally, high levels of unemployment in society or a specific area may result in an increase in social exclusion and anti-social and criminal behaviour. Intergenerational unemployment may become entrenched in areas where major industries have closed down and not been replaced.

Given such dire consequences, national and regional governments often find themselves under pressure to respond when major firms or industries close down in an area. However, the effectiveness of the support, which can be provided, will depend on the reasons for the initial failure. The globalisation of production and consumption, and the multinational ownership of many companies has led to situations where those causes may be far removed geographically from the location of the displaced workers. If the underlying reasons for the closure relate to a lack of competitiveness or declining demand, even if money can be found to rescue the firm and preserve jobs in the short term, over the long term the same economic factors which caused the initial crisis will reassert themselves, and the prognosis may not be good.

D. Inequity and Social Justice

The income and consumption generated by economic growth is not equally distributed, either within or between nations. In the UK, the distribution of household income has remained relatively stable since 1992, with the top quintile receiving approximately 42% of national income, while the bottom quintile receives 7%.[13]

However, not surprisingly, the international contrasts are far starker. The United Nations Development Programme (UNDP) reported in 1998 that the highest income countries, with 20% of the world's population, accounted for 86% of personal consumption expenditure, while the expenditure of the poorest quintile was 1.3%. More specifically:

> The richest fifth:
> • Consume 45% of all meat and fish, the poorest fifth 5%.
> • Consume 58% of total energy, the poorest fifth less than 4%.
> • Have 74% of all telephone lines, the poorest fifth 1.5%.
> • Consume 84% of all paper, the poorest fifth 1.1%.
> • Own 87% of the world's vehicle fleet, the poorest fifth less than 1%[14].

However, it also went on to confirm that, even within industrialized countries, some 7-17% of the population experiences poverty, with 100 million people homeless, 37 million without jobs and almost 200 million expected to die before the age of 60, due to poverty. [15]

5. Sustainability

Widespread recognition of the limitations of the growth model led during the last decades of the twentieth century to a search for a new approach. The Brundtland Commission, convened in 1983 by the UN General Assembly, defined sustainable development in 1987 as: "development that meets the needs of the present without compromising the ability of future generations to meet their own needs".[16] Sustainable development has three broad strands: environmental, economic and social, all of which feed into each other. The United Nations Conference on Environment and Development (UNCED), convened in Rio de Janeiro in June 1992, discussed the need to find a new way forward, which can integrate economic growth and development with regard for the environment. Representatives from 108 nations were present at the conference. It produced three major agreements: Agenda 21, an action plan for global sustainable development; the Rio Declaration on Environment and Development, a series of principles which defines the rights and responsibilities of States; and the Statement of Forest Principles. In addition, it issued two legally binding

conventions, the United Nations Framework Convention on Climate Change and the Convention on Biological Diversity.[17]

In 1997, the Kyoto Protocol committed the industrialised nations to a reduction in their collective greenhouse gas emissions by 5.2% compared to the year 1990. Notoriously, however, the effectiveness of the Protocol was severely undermined by the refusal of US President George W Bush to ratify it.

In 2000, on the eve of the new millennium, the General Assembly of the United Nations met to reaffirm their commitment to the founding charter of the UN, and make a further declaration in support of a number of aims, including item 22:

> We reaffirm our support for the principles of sustainable development, including those set out in Agenda 21, agreed upon at the United Nations Conference on Environment and Development.[18]

This United Nations Millennium Declaration led to the codification of a set of Millennium Development Goals, including Goal 7: "Ensure environmental sustainability".[19]

However, the outcomes of a further World Summit, held in Johannesburg in 2002, were widely criticised. Its main documents, The Political Declaration and Plan of Implementation were seen as little more than a restatement of past commitments and a missed opportunity to further the cause of sustainability. It was claimed by some NGOs that the shifting of the focus to the aim of alleviating poverty, while worthy in itself, led to a neglect of the environmental implications, and prioritised the continuing pursuit of existing models of economic growth, rather than a search for genuinely more sustainable alternatives.

6. The Contradictions of Consumption

It is clear from the foregoing that the need for sustainability has been recognised by the world community for at least twenty years. However, paradoxically, consumption has continued to grow during this period. Consumption per capita in the industrialised countries increased steadily over the last quarter of the 20th century at an annual rate of about 2.3%. Between 1960 and 2000, private consumption expenditure quadrupled from $4.8 trillion to over $20 trillion. [20]

The reasons for this mismatch of rhetorics are complex, but have been investigated at the more micro level of specific environmental issues such as the health effects of motor transport. Such issues may be characterised as emergent, in the sense that while they are rooted in causes

which are simple and easily understood, the interaction of those underlying causes may generate qualitatively new effects at a level of greater complexity. Although these causes may relate to human activity, and the effects generated may impact on humans, there is no direct or clear relationship between the two, with the recipients of those impacts often distant in space and/or time from those responsible for the causes. [21]

The technical relationships are also embedded in a complex web of perception and meaning, consisting of multiple, nested, overlapping hierarchical relationships. When the overall issue or problem entails human involvement, either in terms of the source of the problem or the impact, any attempt to understand the issue or provide a solution must take that human interaction into account. Policy approaches which explicitly attempt to modify behaviour, through modifying perceptions, also face major problems, firstly because the message which is being put over may not be heard and / or understood by the individuals to whom it is addressed, and secondly, because, even if the perceptual change is achieved, it may not translate into behavioural change.

The issue of private motor transport offers a useful and topical illustration. In 1994, The Royal Commission on Environmental Pollution warned:

> ... the aim of future planning policies must be to reduce the need for movement (instead of stimulating ever more mobility, as has been for too long the case). This will involve a gradual shift away from lifestyles which depend on high mobility and intensive use of cars". [22]

Nevertheless, the mileage driven in the UK increased by 5% between 1995 and 2002, while the mileage traveled by car passengers increased by 3%. [23]

The co-evolutionary model of change described earlier was developed from a study conducted in the 1990s into the perceptions and policies related to traffic pollution and health in Oxford, but its main findings have wider application to understanding why such warnings often go unheeded:

- Those individuals who suffer the negative impacts of the problem may be distant in space and/or time from those responsible for the contributory causes.
- The complexity of the underlying physical relationships leads to scientific uncertainty and hence a lack of clarity in the messages received by the public, which may be exploited by those with a

vested interest in maintaining the status quo to imply that the issues are less clear than they are.

- While multiple viewpoints and multiple vested interests exist, acceptance of the implications of messages about the issues by individual members of the public are mediated by their own personal experience and knowledge, and the extent to which they trust the source of the message.
- The ability of individuals to respond and change their behaviour is limited not only by their knowledge and perceptions of the issue, but also by practical considerations arising from their personal circumstances, and the priority which they personally give to the issue over other issues which concern them.
- At an institutional level, different elements of the emergent system are managed by different and overlapping hierarchies, subject to different pressures and priorities, and there is no overall ownership of the system.

This generalised model can be applied at different levels, and can be helpful in the consideration of recent concerns over the economic status of the motor industry in the UK economy. Messages such as those of the RCEP appear to have little impact on the general public and purchasers of motor vehicles. It has been left to the recent fall in effective demand within the economy to bring down the sales of new cars. The Society of Motor Manufacturers and Traders reported that sales in the UK in May 2009 were 24.8% lower than in May 2008, the 13th consecutive month of year-on-year losses[24]. However, rather than seeing this as a positive sign in environmental terms, the UK government in the same month introduced a £300 million initiative to provide a £2,000 cash incentive for drivers who trade in a car more than 10 years old to buy a brand-new model[25]. The crash in car sales which has led to General Motors filing for bankruptcy is seen exclusively in terms of the impact on the economy and jobs, taking priority over wider environmental concerns.

7. Conclusions

In 1958, John Kenneth Galbraith wrote:

> "The process by which wants are now synthesized is a potential source of economic instability. Production and therewith employment and social security are dependent on an inherently unstable process of consumer debt creation. This may one day falter. And a decay in emulative consumptions or in the ability to synthesize demand could

> bring a fall in consumption, an increase in unemployment, and a difficult problem of readjustment".[26]

Writing from the perspective of his era, Galbraith made no mention of the environment or sustainability, neither of which appears in the index of his book, although the driving force of his narrative can be seen as a concern for the sustainability, in the narrower sense, of an economic system dependent on ever-growing levels of consumption. In some ways, the continuing success of that system on its own terms (barring periodic hiccups) for a further 50 years is impressive in itself.

Rewinding a further 150 years, to the prognostications of Malthus, the issues of consumption and credit have a deeper resonance. The avoidance of the Malthusian catastrophe through what may be seen as a Faustian pact with technology and development has created both previously unimaginable wealth for some (though by no means all) and unimaginable problems, including possibly irreversible changes to the planetary systems which made human life possible in the first place. For two centuries, perhaps, we have been living on credit, and payback time is approaching.

It is my personal challenge now to draw a positive conclusion to this gloomy narrative. And if any hope is to be found, perhaps it lies in this: past study of smaller scale emergent issues has shown that positive action is not taken until a crisis or trigger occurs. Perhaps the current situation offers the opportunity to take stock of how we have got here, and will live up to the promise of creative destruction by enabling us to find a better way forward.

Notes

[1] Thomas Malthus, *An Essay on the Principle of Population*. Oxford Paperbacks, Oxford, 1999.
[2] US Census Bureau, http://www.census.gov/ipc/www/idb/worldpopinfo.html. Accessed 24 May 2009.
[3] John C. Caldwell, *Demographic Transition Theory*. Springer, New York, 2006.
[4] John Maynard Keynes, *The General Theory of Employment, Interest and Money.* Macmillan, London, 1970.
[5] Karl Marx and David McLellan (ed), *Capital:An Abridged Edition.* Oxford Paperbacks, Oxford, 1999.
[6] Joseph Schumpeter, *Capitalism, Socialism and Democracy.* Routledge, London, 1994.
[7] Keynes, op cit.
[8] John Kenneth Galbraith, *The Affluent Society.* Penguin, London, 1971.

[9] Linda Hadfield and R A F Seaton, "A Co-evolutionary Model of Change in Environmental Management", *Futures*, vol 31(5), 1999, pp. 577-592.
[10] Matthew R Simmons, *Twilight in the Desert: The Coming Saudi Oil Shock and the World Economy*. John Wiley & Sons, London, 2005.
[11] Jorgen Randers, Dennis L. Meadows and William W. Behrens, *The Limits to Growth:A Report for the Club of Rome's Project on the Predicament of Mankind.* Macmillan, London, 1979.
[12] Graham Turner, *A Comparison of "The Limits to Growth" with Thirty Years of Reality*, Commonwealth Scientific and Industrial Research Organisation, Melborne, 2008.
[13] UK Government Office of National Statistics, http://www.statistics.gov.uk/cci/nugget.asp?id=332, accessed 24 May 2009.
[14] *United Nations Development Programme, Consumption for Human Development*, http://hdr.undp.org/en/media/hdr_1998_en_overview.pdf, 1998, accessed 24 May 2009.
[15] Ibid.
[16] World Commission on Environment and Development, *Our Common Future*. Oxford Paperbacks, Oxford, 1987.
[17] United Nations Environment Programme, Rio Declaration on Environment and Development http://www.unep.org/Documents.Multilingual/Default.asp?DocumentID=78&ArticleID=1163, 1992, accessed 31 May 2009.
[18] United Nations Millennium Declaration, http://www.un.org/millennium/declaration/ares552e.pdf, 2000, accessed 31 May 2009.
[19] United Nations, United Nations Millennium Declaration, http://www.un.org/millennium/, 2000, Accessed 1 June 2009.
[20] Worldwatch Institute, *State of the World in 2004.* Worldwatch Institute, Washington DC, 2004
[21] Linda Hadfield, *Emergent Techno-Environmental Phenomena*. PhD Thesis, International Ecotechnology Research Centre, Cranfield University, UK, 1997, https://dspace.lib.cranfield.ac.uk/bitstream/1826/847/2/Linda%20Hadfield%20PhD%20Thesis%201997.pdf Accessed 27 July 2009.
[22] Royal Commission on Environmental Pollution, *Eighteenth Report: Transport And The Environment.* HMSO, London, 1994.
[23] Department for Transport, *Focus on Personal Travel: England: 2005 Edition*. The Stationery Office, 2005, http://www.dft.gov.uk/adobepdf/162469/221412/221531/224097/224100/coll_focusonpersonaltravel2005ed/focusonpersonaltravel2005edition Accessed 7 June 2009.

[24] The Press Association, http://www.google.com/hostednews/ukpress/article/ALeqM5g0EuFgK51-p05Ugpdiv-8Z5M5xbQ Accessed 7 June 2009.
[25] http://www.scrappage.org.uk/ Accessed 7 June 2009.
[26] Galbraith, op cit, p228.

Bibliography

Caldwell, J.C., *Demographic Transition Theory*, Springer, New York, 2006.

Galbraith, J.K., *The Affluent Society.* Penguin, London, 1971.

Hadfield, L., and Seaton, R .A .F., 'A Co-evolutionary Model of Change in Environmental Management', in *Futures*, vol 31(5), 1999, pp. 577-592.

Hadfield, L., Emergent *Techno-Environmental Phenomena*. PhD Thesis, International Ecotechnology Research Centre, Cranfield University, UK, 1997. Online. <https://dspace.lib.cranfield.ac.uk/bitstream/1826/847/2/Linda%20Hadfield%20PhD%20Thesis%201997.pdf >.

Keynes, JM., *The General Theory of Employment, Interest and Money.* Macmillan, London, 1970.

Malthus, T., *An Essay on the Principle of Population*, Oxford Paperbacks, Oxford, 1999.

Marx, K., and McLellan, D., (eds), *Capital: An Abridged Edition*, Oxford Paperbacks, Oxford, 1999.

Randers, J., Meadows DL., and Behrens, W.W., *The Limits to Growth: A Report for the Club of Rome's Project on the Predicament of Mankind*, Macmillan, London, 1979.

Royal Commission on Environmental Pollution, *Eighteenth Report: Transport and the Environment*, HMSO, London, 1994.

Schumpeter, J., *Capitalism, Socialism and Democracy*. Routledge, London, 1994.

Simmons, M.R., *Twilight in the Desert: The Coming Saudi Oil Shock and the World Economy*, John Wiley & Sons, London, 2005.

Turner, G., *A Comparison of "The Limits to Growth" with Thirty Years of Reality*, Commonwealth Scientific and Industrial Research Organisation, Melbourne, 2008.

United Nations Development Programme, Consumption for Human Development, 1998. Online.
<http://hdr.undp.org/en/media/hdr_1998_en_overview.pdf>.

United Nations Environment Programme, *Rio Declaration on Environment and Development,* Online.
<http://www.unep.org/Documents.Multilingual/Default.asp?DocumentID=78&ArticleID=1163, 1992>.

United Nations, *United Nations Millennium Declaration.* Online.
<http://www.un.org/millennium/, 2000>.

World Commission on Environment and Development, *Our Common Future*, Oxford Paperbacks, Oxford, 1987.

Worldwatch Institute, *State of the World in 2004*, Worldwatch Institute, Washington DC, 2004.

Linda Hadfield is an independent researcher and consultant, working for Greengauge Consultancy, Bedford, UK. Her main research interest is in taking a systems approach to the interactions between human and physical systems, and particularly the development of knowledge and perceptions of environmental issues and risks.

Immigrants in Their "Own" Country–Finns Living in Åland

Anna-Liisa Kuczynski

Abstract
Being an autonomous province the Åland Islands have a special status in Finland. Self-government was offered in 1920 and affirmed by the League of Nations in 1921. The Act on Autonomy came into force in 1922. By this legislation Swedish was granted official status in administration and as the language of education in schools maintained by public funds. Finns, here meaning Finnish speakers, have existed in Åland for a long time. During the last two decades their number has increased and is now 5 % of the total population of 27 000 people. After The Act of Autonomy, the situation of Finns changed. In a way they became a minority within a minority. Their wish for advanced classes in Finnish for their children was in conflict with the Act of Autonomy and was denied. Yet it was in line with the Declaration of Human Rights concerning minorities. The controversial issue is discussed in relation to the definition of a minority. In this paper I will discuss, how Finns experience their Finnishness in Åland, the difficulty of communicating Finnishness or negotiating it? According to social constructionist view, identity is being formed in interaction with significant others. What does it mean to the Finns that the significant others for the most part consist of members of monolingual Swedish-speaking society? Yet the Finnish language can be seen as one of the most important symbols of Finnishness on the islands. This paper is based on an analysis of interviews with Finns living in Åland.

Key Words: Åland Islands, autonomy, monolingual, Swedish language, minority, identity, Finnishness, Finnish language.

*****

1. Introduction

Finland has two official languages Finnish and Swedish. The Swedish-speaking minority consisting of about five percent of the population is concentrated in the coastal areas and the archipelago. Only the province of Åland is monolingual Swedish with self-government. In this paper my aim is to find out how a small Finnish-speaking group within a minority copes with daily life. Is it possible to communicate one's Finnishness or negotiate it, and in which ways? According to the social constructionist view the identity is formed in interaction with significant others.[1] What does it mean to the Finns in Åland that their significant others for the most part consist of members of the mono-lingual Swedish-speaking and often very Sweden-orientated

society? Finnish language can be said to be one of the most important symbols of Finnishness on the islands.

This paper is based on an analysis of 12 qualitative in-depth interviews with Finns speaking Finnish as their mother tongue living on the Åland islands.[2] A semi-structured questionnaire was used with the following themes to discuss: family history and its meaning to the interviewee, language use in the family, contacts and contact arenas, language and identity (articulations), and encountering the Åland society. The majority of informants were women married to Ålanders or Swedish speakers from the Finnish mainland. In three families both spouses were Finns. The informants had lived on the islands for 20-30 years, some even for 40 or 50 years, only one had stayed less than 10 years. The reason for moving to the islands had been marriage or an opportunity to get work. All except one informant knew Swedish to some extent, when they moved to Åland. The majority of their children were born on the islands. Here I'll comment on some of the results and leave the theoretical frame of reference, a possible diasporic or translocal identity, to a further discussion.

2. Background, Åland as a community

The autonomy of Åland goes back to the events after World War I and Finland's declaration of independence in 1917. Before that Finland had been under Russian rule as an autonomous Grand Duchy since their war with Sweden 1808-1809. After Finland's declaration of independence a movement towards reunion with the old motherland Sweden, arose in Åland. Finland then offered the province a self-government in 1920, which was affirmed by the League of Nations in 1921. The Act on Autonomy came into force in August 1922.[3] By this legislation the Swedish language was granted official status in the administration and as the language of education in schools maintained by public funds. However, a Finnish-speaking citizen has the right to use Finnish in court and with other state officials.[4] One important part of the Autonomy legislation is the right of domicile, a kind of regional citizenship giving a right to vote and to be eligible in local elections, to own real property and to exercise a more extensive trade or profession. Since the amendments in 1991 one of the preconditions for the right of domicile is a satisfactory proficiency in Swedish language.[5]

Finns, here meaning Finnish speakers, have existed in Åland for a long time. During the last two decades their number shows an increase from 1128 in 1990 to 1369 in 2007, which means around five percent of the total population of 27 153. The majority of them are women (908): almost two times the number of Finnish speaking men (459). Around 40 % of all people in Åland are living in Mariehamn, the only town and province capital.[6]

Before 1922 the Finns in Åland clearly represented the language majority from the Finnish mainland, but after the Autonomy Act was

introduced the situation got more complicated. In a way the Finns became a minority within a minority. When their number increased, the Finns in Åland indicated their wish for advanced classes in Finnish for their children. The voluntary Finnish classes in school were given too late and did not correspond to the level of knowledge in Finnish the children already had. Often the children changed their language totally later on. Language is one of the main symbols of identity and affinity.[7] Here the appeal came to be in conflict with The Act on Autonomy and was denied, yet it corresponded to the Declaration of Human Rights concerning minorities. The controversial issue discussed is how, and in relation to what, the minority is defined.[8] Opinions in the province are divided, about the benefits of knowing Finnish. The private sector has expressed their need for employees proficient in Finnish, while the issue for the public sector is problematic.[9]

As typical for small communities, the locals in Åland know each other and relate to each other in some specialised way. When meeting a person they cannot recognize, they want to find out the person's family connections. One of the informants saw in a local newspaper an anecdote about how long time one could keep Ålanders from asking about family and relatives. She remembered seven seconds mentioned as the record![10] To the informants Ålanders therefore seem to be very curious about other people. Some of the Finns experienced this as a kind of social control and a definition of their position in the community. At the same time they felt themselves as outsiders or not included in the local networks, which they saw as being hard to get inside.[11] One of the informants put it as follows:

> A: For them, Ålanders, it is very important to know, whose child you are, so that they can place you somewhere.
> Q: In some families?
> A: Yes, that they can know. When you come from the mainland so I think they feel embarrassed because they cannot place you anywhere here...They say that you cannot be an Ålander if you don't have a family of four generations living here... They consider you as an outsider, you cannot get inside…
> Q: The community?
> A: Yes, you cannot get in. Okay, the people, they are kind in a way, but still you feel an outsider.[12]

Small communities also have positive traits: in Åland one can feel safe knowing that nothing can happen without someone in the neighbourhood having observed it. The curiosity was seen by some informants as an expression of caring and responsibility for the neighbours, which evoked feelings of trust and security.[13] The children, for example were always

observed by some people and the mothers got reports from other parents on where and with whom they had been. People could also warn the children not to do something inappropriate.[14] The small size of the community was thus seen both as a disadvantage and an advantage.

3. The meaning of the childhood family and home

Most of the informants saw their childhood family and their Finnish roots as important in some extent. I asked during the interviews, if the informants put value on the objects and photos they had or had inherited, and if they used to tell stories about persons or events in the family. The value of both the objects and the photos always depends on how the viewer sees and interprets them. The inner world of interpretations can be created through existing materials combining fact and fiction with no need to separate them.[15] For some informants the photos and objects did not have a special meaning, while in others they evoked strong memories, activated thoughts and both positive and negative feelings connected to places and persons significant for them. On informant reflected as follows:

> Q: Do you have photos from your childhood and childhood home?
> A: Yes I have, plenty of them, yes. To a large extent from childhood and of the very persons who were so important to me.
> Q: How often do you look at these photos and think of the persons?
> A: Honestly, I must say, I see them very seldom.
> Int.: They are not displayed?
> A: No, because I get so melancholy and depressed.
> Q: So you don't want to have them displayed?
> A: No.
> Q: Do you ever want to look at them, when could it be, that kind of occasion?
> A: Some times, when I really get that kind of feeling, when I am all alone. I then put on a certain kind of music and then the idea springs up that now I want to look at them…[16]

Through looking at the photos the persons could go back to their past and understand the meaning of their roots. Thus these had become a part of their personal history and in that way even a part of their self-concept.[17] Interviews concerning stories about old events or family members revealed their importance. Recollections of old stories about family and childhood can be seen as creating affinity between family members. Some stories about relatives and family traditions can become institutionalized within the family.

They are told either for an amusing purpose, as it had happened in one case[18] or sometimes as a warning example[19]. Even when the informant in another case didn't remember the events she was told she had participated in, or she had experienced it in a different way, she accepted it as fact.[20] Thus the focus is no more in the personal memory but merges into the collective recollections as a part of them.[21] The stories then become a part of both the family's collective memory and the personal history of the members, creating a feeling of togetherness between them.

4. Language(s) spoken at home

In the three families where both spouses were Finnish the home language was normally Finnish, too.[22] In one case when discussing children's school matters or hobbies the language could change to Swedish. Apparently the children had learned these vocabularies in Swedish. Even in a fourth family the parents spoke Finnish despite the husband's mother tongue being Swedish. The father had always spoken Swedish with the children.[23]

In two families the only home language was Swedish. In one family the Finnish mother had not been allowed to speak Finnish with the children, in the other it was a voluntary choice. In the first case it depended on the attitudes towards Finnishness being very negative in Åland in the 1950's. Today the situation might have been different as the informant assumed.[24] In the other family the Finnish mother paid regard to the father's work. With weeks away from home speaking Finnish with the children would have made them strangers to their home coming father who did not know Finnish at all.[25]

In two families both parents spoke their mother tongue with each other and to the children. Theoretically the languages had an equal position, but not in practice, because most often the children preferred to answer in Swedish.[26] To persuade them to speak Finnish was not always easy:

> A: It is so hard for my children to understand that there are people who don't understand even Swedish. So I have some motivation problems with the Finnish language. That's why it is so very important that my relatives visit us, especially those with small children. There are no better language teachers than small children![27]

In the remaining families the common language was Swedish yet the Finnish parent was speaking mostly Finnish with the children. In one case the Finnish mother had been persistent and just continued speaking Finnish though her husband and his family had been against it.[28] In all families the children used to speak Swedish with each other. Here a principle of practicality is functioning; Swedish is the language the children know best.

When contemplating the informants' language situation at home it is obvious that the Finnish language held a big importance for the most of them. As the mother tongue it is still a part of their personality and identity[29] manifested e.g. by some informants who continued to speak Finnish with their spouses in spite of speaking Swedish outside the home. The importance of Finnish was especially obvious in that all the Finns with one exception had wished that their children would learn Finnish. Even in the case of the mother not allowed to speak Finnish she had initially begun to do so. Many parents saw it nevertheless as a hard task because of the surrounding society being Swedish. Even the attitudes towards Finnish could be experienced as negative, because Finnish was seen as a threat to the Swedish language.[30] It also had a lower status in Åland than Swedish. Visits to mainland Finland or of Finnish relatives were therefore of importance as noted in the quote above.

5. Contacts with other Finns and meeting arenas

Most of the daily contacts of the informants were in Swedish with native Ålanders. As a rule the fellow employees in the workplaces were or had been Swedish speaking, yet many also had some Finns as workmates, some of them even as personal friends.[31] When working in private companies or in the service sector contacts with other Finns had been a rule. In the public sector the contacts with Finns were a fact every now and then, though the language then was Swedish with some exceptions, which were not seen as appropriate.[32]

The private contacts of the informants varied, being both with native Ålanders and with Finns. Some of the informants had very few contacts in general; some again had lots of them with people and families from both language groups. In some cases the private contacts were mostly with Swedish speakers in Åland and with family members on the mainland or elsewhere.[33] Some informants had Finns as their best friends in spite of other contacts, too.[34] Even if the language is not the main reason for how people get friends, it can be one of the contributing factors:

> Q: You say your best friends, your very best friends are Finnish speaking. Do you have any Swedish speaking friends?
> A: Well, yes, but… after all, you can say that there are friends and friends.
> Q: But a really true friend?
> A: My really true friend, well, she is Finnish, yes she is. That you are like… you cannot get… But with her, we are such bosom friends and I have another such friend, too. And when you compare these and the others, they can never get to the same level. It is like… it is difficult to explain, a

> friend… Okay, you can be a friend if you talk and say hello, meet some times, but in my opinion, you must really feel it, too.[35]

Some informants used to meet their Finnish friends or family members in their summerhouses in Åland or on the mainland, even if workplaces and private homes were the vast majority of all meeting arenas. Vacations as a rule gave opportunities to visit friends and relatives on the mainland or elsewhere.[36] At other times the telephone or e-mail was an important contact tool. One informant noted that when the opportunities to get in contact with other Finns were not so good in Åland, contacts had to be actively maintained with mainland friends and relatives.[37]

One opportunity to meet other Finnish speakers was offered by membership in different kinds of associations, one of them being *Ahveniset* (meaning Finns in Åland). Surprisingly only two informants had been active members of the society.[38] When asked the reason the answer was that the association had hardly any activity today. *Ahveniset* was founded in the early 1970's, the main reason being inadequate school lessons in Finnish given to children, who already knew the language. The association tried to change the situation but in vain.[39] In so doing it met negative attitudes in Åland.[40] Obviously people did not want to be negatively stamped by membership in what they thought of as a political association. *Ahveniset* still tries to promote children's knowledge of Finnish by organizing a private Finnish club for children 3-6 years, among other things.[41]

Contacts with other Finns varied largely. Some informants could meet other Finns daily at the same workplace even if speaking Finnish was restricted. Contacts of members of one's own ethnic and linguistic group can be interpreted as a dimension of togetherness with them.[42] The fact that most contacts with fellow countrymen were with relatives and friends on the mainland can also be seen as a consequence of personal reasons. To be a friend requires qualities other than just the same language, even if it can be a contributing factor. That's why all the informants had Swedish-speaking friends, too. However, for many informants Finnish is the language of their heart and speaking it created a special feeling of the same kind of belonging.[43]

6. Articulations of Finnishness

Articulations of a Finnish identity are here studied among other things by language registration, choice of the children's names, and use of mass media. The question of language registration was justified, because after several years living "in Swedish" many of the informants knew Swedish well using it daily outside and/or at home. Yet they still considered themselves as Finnish speakers commenting that the possibility being

Swedish never had crossed their minds.[44] In one case the informant's husband had considered all family members as Swedish speakers filling in even the wife's language as Swedish in the census form. She had never protested it.[45] This may have had something to do with the family's denial of her speaking Finnish with the children. Due to the school language being Swedish the children's Swedish was much stronger than their Finnish. Yet in one case even the children were registered as Finnish. Both parents had come to Åland without any knowledge of Swedish.[46] Therefore it seems that the children were registered as Finnish, too.

There are several reasons for how parents choose the names of their children. Giving names with a family tradition the parents want the children to remember their roots. In only one of the three Finnish families the children had totally Finnish names.[47] In the two other families both Swedish and Finnish names had been given[48]; also in the majority of families with mixed language background. Sometimes the name was written in the Swedish form, because the family lived in Åland.[49] Obviously the mixed names were kind of a compromise between the parents who in that way respected each other's background. In three families the choice had been totally Swedish names.[50] In all of them the husband, being an Ålander, had made the choices. In two cases Finnish names were out of question even if one mother had had a Finnish suggestion as well.

It seems that the choice of the children's names had been a very intimate question and the majority of the parents had respected each other's feelings by giving the children both Swedish and Finnish names. In doing so they maybe also wanted to remind the children of their bilingual background. In some cases only Swedish names given could be interpreted as a question of power exercise.

The use of mass media shows considerable variation, too. Ålanders themselves watch TV-programs mostly from Sweden. In addition, all the informants used to watch some Finnish programs on TV, most often news. Switching between channels did happen in many families like in this one concerning news:

> A: In the morning I usually start with Finland's [channel] one, then I switch to [the channels] two and four from Sweden, and if I have time left I see the news on three from Finland. That's my morning. In the afternoon or in the evening I usually see the Finnish six o' clock news on channel one, after that the news in Swedish from Finland. And then, if I have time, the ABC [news], which gives the local weather. It is the local [Swedish] news, which comes after the main news from Sweden.[51]

Some informants used to listen to Finnish radio programs. In one case the Finnish radio could be on all the time[52], but the local radio was popular as well, because it had a better audibility than the Finnish from the mainland. In addition some informants subscribed to Finnish newspapers or periodicals or read them in the Internet.[53] The more liberal of the two local newspapers was popular, too, likewise the main Swedish newspaper in Finland. It is understandable due to the mixed language backgrounds of the spouses in most families. The local mass media was needed to keep oneself in touch with the local news. Of the three Finnish families just one subscribed to the main Finnish newspaper but the local ones as well.[54] In another family just periodicals were read in Finnish and in the third the informant did not read any newspapers at all. He felt he had got enough of living in Åland and was not interested in what happened there. Instead, he was a large-scale consumer of Finnish books.[55]

As a conclusion of the discussion above, it can be seen that the language registration revealed something about the informants' self concept as still being Finnish speakers. They saw Finnish as their mother tongue in spite of the dominant use of Swedish in most families. It was also a matter where they, with one exception, did not need to pay attention to the other parts of the family. Concerning the registration of the children it was already a matter strongly influenced by the surrounding society. The mixed names of the children and the varying use of the mass media in the families with mixed linguistic background both indicate the spouses' mutual space given to each other's identifications. Maybe it also indicates a feeling of an already double belonging of the informants as could be interpreted in the two Finnish families. In the third Finnish family the feeling of Finnishness was clearer.

7. Encountering the Åland society

As mentioned, encountering the Åland society could be experienced by the Finns both positively and negatively. Some informants still remembered how the children were called "half Finns" by other kids[56] or how Finns were stamped as inferiors, which the family in Åland were ashamed of.[57] Speaking Finnish outside the home could be like a red rag getting cheap shots from the Ålanders.[58] Even if much has changed, the same undervaluing attitudes can still exist and be experienced, but in a more latent way e.g. in some insulting jokes and story telling at work places.[59] Even an Ålander could experience the negative attitude towards Finnish. One informant took it personally when one of her colleagues was insulted at their workplace in the public sector, when she as an Ålander planned to learn Finnish:

> A: ...one girl at my work wanted to attend a course in Finnish, and usually courses of this kind are paid by the

> employer, but in this case, no way. They even wrote about the case in the local newspaper!
> Q: Really?
> A: Yes. A course in Finnish language under no circumstances! I felt it was so sad, really sad.
> Q: How did they explain it then?
> A: That this [Åland] is monolingual and such a language is not needed here. I just gnashed my teeth, not needed! One must always translate now ... behind the scenes here.[60]

Most informants had the opinion that it is just a small minority of Ålanders who have negative attitudes towards Finns and Finnishness today. The vast majority of them have a positive picture of them. Unfortunately the minority is rather loud, Ålanders themselves often being ashamed of them.[61]

Positive experiences of being Finnish existed as well. Some informants had got good jobs due to their knowledge of Finnish.[62] The usefulness and profits of the knowledge of Finnish at work, within administration e.g. as unofficial contact canals to the mainland[63] or as translators or interpreters were mentioned as well[64]. Unfortunately the tasks were just seen as a part of the job with no financial compensation. This reveals the ambiguous attitudes to Finnish in Åland. On one hand Swedish is the only accepted language in the society, but at the same time the benefits knowing Finnish cannot be denied.

Both positive and negative experiences during the varying length of staying in Åland surely had their impact on how the Finns felt their situation there. Only one informant told she felt more as an Ålander being almost one of them.[65] Two informants could feel at home both in Åland and in the Finnish mainland.[66] The majority of informants saw their home, meaning the dwelling place and the family around, being in Åland, but they still felt themselves as Finns, not as Ålanders, which they saw they never could become. In some cases the feeling of being in some way an outsider could be one contributing factor to the situation.

8. Diasporic or translocal identity?

Can the situation of Finns in Åland be seen as an immigrant situation when living in one of the provinces in their own country? However, the province is different from the other provinces in its legal and language structure.

The analysis of the interview material revealed the importance of the childhood home of the Finnish informants in Åland. They still have emotional connections with relatives and friends on the mainland and visit them quite regularly. Importance of the Finnish mother tongue is obvious in spite of its lower status in Åland and that the daily life for the most part is

Swedish. Feelings as outsiders exist in some cases, meaning not feeling at home even if the dwelling place is in Åland.

Can the different social realities in this case study be defined as varieties of *translocal* life instead of *transnational* life which has been one of the criteria for diasporic identity? The concept of 'translocal' could be justified by the fact that there are no national borders the Finns in Åland are crossing when living simultaneously in contexts encompassing different linguistic, institutional and social networks on the autonomous islands and the Finnish mainland.

Notes

[1] S Hall, 'The question of cultural identity' in S Hall, D Held & T McGrew (eds), *Modernity and its futures*, Polity Press, Cambridge, 1992, p. 276.
[2] Ethnological Archives at Åbo Akademi University, Turku, semi-structured interviews on being Finnish in Åland, 2005.
[3] B Mattsson-Eklund, *Alla tiders Åland. Från istid till EU-inträde* (Åland of all times. From Ice Age to EU admission), Mariehamn, Ålands landskaps-styrelse, 2000, passim.
[4] *Act on the Autonomy of Åland 1991/1144*, chapter 6, an unofficial translation, Oct. 2004, p. 16, viewed on 26 March 2009. http://www.finlex.fi/fi/laki/kaannokset/1991/en19911144.pdf. The original text in Swedish and Finnish: 16 August 1991/1144 amended 31 December 1994/1556, 12 July 1996/520, 28 January 2000/75 and 30 January 2004/68.
[5] ibid., chapter 2. The right of domicile shall be granted on application to a citizen of Finland 1) who has taken up residence in Åland, 2) who has without interruption been legally domiciled in Åland for at least five years; and 3) who is satisfactory proficient in the Swedish language. See even K Myntti & M Scheinin, 'The Right of Domicile in the Åland Islands in the Light of Human Rights Treaties and the European Integration process' in L Hannikainen & F Horn (eds), *Autonomy and Demilitarisation in International Law: The Åland Islands in a Changing Europe*, Kluwer Law International, The Hague/London/Boston, 1997, pp. 135-136.
[6] *Statistics and research Åland (ÅSUB)*, Population, viewed on 26 March 2009. http://pxweb.asub.ax/Database/Statistics/Population/Population.asp .
[7] See e.g. Y Lindqvist, 'Hur "de andra" har varit och upplevts som annorlunda' (How "the others" have been experienced as different) in A-M Åström, B Lönnqvist, Y Lindqvist, *Gränsfolkets barn. Finlandssvensk marginalitet och självhävdelse i kulturanalytiskt perspektiv* (Bordeland people. Finland-Swedish marginality and self-vindication in cultural analytical perspective), Svenska litteratursällskapet i Finland, Helsingfors, 2001, p. 185 and S Österlund-Pötsch, *American Plus. Etnisk identitet hos*

finlandssvenska ättlingar i Nordamerika (American plus. Ethnic identity among Swedish Finn descendents in North America), Svenska litteratursällskapet i Finland, Helsingfors, 2003, p.115.

[8] O Bring, *Ålands självstyrelse under 80 år: Erfarenheter och utmaningar* (80 years of the self-government of Åland: Experiences and challenges). Ålands landsdkapsstyrelse, Mariehamn, 2002, pp. 53-54.

[9] J Kinnunen, *Migration, Imperfect Competition and Structural Adjustment - Essays on the Economy of the Åland Islands*. Helsinki School of Economics, Helsinki 2005, p. 10.

[10] woman, b.1949, 28 years in Ål.

[11] e.g. woman, b.1948, 29 years in Ål., woman, b.1958, 16 years in Ål., man, b.1965, 9 years in Ål.

[12] woman, b. 1946, 31 years in Ål.

[13] e.g. woman, b. 1958, 16 years in Ål.

[14] e.g. woman, b. 1949, 28 years in Ål.

[15] cf. P Latvala, 'Mikä määrittää suvun muistitiedosta kertomista?' (What will determine the story-telling about the family's memory tradition?), *Elore*, vol. 7, no. 2, 2000, Suomen Kansantietouden Tutkijain Seura r.y., Joensuu, viewed on 12 May 2009. http://cc.joensuu.fi/~loristi/2_00/lat200.html.

[16] woman, b. 1938, 42 years in Ål.

[17] cf. J Stier, *Dimensions and Experiences of Human Identity. An analytical Toolkit and Empirical Illustration*. Department of Sociology, Göteborg University, Monograph No 69, 1998, p. 44.

[18] woman, b. 1932, 47 years in Ål.

[19] cf. K Wolanik Boström, *Berättade liv, berättat Polen. En etnologisk studie av hur högutbildae polacker gestltar identitet och samhälle* (Narrated life, narrated Poland. An ethnological study on how well-educated Poles perceive their identity and society), Umeå Universitet, Institutionen för Kultur och Medier/Etnologi, Umeå, 2005, p. 42.

[20] woman, b. 1928, 55 years in Ål.

[21] See P Korkiakangas, 'Muistoista tulkintaan - muisti ja muisteluaineistot etnologian tutkimuksessa' (From recollections to interpretation - memory and recollection materials in ethnological study), in P Korkiakangas, P Olsson & H Ruotsala (eds), *Polkuja etnologian menetelmiin* (Paths to ethnological methods), Ethnos-toimite 11, Ethnos r.y, Helsinki, 2005, p. 135.

[22] Man, b. 1945, 35 years in Ål., man, b. 1947, 27 years in Ål., woman, b. 1949, 28 years in Ål.

[23] woman, b.1949, 18 years in Ål.

[24] woman, b. 1928, 55 years in Ål.

[25] woman, b. 1932, 47 years in Ål.

[26] woman, b. 1946, 31 years in Ål., man, b. 1965, 9 years in Ål.

[27] man, b. 1965, 9 years in Ål.
[28] woman, b. 1938, 42 years in Ål.
[29] See e.g. K Liebkind, 'Två modersmål - en identitet' (Two mother tongues - one identity) in *KT Skolstyrelsens informationsblad*, 1987, no. 3-4, p. 22.
[30] Bring, op. cit., pp. 51-52.
[31] e.g. woman, b. 1946, 31 years in Ål., woman, b. 1948, 29 years in Ål.
[32] e.g. woman, b. 1946, 31 years in Ål., woman, b. 1949, 28 years in Ål., man, b. 1965, 9 years in Ål.
[33] e.g. woman, b. 1928, 55 years in Ål., woman, b. 1932, 47 years in Ål., man, b. 1947, 27 years in Ål.
[34] e.g. woman, b. 1948, 29 years in Ål., woman, b. 1949, 28 years in Ål., man, b. 1965, 9 years in Ål.
[35] woman, b. 1946, 31 years in Ål.
[36] e.g. woman, b. 1938, 42 years in Ål., man, b. 1947, 27 years in Ål., woman, b. 1949, 28 years in Ål., man, b. 1965, 9 years in Ål.
[37] woman, b. 1949, 28 years in Ål.
[38] man, b. 1945, 35 years in Ål., woman, b. 1949, 28 years in Ål.
[39] man, b. 1945, 35 years in Ål.
[40] cf. Bring, op. cit., pp. 53-54.
[41] Ahveniset, home-page, http://www.ahveniset.ax/ , viewed on 18 May 2009.
[42] See A-L Kuczynski, 'Togetherness and Space - Identifications and Negotiations in Polish-Finnish Families', *Ethnologia Fennica*, vol. 34, p. 82.
[43] See K Lundström, *Bland purfinnar och papperssvenskar. En studie av hur finsk gemenskap görs* (Among true Finns and Swedes on paper. A study on how Finnish togetherness is made), C-uppsats, Etnologiska institutionen, Lunds universitet, viewed on 18 May 2009, www.uppsatser.se/uppsats_3/39c8bfde21.php
[44] Even if the official language in Åland is Swedish, people can define their language belonging themselves.
[45] woman, b. 1928, 55 years in Ål.
[46] man, b. 1945, 35 years in Ål.
[47] ibid.
[48] man, b. 1947, 27 years in Ål., woman, b. 1949, 28 years in Ål.
[49] woman, b. 1949, 18 years in Ål., man b. 1965, 9 years in Ål.
[50] woman, b. 1928, 55 years in Ål., woman, b. 1938, 42 years in Ål., woman, b. 1958, 16 years in Ål.
[51] man, b. 1947, 27 years in Ål.
[52] woman, b. 1946, 31 years in Ål.
[53] woman, b. 1938, 42 years in Ål., woman, b. 1946, 31 years in Ål., man, b. 1947, 27 years in Ål., man b. 1965, 9 years in Ål.
[54] man, b. 1947, 27 years in Ål.

[55] man, b. 1945, 35 years in Ål.
[56] woman, b. 1928, 55 years in Ål.
[57] woman, b. 1938, 42 years in Ål.
[58] man, b. 1947, 27 years in Ål.
[59] woman, b. 1946, 31 years in Ål., woman, b. 1948, 29 years in Ål.
[60] woman, b.1948, 29 years in Ål..
[61] man, b. 1945, 35 years in Ål., man, b. 1947, 27 years in Ål., woman, b. 1949, 28 years in Ål.
[62] e.g. woman, b. 1928, 55 years in Ål., woman, b. 1938, 42 years in Ål., woman, b. 1949, 18 years in Ål.
[63]e.g. man, b. 1965, 9 years in Ål., woman, b. 1949, 28 years in Ål.
[64] woman, b. 1946, 31 years in Ål., woman, b. 1948, 29 years in Ål.
[65] woman, b. 1928, 55 years in Ål.
[66] woman, b. 1938, 42 years in Ål., woman, b. 1946, 31 years in Ål.

Bibliography

Act on the Autonomy of Åland 1991/1144, chapter 6, an unofficial translation, Oct. 2004, p. 16, viewed on 26th March 2009.
<http://www.finlex.fi/fi/laki/kaannokset/1991/en19911144.pdf>.
The original text in Swedish and Finnish: 16th August 1991/1144 amended 31st December 1994/1556, 12th July 1996/520, 28 January 2000/75 and 30 January 2004/68.

Ahveniset, home-page, viewed on 18th May 2009.
<http://www.ahveniset.ax/>.

Bring, O., *Ålands självstyrelse under 80 år: Erfarenheter och utmaningar* Ålands landsdkapsstyrelse, Mariehamn, 2002.

Hall, S., 'The question of cultural identity'. Hall, S., Held. D., and McGrew, T., (eds), *Modernity and its futures*. Polity Press, Cambridge, 1992, pp. 273-316 [326].

Kinnunen, J., *Migration, Imperfect Competition and Structural Adjustment - Essays on the Economy of the Åland Islands*. Helsinki School of Economics, Helsinki, 2005.

Korkiakangas, P., 'Muistoista tulkintaan - muisti ja muisteluaineistot etnologian tutkimuksessa'. Korkiakangas, P., Olsson, P., and Ruotsala, H.,

(eds), *Polkuja etnologian menetelmiin*. Ethnos-toimite 11, Ethnos r.y, Helsinki, 2005, pp. 129-147.

Kuczynski, A., 'Togetherness and Space - Identifications and Negotiations in Polish-Finnish Families'. *Ethnologia Fennica*, vol. 34, 2007, pp. 73-86.

Latvala, P., 'Mikä määrittää suvun muistitiedosta kertomista?' *Elore*, vol. 7, no. 2, 2000. Suomen Kansantietouden Tutkijain Seura r. y., Joensuu, viewed on 12th May 2009. <http://cc.joensuu.fi/~loristi/2_00/lat200.html>.

Liebkind, K., 'Två modersmål - en identitet'. *KT Skolstyrelsens informationsblad*, 1987, no. 3-4, pp. 22-23.

Lindqvist, Y., 'Hur "de andra" har varit och upplevts som annorlunda'. Åström, AM., Lönnqvist, B., and Lindqvist, Y., *Gränsfolkets barn. Finlandssvensk marginalitet och självhävdelse i kulturanalytiskt perspektiv*, Svenska litteratursällskapet i Finland, Helsingfors, 2001, pp. 185-206.

Lundström, K., *Bland purfinnar och papperssvenskar. En studie av hur finsk gemenskap görs*. C-uppsats, Etnologiska institutionen, Lunds universitet, viewed on 18th May 2009. <www.uppsatser.se/uppsats_3/39c8bfde21.php>.

Mattsson-Eklund, B., *Alla tiders Åland. Från istid till EU-inträde*. Ålands landskapsstyrelse, Mariehamn, 2000.

Myntti, K., & Scheinin, M., 'The Right of Domicile in the Åland Islands in the Light of Human Rights Treaties and the European Integration process'. L. Hannikainem & F. Horn (eds), *Autonomy and Demilitarisation in International Law: The Åland Islands in a Changing Europe*. Kluwer Law Internatiol, The Hague/London/Boston, 1997, pp. 131-149.

Statistics and research Åland (ÅSUB), Population, viewed on 26th March 2009. <http://pxweb.asub.ax/Database/Statistics/Population/Population.asp>.

Stier, J., *Dimensions and Experiences of Human Identity. An analytical Toolkit and Empirical Illustration*. Department of Sociology, Göteborg University, Monograph No 69, 1998.

Wolanik Boström, K., *Berättade liv, berättat Polen. En etnologisk studie av hur högutbildae polacker gestltar identitet och samhälle*. Umeå Universitet, Institutionen för Kultur och Medier/Etnologi, Umeå, 2005.

Österlund-Pötsch, S., *American Plus. Etnisk identitet hos finlandssvenska ättlingar i Nordamerika*. Svenska litteratursällskapet i Finland, Helsingfors, 2003.

Anna-Liisa Kuczynski is part-time lecturer and researcher in Ethnology at Åbo Akademi University (the Swedish university in Finland). Her main interest areas are cultural encounters, ethnicity and identity.

Antarctica: Common Resource or Developer's Dream?

Jane Verbitsky

Abstract
2009 represents the fiftieth anniversary of the creation of the Antarctic Treaty, one of the most successful - and unusual - of all international treaties. Although initiated in the heyday of the Cold War, the Antarctic Treaty was a triumph of internationalism and multilateralism, establishing common parameters about the status of, objectives for, and activities permitted on, the southernmost continent. The Treaty has survived intact into the post-Cold War era with the number of signatories growing from the original twelve to the current forty-six, and the number of consultative parties with rights to participate in decision-making about Antarctica's future increasing from twelve to twenty-eight. The Treaty now forms the critical hub of a system of legal instruments, the Antarctic Treaty System (ATS), which provide a framework for the governance and management of Antarctica and its immediate environment. However, although the Antarctic Treaty has been successful in preventing militarization of the continent, freezing territorial claims, and prioritizing the importance of scientific research as the key activity in Antarctica, the ATS and the consultative parties face increasingly difficult challenges to the extant system, particularly from the tourism industry, to permit greater latitude in respect of commercial activities involving the continent. This paper explores those challenges and the dilemmas they present in the context of vulnerabilities within the ATS system, increasing resource scarcity, and problems posed by non-parties. It also examines the global commons issue and some of the suggestions for preserving and maintaining Antarctica's current status as non-sovereign territory.

Key Words: Antarctica, Antarctic Treaty System, tourism, global commons, IUU fishing

*****

In the bipolar era of the Cold War the Antarctic Treaty[1] was anomalous for what it symbolised: multilateral, international efforts to preserve the non-sovereign status of the world's southernmost continent; prevent militarisation of the territory; promote scientific research in Antarctica; and protect the unique southern polar environment. The collaborative achievements of the Antarctic Treaty signatories in these years were at odds with the contemporary arms race between the superpowers and

their allies, the armed conflicts in Africa, Asia, and the Americas that erupted over contested territories, and far in advance of the nascent popular consciousness of humankind's degradation of the environment and growing realisation of the depletion of natural resources. Nearly two decades into the New World Order, the Treaty parties can congratulate themselves on initiating a regime that has furthered an eco-protectionist agenda, and successfully facilitated consensus amongst a diverse, enlarged group of signatory states about the primacy of peace and scientific endeavours in Antarctica.

In the year of the Antarctic Treaty's fiftieth anniversary, though, the Treaty parties face a series of difficult problems concerning tourism and commercial pressures on Antarctica and Antarctic resources. These problems arise from different issues and involve both signatory parties and non-parties, but are inter-related. They centre on sovereignty, resource protection, governance and regime compliance. These are significant problems because in many respects they challenge both the capacity and robustness of the institutional and legal frameworks that form the basis of the Antarctic Treaty regime. These problems, then, go to the heart of the contemporary management of Antarctica. How these problems are dealt with may also provide some guidance in relation to three critical and/or looming issues for the continent: commercial mining; illegal, unregulated and unreported (IUU) fishing; and the long-term future of Antarctica.

The Antarctic Treaty is a relatively short document comprising just fourteen articles. Two overarching themes are outlined in the Preamble to the Treaty: the belief that it is "in the interests of all mankind that Antarctica shall continue forever to be used exclusively for peaceful purposes and shall not become the scene or object of international discord"; and the conceptualization of international scientific cooperation in Antarctica as according "with the interests of science and the progress of all mankind".

These themes are embedded in the first nine Articles of the Treaty. Article 1 emphasizes the demilitarized nature of Antarctica, while Article V prohibits nuclear explosions and disposal of nuclear waste in the territory. Article VI confirms that the area to which the Treaty applies is to be south of 60° South Latitude, including all ice shelves and islands. Articles II and III promote freedom of scientific investigation and cooperation. The non-sovereign status of Antarctica is underlined by Article IV, which freezes claims to the continent, and reinforced in Article VIII, which restates national signatory jurisdiction over their inspectors and scientific personnel in Antarctica. The right of inspections is outlined in Article VII, while Article IX describes the Antarctic Treaty Consultative Parties, and establishes regular Antarctic Treaty Consultative Meetings for the signatory states.

The Treaty is now both the founding document and the lynchpin of a series of legal documents, which together comprise the Antarctic Treaty System (ATS). These include the Convention for the Conservation of Antarctic Seals 1972[2], the Convention on the Conservation of Antarctic Marine Living Resources 1980[3] (CCAMLR), and the Protocol on Environmental Protection to the Antarctic Treaty 1991[4](PEPAT).

Twelve countries were the original Treaty signatories in 1959. Thirty five others have since acceded, bringing the total number in 2009 to forty seven.[5] Effectively, there are three groups of signatory parties to the Antarctic Treaty. The first two groups are the Antarctic Treaty Consultative Parties (ATCP) composed of the twelve original signatory states (SS1), and the seventeen other states who signed the Treaty in subsequent years (SS2). The third group is made up of the Non-Consultative Parties. What the two groups of ATCP states have in common is that they are entitled to participate in the Antarctic Treaty Consultative Meetings. Eligibility for the SS1 group is premised on their original signatory status[6], while for the SS2 group it is based not only on acceding to the Treaty but also on fulfilling the Article IX(2) criteria of asserting "special national interests in the polar south and..[undertaking] scientific activities to support those interests."[7] It is the ATCP states who have taken the initiative in formulating policy for Antarctica through their regular meetings. While the non-sovereign status of Antarctica means that the ATCP states can only create policy in Antarctica for their own nationals, the consensual nature of decision-making and cumulative impact of these policy decisions essentially means that these states provide de facto governance for the continent. By contrast, the latter group of eighteen Non-Consultative Parties, while adhering to the ATS and the policy decisions generated by the ATCP, have purely observer status at the ATCP meetings and are not eligible to participate in decision-making.

Although the idea had been mooted for some years, it was only in 2003 that a Secretariat for the Antarctic Treaty was established under the authority of the ATCP. The Secretariat is headquartered in Buenos Aires and is charged with facilitating the annual meetings of the ATCPs and the Committee for Environmental Protection (CEP), supporting both the ATCM and the CEP, and providing a permanent administrative, record-keeping and information link between the parties in the periods between the meetings.[8] The CEP, which meets during each ATCM, was established under Article IX of PEPAT and gives advice and makes recommendations to the PEPAT parties. Another key body in the ATS regime is the Scientific Committee on Antarctic Research (SCAR). It has observer status at ATCM and CEP meetings and "provides independent scientific advice as requested in a variety of fields, particularly on environmental and conservation matters."[9]

Globalisation's impact has been felt everywhere on earth and Antarctica is no exception. In Antarctica, one of its key manifestations is in

tourism. The growing numbers of tourists and tourist vessels provide ample evidence of the attraction of the frozen continent to travellers from all over the world. Their numbers have increased exponentially from the early 1980s. Prior to that date, fewer than 1,000 tourists visited Antarctica each year.[10] However, by 1992-93 tourist numbers had raised to 6,704 and increased further to 12,248 sea and land-based tourists in 2000-2001, 19,771 landed tourists in 2003-2004, and upwards to the most recent figure of 40,069 landed tourists in 2007-2008.[11] As Jacobsson notes, this may not be much in absolute terms but today "the tourists outnumber the scientists."[12] Not only have there been steep annual increases in the total number of tourists annually visiting Antarctica, but there has also been geographic expansion of the sites the tourists explore, and growth in both the number and size of sea-borne vessels that carry tourists to Antarctica. The tourist invasion shows no signs of abating, and the economic importance of tourism is apparent from Herr's assertion that "in dollar terms, the value of the tourism industry makes it second only to fisheries as the most lucrative commercial use of Antarctic resources."[13]

Antarctic tourism presents a real dilemma for the ATS, and of all the problems faced by them tourism is, arguably, the greatest because it involves so many difficult, inter-connected issues. These include: the problem of non-parties and lack of compliance with ATS tourism regulations[14]; vessel-borne pollution; degradation of Antarctic sites caused by cumulative tourist visitations; contamination by tourists of sites not yet investigated by scientists; disruption of scientific programmes; the introduction of non-indigenous animals, plants or microorganisms; increased likelihood of aviation and maritime emergencies in the airspace and waters surrounding Antarctica[15]; environmental hazards arising from land, air and sea-based accidents; and pressures to establish land-based tourism infrastructure.[16]

On the other hand, there are benefits in exposing to Antarctica people who are not part of national scientific expeditions. The increasing numbers of tourists who visit Antarctica get a first-hand experience of the extraordinary nature of the continent and can see for themselves the importance of preserving the environment. The experiential nature of this interaction can have profound effects on tourists who are able to experience Antarctic exceptionalism for themselves. In this context, those tourists are potentially a real and very potent asset as they can act as change agents in civil society by educating others about the territory, promoting the benefits of protecting Antarctica as a common good, and helping lobby governments to respect both the continent's non-sovereign status and its importance in the global environmental system. The politicisation effect of such an experience should not be under-estimated. As has been demonstrated in the successful campaigns to ban land mines and cluster bombs, civil society has an increasingly powerful presence and impact in the trans-national politics of the

twenty-first century. Indeed, as the impact of global warming becomes more apparent and the need for urgent action more obvious, the value of demonstrating to a larger audience of citizens the rapidity of detrimental ecological changes in what is a relatively pristine environment becomes more persuasive.

It also needs to be acknowledged that it is not just tourists and tourist vessels that can have a negative impact on the environment. Scientists, simply by their presence, also leave their mark on the environment, and the expanding number of scientists and permanent bases in Antarctica has a proportionally greater impact on the territory.

Additionally, there are problems within the ATS regime itself in relation to tourism. Enzenbacher lists these as:

> The lack of tourism management expertise on Treaty delegations, the low priority tourism has been given historically as a policy issue, the lack of agreement on how tourism should be addressed, varying levels of direct involvement and financial gain among Member States and the evermore demanding remit facing Antarctic policy-makers.[17]

Yet another problem arises from the Environmental Impact Assessment process, which is set out in Annex 1 of PEPAT. This process applies to all activities that have more than a "minor or transitory impact" in the Antarctic Treaty area.[18] For those activities meeting that criterion, an Initial Environmental Evaluation (IEE) must be prepared. If the IEE indicates that the proposed activity will have more than a minor or transitory impact, then a Comprehensive Environmental Evaluation (CEE) must then be prepared. The CEE must be circulated to all PEPAT parties with a 90 day period being allowed for comments, and then forwarded to the CEP and the next ATCM.[19] If a CEE is approved, then procedures "shall be put in place, including appropriate monitoring of key environmental indicators, to assess and verify the impact of any activity that proceeds following the completion of a Comprehensive Environmental Evaluation."[20] However, neither CEP nor the ATCM have decision-making authority in relation to the CEE; their role in this process is simply to give advice to the government that has prepared the CEE. As Joyner puts it, "the ultimate arbiter of what will be done on the continent belongs to individual national governments…this procedure contradicts what should be a comprehensive approach."[21] And not only is the ElA process compromised by lack of appropriate scientific rigour in decision-making and deference to national governments, but State Parties adherence to monitoring and reporting requirements after a CEE has been approved leave much to be desired.[22] These problems are compounded by the

need to achieve consensus among parties in the ATS to maintain the regime. The 'softly, softly' approach that has dominated diplomatic activity in the regime has proved its worth in the longevity, stability, and enhanced functioning of the ATS, but it comes at a price. Technological advances often outstrip the capacity of the slow and careful decision-making processes to keep pace with them, and the need to maintain consensus and keep a cooperative balance between the parties can inhibit much-needed change.

The problems inherent in dealing with tourism development in the Antarctic are also reflected in the similarly difficult issues of commercial mining and IUU fishing. Both involve commercial interests with clearly defined economic priorities that do not necessarily coincide with – indeed, may be antithetical to - the scientific primacy and environmental protection priorities of the ATS regime. Some of these entities (whether state or non-governmental) are not parties to the ATS and are able (with impunity in the case of IUU fishing) because of their non-signatory status to act in contravention of the ATS. Non-recognition of and/or non-compliance with the ATS regime are, thus, features of debates about these issues. As with tourism, there is also the possibility that non-parties through their unregulated activities will endanger or irreversibly damage the fragile Antarctic environment. It is the problem of the global commons repeated ad infinitum.

Both issues are becoming more pressing. Article 7 of PEPAT bans mining.[23] However, Article 25 allows for a conference to be held, upon request by an ATCM party, 50 years after entry into force of the Protocol and, specifically in relation to Article 7, confirms that the ban on Antarctic mineral activities will continue "unless there is in force a binding legal regime on Antarctic mineral resource activities that includes an agreed means for determining whether, and if so, under what conditions, any such activities would be acceptable."[24] Hemmings notes that stimulation of interest in Antarctic mining was engendered by "perceived global vulnerabilities", the oil shocks of the 1970s and the energy crises they provoked, and western concerns about "future dependencies on strategic metal reserves" held by states deemed to be problematic or unstable.[25] More recently some states (notably Russia[26]) have evinced a continuing interest in the issue of Antarctic mining. Given the current global recession, recent spikes in oil prices, and inter-state conflicts over energy resources, it does not seem far-fetched to imagine that in 2009 a number of parties might well look with renewed interest at the amendment provisions of PEPAT. Further impetus is given to this issue with the tension between "a prohibition of mineral resource activities under the Madrid Protocol, but rights to such activities in the Antarctic marine environment inherent in Part XI of the LOS Convention."[27]

IUU fishing, a huge revenue earner by any accounting[28], is particularly associated with fishing in the Southern Ocean in violation of CCAMLR. The rise in IUU fishing over the last two decades was sudden and

unanticipated, and has had disastrous effects upon species such as toothfish and krill.[29] Despite continuing efforts, such as creating port and market state controls and introducing an IUU vessel database of frequent offenders, signatory states have found it extremely difficult to combat and curtail IUU fishing. Consequently, "IUU fishing has become one of the single biggest threats to the sustainable management of high seas and coastal fisheries."[30]

No less problematic is the issue of the future of Antarctica. That issue flared dramatically in 1982 when the then Prime Minister of Malaysia criticised the extant membership of the ATCP for its exclusive, secretive and unaccountable nature, and urged the United Nations to consider the "common heritage of all the nations of this planet….the largest of which is the continent of Antarctica".[31] That the ATCP were sensitive to the charges of being an aristocratic club is evident from the expanded and internationalized membership from 1983 onwards. Baslar comments that the "big brothers of the Third World were accepted in order to dissipate the club's notorious image", and that with "the acceptance of the most populated prestigious members of the Third Division, the ATS turned out to be an oligarchic league composed of three-quarters of the world's population."[32]

However, while the membership of the Treaty may have expanded, the question of the future of Antarctica remained in limbo. The United Nations General Assembly considered the question during the 1980s, a time period coinciding with the campaign by the Group of 77 for a New International Economic Order, and the finalization of "another common space/property regime"[33], UNCLOS III. Joyner notes that "many governments not party to the Antarctic Treaty tended to view Antarctica politically and legally through the lens of developing countries, particularly on issues that affected their own socio-economic concerns."[34] These concerns included a focus on the massive, untapped natural resources of Antarctica and the importance of the continent in the global eco-system. They also extended into the legal and political realms with the vexed question of Antarctica's legal status, the privileged decision-making role of the SS1 states (akin to the position of the five permanent members of the United Nations Security Council) in the ATS, and the inequitable and unrepresentative nature of a minority of states making decisions about what non-party states viewed as a common heritage whose resources and benefits should be shared equally among all states.

Antarctica's future remained on the UN table for another decade but, after expansion of the ATS membership in the 1980, was revisited less frequently and less heatedly.

The common heritage of mankind conceptualisation of Antarctica is not the only one that has been suggested for formal application in Antarctica. United Nations involvement in Antarctica was advocated strongly in the first two decades after that institutions establishment, the most frequent proposal

being use of the Trusteeship Council to administer Antarctica. In 1972 the Second World Congress on National Parks argued that the continent and surrounding ocean should become the first world park, overseen by the United Nations.[35] A key element of that proposal – the notion of special protections for particular areas in Antarctica – was incorporated into PEPAT through Annex V.

While these three proposals all involve a notion of guardianship and protection, Baslar suggests that there is considerable tension between a world park idea and the common heritage of mankind idea. A world park proposal would, he says, be "inherently hostile to any exploitation activities apart from the exploitation for scientific research", while the common heritage idea "regards the continent as a territory of instrumental value".[36] In the first conceptualisation, preservation notions have paramountcy. Antarctica's unique place in the global eco-system would be protected and preserved, the better that the system itself could be protected and preserved. Such a scheme would require scrupulous monitoring of the territory to audit and establish baselines for measuring environmental integrity, and to ensure absolute compliance with park regulations. The ultimate purpose of such a proposal would be preserve Antarctica and its environs "for the benefit of present and future generations."[37]

By contrast, the common heritage proposal has a more expedient and pragmatic perspective. In this conceptualisation, Antarctica presents as a territory of infinite resources – a site of abundance and potential solution to many of the world's scarce resources. In this scheme, Antarctica is a source of riches and plenty, which should be used to address the problem of inequalities in the world. Benefit sharing in this conceptualisation is about equitable sharing of the extracted resources of Antarctica to help maintain humankind.

Both proposals share an acceptance of Antarctica's prime importance for the future, and view Antarctica as conferring benefits for the human race. However, the benefits they perceive are derived from very different visions of Antarctica; Antarctica as a territory necessarily in stasis versus Antarctica as a producer of needed resources.

These are not visions that suggest easy or even possible reconciliation. Nor are they the only visions for Antarctica. Both must compete with the commercial visions of entrepreneurs and developers for whom Antarctica represents the Klondike of the twenty-first century. Perhaps the greatest challenge the ATS signatory states will ever face is the challenge of creating a future framework for the continent derived from the core principles of the Antarctic Treaty that can withstand the mounting pressures of commercialization and privatization.

Notes

[1] The Antarctic Treaty, Washington 1959 402 UNTS 1961 72. Henceforth, the Treaty.
[2] Convention for the Conservation of Antarctic Seals, 29 UST 44 1, TIAS no.8826.
[3] Convention on the Conservation of Antarctic Marine Living Resources, 1980 19 ILM 841.
[4] Protocol on Environmental Protection to the Antarctic Treaty, 1991 30 ILM 1461. Hereafter, PEPAT.
[5] Antarctic Treaty Summit, "Antarctic Treaty Signatories", viewed August 4, 2009, < http://www.atsummit50.aq/treaty/members.php>.
[6] Antarctic Treaty 1959, Art IX(1).
[7] C Joyner, *International Law In the Twenty-First Century*, Rowman & Littlefield, Maryland, 2005, p.236.
[8] P Vigni, 'The Secretariat of the Antarctic Treaty: Achievements and Weaknesses Three Years After its Establishment', in *Antarctica: Legal and Environmental Challenges for the Future*, G Triggs & A Riddell, (eds.), British Institute of International & Comparative Law, London, 2007, pp.17-19.
[9] Scientific Committee on Antarctic Research, *The Antarctic Treaty System: An Introduction*, viewed 4 May, 2009, <http://www.scar.org/treaty/>.
[10] 'Slow Down in Antarctic Tourism', TVNZ, Travel News, February 13, 2009, viewed June 14, 2009, <http://tvnz.co.nz/travel-news/slow-down-in-antarctic-tourism-2486138>.
[11] International Association of Antarctica Tour Operators, *Tourism Statistics: 1992-2001 Antarctic Tourist Trends; 200-2001 Tourists by Nationality (Landed); 2007-2008 Tourists by Nationality (Landed*), viewed 24 May, 2009, <http://www.iaato.org/tourism_stats.html>.
[12] M Jacobsson, 'The Antarctic Treaty System: Future Challenges', in *Antarctica: Legal and Environmental Challenges for the Future*, G. Triggs & A. Riddell, (eds.), British Institute of International & Comparative Law, London, 2007, p.9.
[13] R Herr, 'The Regulation of Antarctic Tourism: A Study in Regime Effectiveness' in O Schram Stokke & D Vidas, (eds.), *Governing the Antarctic: The Effectiveness and Legitimacy of the Antarctic Treaty System*, Cambridge University Press, Cambridge, 1996, p.205.
[14] The principal body representing tour operators and organisers involved in travel to Antarctica is the International Association of Antarctic Tour Operators (IAATO). it lists among its objectives operating "within the parameters of the Antarctic Treaty System", and adhering to the Guidance for Visitors to the Antarctic and Guidance for Those Organizing and Conducting

Tourism and Non-governmental Activities in the Antarctic, as adopted by the Antarctic Treaty System". However, membership of IAATO is not mandatory for tour operators and organizers, and IAATO members are not compelled to adhere to the ATS guidelines. See IAATO, *About IIATO: Objectives*, available: <http://www.iaato.org/objectives.html>.

[15] A good example is the sinking of the MS Explorer in November 2007. The cruise ship collided with an undetected iceberg, an increasing hazard in the waters around Antarctica because of the impacts of climate change. N Muller, 'Alarm Bells Sound for Antarctic Tourist Vessels', *The Valparaiso Times*, 6 May 2009, viewed 28 May, 2009. <http://www.valparaisotimes.cl/content/view/524/388/>.

[16] C Joyner, *Governing the Frozen Commons: The Antarctic Regime and Environmental Protection*, University of South Carolina, Columbia, 1998, pp.208-212.

[17] D Enzenbacher, 'Antarctic Tourism Policy-Making: Current Challenges and Future Prospects', in *Antarctica: Legal and Environmental Challenges for the Future*, G Triggs & A Riddell, (eds.), British Institute of International & Comparative Law, London, 2007, p.155.

[18] PEPAT, Art 2(1).

[19] PEPAT, Art 3(3) & (4).

[20] PEPAT, Art 5(1).

[21] Joyner, *Governing the Frozen Commons: The Antarctic Regime and Environmental Protection*, p.156.

[22] See Jacobsson, p.11.

[23] "Any activity relating to mineral resources, other than scientific research, shall be prohibited."

[24] PEPAT, Art 25(5)(a).

[25] A Hemmings, 'Globalisation and the End of Isolation', in *Looking South: Australia's Antarctic Agenda*, L Kriwoken, J Jabour & A Hemmings, (eds.), The Federation Press, Annandale, 2007, p.180.

[25] Ibid, p.185.

[26] S Bevan, 'Environmentalists Suspicious of Russian Moves Antarctic Exploration', The World Today, ABC Local Radio, 12 March, 2008, viewed June 7, 2009, <http://www.abc.net.au/worldtoday/content/2008/s2187738.htm>.

[27] Hemmings, p.185.

[28] According to the authors of *Costs of Illegal, Unreported and Unregulated Fishing in EU Fisheries*, the "global value of IUU fishing has been estimated as US$5-11 billion". Economics for the Environment Consultancy, *Costs of Illegal, Unreported and Unregulated Fishing in EU Fisheries*, London, November 2008, p.15.

[29] R Baird, 'Illegal, Unreported and Unregulated Fishing: An Analysis of the Legal, Economic and Historical Factors Relevant to its Development and Persistence', *Melbourne Journal of International Law*, vol.5, iss.2, 2004, viewed 27 March, 2009, <http://www.mjil.law.unimelb.edu.au/issues/archive/vol5_2.asp>. D Vidas, *Emerging Law of the Sea Issues in the Antarctic Maritime Area: A Heritage for the New Century?*, Antarctic Project Report 12/99, The Fridtjof Nansen Institute, Oslo, 1999, pp.7-15.
[30] Ibid.
[31] Dr. Mahatir-bin Mohamed, quoted in K Baslar, *The Concept of the Common Heritage of Mankind in International Law*, Marinus Nijhoff Publishers, The Hague, 1998, p.244.
[32] Baslar, p.248.
[33] K Dodds, *Geopolitics in Antarctica*, John Wiley & Sons Ltd, Chichester, 1997, p.203.
[34] Joyner, *Governing the Frozen Commons: The Antarctic Regime and Environmental Protection*, p.239.
[35] A Gillespie, *Protected Areas and International Environmental Law*, Martinus Nijhoff Publishers, Leiden, 2007, p.15.
[36] Baslar, pp.259, 261.
[37] Ibid, p.259.

Bibliography

Antarctic Treaty Summit, "Antarctic Treaty Signatories", viewed on 4th August, 2009.
< http://www.atsummit50.aq/treaty/members.php>.

Baird, R., 'Illegal, Unreported and Unregulated Fishing: An Analysis of the Legal, Economic and Historical Factors Relevant to its Development and Persistence', *Melbourne Journal of International Law*, vol. 5, issue. 2, 2004. Viewed on 27th March, 2009. <http://www.mjil.law.unimelb.edu.au/issues/archive/vol5_2.asp>.

Baslar, K., *The Concept of the Common Heritage of Mankind in International Law*, Marinus Nijhoff Publishers, The Hague, 1998.

Bevan, S., 'Environmentalists Suspicious of Russian Moves Antarctic Exploration', The World Today, ABC Local Radio, 12 March, 2008, viewed on June 7th, 2009. <http://www.abc.net.au/worldtoday/content/2008/s2187738.htm>.

Dodds, K., *Geopolitics in Antarctica*, John Wiley & Sons Ltd, Chichester, 1997.

Economics for the Environment Consultancy, *Costs of Illegal, Unreported and Unregulated Fishing in EU Fisheries*, London, November 2008.

Enzenbacher, D., 'Antarctic Tourism Policy-Making: Current Challenges and Future Prospects', in *Antarctica: Legal and Environmental Challenges for the Future*, G. Triggs & A. Riddell, (eds.), British Institute of International & Comparative Law, London, 2007, pp.155-172.

Gillespie, A., *Protected Areas and International Environmental Law*, Martinus Nijhoff Publishers, Leiden, 2007.

Hemmings, A., 'Globalisation and the End of Isolation', in *Looking South: Australia's Antarctic Agenda*, L. Kriwoken, J. Jabour & A. Hemmings, (eds.), The Federation Press, Annandale, 2007, pp.191-196.

Herr, R., 'The Regulation of Antarctic Tourism: A Study in Regime Effectiveness' in O. Schram Stokke & D. Vidas, (eds.), *Governing the Antarctic: The .Effectiveness and Legitimacy of the Antarctic Treaty System*, Cambridge University Press, Cambridge, 1996, pp.203-226.

International Association of Antarctica Tour Operators, *Tourism Statistics: 1992-2001 Antarctic Tourist Trends; 200-2001 Tourists by Nationality (Landed); 2007-2008 Tourists by Nationality (Landed*), Viewed on 24th May, 2009.
<http://www.iaato.org/tourism_stats.html>.

Jacobsson, M., "The Antarctic Treaty System: Future Challenges", in *Antarctica: Legal and Environmental Challenges for the Future*, G. Triggs & A. Riddell, (eds.), British Institute of International & Comparative Law, London, 2007, pp.1-9.

Joyner, C., *Governing the Frozen Commons: The Antarctic Regime and Environmental Protection*, University of South Carolina, Columbia, 1998.

_____, *International Law In the Twenty-First Century*, Rowman & Littlefield, Maryland, 2005.

Muller, N., 'Alarm Bells Sound for Antarctic Tourist Vessels', *The Valparaiso Times*, 6 May 2009, viewed on 28th May, 2009. <http://www.valparaisotimes.cl/content/view/524/388/>.

Scientific Committee on Antarctic Research, *The Antarctic Treaty System: An Introduction*, viewed on 4th May, 2009.
<http://www.scar.org/treaty/>.

TVNZ, 'Slow Down in Antarctic Tourism', Travel News, February 13, 2009, viewed on 14th June, 2009.
<http://tvnz.co.nz/travel-news/slow-down-in-antarctic-tourism-2486138>.

Vidas, D., *Emerging Law of the Sea Issues in the Antarctic Maritime Area: A Heritage for the New Century*, Antarctic Project Report 12/99, The Fridtjof Nansen Institute, Oslo, 1999.

Vigni, P. 'The Secretariat of the Antarctic Treaty: Achievements and Weaknesses Three Years After its Establishment', in *Antarctica: Legal and Environmental Challenges for the Future*, G. Triggs & A. Riddell, (eds.), British Institute of International & Comparative Law, London, 2007, pp.17-35.

Jane Verbitsky is a Senior Lecturer in the Department of Social Sciences at AUT University in Auckland. She teaches politics and conflict resolution, and researches primarily in the fields of refugee studies, and justice institutions and processes.

Climate Change and the Construction Industry

Francine Baker

Abstract
This paper considers broadly climate change law in the UK, and focuses on the likely impact of the UK Climate Change Act 2008 on the property/construction industry. What is climate change law? There is no definition, but like the impact of the Human Rights Act 1996, climate change issues can involve different areas of law at some point. This paper overviews some features of legislation in place to reduce greenhouse gas emissions. By 'greenhouse gas emissions' I am referring to the three main sources in the UK, which are electricity generation, transport and heat generation.[1] It will then focus on aspects of the impact of the Climate Change Act[2] on the property/construction industry. This became law on 1 December 2008 and is considered to be the first of its kind in the world. Fortunately, the recent flurry of climate change law has been accompanied by a developing corporate awareness that it pays to make climate change commitments. However, as this paper shall later discuss, the property/construction industry faces many challenges.

Key Words: Climate change, greenhouse gas emissions, adaptation, energy, construction, property, environmental justice.

*****

It is generally agreed that the climate will change considerably over the next 50 years, in spite of whatever we do about greenhouse emissions; but exactly what changes is difficult to predict.[3] There is no question that new and existing buildings will have to address a new range of environmental conditions and sea change levels. Nearly half of the main greenhouse gas emissions, carbon dioxide emissions, are related to buildings and 27% come from housing, 73 % of which concern space and water heating. Statistics show that approximately 10-13% of greenhouse gas emissions come from the manufacture and transport of construction materials and the construction process.[4] Therefore, it is worthwhile to consider what impact the UK measures will have on reducing the carbon footprint of the industry.

Energy production and renewal plays a central role in the UK plan to reduce greenhouse gas emissions. To this end the government created the Department for Energy and Climate Change in October 2008.[5] The government is particularly interested in the development of renewable forms of electricity generation. This mainly concerns – wind, hydro-electric, wave

and solar, but also the use of biomass, which is plant and animal matter, and biogas, which is the gas derived from such plant and animal matter. The Energy Act 2008 has also been created to administer a range of climate measures concerning renewable heat generation and sustainable electricity generation in order to meet the UK's climate change targets.[6]

UK companies are increasingly looking at the economics of renewable energy Companies have a varying degree of control over a development and hence there are varying degrees of risk involved. They may only be responsible for the building and running of the project, or they may only lease land to a third –party developer. Major corporations are seeking to developing their own sources of renewable electricity generation, or (alternatively) contracting to acquire the output from a renewable generating facility that carries their brand, with onshore wind as the popular choice.[7] Renewable energy projects can be located on-site or nearby off-site. If it is onsite, then electricity is supplied directly to the company. Where it is located off-site, the renewable electricity can offset against that generated by other of the company's projects. It is vital for the parties involved to consider the contractual arrangements carefully in order to assess the risks and economic viability of renewable energy. The government has supplied an incentive for UK companies to use renewable forms of energy: those who generate renewable electricity will receive Renewables Obligation Certificates, which they can then sell.

> A Renewables Obligation Certificate (ROC) is a green certificate issued to an accredited generator for eligible renewable electricity generated within the United Kingdom and supplied to customers within the United Kingdom by a licensed electricity supplier. One ROC is issued for each megawatt hour (MWh) of eligible renewable output generated.[8]

Property developers are increasingly being required to explain how they will source renewable energy, and to include forms of low carbon distributed [9]energy within new developments if they are to make a successful tender. It is usual for local council policies to require that 10% of the energy required for a new building (both residential and non-residential development) be obtained from renewable resources.[10] The Planning and Energy Act, which came into force on the 13 November, supports the legality of such policies. The Act gives local councils in England and Wales powers to set reasonable energy-efficiency standards which developments in their area must comply with, which are permitted to be greater than the energy requirements of building regulations. The Act also permits local Councils to require that part of the energy used in a development is renewable energy,

and that part is sourced from low-carbon energy sources in the locality. The Council policies should be flexible enough to allow for renewable energy and low-carbon requirements to be supplied from either the locality or the immediate development site. It is also increasingly common in the UK for a developer to commission a third party or to incorporate a company to finance, build and operate an energy services scheme to provide heat and electricity exclusively to the development's tenants. These are called Low Carbon Distributed Generation (ESCOs). Natural gas or biomass fired combined heat and power stations are popular sources of sustainable electricity generation options. A developer may also commission a third party (or incorporate its own subsidiary) to act as an energy services company (ESCO). The ESCO then finances, builds and operates the scheme – supplying the heat and electricity to the development's tenants on an exclusive basis.[11]

An Energy Performance Certificate (EPC) is required for construction of new homes since 4 January 2009, and also if you are buying or selling a home or renting if let for the first time after 1 October 2008. It states how energy efficient the building is and is accompanied by a recommendation report and rating that lists a number of measures such as low and zero carbon generating systems) to improve the energy rating. A rating is also given showing what could be achieved if all the recommendations were implemented.[12]

> The certificate is important because nearly 50 per cent of the UK's energy consumption and carbon emissions arise from the way our buildings are lit, heated and used. Even comparatively minor changes in energy performance and the way we use each building will have a significant effect in reducing energy consumption.[13]

Emissions trading schemes are being used to reduce greenhouse gas emissions. The UK Emissions Trading Scheme was launched by Defra in April 2002 and the EU Emissions Trading Scheme began on 1 January 2005.[14] Emission trading allows the Government to set the overall cap for the scheme, and give companies the flexibility the flexibility to trade allowances so the overall emissions reductions are achieved in a cost-effective way. It imposes emission limit values on particular facilities, and gives companies the flexibility to devise strategies to meet emission reduction targets; for example, by reducing emissions on site, or by buying allowances from other companies who have excess allowances. Companies that participate in the scheme are allocated an allowance representing a tonne of the relevant emission, for example, carbon dioxide equivalent. They are allowed to exceed their allocation of allowances by purchasing allowances from the market and if it emits less than its allocation of allowances, it can

sell its surplus allowances. There is no impact on the environmental outcome because the amount of allowances allocated is fixed.[15]

In addition, in October 2008, the BSI British Standard published 'PAS 2050'.[16] This document specifies requirements for the assessment of the carbon footprint of goods and services, i.e., the life cycle GHG emissions of products. It is also supported by Defra and the Carbon Trust.[17] A carbon footprint concerns the greenhouse gas emissions produced or connected with a product or business. The analysis of a carbon footprint of a product will also require an assessment of the emissions associated with each stage of its production and supply. However greenhouse gas emissions of a business or product cannot always be reduced. Offsetting schemes fund projects that are either preventative, to stop the release of emissions, e.g., by planting trees that will absorb carbon dioxide or by developing a wind farm instead of using fossil fuel, or they attempt to remove emissions Many successful schemes use credits recognised by Defra's draft Code of Best Practice for Carbon Offsetting, such as Certified Emissions Reduction certificates, and European Union Allowances and Emission Reduction Units. The offset is achieved by acquiring and cancelling (or retiring) these certificates so that no-one else can rely on them to make further offsetting claims.[18]

The Climate Change Act 2008 concerns the management of, and the adaption to the impact of climate change in the UK. It is aimed primarily aimed at giving guidance to public sector organisations, but it will also be useful for the private sector. It even goes so far as to state that the government has a legal duty to assess the risks of climate change to the UK. The Act sets legally binding targets to reduce the UK's greenhouse gas emissions. These concern five year "carbon budgets", which are to gradually limit the total greenhouse gas emissions. However, the Act only ensures a certain degree of carbon reduction by 2050.

PART 1 CARBON TARGET AND BUDGETING

1. It is the duty of the Secretary of State to ensure that the net UK carbon account for the year 2050 is at least 80% lower than the 1990 baseline.
2. The 1990 baseline" means the aggregate amount of—
    a. net UK emissions of carbon dioxide for that year, and
    b. net UK emissions of each of the other targeted greenhouse gases for the year that is the base year for that gas.[19]

The UK government proposes to achieve this target through a number of measures involving increased use of renewable energy and carbon pricing, some of which have been discussed above. One prominent view is that the measures implemented under the Act are insufficiently pro-active. Critics believe its provisions will not achieve this quickly enough and that the targets are too low.[20] 2020 is a long time away. Action is urgently required now. We should not wait even another five years.

So, why is there procrastination? It may have to do with governments' emphasis on maintaining a smooth thriving capitalist world economy. Markets are being given the time to adjust to the impact of climate change legislative requirements or to find ways of making green money. This is time we can ill afford to squander, if we are to definitely preserve this planet for future generations. Yet some consider addressing climate change issues as only one of a number of competing issues.

> However, climate change is a long-term problem and the current momentum will have to be maintained for years. This will be difficult. Inevitably, other issues will come to the fore, competing for resources and ministerial attention. We already see some of these dynamics at work in efforts to deal with the present economic crisis, although encouragingly climate change has remained on the political agenda. In fact, a powerful case has been made for low-carbon investments as an effective way to kick-start the flagging world economy (Bowen et al 2009, Edenhofer and Stern 2009). [21]

Yet, surely, addressing climate change should be given top priority. Enough has already been written about the cost of and the miniscule impact of low-carbon investments on addressing climate change. It goes without saying that it is generally easier to obtain international agreement for a globally linked trading scheme than for a global carbon tax. However, the price for carbon has been low recently, and in an uncertain market, trading schemes, such as the European Emissions Trading Scheme, have not promoted much investment in low carbon technology. We have yet to see if other initiatives such as a combined system of taxes to ensure a minimum carbon price and trading will limit the overall costs.[22]

Fortunately, under the Climate Change Act, the Government must take into account the advice of the independent Committee on Climate Change (CCC). This committee is established under the Act to advise the Government on setting carbon budgets and to report to Parliament on the progress made in reducing greenhouse gas emissions. It has a very broad

remit regarding the matters it is to advise on under *s.34* in connection with carbon budgets:

s. 34

1. It is the duty of the Committee to advise the Secretary of State, in relation to each budgetary period, on—
   a. the level of the carbon budget for the period,
   b. the extent to which the carbon budget for the period should be met—
      i. by reducing the amount of net UK emissions of targeted greenhouse gases, or
      ii. by the use of carbon units that in accordance with regulations under sections 26 and 27 may be credited to the net UK carbon account for the period,
   c. the respective contributions towards meeting the carbon budget for the period that should be made—
      i. by the sectors of the economy covered by trading names taken as a whole);
      ii. by the sectors of the economy not so covered (taken as a whole), and
   d. the sectors of the economy in which there are particular opportunities for contributions to be made towards meeting the carbon budget for the period through reductions in emissions of targeted greenhouse gases.

2. In relation to the budgetary period 2008-2012, the Committee must also advise the Secretary of State on—
   a. whether it would be consistent with its advice on the level of the carbon budget for the period to set a carbon budget such that the annual equivalent for the period was lower than the 1990 baseline by 20%, and
   b. the costs and benefits of setting such a budget.

3. Advice given by the Committee under this section must also contain the reasons for that advice.

4. The Committee must give its advice under this section—
   a. for the budgetary periods 2008-2012, 2013-2017 and 2018-2022, not later than 1st December 2008;

Under s 37 of the Act the Secretary of State must lay before Parliament a response to the points raised by each report of the Committee under section 36 (reports on progress) but before doing so, the Secretary of State must consult the other national authorities on a draft of the response.

The committee has potentially much power and freedom to carry out its functions. Under s. 39 (1) of the Ac may do anything that appears to it necessary or appropriate for the purpose of, or in connection with, the carrying out of its functions. S.39 goes on to explain that the Committee may:

a. enter into contracts,
b. acquire, hold and dispose of property,
c. borrow money,
d. accept gifts, and
e. invest money.

In exercising its functions, the Committee may:

a. gather information and carry out research and analysis,
b. commission others to carry out such activities, and
c. publish the results of such activities carried out by the Committee or others.

Under subsection (4) the Committee 'must have regard to the desirability of involving the public in the exercise of its functions'. But to what extent is not clarified. This all looks promising on paper, as the committee would seem to be a force to be reckoned with. However both national bodies and the Secretary of State can give guidance and directions to the Committee under ss. 41-2 of the Act. The Secretary of State has the final say about energy-efficient polices – and so the committee is not an independent body. It is not a climate change watchdog. The government does not have to act on the committee's advice. They did not, for example, endorse the CCC's intended target of 42%.

> In spring 2009, the government adopted the CCC's 34% interim target for 2008-2022. It acknowledged that the interim target would have be revised once there is a new international agreement, but it did not endorse the CCC's intended target of 42%. Instead, the CCC will be asked for an updated recommendation once the details of the new agreement are known. [23]

So despite the apparent wide ranging powers given to an independent committee of supposed experts, the government does not have to follow its recommendations and can direct what it must take into account. It therefore seems that although the Act gives the appearance of an independent scrutiny of what climate change measures should be made, the government has the last word regarding the extent to which climate change measures will be implemented. The UK should adopt the "intended" 42% reduction budget immediately. It will have to make those reductions anyway, eventually so why not now. Any delay risks "locking-in" bad practices. It would also set a good political example to everyone involved in the post-Kyoto treaty negotiations.

Under Part 4 of the Climate Change Act the government has what is called an adaption reporting power. What this means is that it can require public sector organisations and statutory undertakers companies like water and energy utilities to produce a report on how their organisation is assessing and acting on the risks and of climate change to their work. If the government considers that the information provided is inadequate, then it can request further information. The government will publish the reports. But not every organisation may be required to report. When an organisation is asked to report, they are therefore likely to have the public's full attention. It is no doubt hoped that this will be a further motivation for action, and result in an improvement by the public sector in adapting to climate change. Any organisation, which has produced a report, will then have a duty to comply with that report in its ongoing operations. The reports therefore should provide another key factor in motivating change.

The Secretary of State decides whether or not a report is required. This decision is apparently to be based on whether the organisation is already reporting on adaptation, and on the level of progress being made on adaptation by that reporting authority. There are many vested interests at stake which may influence the government's decision as to which must report. Given the urgency of the issue of addressing climate change, perhaps the government should pass this power to an independent body to exercise. An independent watchdog could be established, which can determine which organisations need to report, or be inspected and which has the power to enforce such decisions. It should account for its actions in regular government audits, but its actions should be subject to judicial scrutiny rather than a government right of veto. The government may still then have the final say in whether or not certain organisations should complete reports or are to be inspected, but it would be checked by the watchdog and ultimately the voting electorate. However, what constitutes 'best practice' in an ethical sense can only be judged according to the context in which the practices will implemented, the level of understanding and education of those

implementing them, the resources available and the existence of supporting legislation.[24]

So how does the adaption power impact on the construction industry? As a result of the Climate Change Act, the industry could be required to reduce carbon emissions during the construction process and to ensure reduction of carbon emissions over the life of the consideration of the constructed product, be it machinery or buildings. The reliance of the construction industry on transportation of materials is another issue. The transport sector has the fastest growing emissions. Present Government technical solutions to this problem involves a move from fossil fuel-based combustion engines to electric vehicles, biofuels or hydrogen technology. However this strategy has been undermined because car manufacturers across the EU have adhered to a voluntary agreement to abide reduce new car emissions.[25]

In the UK we have seen the implementation of the Energy Performance of Building Directive (EPBD), which required energy certificates for all buildings by Jan. 2009. With regard to developers, it is likely that local authorities will introduce increasingly stringent planning regulation. They should also require construction companies to generate an increasing proportion of energy on site.

Although Industry experts will now face increasing scrutiny from the government and the public to ensure carbon dioxide emission reduction targets are met, a greater problem is how to ensure corporate responsibility, in the form of its clients. The Welsh Assembly Government has set an example, which property/construction clients will need to heed as it recently used the planning system to set a national standard for sustainability for most new buildings in Wales from the 1 September 2009. Their policy will reduce carbon emissions through energy efficiency, the use of renewable energy, and the reduction of the consumption of water and the use of more sustainable materials. This is expected to achieve a reduction by more than 31 per cent compared to current building regulations. Housing proposals will also be expected to meet the Code for Sustainable Homes Level 3, and non-domestic buildings will be expected to meet the BREEM 'Very Good' standard as a minimum. In addition, more than 50 representatives of the building sector, in the UK's first green building charter, announced last November, have committed themselves to progress towards a built environment that contributes low or zero net carbon emissions as practically possible.[26]

The Construction industry generally recognises the need to respond to the market, and is readily adapting to meet the demand for green products and services. [27] Indeed, it needs to respond quickly to comply with increasing regulations and guidelines. But whereas it is being increasingly regulated, client responsibility to reduce emissions is less so. The so-called 'brand development' motivator for attracting customers and staff is still a relatively

minor factor in generating client interest in reducing carbon emissions. Rather than see climate change as an opportunity for the use of new innovative green products, the interest of homeowners and building users is still generally lagging.[28] The private sector does not generally manage vulnerability to climate risks or plan ahead for the long-term life of the building, which could span more than 50 years.[29] However, the reality is that both clients and the construction industry need an incentive to work together in 'managing climate risks', i.e., in preparing for climate change scenarios, if there is to be a significant reduction in carbon emissions. This may be partly resolved by tightly regulation and monitoring through legislation and government watchdogs.

There is also the need to promote the local sourcing of construction materials, where possible. This could be made a standard clause in standard contracts, such as the NEC, JCT and ICE. All involved from manufacturers, engineers, specifiers and developers, main contractor and sub-contractors should share the responsibility of reducing the carbon emissions generated by the UK's construction industry. Sourcing materials locally could significantly reduce the carbon footprint of projects. The import of goods from Europe, tiles being most popular, bring with them problems of traceability and accountability. However the consumer also has to contribute by being either content with local items or participate in local carbon trade schemes.

In conclusion, the property and construction industry will need to quickly develop long-term resource efficiency methods to address the impact of climate over the lifetime of the property. Increasing Building Regulation requirements is not enough to achieve this. There is also the need to ensure the responsible production and consumption of energy, and the co-operation of the public and private sectors.

This means that pressure is going to be exerted on the property and the construction industry and their clients to co-operate in promoting climate change efficiently, economically and accountably. The Climate Change Act requires that public investment in buildings and infrastructure take into account the economic costs of climate change. This indicates that huge associated increases in capital and production costs for construction companies. Consequently, the overall impact of this and risk assessment will need to be built into contracts with clients. The likelihood is that increased professional indemnity insurance costs will provide incentives to reduce risk. The increased costs due to compliance with climate change measures may be met partly at least by a reduction in energy consumption, however, it seems generally agreed that this equity cannot be achieved without the co-operation of vested interests, and a communal interest in the local environment if we are to ensure environmental justice.

It is a case of everyone pulling together to ensure the minimal impact on the environment of the selection of energy efficient construction

materials and the construction process in general. This is where the wide scope of powers given to the CCC under the Climate Change Act could be exercised with innovative results. The problem is, will it lose out to the influence of powerful vested interests, so that apparently 'extreme' measures are rejected in favour of long term, but too late phasing in of energy efficient policies?

Notes

[1] Available at www.berr.gov.uk/files/file46685.pdf -[last viewed 5 June 2009]
[2] Available at www.opsi.gov.uk/acts/acts2008/ukpga_20080027_en_1 -[last viewed 5 June 2009]
[3] See for example the UK Climate Impacts Programme, www.ukcip.org.uk and www.bbc.co.uk/climate/impact/last [last viewed 5 June 2009].
[4] See DTI, '*Strategy for Sustainable Construction*'- consultation event- This paper produced with the help of comments and contributions from Faber Maunsell, Sustainable Development Commission, Willmott Dixon and HBF: pp. 1-2. www.berr.gov.uk/files/file37180.pdf [last viewed 4 June 2009].
[5] Available at www.decc.gov.uk/ - [last viewed 22 July]
[6] Available atwww.opsi.gov.uk/acts/acts2008/ukpga_20080032_en_1 -[last viewed 22 July]
[7] See news item The Schneider Corporation Adds Wind Energy to Services, Monday, July 20, 2009, available at www.oilvoice.com/n/The_Schneider_Corporation_Adds_Wind_Energy_to_Services/987f8c47.aspx - [last viewed10 August 2009]
[8] Available at www.ofgem.gov.uk/Sustainability/.../RenewablObl.aspx [last accessed 23 July 2009]
[9] See news item The Schneider Corporation Adds Wind Energy to Services, Monday, July 20, 2009, available at www.oilvoice.com/n/The_Schneider_Corporation_Adds_Wind_Energy_to_Services/987f8c47.aspx - [last viewed10 August 2009]
[10] www.waverley.gov.uk/site/scripts/documents_info.php?... – and also see *www.highpeak.gov.uk/planning/.../renewables_policy.asp* - [both last accessed 24 July 2009]
[11] See www.sustainablecities.org.uk/energy/portfolio/ownership/ -[last viewed 23 July 2009]
[12] See *www.communities.gov.uk/publications/.../epcsbuildersguide* - [last viewed 23 July 2009]
[13] See www.communities.gov.uk/planningandbuilding/theenvironment/energyperformance [last viewed 23 July 2009]

[14] See www.defra.gov.uk/Environment/climatechange/trading/ - [last viewed 23 July 2009].
[15] Ibid.
[16] See www.bsigroup.com/en/Standards-and.../PAS-2050/ - [last viewed 23 July 2009].
[17] See www.carbontrust.co.uk/carbon/.../developing_the_standard.htm - [last viewed 23 July 2009].
[18] www.defra.gov.uk/environment/.../carbonoffset/index.htm -[last viewed 23 July 2009].
[19]Available at the Office of Public Sector Information www.opsi.gov.uk/acts/acts2008/ukpga_20080027_en_1 [last viewed 5 June 2009].
[20] A Giddens, S Latham and R Liddle (eds) *Building a Low Carbon: The Politics of Climate Change*' There is a broad consensus that any serious climate change strategy must achieve an early curtailment of cumulative emission increases and an early reversal of emissions growth'. Policy Network, London, 2009, available at http://politicsofclimatechange.wordpress.com/2009/06/15/building-a-low-carbon-future/ see pp. 14-15 and p. 111 [last viewed 8 August 2009].
[21] In ibid., S Frankhauser, D Kennedy, and J Skea, Chapter 10, The UK's Carbon targets for 2020 and role of the Committee of Climate Change.
[22] T Macalister and A Seager, 'Carbon trading 'undermined by boom and bust', The Guardian, Monday 23 March 2009, *The Guardian*, available at http://www.guardian.co.uk/environment/2009/mar/23/carbon-emissions-ets and also see '*Carbon Taxes vs Carbon Trading Pros, cons and the case for a hybrid approach*' © PricewaterhouseCoopers LLP, March 2009 available at http://www.ieta.org/ieta/www/pages/getfile.php?docID=3261 [both last viewed 8 August 2009]
[23] Op. cit, S Frankhauser, D Kennedy, and J Skea, p.109.
[24] RICS Research *Defining a best practice approach*: A report for the Royal Institution of Chartered Surveyors by the Building Research Establishment, June 2008, available http://www.rics.org/NR/rdonlyres/4DF412BC-9F95-4A79-AF88-923E670BE718/0/Canbuildingcodesdeliverenergyefficiency.pdf at p. 14 [last viewed 8 August 2009.
[25] Op. cit. S Frankhauser, D Kennedy, and J Skea at p. 107 and N Carter at p. 113.
[26] Wales first in UK to set national green standards for buildings using the planning system' *Resource for Urban Design Information*, 19970229 RUDI Ltd. www.rudi.net [last viewed 23 July 2009].
[27] See ICI, *Why Waste Heat*, Institute of Civil Engineers, ICE's recommendations, 'Based on our research report ICE makes five

recommendations to government and industry to improve efficiency in the heat sector: Government should commission a feasibility study into capturing heat and creating a district heating network at Drax, Ferrybridge and Eggborough, and Tilbury-Kingsnorth. The assessment of heat capture potential should become a planning condition on all new power stations. Local aut'horities should map current and future heat demand in their area. Government should conduct a review to establish if CO2 and renewable targets are pulling in opposite directions. Government should encourage the use of lower carbon intensity fuel sources for heating domestic and commercial property' available at www.ice.org.uk/knowledge/document_details.asp?Docu_id=2302&faculty www.ice.org.uk/downloads//heat_report.pdf May 2009 at p. 3 [last viewed 10 August 2009]

[28] There are of course noteworthy exceptions. For example, see R Smithers, 'Marks & Spencer launches UK's greenest till roll New M&S receipts are lighter and use 8% less pulp – helping to save more than 800 trees a year', *The Guardian*, Wednesday 15 April 2009 11.44 BST, who states that 'M&S's "Plan A", a five-year, "eco plan" under which, by 2012, M&S aims to become carbon neutral; send no waste to landfill; extend sustainable sourcing and set new standards in ethical trading' available at www.guardian.co.uk/environment/2009/apr/15/marks-and-spencer-sustainble-till-rolls - at guardian.co. uk 2009. © Guardian News and Media Limited [last viewed 6 June 2009]

[29] C West and M Gawith (eds), *Measuring Progress, Preparing for climate change through the UK Climate Impacts Programme*, June 2005, UK Climate Impacts Programme, Oxford University Centre for the Environment.(2005) ISBN 09-544830-5-7 pp. 12-3.

Bibliography

Viewed on 10th August. <http://www.oilvoice.com/n/The_Schneider_Corporation_Adds_Wind_Energy_to_Services/987f8c47.aspx>.

Viewed on 22nd July. <www.opsi.gov.uk/acts/acts2008/ukpga_20080032_en_1>.

Viewed on 5th June 2009. <www.bbc.co.uk/climate/impact/last>.

Viewed on 5th June 2009.
<www.berr.gov.uk/files/file37180.pdf>.

Viewed on 5th June 2009.
<www.berr.gov.uk/files/file46685.pdf>.

Viewed on 5th June 2009.
<www.opsi.gov.uk/acts/acts2008/ukpga_20080027_en_1>.

Viewed on 23rd July 2009.
<www.bsigroup.com/en/Standards-and.../PAS-2050/>.

Viewed on 23rd July 2009.
<www.communities.gov.uk/publications/.../epcsbuildersguide>.

Viewed on 23rd July 2009.
<www.carbontrust.co.uk/carbon/.../developing_the_standard.htm>.

Viewed on 23rd July 2009.
<www.communities.gov.uk/planningandbuilding/theenvironment/energyperformance>.

Viewed on 22nd July.
<www.defra.gov.uk/environment/.../carbonoffset/index.htm -[last viewed 23 July 2009].www.decc.gov.uk/>.

Viewed 23rd July 2009.
<www.defra.gov.uk/Environment/climatechange/trading/ >.

Viewed on 23rd July 2009.
<www.ofgem.gov.uk/Sustainability/.../RenewablObl.aspx>.

Viewed on 23rd July 2009.
<www.sustainablecities.org.uk/energy/portfolio/ownership/ >.

Viewed on 24th July 2009.
<www.waverley.gov.uk/site/scripts/documents_info.php?>. *see also* <www.highpeak.gov.uk/planning/.../renewables_policy.asp>.

Viewed on 10th August 2009.
<www.ice.org.uk/downloads//heat_report.pdf >.

<http://www.guardian.co.uk/environment/2009/mar/23/carbon-emissions-ets>.
DTI '*Strategy for Sustainable Construction',* viewed on 10th August 2009. <www.berr.gov.uk/files/file37180.pdf>.

DTI '*Strategy for Sustainable Construction',* viewed on 10th August, 2009. <www.berr.gov.uk/files/file37180.pdf>.

Frankhauser, S., Kennedy, D., and Skea, J., Chapter 10, The UK's Carbon targets for 2020 and role of the Committee of Climate Change. *Carbon Taxes vs Carbon Trading Pros, cons and the case for a hybrid approac*h' © PricewaterhouseCoopers LLP, March 2009. Viewed on 8th August 2009. <http://www.ieta.org/ieta/www/pages/getfile.php?docID=3261>.

Giddens, A., Latham, S., and Liddle R., (eds) *Building a Low Carbon: The Politics of Climate Change*,. Policy Network, London, 2009, viewed on 8th August 2009.
<http://politicsofclimatechange.wordpress.com/2009/06/15/building-a-low-carbon-future/ see pp. 14-15 and p. 111>.

ICI, *Why Waste Heat*, Institute of Civil Engineers, ICE's recommendations. Online.
<www.ice.org.uk/knowledge/document_details.asp?Docu_id=2302&faculty>

Jackson, R., The Role of Spatial Planning in Combating Climate Change, in *Planning Research Network*. Online.
<www.planningresnet.org.uk/.../Ruth%20Jackson_Arup_Spatial%20Planning%20and%20Climate%20Change_150806.pdf –>.

RICS Research, *Defining a best practice approach*: A report for the Royal Institution of Chartered Surveyors by the Building Research Establishment, June 2008, p.p. 14.Viewed on 8th August 2009.
<http://www.rics.org/NR/rdonlyres/4DF412BC-9F95-4A79-AF88-923E670BE718/0/Canbuildingcodesdeliverenergyefficiency.pdf>.

Seager, A., 'Carbon trading 'undermined by boom and bust', Monday 23 March 2009. *The Guardian***,** Viewed on 8th August 2009.
<http://www.guardian.co.uk/environment/2009/mar/23/carbon-emissions-ets>.

West, C., and Gawith M. (eds), *Measuring Progress, Preparing for climate change through the UK Climate Impacts Programme*, June 2005, UK Climate Impacts Programme, Oxford University Centre for the Environment.(2005) ISBN 09-544830-5-7 pp. 12-3.

Environmental Rights, Justice and Climate Change

Bridget Lewis

Abstract
The human rights implications of climate change are increasingly gaining attention, with wider international acknowledgement that climate change poses a real threat to human rights. This paper considers the impact of climate change on human rights, looking particularly at the experiences of Torres Strait Islanders in northern Australia. It argues that human rights law offers a guiding set of principles, which can help in developing appropriate strategies to combat climate change. In particular, the normative principles embodied in environmental rights can be useful in setting priorities and evaluating policies in response to climate change. The paper also argues that a human rights perspective can help address the underlying injustice of climate change: that it is the people who have contributed least to the problem who will bear the heaviest burden of its effects.

Key Words: climate change, human rights, justice, indigenous rights, environmental rights

*****

1. Introduction

Anthropogenic global warming is already creating serious environmental changes for many communities around the world, affecting their well being in a number of ways. Even modest predictions for future effects of climate change suggest that many millions more will be impacted upon in some way.[1]

An enormous amount of research examines the problem of climate change and how we might best respond. However, to date these responses have tended to come from the fields of science, economics and international relations. Legal scholars have more recently entered the field, searching for legislative or regulatory solutions, and investigating how litigation might be involved in addressing the problem. We have also seen a recent development of human rights scholarship in relation to the problem of climate change. Around the world we are starting to see the human rights impact of climate change being discussed more commonly,[2] along with a wider acknowledgement that climate change poses a real threat to human rights. Alongside that 'doom and gloom' analysis of how human rights will suffer in a warming planet, we are also starting to see greater discussion of how we might use human rights law as a framework upon which to structure some solutions. This is the point I have been investigating in recent years: how can

taking a human rights perspective to the problem of climate change help us address it, and what are the benefits of taking such an approach?

This paper illustrates the impact that climate change will have (and is already having) on human rights. As a case study I explore the experiences of communities in the Torres Strait Islands, off the coast of far northern Australia. By considering the kinds of rights, which are vulnerable to the effects of climate change, and identifying where we find these rights in international law, I hope to demonstrate how we might use international human rights law as a framework upon which to build our strategies to combat climate change. I also hope to make clear some of the benefits that we can gain from considering climate change from a human rights perspective. I argue that one benefit of this kind of approach is that it can help us address the injustice of climate change. That is, the people who are most vulnerable to the effects of climate change, along with the members of future generations, will suffer most from its effects, when they have been least responsible for its creation.

2. The impact of climate change in the Torres Strait

To illustrate the impact of climate change on human rights, I have chosen as a case study the experiences of communities living in the Torres Strait Islands off the coast of far northern Australia.

The Torres Strait Islands are a group of over 100 islands located between Cape York Peninsula, the northernmost tip of the state of Queensland in Australia, and Papua New Guinea. The islands are spread over 48,000km^2, with around 7100 people living in 18 communities across 16 islands.[3] Each community is a distinct people, with its own traditions, laws, customs and unique history. In spite of this diversity, and despite the fact that the communities are spread out over a very large area, the islands are often grouped together because of their geographic location, and they have developed strong regional links. Torres Strait Islanders have their own flag, which symbolises the unity and identity of all communities in the region, and has its own regional authority, which was created to allow Islanders to manage their own affairs according to *ailan kastom* (island custom) and to develop a stronger economic base for the region.[4]

Climate change is already having a noticeable impact on the islands in the Torres Strait. There is a great deal of anecdotal evidence of impacts such as increased erosion, strong winds and increasing frequency and severity of storms.[5] Many islands have experienced recent incidents of sea water inundation following king tides, with the ocean breaking over sea walls and foreshore to flood villages. Salt-water inundation causes widespread damage to infrastructure (roads, airstrips, jetties, sewerage and drainage systems) and contaminates potable water supplies and arable land. It also impacts on important cultural and sacred sites, including cemeteries located

close to the coast.[6] Changes in ocean temperatures and currents, and erosion of beaches caused by storm activity and strong waves, are also impacting on numbers of important totemic species such as dugong and turtles.[7]

Climate change is predicted to cause rises in temperatures, and changes to precipitation patterns. It is expected that rainfall frequency will decrease, but rainfall intensity will increase, causing increased frequency of floods and droughts. Climate change is also predicted to cause more frequent severe weather events, such as cyclones and tropical storms, bringing storm surges and destructive winds. [8]

These effects are being observed throughout the South Pacific, with some low-lying atolls having already been largely submerged. It is predicted that within the next few years some communities will be forced to abandon their islands entirely.[9] In the Torres Strait some communities have been forced to move further inland, or to raise their houses up on stilts to get above the water level when the sea encroaches. Even after the water recedes, the impact on infrastructure, drinking water supplies and agriculture remains.[10]

There are a number of reasons that communities in the Torres Strait are particularly vulnerable to these effects of climate change. Not only are many of the islands low-lying, but they are also very remote, giving them limited access to mainland infrastructure, resources and support. Torres Strait Islanders also rely heavily on their environment for subsistence and economic stability.[11] Fishing is a vital activity both as a source of food and as a commercial enterprise, but changes in ocean temperatures and currents already seem to be impacting on fish stocks in the Torres Strait, with the potential to affect both the Islanders' food supplies and economic stability.[12]

Torres Strait Islanders also have a very special relationship with their environment in terms of the cultural, social and spiritual role it plays in their lives. This close relationship with the ecosystem that surrounds them puts them at risk of a much wider range of negative impacts from climate change than non-Indigenous Australians. This wide range of risks is compounded by the position of relative socio-economic disadvantage Islanders currently endure, which hinders their capacity to adapt effectively to rapid climate change and makes them reliant on assistance from the mainland to cope with the impacts of global warming.[13]

This combination of factors places the Torres Strait Islanders in a position where they may be unable to enjoy their human rights because of the effects that climate change will have on their communities. The next section of the paper will consider what human rights are at risk from climate change, and illustrate the consequences for Torres Strait Islanders.

3. What rights are affected?

From a human rights perspective, there are a wide range of rights which will be impacted upon, or which are already being impacted upon by the effects of climate change. These are rights which are guaranteed to all people under international human rights law, through their inclusion in United Nations human rights conventions and regional human rights treaties, and also in domestic human rights legislation, such as the *UK Human Rights Act*.[14]

The *International Covenant on Civil and Political Rights* guarantees to all people the right to life.[15] This is also included in the *Declaration on the Rights of Indigenous Peoples*, which guarantees the right to life, physical and mental integrity, liberty and security of the person.[16] The right to life is under threat not only from changes to food and water supplies and spread of disease, but also more directly from severe storms and flooding. In the Torres Strait lives have already threatened by king tides and severe storms, and it is predicted that health standards may deteriorate from diminished access to clean drinking water and increased susceptibility to disease.[17]

The *International Covenant on Economic, Social and Cultural Rights* further guarantees to all people the right to an adequate standard of living, along with the right to adequate food, clothing and housing, and to the continuous improvement of living conditions.[18] It is predicted that climate change will have a serious impact on food production patterns with changes in rainfall patterns, increased salinity and erosion.[19] Changes to sea levels, ocean temperatures and currents are predicted to cause many fish and marine species to migrate. Torres Strait Islanders rely on fishing as a source of food and an important commercial activity. Islanders have already reported changes in fish stocks, and for these communities, these changes may have a very significant impact on their human rights, affecting their means of subsistence and economic stability.[20]

The *International Covenant on Economic, Social and Cultural Rights* also guarantees the right to the highest attainable standard of health.[21] As mentioned above, the right to health in the Torres Strait is under threat both directly and indirectly from climate change. The right to health is also guaranteed to children in the *Convention on the Rights of the Child*, and this provision specifically mentions the need to provide clean drinking water in order to facilitate the right to health.[22] The right to water has also been specifically recognised as a separate right by the United Nations Committee on Economic, Social and Cultural Rights, because of its importance to rights to health and food.[23] In the Torres Strait, both ground and surface water supplies are at risk of contamination from salt-water incursions. Green explains that many of the islands in the Torres Strait have already reached the limits of their drinking water supplies, and must rely on mobile or permanent desalination plants to meet demand.[24] The stresses placed on these water

supplies by climate change will cause substantial problems for resource management in the Torres Strait.[25]

The *Declaration on the Rights of Indigenous Peoples* stresses that indigenous peoples must equally be able to enjoy the highest attainable standard of health, and further guarantees the right of indigenous peoples to maintain their traditional medicines and health practices.[26] Climate change is predicted to cause a wide range of negative health impacts, including the spread of diseases into previously unaffected areas, increased prevalence of mosquito and water-borne diseases such as malaria and dengue fever, and aggravation of existing health problems.[27] The impacts on food and fresh water supplies discussed above create a risk of malnutrition and other health problems.

The right to health is of particular concern where Torres Strait Islanders are concerned because Aboriginal and Torres Strait Islander communities in Australia already have very poor health statistics.[28] This places them at greater risk of adverse health impacts from climate change. The close relationship they have with the environment means that environmental degradation has a real impact on their health, in particular their mental health, with the result that climate change may have impacts on Torres Strait Islanders in ways that are not considered for non-indigenous Australians.[29]

Where the environment plays an important social or cultural role for communities, as it does for Torres Strait Islanders, other rights are under threat from environmental degradation caused by climate change. The ICCPR guarantees the right of all peoples to enjoy their traditional customs, languages and religions.[30] Where indigenous people are concerned, a range of social, cultural and economic rights are enumerated in the *Declaration on the Rights of Indigenous Peoples*,[31] including the right to practise and revitalise cultural traditions and customs,[32] the right to practise, develop and teach spiritual and religious traditions, including accessing and maintaining religious and cultural sites,[33] and the right to maintain and practice traditional medicines, including the conservation of medicinal plants, animals and minerals.[34] These rights are at risk where climate change limits a people's ability to carry on their traditional way of life, to pass on traditional customs to younger generations or to remain on their traditional lands. It has been suggested that, in the case of the Torres Strait Islands, the very existence of *ailan kastom* is under threat from climate change.[35]

4. Impact of climate change on environmental rights

In addition to this catalogue of rights which are already recognised at international law, there may also be 'environmental rights' which are affected by climate change. Increasingly, the link between the environment and human rights has been acknowledged at international law, and in other

international instruments. This has primarily been in the form of an express recognition of the role that the environment plays as a precondition to the enjoyment of human rights. The *Convention on the Rights of the Child*, for example, acknowledges that the provision of clean drinking water is essential to ensuring that all children enjoy the highest attainable standard of health.[36]

The *Draft Declaration on Human Rights and the Environment*[37] states that established environmental and human rights principles operate together to guarantee everyone the right to a secure, healthy and ecologically sound environment. It also articulates the environmental dimensions of several well-recognised human rights, including the right to life, the right to health and a range of cultural rights.[38]

In 1972 the United Nations held a Conference on the Human Environment in Stockholm. The outcome of that conference, the *Stockholm Declaration*, was a set of 'common principles to inspire and guide the peoples of the world in the preservation and enhancement of the human environment.'[39] It also recognised that the natural environment is 'essential to man's well-being and to the enjoyment of basic human rights including the right to life itself.'[40]

Twenty years laster these principles were further developed at the United Nations Conference on Environment and Development in Rio de Janeiro. The *Rio Declaration*, while falling short of expressly acknowledging the links between the environment and human rights, did recognise that all human beings are entitled to a healthy and productive life in harmony with nature.[41]

There have been several successful cases in both the Inter-American Court of Human Rights and the European Court of Human Rights which established that environmental degradation in the form of, for example, deforestation or pollution amounted to a breach of the human rights of communities living nearby, such as the right to health or the right to privacy.[42] These cases confirm that violations of human rights can occur through environmental damage, and explicitly recognise the role the environment plays in ensuring the protection and fulfilment of human rights.

While these instruments and decisions recognise the environmental dimensions of a wide range of human rights, and confirm that a good environment is essential to the enjoyment of these rights, there is so far no firm statement in international law of a right to a good environment. Such a right would articulate the fact that all people are entitled to live in a safe and healthy environment. Significantly, to prove a violation of this right it would not be necessary to establish that other human rights have been breached, but rather would require only an objective demonstration of environmental degradation. [43]

Acceptance of an independent 'right to a good environment' would recognise the inherent value that the environment has to humanity as a whole.

It would recognise the interest of all peoples in conserving bio-diversity. In relation to climate change, it would overcome one of the challenges, which exist when trying to regard climate change from a human rights perspective. One of the problems of taking a human rights approach to climate change is that the very nature of the problem, the complexity of the science and the time-frame over which both problem and solutions will necessarily be played out means that we may yet see impacts and consequences which at this stage we can not foresee. If our human rights approach is reliant on identifying a particular individual or group who will suffer a particular human rights violation before we can take action, then we may find ourselves stymied in our ability to take effective action. Recognising a separate right to a good environment enables us to take action where environmental degradation is predicted, even where we cannot be sure of precisely what the human impact will be.

It has been argued that recognition of this separate right would enable individuals or communities to bring a claim under existing human rights regimes where the actions of a government or corporation have led to environmental damage, without having to establish any other violation of human rights.[44] Utilising the claims mechanisms provided for by international and regional human rights regimes is one way that human rights law can be used to help tackle the problem of climate change. This has already been attempted by Inuit peoples of North America, who brought a petition to the Inter-American Human Rights Commission seeking a declaration confirming that climate change is in fact a human rights issue, and that developed states, and in particular the United States of America, were in breach of their human rights obligations where they have failed to take appropriate steps to mitigate the impact of global warming.[45]

5. Benefits of a human rights approach

We can also use human rights as a normative framework upon which to build our responses to climate change. If we accept that the protection of human rights is a necessary goal of our climate change strategies, then we can use that objective as a yardstick against which to evaluate policy. Where governments have ratified human rights treaties, they are under a positive obligation to respect, protect and fulfil human rights. This means that at the very least they need to consider the impact on human rights of their policies on climate change, and ensure that they do not make human rights situations worse. Human rights law could be used to lend the weight of international law to criticisms of governments who do not take adequate steps to respond to the threat of climate change.

There are other benefits of taking a human rights perspective to climate change. First, it frames the discussion in terms which may have more resonance for the broader community. By focussing on the human impact

and on addressing the plight of people who will be affected first (and/or most severely) the debate on climate change can be moved away from the fields of economics, science and diplomacy, which may seem complicated and remote. This is not to suggest that we should abandon these fields of endeavour in favour of a human rights approach. Rather, human rights should be seen to enrich our current approach, but offering a new lens through with to view the problem, and offering normative standards against which to evaluate our strategies.

One important benefit of a human rights perspective is also one of the imperatives of a human rights-based approach. In taking a human rights focus, it is essential that we involve at-risk communities in consultation and planning, to help identify how their rights are being threatened and particularly to gain an appropriate understanding of the social, religious and cultural implications. However, there are many benefits to be gained from this approach. It allows us to develop mitigation and adaptation strategies, which are formulated with reference to traditional knowledge. In Australia, Aboriginal and Torres Strait Islander peoples have lived through past episodes of climatic change, and have adapted successfully. Traditional knowledge of the natural environment and climatic cycles can be a very valuable tool in developing our strategies. Consultation with indigenous communities is also essential if we are to develop strategies which will be culturally appropriate and which will gain the support of communities themselves. [46]

6. Human rights and the injustice of climate change

One of the major concerns about climate change is that it represents a serious injustice. It is recognised that climate change poses several issues in terms of justice and equity, and many authors have identified climate change as a problem for environmental justice. In 1989 Edith Brown Weiss wrote a remarkably farsighted paper on the issue of climate change and equity. She pointed out that people in developing states are likely to be worse affected by climate change, because of their vulnerability to environmental change and their lower capacity to adapt to it. Drawing on John Rawls' theory of justice, she identified the problem of achieving distributive justice between members of the same generation.[47]

One of the significant challenges of climate change is addressing the injustice inherent in the fact that many countries that will suffer worst from the impact of climate change (or at least those who will suffer first) are among the least responsible for its causes. An examination of the group of island nations located in the Pacific illustrates this injustice. Like the Torres Strait Islands, Pacific Island countries are under threat from rising sea levels and increased frequency of severe storms. Some Pacific Island countries are at risk of complete submersion. [48] However, these countries contribute very

little to worldwide greenhouse gas emissions and are among the lowest contributors on a per capita basis.[49]

Compounding this disproportionate impact is the fact that many of the states in this situation have limited capacity to cope with the environmental changes, which they will confront as a result of climate change. Many islands in the South Pacific are classified as Small Island Developing States, and some of them are also listed as being among the least developed states in the world.[50] These states often lack the financial and institutional resources necessary to adapt to the effects of climate change, and must rely on assistance from other nations. Torres Strait Island communities are in a similar situation of lower adaptive capacity, due to generations of discriminatory government policies and socio-economic disadvantage and their geographic remoteness. Herein lies one injustice of climate change: these communities who will be among the first to feel the effects, and who are among the least equipped to cope with them, are the same communities who have contributed the least to the problem.

However, there is another injustice at play as well. The time frame over which the results of global warming will be played out is so extensive; there is a disparity between the *past* and *current generations* responsible for the consequences future generations will have to live with. In identifying climate change as an issue, which would bring substantial environmental changes across the Earth for many generations to come, Edith Brown Weiss identified inequities in terms of the quality of the natural environment, which future generations would inherit, and the access to natural and cultural resources, which they would have. Her theory of intergenerational equity incorporated three elements: conservation of options, conservation of quality and conservation of access, and she argued that our strategies to combat climate change must ensure that these issues are addressed, and that we leave the Earth in no worse condition than we received it.[51]

Brown Weiss also illuminated the links between intragenerational inequity and intergenerational equity. She argued that, 'in the present generation, one cannot expect people to fulfil obligations to future generations if they are not able to satisfy their basic needs.'[52] She argued that if we fail to address poverty today we would increase the inequalities facing future generations. It is here then that we can turn to human rights principles to help address the intergenerational inequalities of climate change. By working towards the protection and fulfilment of human rights for all people, and particularly for impoverished and developing states, we can build capacity in these communities so that they are better equipped to deal with the effects of climate change.

A human rights perspective also requires us to think about the human rights capabilities of future generations. In addition to ensuring that the human rights of present generations are protected, we need to ensure that

our actions today will maximise the ability of all people to enjoy their human rights, without jeopardising the chances of future generations of doing the same. Our responses to the challenge of climate change would need to meet this standard.

The recognition of environmental rights in particular offers a chance for us to address the issue of intergenerational equity. By acknowledging the inherent value of the environment to all humanity, we must necessarily accept that it needs to be protected not only for current generations but also so that it can be enjoyed and relied upon by future generations. Recognition of a specific right to a good environment is therefore closely linked to securing intergenerational equity and can be applied in these terms to the problem of climate change.

By recognising the place that human rights law has in the discussion about climate change, we can compile a framework of normative principles, which can guide our approach to mitigation and adaptation. As international law develops, these principles are gaining in strength and enforceability, and we will be able to translate them into specific policies and enforceable agreements.[53]

7. Conclusion

Given the potential of climate change to impact upon the lives of millions of people around the world, in a wide variety of ways, it is an appropriate issue of concern for human rights lawyers. Approaching the issue from a human rights perspective offers many benefits. Not only does it equip us with a normative framework which we can utilise to evaluate and develop responses, but it also helps put the debate about climate change in terms which have more resonance for the wider community, because it forces us to focus on the human impact, rather than the economic or scientific impact, of global warming.

By recognising the threat to human rights which climate change represents we can also hope to address the injustice of climate change. By focusing on the people who will be most severely affected, a human rights approach encourages us to assist them to build capacity to adapt to climate change. Human rights law can place developed nations under an obligation to assist poorer nations, in recognition of the fact that developed nations are generally more responsible for global warming. The recognition of the right to a good environment would help address the injustice which climate change represents towards future generations and the environment generally.

Notes

[1] Intergovernmental Panel on Climate Change, 'Climate Change 2007: Synthesis Report Summary for Policymakers' 2007)op. cit.

[2] For example, United Nations Human Rights Council, *Resolution on Human Rights and Climate Change*, A/HRC/7/23 (28 March 2008); United Nations Human Rights Council, *Resolution on Human Rights and Climate Change*, UN Doc No. A/HRC/10/L.30 (25 March 2009)

[3] Australian Bureau of Statistics, *Population Distribution, Aboriginal and Torres Strait Islander Australians 2006*, 4705.0 at http://www.abs.gov.au/AUSSTATS/abs@.nsf/DetailsPage/4705.02006?OpenDocument

[4] ABC Radio Australia, *Places: Torres Strait Islands* http://www.abc.net.au/ra/pacific/places/country/torres_strait_islands.htm ; see also the Torres Strait Regional Authority, www.tsra.gov.au.

[5] Tom Calma, 'Aboriginal and Torres Strait Islander Social Justice Commissioner Native Title Report' (Human Rights and Equal Opportunity Commission, 2/2009, 2009) p 231

[6] Ibid; Donna Green, 'How Might Climate Change Affect Island Culture in the Torres Strait?' (CSIRO Marine and Atmospheric Research, Paper 011, 2006)

[7] Donna Green, 'How Might Climate Change Affect Island Culture in the Torres Strait' p. 4.

[8] Green, 'How Might Climate Change Affect Island Culture in the Torres Strait?' op. cit; Intergovernmental Panel on Climate Change, 'Climate Change 2007: Synthesis Report Summary for Policymakers' op. cit; Intergovernmental Panel on Climate Change, 'Climate Change 2007: The Physical Science Basis. Summary for Policy Makers' (Cambridge University Press, 2007)

[9]Jon Barnett, 'Adapting to Climate Change in Pacific Island Countries: The Problem of Uncertainty', *World Development*, 29/6 (2001), 977-93; Jon Barnett, 'Titanic States? Impacts and Responses to Climate Change in the Pacific Islands', *Journal of International Affairs*, 59/1 (2005), 203-19. Emma Brindal, 'Asia-Pacific Justice for Climate Refugees', *Alternative Law Journal*, 32/4 (2007), 240-41.; Robert Aisi, 'Facing Extinction : Climate Change and the Threat to Pacific Island Countries', *Reform*, /90 (2007), 65-67; South Pacific Regional Environment Programme, 'Climate Change, Variability and Sea Level Change', <http://www.sprep.org/topic/climate.htm#3>, accessed April 16 2009; Alistair Woodward, Simon Hales, and Philip Weinstein, 'Climate Change and Human Health in the Asia Pacific Region: Who Will Be Most Vulnerable?', *Climate Research*, 11 (1998), 31-38.

[10] Emma Gerrard, 'Impacts and Opportunities of Climate Change: Indigenous Participation in Environmental Markets', *Land, Rights, Laws: Issues of Native Title: Issues of Native Title,* Issues Paper 13 (2008); Green, 'How Might Climate Change Affect Island Culture in the Torres Strait?' op. cit; United Nations Permanent Forum on Indigenous Issues, 'International Expert Group Meeting on Indigenous Peoples and Climate Change, Summary Report' E/C.19/2008/CRP.9, 2008)
[11] Calma, 'Aboriginal and Torres Strait Islander Social Justice Commissioner Native Title Report' op. cit.
[12] Ibid; Green, 'How Might Climate Change Affect Island Culture in the Torres Strait?' op. cit.
[13] Calma, 'Aboriginal and Torres Strait Islander Social Justice Commissioner Native Title Report' op. cit.
[14] *Human Rights Act 1998* (UK)
[15] *International Covenant on Civil and Political Rights* opened for signature 16 December 1966, 999 UNTS 171 (entered into force 23 March 1976) art 6; Achala Chandani, 'Distributive Justice and Sustainability as a Viable Foundation for the Future of Climate Change', *Carbon and Climate Law Review,* 2 (2007), 152-63.
[16] *Declaration on the Rights of Indigenous Peoples*, adopted by General Assembly Resolution 61/295 on 13 September, 2007, art 7.
[17] Calma, 'Aboriginal and Torres Strait Islander Social Justice Commissioner Native Title Report' op. cit.
[18] *International Covenant on Economic, Social and Cultural Rights*, opened for signature 16 December 1966, 993 UNTS 3 (entered into force 3 January 1976) art 11(1).
[19] IPCC 2007.
[20] Calma, 'Aboriginal and Torres Strait Islander Social Justice Commissioner Native Title Report' ,p. 239.
[21] ICESCR, art 12.
[22] *Convention on the Rights of the Child*, opened for signature 20 November 1989, UNTS Vol 1577 (entered into force 2 September 1990) article 24
[23] United Nations Committee on Economic, Social and Cultural Rights, General Comment 15, *the Right to Water*, E/C.12/2002/11 (26 November, 2002)
[24] Donna Green, 'How Might Climate Change Affect Island Culture in the Torres Strait?'
[25] Calma, op cit.
[26] DRIP, art 24

[27] Donna Green, 'Climate Change and Health: Impacts on Remote Indigenous Communities in Northern Australia' (CSIRO Marine and Atmospheric Research, Paper 012, 2006) p. 1.
[28] Aboriginal and Torres Strait Islander Social Justice Commissioner, 'A Statistical Overview of Aboriginal and Torres Strait Islander Peoples in Australia',
<http://www.hreoc.gov.au/Social_Justice/statistics/index.html#toc41>,
accessed 2 June 2009.
[29] Calma, 'Aboriginal and Torres Strait Islander Social Justice Commissioner Native Title Report' op. cit; Green, 'Climate Change and Health: Impacts on Remote Indigenous Communities in Northern Australia' op. cit.
[30] ICCPR, art 27; Office of the High Commissioner for Human Rights, General Comment 23, *the Rights of Minorities*, CCPR/C/21/Rev.1/Add.5 (8 April, 1994); CRC art 30; *Convention on the Elimination of All Forms of Discrimination against Women*, opened for signature 21 December 1965 (entered into force 4 January 1969) art 15.
[31] Declaration on Rights of Indigenous Peoples
[32] Art 11,
[33] Art 12.
[34] Art 24.
[35] Green, 'How Might Climate Change Affect Island Culture in the Torres Strait?' op. cit. p. 4
[36] CRC art 24(2)(c)
[37] *Draft Declaration of Human Rights and the Environment*, E/CN.4/Sub.2/1994/9, Annex I (1994)
[38] Phillipe Sands, *Principles of International Environmental Law* (2nd edn., 2003). p. 294, Meinhard Doelle, 'Climate Change and Human Rights: The Role of International Human Rights in Motivating States to Take Climate Change Seriously', *Macquarie Journal of International and Comparative Law*, 1 (2004), 179. p 210
[39] *Declaration of the United Nations Conference on the Human Environment*, UN Doc A/CONF.48/14/Rev1 (Stockholm, 16 June 1972) (*Stockholm Declaration*)
[40] *Stockholm Declaration*, art 1
[41] *Declaration of the United Nations Conference on Environment and Development*, A/CONF 151/26 vol 1, principle 11 (Rio de Janeiro, 3-14 June 1992)
[42]*Lopez-Ostra V Spain*, (1995) Eur Ct H R 38 ; *Mayagna (Sumo) Awas Tingni Community V Nicaragua*, judgement of 31 August 2001, Inter-Am. Ct. H.R. (Ser C) No 79 (2001)

[43] Sumudu Atapattu, 'The Right to a Healthy Life or the Right to Die Polluted?: The Emergence of a Human Right to a Healthy Environment under International Law', *Tulane Environmental Law Journal,* 16 (2002), 65; Dinah Shelton, 'Human Rights, Environmental Rights, and the Right to Environment', *Stanford Journal of International Law,* 28 (1991); Steve Turner, 'The Human Right to a Good Environment - the Sword in the Stone', *Non-State Actors and International Law,* 4 (2004), 277-301.
[44] Atapattu, 'The Right to a Healthy Life or the Right to Die Polluted?: The Emergence of a Human Right to a Healthy Environment under International Law'. op. cit; Turner, 'The Human Right to a Good Environment - the Sword in the Stone'. op. cit.
[45] Martin Wagner, 'The Right to Be Cold: Global Warming and Human Rights', in Marius Smith and Erica Contini (eds.), *Human Rights 2007: The Year in Review* (Melbourne: Castan Centre for Human Rights, Monash University, 2008), 73-88. pp. 73-75
[46] Calma, 'Aboriginal and Torres Strait Islander Social Justice Commissioner Native Title Report' op. cit. pp 252-254
[47] John Rawls, *A Theory of Justice* (1971); Edith Brown Weiss, 'Climate Change, Intergenerational Equity and International Law', *Vermont Journal of Environmental Law,* 9 (2008), 615. p 618
[48] Climate Change Secretariat, 'Climate Change: Small Island Developing States' p. 14; Barnett, 'Titanic States? Impacts and Responses to Climate Change in the Pacific Islands'.
[49] Figures from 1994 show that the combined emissions from 11 Pacific Island nations amounted to less than 0.1% of the world's total emissions. Climate Change Secretariat, 'Climate Change: Small Island Developing States' p. 12.
[50] Ibid.
[51] Brown Weiss, 'Climate Change, Intergenerational Equity and International Law'. Op. cit., p, 623
[52] Ibid. p. 618
[53] Ibid.

Bibliography

Convention on the Rights of the Child, opened for signature 20 November 1989, UNTS Vol 1577 (entered into force 2 September 1990).

Convention on the Elimination of All Forms of Discrimination Against Women, opened for signature 21 December 1965 (entered into force 4 January 1969).

Draft Declaration on Human Rights and the Environment, UN Doc. No. E/CN.4/Sub.2/1994/9, Annex I.

International Covenant on Civil and Political Rights, opened for signature 16 December 1966, 999 UNTS 171 (entered into force 23 March 1976).

International Covenant on Economic, Social and Cultural Rights, opened for signature 16 December 1966, 993 UNTS 3 (entered into force 3 January 1976).

Lopez-Ostra v Spain (1995) Eur Ct H R 38.

Mayagna (Sumo) Awas Tingni Community v Nicaragua judgement of 31 August 2001, Inter-Am. Ct. H.R. (Ser C) No 79 (2001).

Atapattu, S., 'The right to a healthy life or the right to die polluted?: the emergence of a human right to a healthy environment under international law', in *Tulane Environmental Law Journal*, vol. 16, 2002, p. 65.

Aisi, R., 'Facing extinction: climate change and the threat to Pacific Island countries', in *Reform*, vol. 90, 2007, pp. 65-67.

Barnett, J., 'Adapting to climate change in Pacific Island Countries: The problem of uncertainty', in *World Development*, vol. 29(6), 2001, pp. 977-93.

Barnett, J., 'Titanic States? Impacts and Responses to Climate Change in the Pacific Islands', in *Journal of International Affairs*, vol. 59 (1), 2005, pp. 203-19.

Brindal, E., 'Asia-Pacific Justice for Climate Refugees', in *Alternative Law Journal*, vol. 32 (4), 2007, pp. 240-41.

Brown Weiss, E., 'Climate Change, Intergenerational Equity and International Law', in *Vermont Journal of Environmental Law*, vol. 9, 2008, p. 615.

Calma, T. 'A statistical overview of Aboriginal and Torres Strait Islander peoples in Australia', 2009, Viewed on 2nd June. <http://www.hreoc.gov.au/Social_Justice/statistics/index.html#toc41>.

Calma, T., *Aboriginal and Torres Strait Islander Social Justice Commissioner Native Title Report*, Human Rights and Equal Opportunity Commission, 2009.

Chandani, A., 'Distributive Justice and Sustainability as a Viable Foundation for the Future of Climate Change', *Carbon and Climate Law Review*, vol. 2, 2007, pp. 152-63.

Doelle, M., 'Climate Change and Human Rights: The Role of International Human Rights in Motivating States to Take Climate Change Seriously', *Macquarie Journal of International and Comparative Law*, vol. 1, 2004, p. 179.

Gerrard, E., *Impacts and Opportunities of Climate Change: Indigenous Participation in Environmental Markets*, Issues of Native Title, Issues Paper 13, 2008.

Green, D., *How Might Climate Change Affect Island Culture in the Torres Strait?* CSIRO Marine and Atmospheric Research Paper 011, 2006.

Green, D., *Climate Change and Health: Impacts on Remote Indigenous Communities in Northern Australia*, CSIRO Marine and Atmospheric Research Paper 012, 2006.

Intergovernmental Panel on Climate Change, *Climate Change 2007: The Physical Science Basis. Summary for Policy Makers*, Cambridge University Press, 2007.

Intergovernmental Panel on Climate Change, *'Climate Change 2007: Synthesis Report Summary for Policymakers*, 2007.

Office of the High Commissioner for Human Rights, *General Comment 23: The Rights of Minorities*, UN Doc. No. CCPR/C/21/Rev.1/Add.5, 1994.

Sands, P., *Principles of International Environmental Law* (2nd ed.), Cambridge University Press, Cambridge, 2003.

Shelton, D. 'Human rights, environmental rights, and the right to environment', *Stanford Journal of International Law*, vol. 28, 1994, p. 103.

South Pacific Regional Environment Programme, *Climate change, variability and sea level change*, viewed on 16th April 2009.
<http://www.sprep.org/topic/climate.htm#3>.

Turner, S., 'The human right to a good environment - the sword in the stone', *Non-State Actors and International Law*, vol. 4, 2004, pp. 277-301.

United Nations Committee on Economic, Social and Cultural Rights, *General Comment 15: The Right to Water*, UN Doc. No. E/C.12/2002/11, 2002.
United Nations Human Rights Council, *Resolution on Human Rights and Climate Change*, UN Doc. No. A/HRC/7/23, 28 March 2008.

United Nations Office of the High Representative for Least Developed Countries, *Landlocked Developing Countries and Small Island Developing States*, 2009. Viewed on 16th April 2009.
<www.unohrlls.org/en/sids/44>.

United Nations Permanent Forum on Indigenous Issues, *International Expert Group Meeting on Indigenous Peoples and Climate Change, Summary Report*, UN Doc. No. E/C.19/2008/CRP.9, 2008.

Wagner, M., 'The right to be cold: Global warming and human rights', in *Human Rights 2007: The Year in Review*, M. Smith and E. Contini (eds.), Castan Centre for Human Rights, Monash University, Melbourne, 2008, pp. 73-88.

Woodward, A., S. Hales, and P. Weinstein, 'Climate change and human health in the Asia Pacific region: who will be most vulnerable?', *Climate Research*, vol. 11, 1998, pp. 31-38

Investing the Law With an Environmental Ethic: Incorporating Environmental Justice into Domestic Environmental Laws

Brad Jessup

Abstract
The many laws that collectively make up domestic environmental laws are diverse in scope and source. They are drawn from archaic judicial principles as well as being designed by modern legislatures. Due to their breadth of origin there is a lack of a uniform objective within domestic environmental laws. Rather, hybrid and paradoxical moralities and philosophies underpin them. In recent years the concepts of sustainable development and precaution have been popularised within policy and introduced into statutes, the importance of biological diversity has been understood by lawmakers, and a human-environment rights agenda has slowly risen to attention. These trends have resulted in the foundations of domestic environmental laws in common law countries shifting, though only marginally. Environmental laws still are directed first and foremost to protect property interests, regulate polluting activities, conserve species in reserves, and oversee and purport to guide administrative decisions about land uses that might affect ecosystems. Most judges, legislatures and executives remain ignorant of an environmental ethic. In matters relating to the environment they are still principally guided by pragmatism, opportunism, and tradition, not environmentalism.
In this paper I will briefly discuss the state of domestic environmental laws, drawing on the Australian experience. I will argue that domestic environmental laws can, and should, be directed by an overarching principle of environmental justice. I will inquire into how environmental justice theories and an environmental ethic can be incorporated into legal principles and processes. This will be achieved by investigating how a greater consideration of notions of access and participation could improve environmental assessment laws and processes, how ecological justice principles could advance species conservation laws, and how ideals about avoiding environmental discrimination can further shape pollution control laws.

Key Words: Environmental justice, environmental law, environmental ethics, Australia, environmental assessment, pollution control, species conservation.

*****

1. The State of Australian Environmental Laws, the Problems with Sustainability, and a need for an Environmental Ethic

Australian governments and judges are still grappling with what sustainability means.[1] Over the past twenty years in particular the concept of

ecological sustainable development with its twinned principles of precaution and equity across generations[2] have infiltrated environmental laws and policies. They have been inserted into purpose sections of Acts and used as benchmarks against which government decisions are made. Not much, though, has changed. The precautionary principle has been misunderstood and poorly applied[3], there are no celebrated cases or decisions in Australia that have halted developments due to concern for future generations, and at best sustainability has been used to apply a triple-bottom-line assessment to proposed developments.[4] Development laws still invariably approve development activities, environmental impact assessment laws do not halt controversial projects,[5] pollution control laws license polluting industry just as before,[6] and biodiversity conservation laws have overseen continued species threats and habitat loss.[7]

There have been glimpses of some progress in climate cases in Australia where planning tribunals have had regard to climate adaptation and, implicitly, intergenerational equity concerns by refusing to permit some coastal developments.[8] However, energy-intensive and coal mining projects with clear and significant increases in greenhouse gas emissions have not been stopped.[9] Concurrently, 'greener' judicial interpretations of laws have been unambiguously overturned on appeal[10] or clarified by parliament cautious that further judicial activism might mean that the laws be used to prohibit potentially harmful activities - and as a corollary become more capable of protecting the environment.[11]

There is no discernible environmental ethic in Australia's environmental laws. The many laws that collectively make up Australia's environmental protection, biodiversity conservation and land use planning laws are diverse in scope and source. They are drawn from archaic judicial principles of tort and property and fundamental constitutional principles of responsible government. In all instances human and proprietary interests are afforded protection and access to the courts while ecological interests do not in themselves have a voice within the law. This is despite the passage of nearly forty years since Christopher Stone advocated that non-human aspects of nature should have standing before the courts through the agency of concerned individuals and groups.[12]

As long as there have parliaments there have been statutes that regulate human relationships with their surroundings. In Australia, the earliest forms of environmental laws were laws that allocated property interests and reserved lands, mostly for human recreation. It was not until the 1970s that Australian parliaments passed or amended statutes that articulated a concern for environmental protection.[13] Many statutes from that time persist while more have been introduced since. As the decades passed these statutes became more sophisticated and complex as law-makers grappled with community environmental concerns, politics and the unending pursuit of

development and growth, albeit sustainable. Legislative purposes are now more directed at preservation, rather than simply being focused on resource use or regulation, and have begun to trial ways of giving effect to the principles of ecological sustainable development. Further, in Australia standing rules for environmental groups have been relaxed[14] and lower standards of proof have been adopted for some environmental offences.[15] Community groups in some jurisdictions have rights to enforce laws[16] and a limited, though rarely used, power to prosecute polluters.[17] They have rights to participate in decision-making processes and to access information.[18] These laws, however, are not universal. The environmental credentials are not matched in other laws and there is no overarching philosophy that has lead to their enactment, or that can be used as a benchmark for evaluating their implementation and interpretation.

2. An Environmental Ethic for the Law

Agyeman[19] argues that green theorists and professional environmentalists have succeeded in refining the concept of sustainability to advance a conservation agenda and to impose an environmental platform on communities. This is unquestionably so within the minority, high-income countries of the world. However, given their wealth, and past and ongoing degradation of ecosystems this reconceptualisation of sustainability by environmentalists in high-income and high-polluting countries is understandable and justifiable. In Australia and other rich nations any environmental theory or principle should be employed to enhance conservation and protection, though mindful of any unjust consequences for disadvantaged groups in society.

Despite the trend towards the promotion of 'environmental sustainability', environmental outcomes have not generally been improved.[20] In Australia, the adoption of the principle of ecological sustainable development has not modified environmental laws in a way that gives pre-eminent importance to the protection of the environment over other socio-political concerns. At best it has lead to incremental and piecemeal environmental improvements. In practice the meaning of sustainability has been contested[21] and in particular it has been simplified into a triple-bottom-line assessment tool.[22] Due to these features the principle of sustainable development as it is currently used is unlikely to advance environmental laws in a way that promotes environmental protection and conservation, which sometimes must be at the expense of development.

The principle of sustainable development was primarily intended to be used as an empowering human development philosophy in the majority world,[23] rather than be used as a justification for a continuation of the minority world's development fixation. In its originally conceived form sustainable development has an ongoing relevance, especially when

understood as a mechanism to pursue justice for communities.[24] Agyeman[25] argues that sustainable development needs to be reframed within an environmental justice philosophy so that it more adequately responds to the needs and concerns of the less advantaged. In high-income countries like Australia it is also time to reconsider the benchmark used to evaluate environmental performance, particularly of environmental laws and activities approved by legislation or the courts and some of Agyeman's 'just sustainability' ideas could be applied in the minority world to devise a benchmark to evaluate environmental performance. Instead of using a concept that is solely anthropocentric, any such test for environmental performance or evaluation could include both anthropocentric and ecocentric philosophies[26] and with them an environmental ethic. Decisions would therefore be more mindful of both human and non-human interests and could not simply be based on majority utilitarian preferences at the expense of non-conventional or non-economic concerns.

Any new overarching environmental principle or readjusted version of sustainable development should be environmentally democratic[27] so that it can be advocated and advanced by the community, not just the government and business world, and so that law encourages openness, transparency, collectivity and fairness within environmental and governmental institutions. Some of these features have been attributed to the principle of sustainable development, though they have not always been central in its application in environmental laws.

3. A Concept of Environmental Justice for Environmental Law

Much has been written and said about the relationships between the law and justice. It is not important to revisit these commentaries here other than to note that the discipline and institution of law is fundamentally concerned with the maintenance and delivery of justice. The notion of 'environmental justice', however, is largely absent from global and domestic legal systems and jurisprudence. This is despite the development of this concept over 30 years and its presence in United States policy and advocacy since the 1990s. Perhaps this absence has been because of the narrow focus of the environmental justice movement. Its concerns have primarily centred on the distribution of environmentally harmful industry and land use. The limited adoption might also be because the principle has been treated as having relevance only in the United States where the absence of this narrow form of environmental justice in environmental policy-making and land-use planning decisions has most often been successfully demonstrated. Further, perhaps the concept of environmental justice has been ignored because it has been so closely aligned with those people so often ignored by, and powerless to act within, a system devised, implemented, and maintained by the socially privileged.

A broader interpretation of environmental justice has the benefit of overcoming these possible limitations. In fact, the concept of environmental justice has been explored, theorised and expanded to now be capable of broader application and to be suitable for use as a framework principle to guide and assess environmental laws either as a stand-alone principle or as a component of an environmentally just sustainable development. In its wide understanding environmental justice encompasses rights of access, information and participation of humans, recognition of non-human interests of nature, and concern for the fair distribution of environmental harm and environmental services. These are all features that can be incorporated into a system of environmental laws that deals with land use regulation, the assessment of potentially harmful and locally controversial developments, pollution control and licensing, and the review of administrative decisions.

Through an analysis of historical and contemporary writings on justice, environmental justice and ecological justice, Schlosberg provides an interconnected definition of environmental justice. While he is not alone in trying to further explain and theorise a broad concept of environmental justice, Schlosberg's work is comprehensive, deeply grounded in well-established and accepted theory, and well suited for application to legal scholarship. In Schlosberg's view, environmental justice has four aspects. The first aspect is distribution. This aspect is the most commonly understood form of environmental justice: the fair distribution of environmental bads and goods. It remains the focus of the environmental justice movement, which is concerned with overcoming the nexus between minority and disadvantaged communities with polluting and contaminating industry and activities. It is drawn from distributional justice theories, which are overwhelmingly anthropocentric and afford little scope for inclusion of the non-human world, and shares similarities with current equal opportunity laws. The second aspect, recognition, is much more capable of incorporating ecocentric values within a broad concept of environmental justice. As well as ensuring that all human interests are recognised within decision-making and environmental distributions rather than being dominated or oppressed by institutions like the law, this aspect of environmental justice can recognise non-human aspects of nature as having interests and of requiring preservation actions to maintain ecological integrity. It draws on the theory of ecological justice, is concerned with respect of humans and non-humans, an end of marginalisation, stereotyping, denigration, and invisibility, and has obvious connections with standing doctrines in law.

Recognition is an important conceptual link between substantive distributional justice and procedural participatory justice. Participation is the third aspect of Schlosberg's concept of environmental justice. Without recognition any participation in decisions that influence distribution will be too narrow or inherently biased with positions assumed and human

participants and non-human values typecast, ignored or absent from deliberations. Deliberative and environmental democracy theorists have explored the appropriate nature of participation. The participation must occur early, be equally funded, inclusive, deliberative rather than informative, and contribute to democratic decisions. Non-human participation would need to occur through human agents. This aspect has strong similarities with legal discourses on access to justice.

The fourth aspect is capabilities. Schlosberg argues that environmental justice should build capabilities in individuals and groups. Capabilities would generally be a by-product of just treatment and outcomes. In the legal field they would have particular relevance at the institutional and advocate level. Participation is often the mechanism through which capabilities are built or strengthened. Capabilities are the things that humans need to function and flourish politically, emotionally, physically, socially, economically, and spiritually. They are about putting rights and opportunities to use. They would include gaining respect, having access to expertise, being protected from environmental degradation, learning and using advocacy and activism skills, and community and affiliation building. It is the work of Sen in particular that provides the theoretical basis for this aspect of environmental justice. Schlosberg argues that capabilities, and therefore the concept of environmental justice, can be communal as well as individual. Capabilities can also attach to the ecosystem. At the ecosystem level capabilities are seen as facilitating ecological health and system and process integrity.

According to Schlosberg, environmental justice must be afforded to both the individual and the community. Within an environmental legal system in an environmental democracy its application would be universal, not just associated with individuals and groups within the environmental justice movement. The principle would act to counter the techno-economic approach to development within existing liberal democratic structures. Its potential would only be realised with a shift in environmental power, an embrace of deliberate forms of decision making, an acceptance of non-human environmental values in the policy framework, a reassessment of meanings of fairness, impartiality and equity to include ecosystem values, and a commitment to maintain ecosystem integrity.

4. A Legal Reformation or Re-education?

A concept of environmental justice could be incorporated into environmental legal systems through legislation, just as ecological sustainable development has been included into objects of Acts, and nominated as a relevant consideration in many regulated decision-making processes in Australia. If environmental justice is understood as being broad, multi-faceted and directed at both human wellbeing and ecological integrity

then advancements in conservation and protection could be realised, most likely in an ad hoc manner as a second wave of greening of environmental laws following the current sustainable development law agenda. Such an approach would not, however, universalise environmental justice or provide an overarching environmental ethic framework that domestic legal systems generally lack.

Through the concept of environmental justice an environmental ethic could be invested into domestic legal systems. It has a philosophical foundation, avoids some of the vagueness of the principles of sustainable development, intergenerational equity and precaution, and the four aspects of environmental justice described above can be characterised as rights in terminology readily recognisable by the law. There is scope to have an Act of parliament, similar to or within a human rights charter, that subjects all governmental action to the concept of environmental justice and requires the administration, implementation and interpretation of legislation to comply with environmental justice standards as well as guaranteeing features of an environmentally democratic society – like deliberation, access to courts, rights to advocate on behalf of a potentially affected ecosystem, and funding for environmental advocacy. The United States Clinton Administration went part of the way to doing this with its Executive Order on Environmental Justice,[28] which required all federal agencies to consider distributive environmental justice in their operations. The environmental justice movement has also developed 'principles of environmental justice' that articulate qualities of an environmentally just society.[29] The contribution of the international law community in this regard is also starting to become apparent with a discernible climate justice discourse aligned with the international law principle of common but differentiated responsibilities.[30]

Aside from investing the law with an environmental justice ethic though a legislative reformation, there is also the possibility of educating the legal system to be environmentally just and demonstrating how an environmental ethic will enhance justice as understood by the existing system. The works of Hajer[31] and Sabatier[32] demonstrate how coalitions could shape legal understanding through discourse and advocacy. If the environmental justice movement could be joined by environmental ethicists, environmental groups, environmental democrats and participation advocates, the broader environmental justice discourse would gain a prominence that it does not have: even in the United States where advocacy and discussion has promoted the distributive aspect of environmental justice.

Receptiveness to environmental justice arguments will depend on the environmental values and philosophies of policy and decision-makers. Jurists, particularly in Australia, have a reputation for being unreceptive to legal arguments based on novel rights,[33] still struggle with understanding the principle of ecological sustainable development[34], and have not yet grappled

with submissions drawn from environmental ethics. Lord Woolf questions whether judges in the United Kingdom are 'environmentally myopic'.[35] The conclusion that Lord Woolf reached in asking how to get judges to interpret and enforce environmental laws in a way that advances environmental conservation and protection was that environmental laws should be interpreted and enforced by a specialist environmental body.[36] The experience in New South Wales, where the Land and Environment Court has heard environmental and planning cases for almost 30 years[37] and has been the leader in the development of environmental jurisprudence in Australia, gives hope that the judicial branch of government can be educated to approach its task with an environmental ethic if the court has a focused environmental law jurisdiction.

5. Access and Participation in Environmental Assessment

There are three areas of environmental and planning laws where an adoption of the concept of environmental justice, or specific aspects of environmental justice, is compelling and would help environmental law achieve existing objectives. The first is environmental assessment laws. The purposes and processes of environmental assessment have been analysed and theorised in depth elsewhere.[38] They include rigorous investigations, participatory inquiries, transparent decisions, and minimising environmental harm.

An environmentally just environmental assessment regime would prioritise impartial deliberation and participation. Individuals and community groups would be put on the same footing as government agents and the proponent. They would be recognised as being capable of contributing and their capabilities to contribute would be supported. Individuals and community groups with concerns about adverse distributive effects of any future project and those with concerns about the impacts on the ecosystem would be identified, invited and involved in devising project details, specifying the investigation breadth, evaluating preliminary findings and directing further scientific and social research. The government would provide funding, which would allow individuals and groups involved in the assessment process to engage lawyers and experts to assist them offer alternative views to those provided by the more powerful government and proponent spokespeople. With early and meaningful deliberation, public inquiries, which in Australia are almost always adversarial, costly and time consuming, could be discarded.

Environmental assessment would become an approval process rather than simply be an assessment process, as it most commonly is in Australia, if the concept of environmental justice were adopted. This change would recognise the contribution of all parties to the process and inexorably link the process with the outcome. If a project is assessed as having any threats to

ecosystem process or integrity it could not be approved. Human agents would not be able to trade-away the interests of the non-human world in the assessment process. Such trading-away would undermine the capabilities and the recognition of ecosystems. Further, approvals would not be given that produce distributional environmental injustice unless those effects have been canvassed and understood by the community. As Smith[39] notes, governments must make decisions about environmental policies and proposed projects and they cannot always please everyone, particularly because consensus infrequently arises from deliberation. Hence, occasionally an outcome that results in an unjust distribution of environmental harm may still arise in the application of an environmentally just law. There may be compelling reasons for condoning that distribution. For instance there may be locally desirable advantages like services, utilities and economic benefits or no alternative for a locally undesirable development. The goal of a deliberative democracy is that the decision is supported, and capable of being explained and justified, by an environmental assessment.

Finally, decisions made by government officials would need to be capable of review by an impartial specialist court or tribunal to satisfy the recognition and participation aspects of the concept of environmental justice. Standing would need to be open, including all groups and all human agents of the ecosystem and not just restricted to those individuals with personal interests affected. The approach included in the Australian *Environment Protection and Biodiversity Conservation Act 1999* (Cth)[40] would be broadened even further. While there is ongoing commentary, particularly by environmental groups, about the limitations of judicial review and the preference for merits review as a tool to achieve better decisions for the environment, an environmentally just and democratic form of review would not necessarily entail full merits review. Unending challenges to decisions does not enhance participation and undermines the respect for and recognition of the proponent of an approved project. Environmental justice could become a new ground of review and sit alongside natural justice as another multi-faceted basis for judicial inquiry. Alternatively, as discussed earlier, environmental justice principles could be treated similarly with human rights, which would provide a suitable framework for challenging environmental decisions.

6. Ecological Justice and Species Conservation Laws

In addition to broadening standing rules to permit human agents to advocate on behalf of non-human species and systems and treating ecological trade-offs with caution, the ecological justice input into an environmentally just legal system would have application to species conservation laws. Recognition would be afforded to the whole ecosystem and communities, not merely endangered species, as an acknowledgment of the contribution of

biological diversity to ecosystem integrity and resilience. Proposals that involve the degradation of ecosystems would not be permitted unless proponents could prove that the activity would not threaten species or ecosystem integrity and health, which is similar to the approach in the United States' *Endangered Species Act of 1973*.[41] The burden of proof would be reversed compared to the current situation in Australia, where the question ordinarily asked is how much development can occur, and be approved, before communities or species become endangered. The capacity of the ecosystem and species to ongoing health would be enhanced through positive obligations in legislation to maintain species and ecosystem integrity. This differs from the usual current approach of prohibiting activities that might threaten or further endanger nominated species or communities or of simply closing off systems in parks.

7. Environmental Discrimination and Pollution Control Laws

The most obvious and powerful changes to the law to make them environmentally just are changes to pollution laws that limit distributional environmental injustice and build capacities of individuals and groups to oppose or prevent pollution or contamination. A starting point would be to apply the same standing principles for environmental assessment and administrative review of decisions to the review of grants of licences and the enforcement of licence conditions and pollution control laws. Any individual or community should have the right to challenge approvals and to enforce compliance with the law. The civil enforcement regime under the Victorian Planning and Environment Act 1987, where any person for any reason can apply to a specialist tribunal to halt and remediate unlawful development, could provide the appropriate model. A broadened New South Wales Protection of the Environment Operations Act 1977 with an unfettered capacity to initiate public enforcement and prosecution with government funding provided for legal representation would also go some way to making pollution control laws environmentally just by building community capacity to enforce their rights and to more fairly allocate access to legal expertise.

In order to avoid environmental discrimination in the location of polluting industry, pollution control laws should be connected with land use planning laws. In most Australian jurisdictions this is the case with planning and pollution approvals considered concurrently. Zone plans, however, could be revised with a conscious effort at fairly distributing planned locations of potentially harmful activities and ensuring that communities can only ever host a limited number of clusters of such activities, rather than some communities bearing the environmental problems associated with multiple disturbing land uses – for example heavy industry, waste treatment and major distribution hubs. This revision would need to be done on a regional rather

than local scale to most fairly distribute burdens across urban and rural districts of connected communities.

8. Conclusion

If it is agreed that environmental protection and conservation are worthy environmental law objectives for either human wellbeing or for ecocentric philosophical concerns then we need to reform or re-educate our domestic environmental legal systems. Reformation or re-education is needed because the current sustainable development focus within the Australian legal system is not supporting conservation and protection approaches. Rather, in many cases the principle of sustainable development is being used to support potentially harmful activities to realise the short-term economic benefits the activity is predicted to generate. Sustainable development, as used in the minority world, lacks an environmental ethic and a clear articulation of its components. To overcome these limits an environmental justice philosophy could be applied to environmental laws.

Adopting Schlosberg's conceptualisation of environmental justice a domestic environmental legal system could limit the unfair distribution of environmental harm, recognise human and non-human interests in the law, enable and increase impartial participation and build capabilities and resilience in the human and non-human parts of nature. This can particularly be achieved through a focus on environmental assessment, species conservation and pollution control laws, broadening standing to review decisions and enforce laws, funding environmental litigation and by creating specialised environmental courts.

Notes

[1] The Australian Capital Territory's Commissioner for the Environment recently rebadged herself the Commissioner for Sustainability and the Environment without knowing and articulating what sustainability means. In *Blue Wedges Inc v Minister for the Environment, Heritage and the Arts* (2008) 167 FCR 463 one of the matters for resolution was whether the principle of ecological sustainable development in the *Environment Protection and Biodiversity Conservation Act 1999* (Cth) applies to specific impacts rather than holistic impacts and whether it be applied to social, economic and environmental concerns separately or together.

[2] See the 1992 Intergovernmental Agreement on the Environment and the *Environment Protection and Biodiversity Conservation Act 1999* (Cth)

[3] See for example *Wildlife Preservation Society of Queensland Proserpine/Whitsunday Branch Inc v Minister for the Environment &*

Heritage (2006) 232 ALR 510 and *Telstra Corp Ltd v Hornsby Shire Council* (2006) 67 NSWLR 256.

[4] In the Portland Wind Energy Project, for example, the principle of ecological sustainable development was evaluated on a triple-bottom-line basis. The Project only received an endorsement from the independent assessment panel on the basis of its large economic benefits. These benefits, in the absence of policy support for renewable energy developments at the time, were considered to outweigh adverse local environmental and social concerns.

[5] See for example the Macarthur River Mine in the Northern Territory, which proceeded only after executive and parliamentary intervention, the Channel Deepening Project in Victoria, which was approved after a second environmental assessment process, and the Gunns Pulp Mill, which was approved after the proponent withdrew from the environmental assessment process, forcing Commonwealth and Tasmanian governments to retrofit assessment processes.

[6] See for example State of Victoria (Environmental Protection Authority of Victoria), *EPA Annual Report 2008*, p A8, which shows that works approvals remain relatively constant since 2003.

[7] See for example International Union for Conservation of Nature and Natural Resources, *The IUCN Red List of Threatened Species*, 2009, data version 2009.1, viewed on 1 August 2009, <http://www.iucnredlist.org>.

[8] See for example *Gippsland Coastal Board v South Gippsland Shire Council* (No 2)
[2008] VCAT 1545 (Unreported, Gibson DP and Potts M, 29 August 2008) and *Northcape Properties Pty Ltd v District Council of Yorke Peninsula* [2007] SAERDC 50 (Unreported, Mosel C, 19 September 2007) upheld by *Northcape Properties Pty Ltd v District Council of Yorke Peninsula* [2008] SASC 57 (Unreported, Debelle J, 4 March 2008).

[9] For example *Australian Conservation Foundation v Latrobe City Council* (2004) 140 LGERA 100 and *Wildlife Preservation Society of Queensland Proserpine/Whitsunday Branch Inc v Minister for the Environment & Heritage* (2006) 232 ALR 510.

[10] See for example *Walker v Minister for Planning* (2007) 157 LGERA 124, overturned by *Minister for Planning v Walker* (2008) 161 LGERA 423; *Brown v Forestry Tasmania (No 4)* (2006) 157 FCR 1 overturned by *Forestry Tasmania v Brown* (2007) 167 FCR 34.

[11] For example the insertion of s 527E of the *Environment Protection and Biodiversity Conservation Act 1999* (Cth) through the enactment of the *Environment and Heritage Legislation Amendment Act (No 1) 2006* (Cth) bounded the breadth of 'indirect impacts' raised in *Queensland Conservation Council Inc v Minister for the Environment and Heritage* [2003] FCA 1463

(Unreported, Kiefel J, 19 December 2003) and confirmed in *Minister for the Environment and Heritage v Queensland Conservation Council Inc* (2004) 139 FCR 24. Amendments to the Regional Forests Agreement between the Commonwealth of Australia and the State of Tasmania on 23 February 2007 that nullified the effect of *Brown v Forestry Tasmania (No 4)* (2006) 157 FCR 1.

[12] C Stone, 'Should Trees Have Standing? Toward Legal Rights for Natural Objects' in *Should Trees Have Standing? And Other Essays on Law, Morals and the Environment*, C Stone (ed), Oxford University Press, Oxford, 1996 (25th anniversary ed).

[13] The *Environment Protection Act 1970* (Vic), *Wildlife Act 1975* (Vic) and *Environment Effects Act 1978* (Vic) all still exist in Victoria.

[14] *Environment Protection and Biodiversity Conservation Act 1999* (Cth), s 487.

[15] See for example the civil penalty provisions in the *Environment Protection and Biodiversity Conservation Act 1999* (Cth) and in the *Environment Protection Act 1993* (SA).

[16] Most land use planning laws contain such rights. For instance, the *Planning and Environment Act 1987* (Vic), the *Development Act 1993* (SA), and the *Environmental Planning and Assessment Act 1979* (NSW).

[17] In the past five years there has been no reported case of an individual using the public prosecution rights in section 219 of the *Protection of the Environment Operations Act 1997* (NSW).

[18] See for example *Human Rights Act 2004* (ACT), *Charter of Human Rights and Responsibilities Act 2006* (Vic), and *Protection and Public Participation Act 2008* (ACT).

[19] J Agyeman, *Sustainable Communities and the Challenge of Environmental Justice*, New York University Press, New York, 2005.

[20] Agyeman.

[21] See note 1.

[22] See note 4.

[23] W Adams, *Green Development: Environment and Sustainability in the Third World*, Routledge, London. 2001 (2nd ed).

[24] Agyeman.

[25] Agyeman.

[26] For a distinction between anthropocentric and ecocentric philosophies see, for example, R Eckersley, *Environmentalism and Political Theory: Towards an Ecocentric Approach*, UCL Press, London, 1992.

[27] M Mason, *Environmental Democracy*, Earthscan, London, 1999.

[28] Executive Order 12898 of 11 February 1994 *Federal Actions to Address Environmental Justice in Minority Populations and Low-income Populations*. See

also C Rechtschaffen and E Gauna (eds), *Environmental Justice: Law, Policy and Regulation*, Carolina Academic Press, Durham, North Carolina, 2003 (2nd ed).

[29] See for example the 'Principles of Environmental Justice' adopted at the People of Colour Environmental Leadership Summit in October 1991 and reproduced in J Agyeman, R Bullard and B Evans (eds), *Just Sustainabilities: Development in an Unequal World*, The MIT Press, Cambridge Massachusetts, 2003, Appendix 1.

[30] *Rio Declaration on Human and Environment*, 1992, principle 7.

[31] M Hajer, *The Politics of Environmental Discourse: Ecological Modernization and the Policy Process*, Oxford University Press, Oxford, 1995.

[32] P Sabatier, 'Knowledge, Policy Orientated Learning and Policy Change: An Advocacy Coalition Framework'. *Knowledge: Creation, Diffusion, Utilization*, vol 8, 1987, p 649.

[33] See for example H Charlesworth, 'The High Court and Human Rights' in *Centenary Essays for the High Court of Australia*, P Cane (ed), LexisNexis Butterworths, Sydney, 2004, pp 356-369.

[34] See *Blue Wedges Inc v Minister for the Environment, Heritage and the Arts* (2008) 167 FCR 463, paras [65] to [89].

[35] H Woolf, *The Pursuit of Justice*, Oxford University Press, Oxford, 2008, chapter 22.

[36] Woolf, chapters 22 and 23.

[37] *Land and Environment Court Act 1979* (NSW).

[38] See for example J Holder, *Environmental Assessment: The Regulation of Decision Making*, Oxford University Press, Oxford, 2004.

[39] G Smith, *Deliberative Democracy and the Environment*, Routledge, New York and London, 2003.

[40] *Environment Protection and Biodiversity Conservation Act 1999* (Cth), s 487.

[41] 16 USC 1531-1544.

Bibliography

Adams, W., *Green Development: Environment and Sustainability in the Third World*. Routledge, London. 2001 (2nd ed).

Agyeman, J., Bullard, R., and Evans, B., (eds), *Just Sustainabilities: Development in an Unequal World*. The MIT Press, Cambridge Massachusetts, 2003.

Agyeman, J., *Sustainable Communities and the Challenge of Environmental Justice*. New York University Press, New York, 2005.

Charlesworth, H., 'The High Court and Human Rights' in *Centenary Essays for the High Court of Australia*, P Cane (ed), LexisNexis Butterworths, Sydney, 2004, pp 356-369.

Eckersley, R., *Environmentalism and Political Theory: Towards an Ecocentric Approach*. UCL Press, London, 1992.

Hajer, M., *The Politics of Environmental Discourse: Ecological Modernization and the Policy Process.* Oxford University Press, Oxford, 1995.

Holder, J., *Environmental Assessment: The Regulation of Decision Making.* Oxford University Press, Oxford, 2004.

International Union for Conservation of Nature and Natural Resources, *The IUCN Red List of Threatened Species*, 2009, data version 2009, viewed on 1st August 2009.

<http://www.iucnredlist.org>.

Mason, M., *Environmental Democracy*. Earthscan, London, 1999.

Rechtschaffen, C., and Gauna E. (eds), *Environmental Justice: Law, Policy and Regulation*. Carolina Academic Press, Durham, North Carolina, 2003 (2nd ed).

Sabatier, P., 'Knowledge, Policy Orientated Learning and Policy Change: An Advocacy Coalition Framework', in *Knowledge: Creation, Diffusion, Utilization*, vol 8, 1987, p 649.

Smith, G., *Deliberative Democracy and the Environment*. Routledge, New York and London, 2003.

State of Victoria (Environmental Protection Authority of Victoria), *EPA Annual Report 2008.*

Stone, C., 'Should Trees Have Standing? Toward Legal Rights for Natural Objects' in *Should Trees Have Standing? And Other Essays on Law, Morals and the Environment*, C Stone (ed), Oxford University Press, Oxford, 1996 (25th anniversary ed).

Woolf, H., *The Pursuit of Justice*, Oxford University Press, Oxford, 2008.

Brad Jessup is a Teaching Fellow at the ANU College of Law at the Australian National University.

PART II

Citizen Advocacy, Engagement, Traditional Ecological Knowledge and Sustainable Development

Environmental Ethics is Key to Sustainability in a Contemporary Society

Harriet Nalukenge

Abstract
Environmental ethics is the discipline that studies the moral relationship of human beings to the environment and also the value and moral status of the environment and its non-human content. The way humans interact with the environment depends on the ethics of a particular individual or society. The outcome of such interaction affects both quantity and quality of the environmental resources.
Studies show that the instrumental and intrinsic value of items in the environment generates a moral duty on the part of moral agents to protect it. Many perspectives assign a greater amount of intrinsic value to human beings than to non-human things. This paper demonstrates the difficulties of formulating policies and best practice that could change attitudes. Humans must act with fairness when exercising this power over other agents.
The views of emerging thinkers indicate that social and political order has an ethical basis. Views of the radical, the social and the deep ecologists are examined. Eco feminism points to the link between social domination and the domination of the natural world, indicating that equity gives an important aspect of the approach to sustainability.
This study shows that culture, religion and indigenous ethics can be adopted to inspire new thinking that will ensure respect and compassion for other living things. However not all traditions are environmentally friendly. Ideas are advanced to show that the ecological context shapes human organisation and behaviour and the human context in turn shapes ecological organisation and response. Indigenous knowledge links ecological and human systems.
Further, this paper argues that it is not property right regimes that matter but rather rules governing use. In summation, states should take responsibility to promote inter institutional, national and regional coordination and share their environmental legislation and best practice.

Key Words: Ethics, environmental ethics, sustainability.

*****

1. Introduction of ethics and morals in relation to environment

Environmental ethics concerns itself with formulating our moral obligations regarding the environment. This enterprise is meant to engage with the real world. Ethics seeks a critical grasp of the principles and

standards that guide a man in making morally right choices in his daily activities. It involves intelligent judgement and voluntary action wherever a problem of right and wrong conduct confronts us; we face a choice between alternative values. Moral judgement must be conceived within each of us based on the principle on which we propose to act. An action is morally good only if the principle manifested in it is right.

Science and technology have been promoted as the key player in dealing with the increasing scarcity of natural resources and environmental degradation. The question here is why are the effects of degradation being felt even more today in the age of great technological advancement. The answer is that people need to change attitudes and morals so as to use the environment sustainably. The contribution of technology in the production of renewable energy sources and the recycling of waste among others will only be effective if the attitude to preserve the natural resources is achieved.

Effectiveness of states and government in achieving this will affect the types of ethics that emerge. Ethics must propose alternative and better means of resolving the environmental problems we face. Ethical behaviour could inspire a collaborative culture of new thinking and unconventional ideas that could push for change in an unexpected way.

2. The ethical approach to sustainability

Sustainability is a human construct in that humans use their environment for a range of objectives, including subsistence, commodity production, aesthetic pleasure and indirect eco system services. These objectives have their basis in the desire to sustain human life, enhance standards of living, maintain culture and protect environmental quality for generations to follow. The different objectives for the use of environmental resources lead to different expectations as to what is to be sustained and who is to have claims on environmental services.

Equity is an important aspect of the equitable approach to sustainability. The environmental view to sustainable development focuses on the stability of biological and physical systems. The emphasis is on preserving the resilience and dynamic ability of such systems to adapt to change, rather than conservation of some ideal ‘static’ state. Natural resource degradation, pollution and loss of biodiversity reduce system resilience. Reconciling these various concepts and implementing them as a means to achieve sustainable development is a significant challenge, since all three elements of sustainable development must be given balanced consideration.

This paper demonstrates the difficulties of crafting schemes that promote better stewardship and resilience for the conservation of natural resources.

Protection of the environment is a major objective of development. Economic development ultimately depends on the institutions that can protect

and maintain the environments carrying capacity and resilience.[1] The ethics and behaviour of humans in relation to their use of the environment is critical to the design and implementation of effective environmental protection.

It should be noted that ethics and rules are effective in modulating the interaction between humans and their environment and this must reflect both general principles and specific social and ecological contexts.

3. Ecological contexts

These contain the structure of ecosystems in which humans live and work, as well as the particular functional properties of those ecosystems. The particular details of the social and ecological context are what give human interactions variety and detail.

Simple resource monitoring systems should be established so that communities can track important ecological changes. Such monitoring systems need to be maintained by the community itself, perhaps by a farm co-operative or village school.

4. Role of traditional knowledge

One link between ecological and human systems is developed through local knowledge, also called traditional ecological knowledge or indigenous knowledge. There are many forms of knowledge about both ecological and human systems, which are not generated scientifically but rather result from years of direct work experience, customs and practices with respect to the environment and are often operational expressions of traditional knowledge on the structure and function of the environmental resources. For example villagers in India, acquire and use knowledge in the course of their work, which links them to the environment [2] of India.

In Africa, indigenous traditions contain symbolic and ethical messages that are passed from generation in order to ensure respect and compassion for other living creatures. These are in form of taboos and myths. We find that many local organisations, institutions and communities have a wealth of knowledge of indigenous knowledge practices. However these practices are not disseminated effectively because community based organisations lack the capacity, to capture, document, validate and share them.

I must stress here that indigenous knowledge of local conditions is valuable in the proper management of natural resources. However it is important to note that not all indigenous knowledge is environmentally friendly. So caution should be exercised when advocating for indigenous knowledge as a means to stop environmental degradation.

Principle 22 of the Rio declaration highlights the important issue of recognition of the special knowledge of indigenous people as being an important aspect of environmental management and development.

Governments and inter-governmental organisations should empower indigenous people and their communities to protect the environment through use of the relevant traditional knowledge. This however has several challenges.

5. Challenge to application of ethics in environmental protection

A major challenge for the design of environmental ethics and rules is the task of ensuring that decision makers have the appropriate incentives to take such equilibrium shifts into account and to make the appropriate tradeoffs between the social costs and benefits to society at large.

This requires monitoring feedback from the ecological system when making decisions, allowing perturbations to enter the system at a scale that allows subsystems variability but does not challenge the underlying ecological and economic activity.[3]

The need to understand the relationship between poverty, population and the environment is critical. Expanding populations which exacerbate economic social and ecological impoverishment make all the existing environmental problems more critical[4] it so happens that in places where traditions are practiced, poverty and demographic issues hinder sustainable use of the environment.

In East Africa for example people produce many children due to the desperation induced by poverty. And however many ethics these people may practice the large population will eat away the environment at a rate that the ethics cannot help to maintain. Hence there is need for ethics to be applied as a voluntary aspect and in collaboration with the domestic and international laws.

6. Property rights regimes and laws

When we talk about ethics we must consider property rights and the laws that govern property use and management. Property rights regimes matter to the use of environmental resources, a fact that has been well established, if not practised.

Garret Hardin's article 'The tragedy of the commons' focused widespread attention on the problem of environmental degradation in the absence of rules governing use. He argued that collectively owned property was the culprit of degradation and that private property is necessary to sustain environmental practices. I however hold the opinion which is also based on scientific evidence that indicates that sustaining the environmental resources is not dependant on a particular structure of property regime but rather on a well specified property rights regime and the congruency of that regime with the ecological and social context.

The property rights that farmers have over natural resources can be important in determining whether they take a short or long term perspective

in managing resources. For example farmers who feel that their tenure is secure, with or without formal rights are likely to be interested in conserving resources or in making investments that improve the long-term productivity of resources.

7. Contribution of the great philosophers

Numerous philosophers have written on this topic although it only developed in the 1970's due to increased awareness in the 1960's of what technology, industrial economic expansion and population growth were having on the environment. Some moralists like Thomas Hobbes 1588-1679 have concentrated on man's native egoism and insatiable greed. They point out that self-regard and benevolence are both natural to man. Machiavelli argued that social and political order has by right an ethical basis. It is not imposed on its subjects but itself grows out of the tissue of the institution of normal human life.

Radical ecologists are of the view that ethical extensionism is inadequate because it is stuck in traditional ways of thinking that led to those environmental problems in the first place. Their opinion is that it is too human centred. Whereas social ecology and deep ecology are of the view that environmental crisis lies in the dominant ideology of western societies.

Eco feminists however point to the link between social domination and the domination of the natural world .By mid 1970's feminists had raised the issue of whether patriarchal modes of thinking encouraged not only widespread inferiorising of women but also people of colour, animals and nature. Eco feminism calls for radical overhaul of the prevailing philosophical perspective and ideology of western society.

8. Ethics and intrinsic value

Humans tend to give their own species greater intrinsic value. This gives them power to advance their selfish ends. The moral duties we have towards the environment are derived from our direct duty to other inhabitants we co-exist with.

The instrumental and intrinsic value of items in the environment therefore generates moral duty on the part of moral agents to protect it or at least to refrain from damaging it.[5] Many ethical perspectives assign a significantly greater amount of intrinsic value to human beings than to any non-human things such that the protection or promotion of human interests or wellbeing at the expense of non-human things turns out to be nearly always justified. Such destruction might damage the well being of humans now and in the future, since our well being is essentially dependant on a sustainable environment.[6]

Environmental ethics poses a challenge to traditional anthropocentrism. In the first place, it questioned the assumed moral

superiority of human beings to members of other species on earth. Secondly it investigated the possibility of rational arguments for assigning intrinsic value to the natural environment and its non-human content.

9. Role of states in relation to environmental justice

States have the duty to ensure that modes of thinking that encourage inferiorising and colonising are changed and that attitudes that promote equity and global citizenship are promoted. States should act with awareness of the world as a global community by recognising and fulfilling their obligation with regard to protection of rights of global citizens. This means that sates should include a level of good will in their foreign policy.

Inter institutional, national and regional coordination is critical to the promotion of positive attitudes. The way forward is to create a mechanism that encourages states to share their environmental legislation and best practice. Best practice for natural resource management can be learned from other countries. For instance, it is suggested that Singapore water resource, management such as recycling waste water could be adopted by the countries in the Middle East. Another example is that international mining companies can learn from Canada's good management practices.

10. Conclusion

In summation these thoughts on environmental ethics demonstrate that, ethics has an important role to play in ensuring sustainability in a contemporary society. However we have also indicated that ethics alone cannot be effective. It is important to deal with the major causes of pollution and these include poverty, rapid population growth, deforestation and wars, among others.

Degradation has reached an alarming stage that it is vital to create greater awareness of environmental problems. Hence it is crucial to see how we comprehend the relationship between our daily practices and thinking, and the sustainability of the natural world. Thus any deliberate attempt to reach a rational and enduring state of equilibrium by planned measures, rather than by chance or catastrophe, must ultimately be founded on the basic change of values and goals at individual, national and global levels.

Notes

[1]Arrow et al 1995.
[2]Palsson 1991; Godgil and others 1993
[3]Berkes and Folke 1994.
[4]Calwell 1984.

[5] O'Neil 1992.
[6] Passmore 1974.

Bibliography

Berkes, Fiklet, Folic C., and Madivan, *Traditional ecological knowledge, biodiversity, resilience and sustainability*, Beijer International Institute of Ecological Economies, Beijer discussion paper, Series number 31, 1993.

Brett, E.A., *Providing for Rural Poor Institutional Decay and Transformation in Uganda*. IDS Research Report 23, Institute of Development Studies, 1991.

Gilmore, D.A., *Conserving Bio Diversity outside Protected areas; the role of traditional ecosystems.* London, UK, 1995.

Hjort, A., and Salin, M., *Ecology and politics; environmental stress and security in Africa*, Uppsala; Scandinavian Institute of African Studies, 1980.

Southgate, D., and Desinger J. (eds), *Sustainable development in the third world*, West View Press, Boulder, 1987.

The United Nations Environmental Report [UNEP], 1996.

World Conservation Union, *Bio-diversity in sub-Saharan Africa and its Islands*. London UK, 1990.

Harriet Nalukenge grad ICSA is Scholar in Residence at the Makerere University, Uganda East Africa. Her research and writing is devoted to the increase of awareness about ethics and traditional knowledge and how these could quickly propose better means of resolving the environmental problems we face today.

Redressing Equity Issues in Natural Resource-Rich Regions: A Theoretical Framework for Sustaining Development in East Kalimantan, Indonesia

Agung Sugiri

Abstract

Despite having potentials for economic growth, natural resource-rich regions in developing countries, like East Kalimantan Province of Indonesia, often face problems emerging from unequal distribution of development benefits and extreme exploitation of natural resources. Economic inequality and poverty on one hand, and threats of unsustainability on the other, are thus common. Essentially, the problems share a common root of cause, namely inequity. The main question is therefore: "Given that the immediately viable prospects of achieving economic development in developing countries lies in natural resource-rich regions, how can public policy in such regions assist in promoting intra- and inter-generational equity, and thus sustainability?" This paper proposes a theoretical framework for public policy reformulation that can help resolve ing the problems in East Kalimantan. Regional development in East Kalimantan should consequently apply equity in four main functions: benefit distribution to the people; in the production function of natural resources; in the nonproduction function and in reinvestment for sustainability. Equity failures in benefit distribution end up in problems of poverty and economic inequality. Inequity in the production function causes problems of inequality and benefit leakages to foreign countries, along with the threat of unsustainability due to excessive exploitation. Moreover, equity failures in the nonproduction function deteriorate the assimilative and carrying capacity of the environment. Finally, equity failures in sustainability reinvestment threaten sustainability, mainly because of insufficient funding to reverse the environmental damage. To resolve inequity problems, and thus to ensure sustainability, it is necessary to reform and renew related public policies, so correct and corruption-free implementation will bring sustainable welfare to the people. Finally this paper suggests 18 policy areas needed to be reformulated.

Key Words: Equity, equity failure, inequality, natural resource-rich, sustainable regional development, developing countries.

*****

1. The Distribution of Benefits and Sustainability: Challenge in Resource-Based Regional Economy

People in both developed and developing countries enjoy development benefits unequally. This kind of inequality, contrary to the expectation of many, has not been decreased by globalisation. In terms of inequality of income, for example, the UN indicates a general increase, both globally and within countries, although significant exceptions can be found in a number of, mostly wealthy, countries.[1] In the developed world, while considerable decreases have occurred in Italy and France, substantial increases are experienced by the United States and the United Kingdom.[2] In developing countries, the trends are also vary, from significant decrease in India (but only until its income per capita reached $1,700) to increasing patterns in Taiwan and Thailand.[3] However, Stiglitz asserts that 'a growing divide between the haves and the have-nots has left increasing numbers in the Third World in dire poverty, living on less than a dollar a day.'[4] This point accentuates the need for attention to be given to developing countries.

The first part of this paper gives the background to this research problem. The onus is four fold. First is a contention of some irony, that many people are unable to benefit from development in rich regional (sub national) economies. Second, a brief understanding of the problems of unequal benefit, distribution and unsustainability will be advanced. Third, the important role of public policy is briefly discussed, which leads to the main research question. Finally, the organisation of the paper is described.

1.1 Deprived People in Rich Economies

A notable event happened in Berau Regency in East Kalimantan Province of Indonesia in 2001. Kompas newspaper reports that a notice board was placed in every local government office in Tanjung Redeb, the capital city of Berau Regency, announcing the need to collect clothes to be given as charity to the needy in rural areas.[5] The announcement was launched after the Vice-Regent came back from a work trip to villages in Berau Regency and found many people in poverty. Many of them live in areas with a high level economy such as within a mining concession or near big manufacturing industries. Not only did this event prove the incidence of poverty but, more importantly, it showed the significantly unequal wealth enjoyed by people in the region.

The thrust of the notice, to allow worse-off people to benefit more from the development process, is still valid in the province. Arsyad asserts that incidence of poverty in East Kalimantan has been increasing since 1996, although the worst situation was that of 1998 when the financial crisis hit Indonesia.[6]

The event mentioned above is of significance in that East Kalimantan is the richest province in Indonesia, characterised by its natural

resource-based economy. It is at the top of Indonesia's per capita Gross Regional Product (GRP). East Kalimantan is endowed with varied and rich natural resources, from oil, gas and mining, especially coal, to timber and forest related products. East Kalimantan is also one of only two regions (the other is Riau Province) that are above the national average on both per capita GRP (oil excluded) and the growth rate.[7] Moreover, it is the most industrialised in terms of the share of its manufacturing sector in GRP, compared with the other three natural resource-rich regions of Indonesia (Riau, Aceh and Irian Jaya). Despite the development potential, the incident mentioned above indicates a serious problem related to the deprivation of a significant number of people from development benefits.

East Kalimantan is unfortunately not alone in this kind of situation. There are deprived people in many other developing countries with natural resource-based economies. In forestry development in Nepal and India, for instance, although popular participation has been found essential to make it sustainable, the benefits of productive forests still mostly go to some elites.[8] Even in the decentralisation era of local resource management in Nepal, those rural people unable properly to participate due to their low socio-economic status get less benefit from the forest.[9] Meanwhile, regarding resource management on pastoral land in Mali, it is suggested that local communities should be given more opportunity to be involved, despite the fact that they have been prevented from doing so by the development mechanism.[10] Another indication is in the cotton zones, where the increasing agricultural activities have been using less labour per area unit.[11] In this case, agricultural development may still bring restricted benefit for deprived people.

All this raises the broader issue of the capacity of local populations in developing countries to share in the process of resource exploitation and economic development.

1.2 Benefit Distribution and Sustainability in Regional Economy

In general, there has been a dual economy in developing countries, that is, a high productive one occupied by only a small portion of the population and a low productive one engaged by the majority.[12] The highly-productive economy, comprising the manufacturing and service sectors in urban areas and natural resource exploitation in rural areas, usually needs significant capital. Moreover, it also requires skilled workers, since high technology is used. These conditions mean that only those well educated are able to involve, and they are the minority in the developing world. Consequently, the majority of people are engaged in low productive activities characterised by labour intensive, low skill and low capital requirement.

There are at least three aspects that can be related to such development mechanism. The first important aspect with regard to distribution and sustainability issues, is that global-local relationships have

recently changed and despite the prospects of growth, the risks of inequality and unsustainability are worsening.

The second aspect is that the unequal distribution problem may be related to a lack of fairness in the development process. Local people, whose lands are well endowed with natural resources, may feel treated unjustly when they cannot harness natural resources equally. In the initial stages of development most local people are unskilled. However, when development proceeds to more advanced stages and they are still unskilled and are competitive enough to join in, one should question the type of development that neglects the majority of local people.

Third, overlooking the need for sustainability is another aspect that may trap natural resource-rich countries into difficulties. Due to many developing countries still lacking human capital in terms of local people highly educated in the science and technology needed to speed up the economy. Those fortunate enough to have an endowment would consider exploiting their natural resources as the only source of capital formation which could then be undertaken without proper considerations of sustainability.

The failure to involve the majority of people in resource rich regions in a highly productive economy and the tendency towards unsustainability would be worse if public policies improperly address the problems.

1.3 How Can Public Policy Help?

Public policy has a significant role in regional development. Development mechanisms in developing countries endowed with plenty of natural resources are greatly influenced by strategies adopted by their governments. When many developing countries applied the strategy of exploiting natural resources and import substituting industrialisation, policies at all levels were set up to support the strategy. The outcome, as known, was a deep imbalance in the pattern of relationships between the better and the worse off parties, the tendency to unsustainable rates of exploitation of natural resources and other related environmental problems. Now many developing countries have also applied an export oriented strategy for the manufacturing sector the imbalances and the threat to sustainability remain.

In this era of a globalising world and high awareness of sustainability, natural resources are still the most important and most readily utilisable asset of many developing countries. This situation is especially the case for those which compared with developed countries, still lack physical capital and human capital. This makes natural resources the best asset in capital creation. Therefore, regions endowed with rich natural resources play a very important role in the development process, and public policies applied in such regions must have significant influence upon issues of benefit distribution and sustainability.

Pondering the issues more carefully, it emerges that the main cause of the two problems is actually the same, namely, equity failures in the development process. If public policy does not facilitate people's involvement, they become worse off. For example, since industrialisation and natural resource exploitation need skilled labour while the majority of people are unskilled, public policy should facilitate better and suitable education affordable for all. However, this has not been happening in the developing world in Indonesia, for instance. In contrast, special privileges have been given to minority businesses and there are indications of rent-seeking behaviour in the economy.[13]

Unsustainability has emerged because of over exploitation of natural resources. This is unfair to future generations since, by exhausting the natural resources for present use without any substitutability, later generations would inherit much less or even nothing at all. Furthermore, a deteriorating environment is also another kind of injustice to the local inhabitants of the regions, because those who cause the deterioration are usually non-locals. Public policy may inadvertently lead the development into an unsustainable path.

This overall background leads to an important research problem: "Given that the immediately viable prospects of achieving economic development in developing countries lie in natural resource-rich regions, how can public policy in such regions assist in promoting intra- and inter-generational equity, and thus sustainability?" To answer this the paper proposes a theoretical framework for public policy reformulation that can help resolve the problems in East Kalimantan. A model in ensuring sustainable regional development with the application of intra- and inter-generational equity is required. A set of propositions can then be developed from the model.

1.4 Organisation

The paper consists of four sections. Having discussed the background and the research problem in this introduction, the next section develops an operational model of equity-based development. With the model on hand, section three develops a set of propositions to be tested in the case study of East Kalimantan. Finally, the last section concludes and recommends further step needed to completely answer the research question.

2. Incorporating Equity in Regional Development: Towards An Operational Model

A move towards a complete answer to the research question can be set up by developing a model of sustainable regional development that is able to explain the flow of natural capital and the role of equity principles in the development process and in the distribution of development outcomes. The

model building starts with a discussion on welfare and equity. It then continues with constructing the model of equity-based development.

2.1 Welfare

Development is supposed to increase welfare. Regarding a wider meaning of development, Goulet recognises three core and interrelated components.[14] The first is life sustenance, which concerns the provision of basic needs. Development, according to Goulet, should aim most importantly to provide people with basic needs like housing, clothing, food, and proper education.[15] The second value is self-esteem, with regard to feelings of self-respect and independence. Self-esteem eradicates feelings of dominance and dependence, which can be associated with inferior status whether economically, socially, or physically. It is an important purpose of development. The third component is freedom, which refers to sovereignty in the sense that ability to choose from a wide range of human options is open to individuals and societies. To let people live on the margins of survival, with limited education and skills is not in accordance with what development should be.

As can be seen, the three components are related to quality of life or welfare. The point can be more understandable when one notes the definition of welfare. According to the Encarta Dictionary, welfare means:

> 1. physical, social, and financial well-being: the physical, social, and financial conditions under which somebody may live satisfactorily; 2. aid to people in need: financial aid and other benefits for people who are unemployed, below a specified income level, or otherwise requiring assistance, especially when provided by a government agency or program.[16]

It can be seen that the first definition describes welfare properly as quality of life, in which people can live happily. Concurring, Cohen defines welfare both as ‘enjoyment, or, more broadly, as a desirable or agreeable state of consciousness’, termed as ‘hedonic welfare’, and as ‘preference satisfaction’, ‘where a person’s preference is satisfied if a state of the world that he prefers obtains, whether or not he knows that it does.’[17]

Thus, development should mean a process toward advancement in the quality of life or welfare of a society, encompassing economic, social, physical and environmental aspects. Economic development, therefore, consists of economic growth that also inherently brings in an improvement in the social, physical and environmental quality of life. Through development, all people should experience improvement in their welfare, not only in terms of increasing income, but also upgrading their feeling of social security, and

their enjoyment of living in their built and natural environment. In short, people should be able to get proper benefits from development.

In this study, welfare is broadly defined as a state of enjoying benefits from development. In the context of regional development, human welfare is the welfare of a region's population as an outcome of the development process. It can also be seen that human welfare can be related closely to how development benefits are distributed to people. An increase in average welfare should occur equitably to all people, and should not be at the expense of the worse-off people.

2.2 Equity

Equity can certainly be related to, but is not the same as, equality. For example, in the fulfilment of basic needs of people, applying equity would require that more education funds be allocated to high schools than to elementary ones, or that more food should be given to adults than to children. It is obvious that, in this case, equity is not equality.

2.2.1 Equality and Fairness

The literature on economics and development sometimes perceives equity and equality in the same sense that is in terms of an even distribution of development outcomes. Unfortunately, equity has often been contrasted with economic growth. Pieterse, for example, when proposing equity with growth, has briefly reviewed two extreme positions, i.e. rejecting growth or establishing equity without growth.[18] It can be seen that equity in relation to development is occasionally understood as connoting an equal distribution.

When asserting that equity is 'a prerequisite of development', however, Hamlin and Lyons offer an idea of distinguishing equity and equality, although they can be related to each other, by emphasising that 'if the gap between income groups becomes too large, or if people feel the system is *unfair*, trust breaks down and instability ensues.'[19] Income is one among development benefits distributed to people. Thus, inequality in enjoying development benefits does matter if it is caused by unfairness in the process.

Equity, then, is much more related to fairness and justice than to equality. Equity, according to Merriam-Webster Dictionary, has three main meanings, one of which is relevant to this study, i.e. **'**justice according to natural law or right; *specifically***:** freedom from bias or favouritism.'[20] In many cases in the application of justice, subjects should be treated equally. For example, when it comes to a general election in a country, equality in terms of one-man one vote is applied. However, this is not the case when a medical doctor needs to give medications for, say, 10 patients with a similar illness. The doctor would not apply equality to his patients by giving them the same medication with the same dosage, even though they suffer from the

same disease. Medical prescriptions can vary and would depend significantly on the individual situations, such as his/her history of health, his/her neighbourhood environment, and his/her lifestyle.

2.2.2 Equality of Opportunity: Opportunity to What?

In the context of regional development, benefits are almost always shared unequally. On many occasions, this inequality matters. As already seen in the previous section, developing countries with plenty of natural resources have been suffering from such kinds of inequality. The problem occurs because deep inequality in the distribution of development outcome could be an indication of inequity.[21]

Many would argue that, to ensure equity, people should have the same opportunity to access welfare. However, those who assert the importance of equality of opportunity differ on how to define opportunity and what kinds of goods and service should be distributed equally.[22] Two prominent views are worth noting here.

Rawls emphasises that despite differences in 'the conception of the good' held by people, certain *primary social goods* should be accessible for all to ensure equal opportunity.[23] He then defines the primary goods in broad categories as 'rights and liberties, opportunities and power, and income and wealth.'[24] In more details, Rawls specifies five categories of primary goods as:

> (a) basic liberties, including freedom of association, liberty, etc., (b) freedom of movement and choice of occupation, (c) powers and prerogatives of offices and positions of responsibility, (d) income and wealth, and (e) the social bases of self-respect.[25]

Rawls gives special attention to type (a) and (b) of the primary goods, in that the equalisation of these goods must be complete and should occur prior to the distribution of other types of primary goods.

Rawls's suggestion to guarantee people equal basic liberties, freedom of movement and choice of occupation is somewhat difficult, if not impossible, to effect in developing countries. Many developing countries, like Indonesia, are still in their early stages of democratisation. Equalising basic liberties is usually avoided by the ruling parties or by ordinary people themselves influenced by strong traditions, like feudalism or the caste system. Freedom of association, for example, cannot be equalised among people. Not all people are able to join every organisation they want. They are also not free to form any association. There are certain conditions, set by the governments or by the associations that must be observed. This means that people always have unequal access to this kind of liberty. Even in developed

countries, this type of liberty is not fully equalised. People are not free, for instance, to join an organisation that can be linked to terrorism.

Meanwhile, Sen criticizes Rawls's primary goods as not a real opportunity, but as only a means to an opportunity.[26] When Rawls calls for equalisation of certain primary goods, like basic liberties, freedom of movement, prerogatives and powers, and the social bases of self-respect, he would, according to Sen, actually call for the other kind of primary goods, i.e. income or wealth, to be equalised.[27] Income itself is actually an outcome, not an opportunity per se. Equality of income is impossible to achieve in any society.

Thus, Sen offers a different approach. The real opportunity, according to Sen, namely *capability*, is a set of functionings (i.e. beings and doings) an individual is able to achieve.[28] Income should not be equalised, but it is to be distributed in such a way that all people are able to achieve relevant functionings. A person with disability will commonly require more income than an able-bodied one, an inequality that Rawls's approach would disallow.

However, Rawls does mention that inequality can be justified where the situation is Pareto superior than equality.[29] In this case, inequality makes everyone better off compared with the initial situation. This analysis has been supported by Barry and this idea has initiated enhanced understanding of the meaning of equality and equity.[30] Justified inequality would only mean that the inequality is not unfair.

In general, no one would disagree that equity is fairness in the process of development and justice in distributing the outcome.[31] It can be seen that in a development process, every actor has its own, specific function determined by its own potential and effort, and mechanisms in the socio-economic system of the community. The development mechanism is a socio-economic system, within which the process of accruing benefits, distributing them to the stakeholders, and efforts to sustain the system are involved. Every person has his/her potential and limitations to function in the system, which can be perceived as unique if one looks into the details.

In terms of these specific functions of people, inequality exists. This meaning can better be understood if, as suggested by Sen, human diversity and the range of focuses are considered when examining equality.[32] Inequality, which exists because of the differences in natural human characteristics such as "age, sex, proneness to illness" or "inherited fortunes" (Sen 1992: 1) without any injustice in socio-economic relationships, may not be a problem.[33] Meanwhile, pursuing equality of a variable may cause inequality in another related variable. This conveys a message that it is important to assess equity in any analysis of inequality, because inequality that occurs without any unfairness may not need attention.

Fairness is incorporated when all development actors share *the same opportunity of accomplishing their specific functions*. It is the initial opportunity to complete their specific jobs that is to be distributed equally, but neither their functions, nor their achievements are to be equalised. If their opportunity is not made equal, then the development itself would not be fair. When equity is properly applied, everyone is not necessarily equal, but everything is put in its proper place. It is like the allocation of components that makes a personal computer work. One cannot put the main processor into the RAM (random access memory) slot and vice versa. Thus, personal income, for example, may not be equally distributed, but, no one would complain about another person's higher income. This is because people do not feel any injustice in the inequality of income.

Therefore, justice in the distribution of development benefits would mean that only *certain kinds of basic benefit should be distributed equally*, especially with regard to fundamental human needs. World Bank asserts that poor people stay in poverty because of inadequate access to schools, health centres, roads, market opportunities, credit, effective risk-management mechanisms and other empowering services, to indicate that certain aspects of benefit need to be distributed equally.[34] On the other hand, other kinds of benefit can be distributed unequally, depending on the extent of importance of the recipients' performances in the development.

2.3 The Model of Equity Based Development

A model of natural capital flow and sustainable development can explain in what areas equity should be applied. The model consists of three main components: input, process and output. Inputs are the three kinds of capital needed for the development. The process comprises not only production and non-production functions, but also the distribution of benefits and the need to reinvest for sustainable development. The output is people's welfare of the region. The model can be seen in Figure 1 in its simple form and in Figure 2 with inter-regional considerations.

The most popular definition of sustainable development is that of the Brundtland Report, 'development that meets the needs of the present without compromising the ability of future generations to meet their own needs.'[35] This definition conveys the importance of two kinds of equity, namely intra- and inter-generational equity. While intra-generational equity is concerned with fulfilling people's needs and aspirations within generations, inter-generational equity is related to the responsibility of the present generation to convey better, or at least the same level of development potential to future generations.[36]

The model explains how the three types of capital, i.e. natural capital (Kn), physical or human-made capital (Kp), and human capital (Kh) work together to generate welfare sustainably. The development process

comprises four functions where equity should be applied. This can be called the four principles of applying equity.

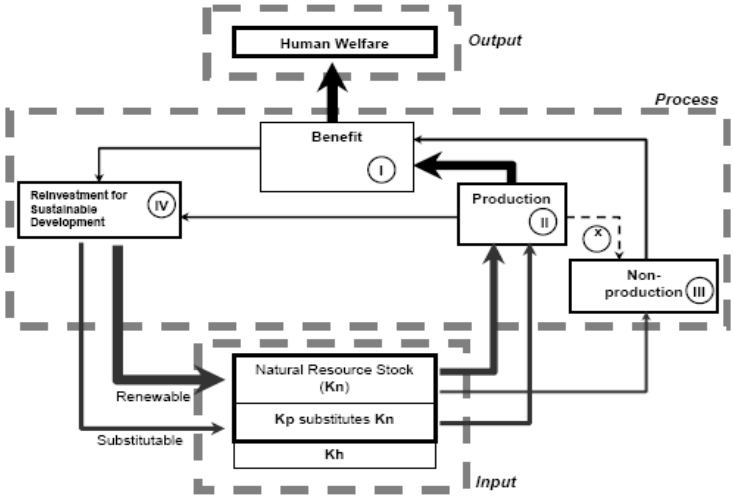

Figure 1. *A Simple Model of Equity Based Development*

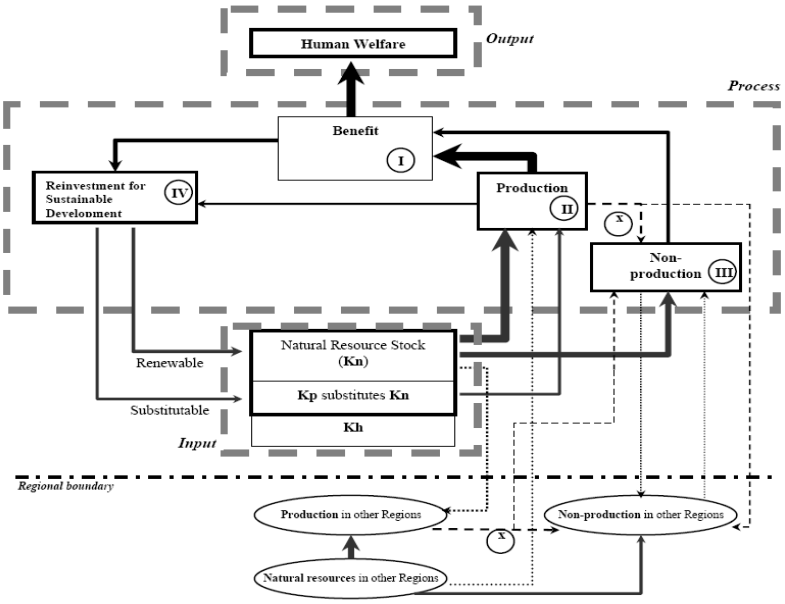

Figure 2. *Inter-regional Model of Equity Based Development*

First, although the process of regional development as seen in the model starts from natural capital, it is the distribution of benefits which is first experienced by the people. So, equity should be applied in the distribution of benefits, with regard to intra-generational equity (socio-economic equity), which can be called *equity I*. Second, equity should emerge in the process of production (*equity II*), in which the producers are involved with regard to the production function. This relates to intra- and inter-generational equity (socio-economic and environmental equity).

Third, equity is needed in the non-production (ecological) aspect of natural resources (*equity III*), which is as important as the production one, to ensure inter-generational equity (environmental equity). Finally, equity should be applied in reinvestment for sustainable development (*equity IV*), with regard to inter-generational equity.

The model shows that sustainability reinvestment is mainly intended to keep overall capital stock in its constant functionality in generating welfare. By utilising sustainability reinvestment, the environment can be kept functioning well to support life, renewable resources can be appropriately renewed, while exhaustible ones can be substituted properly by either physical capital or other natural resources or both. Also, the function of human capital can be kept stable or even increased.

3. The Proposition: Policy Reformulation

This section starts with discussing failure modes that may happen if equity is not properly applied. To measure the equity issues, key parameters and indicators are then developed. Subsequently, preliminary reconnaissance of the equity issues is discussed, and policy reformulations that are needed to resolve the problems in East Kalimantan are proposed.

3.1 Nine Equity Issues, Key Parameters and Indicators

Having learned so far, it can be hypothesised for the case of East Kalimantan that when a regional government gains control over natural resource exploitation after a long period of deprivation by the centralised regime of national government, the four principles of applying equity would be overlooked and nine failure issues would occur. In the distribution of development benefits, intra-generational equity should be applied (equity I), the failure of which would end up to poverty and deep inequality, because:

- First, the majority of people would be deprived in terms of low welfare level despite their hard work (equity failure Ia), and
- Second, unfair access to public infrastructure, facilities and services could occur (equity failure Ib).

The second one is the production function. Failure to guarantee intra- and inter-generational equity (equity II) in this function would cause deep inequality and unsustainability,

- First, it is because fairness is not properly applied in the access to natural resources as a production factor (equity failure IIa).
- Second, unfair competition in the economy could occur that would make a few parties, including the globalisers, better off at the expense of the local majority (equity failure IIb).
- Third, natural resources may be so exploited that threaten their sustainability of use (equity failure IIc).
- Fourth, negative externalities of economic activities could create serious threat to the environment (equity failure IId).

The third function is the non-production function, a function of the natural environment that cannot be substituted by the physical capital. Failure to apply inter-generational equity (equity III) in this function would cause unsustainability. Equity in this function means that a certain amount of natural capital should be kept constant, or otherwise the assimilative and carrying capacity of the environment would be damaged (equity failure III).

Sustainability reinvestment is the fourth function. Failure to apply equity (equity IV) in this function would cause unsustainability, because:

- First, many people would bear negative externality costs with no or inappropriate compensation (equity failure IVa).
- Second, insignificant sustainability reinvestment would be insufficient to maintain the ecosystem (equity failure IVb).

Having identified these failure modes, it can be suggested that public policy in a natural resource-rich region can assist in promoting intra- and inter-generational equity and thus sustainability if it is able to ensure the achievement of those four kinds of equity. To assess the situation in a natural resource-rich region, defining *key parameters* is important. The key parameters are as follows:

1. Issue Ia (*income and employment system*). *Best* situation: no one is deprived in the sense that no worse off person feels that his/her income is lower than should be, also no better off people get more than should be. *Worst* situation: every worse off person feels that his/her income is lower than should be while recognising many others get more than should be.

2. Issue Ib (*access to facilities and services*). Best situation: every one has similar access to key public facilities and services. Worst situation: worse off people get much lower access to key public facilities and services than the better off ones.
3. Issue IIa (*access to natural resources*). Best: every producer engaging in natural resource exploitation has the same access to natural resources. Worst: the majority of producers have much lower access to natural resources compared with that of the minority.
4. Issue IIb (*fairness in competition*). Best: fair competition is applied and there are no special privileges. Worst: a few producers get special privileges from the government.
5. Issue IIc (*natural resource exploitation*). Best: no indications of unsustainable rate of use of the natural resources. Worst: all kinds of natural resources are utilised at unsustainable rates.
6. Issue IId (*negative externalities*). Best: no negative externalities of natural resource use occur, or if so, the negative externalities are already internalised and do not exceed the environmental thresholds. Worst: all utilisations of natural reasources generate negative externalities, and/or their levels exceed the environmental thresholds.
7. Issue III (*non-production function*). Best: environmental assimilative capacity and carrying capacity are good and there are no indications of damage. Worst: indications of environmental damage are everywhere.
8. Issue IVa (*compensation to worse-off people*). Best: all people suffering from negative externalities of economic activities are paid off in full. Worst: no compensation paid by producers on their negative externalities.
9. Issue IVb (*sustainability reinvestment*). Best: reinvestment for sustainability of renewable resources is fully accomplished. Worst: no sustainability reinvestment.

Key indicators for each issue can be identified as follows:

- Issue Ia (*income and employment system*):
    - Income inequality.
    - Unemployment level.
    - Poverty incidence.
    - People's perceptions. Perceptions may inform something that cannot be inferred from statistical data, such as cultural or religious values that may be locally specific.

- IssueIb (*access to facilities and services*):
  - Service coverage.
  - People's perceptions.
- Issue IIa (*access to natural resources*):
  - Stakeholders' perceptions. No statistical data would be available in measuring inequity level in access to natural resources as a factor of production. Therefore, stakeholders' perceptions can be the indicator.
- Issue IIb (*fairness in competition*):
  - Stakeholders' perceptions.
- Issue IIc (*natural resource exploitation*):
  - Rates of resource exploitation.
- Issue IId (*negative externalities*):
  - Levels of production.
  - Environmental thresholds.
- Issue III (*non-production function*):
  - Levels of environmental damage.
- Issue IVa (*compensation to worse-off people*):
  - People's claims for compensation.
- Issue IVb (*sustainability reinvestment*):
  - Rates of resource renewability.
  - Levels of the use of environmentally friendly technology.

3.2 Towards Policy Reformulation in East Kalimantan

Preliminary investigation of East Kalimantan's situation would give a putative explanation that the province is far from the best position. In the scale of 0 to 10, preliminary assessment for East Kalimantan gives perceptive scores as follows:

- Issue Ia (*income and employment system*): 3; incidence of deep inequality of welfare[37]; high unemployment level, as only 5% of the workforce is involved in manufacturing industries[38]; 16% of the population live in absolute poverty.[39]
- Issue Ib (*access to facilities and services*): 3; deep inequality in access to key facilities and services.[40]
- Issue IIa (*access to natural resources*): 4; deep inequality in access to natural resources as a production factor is indicated by some practices in Berau, Bulungan and Pasir Regencies.[41]
- Issue IIb (*fairness in competition*): 4; the old habit of rent seeking and rent seizing is still alive as "300 Suhartos" emerged.[42]
- Issue IIc (*natural resource exploitation*): 3; unsustainable rate of forest harvesting.[43]

- Issue IId (*negative externalities*): 4; some reports can be found with regard to scarcity of clean water for local people surrounding a coal mining in Sangatta and negative impacts of oil and gas exploitation on agriculture in Marangkayu, Kutai Regency.[44]
- Issue III (*non-production function*): 4; inferred from the alarming rate of timber production and many environmental disputes between people and mining corporations.[45]
- Issue IVa (*compensation to worse-off people*): 4; many people are not satisfied with the compensation as found, for example, in Marangkayu district.[46]
- Issue IVb (*sustainability reinvestment*): 3; funding for reforestation is insignificant; low compliance to environmental regulations.[47]

To achieve a 10 position, that is a condition where equity prevails, sounds impossible in any community due to incomplete knowledge, lack of information, and other human defects. It would take a very long time if one insisted that the perfect situation be achieved. A reasonable goal for East Kalimantan for the next 15 years is to increase the equity applications to achieve a score of 7. The goal can be addressed in terms of 9 objectives:

- Objective 1: only a small number of people would still feel deprived, but they would also admit that they can afford all basic needs and they are now better off than 15 years ago (Issue Ia).
- Objective 2: only a small number of people would still get impaired access to some facilities and services; however they would also realise that the basic facilities and services are available for them and their situations are actually improved as compared with 15 years ago (Issue Ib).
- Objective 3: those who felt deprived in access to natural resources as a production factor 15 years ago are now feel much better, although they may not be fully satisfied (Issue IIa).
- Objective 4: those who felt deprived in business competition 15 years ago would now perceive that the competition is much more fair (Issue IIb).
- Objective 5: only some indications of unsustainable rates of the use of natural resources would be recognised, however, those rates have also been decreasing toward sustainable ones (Issue IIc).
- Objective 6: most economic activities related to natural resource exploitations would already internalise the negative externalities (Issue IId).
- Objective 7: few indications of environmental damage would be perceived (Issue III).

- Objective 8: rarely would people complain for insufficient compensations, as a consequence of the situation stated in objective 6) above (Issue IVa).
- Objective 9: sustainability reinvestment, although may still not be fully encompassed, would tend to be increasing (Issue IVb).

Consequently, strategies and policy reformulation are needed. The following strategies are suggested as being capable of achieving the goal and objectives.

- Strategy 1: *advocating the development of labour-intensive activities, especially when the expansion of capital-intensive activities is considered socially suboptimal*. This strategy is needed to avoid majority of local workers from deprivation by the expansion of capital-intensive activities. Any proposal to develop capital-intensive activity should be studied carefully. If it can be substituted by a labour-intensive one, then it should be.
- Strategy 2: *in association with strategy 1, useful relationships among economic activities should be encouraged*. This is especially to support multiplier effects of capital-intensive activities to benefit labour-intensive ones.
- Strategy 3: *encouraging producers to apply proper reward systems so that workers are economically and socially secure*.
- Strategy 4: *facilitating the development of public facilities, services and housing that are affordable for low income people*.

Those four are mainly to achieve objectives 1) and 2), but, strategy 1 and strategy 2 can also be related to achieving objective 3) and 4).

- Strategy 5: *facilitating equal access to natural resources for all economic actors with equal merits*. This is intended to achieve objective 3).
- Strategy 6: *facilitating fairness in competition of economic activities*, which is proposeed to achieve objective 4).
- Strategy 7: *applying sustainability thresholds in natural resource exploitations*, aimed to achieve objectives 5), 6), 7), 8), and 9).
- Strategy 8: *minimising negative externalities of economic activities to the environment and the people*. This strategy is meant to achieve objectives 5), 6), 7), 8), and 9).
- Strategy 9: *facilitating sustainability reinvestment to be paid by all stakeholders*, aimed to achieve objective 9).

Policy reformulation based on the strategy are therefore needed. Reformulation should include 18 sets of public policy as follows:

1. Employment expansion policy (e.g. incentives to capital-intensive activities that are able to help initiating and developing related labour-intensive ones). It is related to strategy 1 and 2. National policies encourage job expansion as stated, for example, in article 39-41 of the Act No. 13/2003 Concerning Manpower. However, the provincial government should amplify the implementation of national policies and make necessary changes according to locally specific issues.
2. Income tax policy, reformulation of which is related to many strategies, because the funds collected can be used for many purposes, especially for financing public facilities and services. Income tax is a national policy and the tax is collected by the national agency. There is not enough information on whether the provincial government has appropriate share of it.
3. Minimum wage policy – related to strategy 3. Minimum wage is determined by the provincial government, but, the implementation has apparently not been successful as around 22% of manufacturing industries have not complied with the policy (Ministry of Manpower and Transmigration 2002).[48]
4. Social security policy (e.g. unemployment benefits, health insurance, pensions) – related to strategy 3. The government involvement in social security in Indonesia is minimal. People heavily rely on family and relatives. The East Kalimantan government should be innovative in making it an important mechanism to distribute development benefits to the people.
5. Education service policy – related to strategy 4. The national budget for education has been low, except for this special year of 2009, which is the year of parliamentary and presidential elections. Therefore, the provincial government should allocate more from its budget. Policies can also be made to encourage private businesses, especially in timber, mining, oil and gas industries, to share in developing education facilities that are affordable for low income people.
6. Health service policy – related to strategy 4. Similar policies with regard to health services can be applied.
7. Infrastructure policy (e.g. electricity, telephone, water supply, road) – related to strategy 4. The situation is somewhat similar to education and health services. The private sector, especially in timber, mining, oil and gas industries, should be involved in

developing regional infrastructure, including clean water and electricity, affordable for low income people.

8. Housing policy (for low and middle income people) – related to strategy 4. Housing for low income people has been through the national program of RSS (*Rumah Sangat Sederhana*/Housing for the Poor). However, apart from the still unaffordability problem, lack of locally specific consideration can impede the success of the program.
9. Credit policy (e.g. easier access for micro and small businesses) – related to strategy 5. Financial institutions for micro and small businesses, like banks and cooperatives, are available but hardly effective. A common problem is usually the inflexible guaranteeing conditions that make it hard for micro and small businesses to fulfil.
10. Business entry policy (equal opportunities) – related to strategy 5 and 6. Although there is no single discrimination policy, rent seeking behaviour as inherited from the Soeharto era make it easier for some elites to enter businesses.

    Failure in developing community-based forestry has been noted in the decentralisation era.[49] The new scheme of IPPK (*Ijin Pengusahaan dan Pemanfaatan Kayu*/Logging and Utilisation Permit), aimed at giving local people more access to and control of their forest, has turned illegal logging into legal one when the people gave their privilege to some elites for only a small measure of cash in return. The elites, some are foreigners, are those suspected of illegal logging, which contributed to around 60% of total timber production in the past.[50]
11. Land reform policy – related to strategy 5 and 6. There is no land reform in Indonesia. However, some policies, like the IPPK mentioned above, could be instrumental if implemented properly. Transmigration program is another one comparable to land reform, however, it has been deactivated in this reformation era.
12. No rent seeking policy – related to strategy 6. Rent seeking is among the most difficult habit to change. Accountability and transparency to the public in every development activity can be helpful in minimising rent seeking.
13. Anti trust policy – related to strategy 5 and 6. There are no such policies so far in Indonesia. East Kalimantan will need to define and apply this kind of policy.
14. Maximum sustainable yield policy – related to strategy 7 and 8. This kind of policy does not seem to be available so far.
15. Environmental threshold policy (e.g. emission charge) – related to strategy 7 and 8. Policies are available nationally, but the

implementation is weak. The situation could be related to the CAC (command and control) approach that is prone to corruption.

16. Sustainability reinvestment policy (e.g. sustainability tax, reforestation incentives) – related to strategy 8 and 9. Like policies in environmental thresholds, compliance is low.
17. Substitutability development incentives (e.g. for applying new, environmentally friendly technology) – related to strategy 9. This kind of policy does not seem to be available so far.
18. Polluters-pay policy (e.g. waste treatment, compensation for people, pollution tax, low pollution incentives) – related to strategy 8 and 9. This policy is only available in limited areas due to heavily relying on CAC approach, and the compliance is also low.

4. Conclusions

It has been shown in this paper that despite having potentials for economic growth, natural resource-rich regions in developing countries, like East Kalimantan Province of Indonesia, often face problems of economic inequality and poverty on one hand, and threat of unsustainability on the other. The problems share a common root of cause, namely inequity.

A model of equity based development, the pattern of which can ensure fairness in the process and justice in the distribution of outcome, is thus needed. The model urges the application of equity in four areas, i.e. in the benefit distribution to the people (equity I), in the production function of natural resources (equity II), in the nonproduction function (equity III), and in the sustainability reinvestment (equity IV), because otherwise nine equity failures would occur as can be identified in East Kalimantan. To resolve the inequity problems, and thus to ensure sustainability, it is necessary to reform and to renew at least 18 sets of public policy, the correct and corruption-free implementation of which will bring sustainable welfare to the people.

Highest priority should be given to the pursuit of equity I, which is directly related to poverty alleviation. The second priority is for equity II, especially issues IIa and IIb, and the third one is for the rest of equity II, equity III and IV. Three stages can then be determined, each of which involves a five year period. Equity I can be achieved through strategies 1 to 4. So, implementation of policies 1) to 8) should be initiated in the first stage. The second priority can be achieved through strategies 5 and 6, and thus implementation of policies 9) to 13) should be established in the second stage. The third stage can be completed by achieving the rest of equity II, equity III and IV through the implementation of policies 14) to 18).

Finally, to completely answer the research question stated in the first section, the proposition established in this paper should be followed by testing it in East Kalimantan. Findings from the field would be of

significance not only for resolving the problems, but also for developing knowledge in regional development.

Notes

[1] DESA (the Department of Economic and Social Affairs) of the United Nations Secretariat, *Social Justice in an Open World: The Role of the United Nations*, United Nations, New York, 2006.
[2] G Frazer, 'Inequality and Development Across and Within Countries'. *World Development*, vol. 34 (9), 2006, pp. 1459-1481.
[3] ibid.
[4] J E Stiglitz, *Globalization and Its Discontents*, Penguin Books, London, 2002, p. 5.
[5] Kompas, *Kabupaten Berau* (Berau Regency), Newspaper, 24 August 2001, viewed on 25 April 2002, <http://www.kompas.com/kompas-cetak/0108/24/NASIONAL/kabu08.htm>.
[6] H Arsyad, *An Interview via Telephone by the Author*, 28 February 2005. The interviewee is the Head of Economic Development Section in the Research and Development Agency of East Kalimantan Province.
[7] H Hill, *The Indonesian Economy*, Cambridge University Press, Cambridge, 2000; F Sjoholm, 'The Challenge of Combining FDI and Regional Development in Indonesia'. *Journal of Contemporary Asia*, vol. 32 (3), 2002, pp. 381-393.
[8] NA Khan and S Hasan, 'Forest Management Through People's Participation: Practices and Problems in India and Nepal'. *Asian Journal of Environmental Management*, vol. 3 (1), 1995, pp. 51-60.
[9] V Maskey, TG Gebremedhin and TJ Dalton, 'Social and Cultural Determinants of Collective Management of Community Forest in Nepal'. *Journal of Forest Economics*, vol. 11, 2006, pp. 261-274.
[10] TA Benjaminsen, 'Natural Resource Management, Paradigm Shift, and the Decentralization Reform in Mali'. *Human Ecology*, vol. 25 (1), 1997, pp. 121-143.
[11] TA Benjaminsen, 'The population–agriculture–environment nexus in the Malian cotton zone'. *Global Environmental Change*, vol. 11, 2001, pp. 283–295.
[12] FC Lo, K Salih and M Douglass, 'Rural Urban Transformation in Asia', in *Rural-urban Relations and Regional Development*, F.C. Lo, J.S. Edralin and N.T. Dung (eds), Maruzen Asia-UNCRD, Nagoya, 1981, pp. 7-43; M Douglass, 'A regional network strategy for reciprocal rural-urban linkages: an agenda for policy research with reference to Indonesia'. *Third World Planning Review*, vol. 20 (1), 1998, pp. 1-33.

[13] ML Ross, *Timber Booms and Institutional Breakdown in Southeast Asia*, Cambridge University Press, Cambridge, 2001; K Slack, 'Sharing the Riches of the Earth: Democratizing Natural Resource-Led Development'. *Ethics and International Affairs*, vol. 18 (1), 2004, pp. 47-62.
[14] D Goulet, *The Cruel Choice: A New Concept in the Theory of Development*, Atheneum, New York, 1971.
[15] ibid.
[16] Encarta Dictionary, 2004, viewed on 26 January 2005, <http://encarta.msn.com/dictionary/welfare.htm>.
[17] GA Cohen, 'On the Currency of Egalitarian Justice'. *Ethics*, vol. 99, 1989, p. 909.
[18] JN Pieterse, *Development Theory: Deconstructions/Reconstructions*. SAGE Publications, London, 2001.
[19] RE Hamlin and TS Lyons, *Economy Without Walls*, Praeger, Connecticut, 1996, p. 20.
[20] Meriam-Webster Dictionary, 2006, viewed on 16 May 2006, <http://www.m-w.com/dictionary/equity>.
[21] Hamlin and Lyons, op. cit.
[22] See J Rawls, *A Theory of Justice*, Oxford University Press, Oxford, 1971; B Barry, *Theories of Justice*, University of California Press, Berkeley, 1989; A Sen, *Inequality Reexamined*, Oxford University Press, Oxford, 1992; R Dworkin, 'What is Equality? Part I: Equality of Welfare; Part II: Equality of Resources'. *Philosophy and Public Affairs*, vol. 10 (3), 1981, pp. 185-246, pp. 283-345; among others.
[23] Rawls, ibid.
[24] Rawls, ibid., p. 92.
[25] J Rawls, 'Social Unity and Primary Goods', in *Utilitarianism and Beyond*, A. Sen and B. Williams (eds), Cambridge University Press, Cambridge, 1982, p. 162.
[26] A Sen, 'Equality of What?', in *Tanner Lectures on Human Values I*, S. McMurrin (ed), Cambridge University Press, Cambridge, 1980, pp. 197-220.
[27] ibid.
[28] Sen, *Inequality Reexamined*.
[29] Rawls, *A Theory of Justice*.
[30] Barry, op. cit.
[31] Rawls, op. cit.
[32] Sen, *Inequality Reexamined*.
[33] Sen, ibid., p. 1.
[34] World Bank, *World Development Report 2006: Equity and Development*, The International Bank for Reconstruction and Development/The World Bank, Washington, 2005.

[35] WCED, *Our Common Future*, Oxford University Press, Oxford, 1987, p. 43.
[36] HE Daly, *Steady-State Economics*, second edition, Island Press, Washington, 1991. See also CA Tisdell, *Environmental Economics: Policies for Environmental Management and Sustainable Development*, Edward Elgar, Aldershot, 1993.
[37] Arsyad, op. cit.; Kompas, op. cit.; Kompas, *Kabupaten Bulungan* (Bulungan Regency), Newspaper, 21 August 2001, viewed on 25 April 2002, http://www.kompas.com/kompas-cetak/0108/21/NASIONAL/kabu08.htm; R Kunanayagam and K Young, 'Mining, Environmental Impact and Dependent Communities: The View from Below in East Kalimantan', in *The Politics of Environment in Southeast Asia: Resources and Resistance*, P. Hirsch and C. Warren (eds), Routledge, London, 1998, pp. 139-158.
[38] EKBPS (East Kalimantan Statistical Office), *Kalimantan Timur dalam Angka 2001* (East Kalimantan in Figures, 2001), EKBPS, Samarinda, 2002.
[39] ibid.
[40] Arsyad, op. cit.; Kompas, *Kabupaten Berau*; Kompas, *Kabupaten Bulungan*; Kunanayagam and Young, op. cit.
[41] Arsyad, op. cit.; Kompas, *Kabupaten Berau*; Kompas, *Kabupaten Bulungan*; Kompas, *Konflik Pertanahan Petaka bagi Pasir* (Land Right Conflict, Disaster to Pasir), Newspaper, 28 August 2001, viewed on 25 April 2002, <http://www.kompas.com/kompas-cetak/0108/28/nasional/konf08.htm>.
[42] M Shari, 'Indonesia; In the post-Suharto era, everyone wants a piece of the action. Result: An investor nightmare'. *Business Week*, 20 May, issue 3783, 2002, pp. 20-23.
[43] Ministry of Forestry and Estate Crops, *Forest Statistics of Indonesia 1999*, Ministry of Forestry and Estate Crops of the Republic of Indonesia, Jakarta, 2000; Ross, op. cit.; WALHI (*Wahana Lingkungan Hidup Indonesia*/Friends of the Earth Indonesia), *Hutan Indonesia Menjelang Kepunahan* (Indonesian Forest Towards Extinction). 14 April 2004, viewed on 12 May, 2005, <http://www.walhi.or.id/kampanye/hutan/hut_punah>.
[44] Kunanayagam and Young, op. cit.; Arsyad, op. cit.
[45] Arsyad, ibid.
[46] Arsyad, ibid.
[47] WALHI, op. cit.; Ministry of Forestry and Estate Crops, op. cit.; Hijaubiru, *Surat Penolakan RUU Pertambangan Mineral dan Batubara* (Letter of Refusal on the Draft of Mineral and Coal Mining Act), 31 January 2005, viewed on 12 May, 2005, <http://www.hijaubiru.org>.

[48] Ministry of Manpower and Transmigration, *Programs Report 2002*, Ministry of Manpower and Transmigration of the Republic of Indonesia, Jakarta, 2002.
[49] A Casson and K Obidzinski, 'From New Order to Regional Autonomy: Shifting Dynamics of "Illegal" Logging in Kalimantan, Indonesia'. *World Development*, vol. 30 (12), 2002, pp. 2133-2151; Kompas, *Kabupaten Bulungan*.
[50] DTE, 'Forestry Act fiercely opposed'. *Down To Earth*, vol. 42, August 1999, viewed on 12 May 2005, <http://dte.gn.apc.org/42for.htm>.

Bibliography

Arsyad, H., *An Interview via Telephone by the Author*. 28 February, 2005.

Barry, B., *Theories of Justice*. University of California Press, Berkeley, 1989.

Benjaminsen, T.A., 'The population–agriculture–environment nexus in the Malian cotton zone', in *Global Environmental Change*, vol. 11, 2001, pp. 283–295.

——, 'Natural Resource Management, Paradigm Shift, and the Decentralization Reform in Mali', in *Human Ecology*, vol. 25 (1), 1997, pp. 121-143.

Casson A. and K. Obidzinski, 'From New Order to Regional Autonomy: Shifting Dynamics of "Illegal" Logging in Kalimantan, Indonesia'. *World Development*, vol. 30 (12), 2002, pp. 2133-2151.

Cohen, G. A., 'The Pareto Argument for Inequality (extracts)', in *The Ideal of Equality*. M. Clayton and A. Williams (eds), MacMillan Press Ltd., Hampshire, 2000, pp. 162-181

——, 'On the Currency of Egalitarian Justice'. *Ethics*, vol. 99, 1989, pp. 906-944.

Daly, H.E., *Steady-State Economics*, second edition, Island Press, Washington, 1991.

Daly, H.E and J.B. Cobb, *For the Common Good: Redirecting the Economy Toward Community, the Environment, and a Sustainable Future*. Beacon Press, Boston, 1989.

DESA (the Department of Economic and Social Affairs) of the United Nations Secretariat, *Social Justice in an Open World: The Role of the United Nations*. United Nations, New York, 2006.

Douglass, M., 'A regional network strategy for reciprocal rural-urban linkages: an agenda for policy research with reference to Indonesia', in *Third World Planning Review*, vol. 20 (1), 1998, pp. 1-33.

DTE (Down To Earth), 'Oil palm investments opposed'. *Down To Earth*, vol. 49, May 2001, viewed on 12th May 2005.
<http://dte.gn.apc.org/49OP.htm>.

——, 'Spotlight on Indonesia's forests'. *Down To Earth*, vol. 44, February 2000, viewed on 12th May 2005.
<http://dte.gn.apc.org/44for.htm>.

——, 'Forestry Act fiercely opposed'. *Down To Earth*, vol. 42, August 1999, viewed on 12th May 2005.
<http://dte.gn.apc.org/42for.htm>.

Dworkin, R., 'What is Equality? Part I: Equality of Welfare; Part II: Equality of Resources', in *Philosophy and Public Affairs*, vol. 10 (3), 1981, pp. 185-246, pp. 283-345.

EKBPS (East Kalimantan Statistical Office), *Kalimantan Timur dalam Angka 2001* (East Kalimantan in Figures, 2001). EKBPS, Samarinda, 2002.

Encarta Dictionary, 2004, viewed on 26th January 2005.
<http://encarta.msn.com/dictionary/welfare.htm>.

Frazer, G., 'Inequality and Development Across and Within Countries', in *World Development*, vol. 34 (9), 2006, pp. 1459-1481.

Goulet, D., 'Authentic Development: Is It Sustainable?', in *A Sustainable World: Defining and Measuring Sustainable Development*. T.C. Trzyna (ed), International Center for the Environment and Public Policy (ICEP) for IUCN, Sacramento, 1995, pp. 44-59.

——, *The Cruel Choice: A New Concept in the Theory of Development*. Atheneum, New York, 1971.

Hamlin, R.E. and Lyons, T.S., *Economy Without Walls*. Praeger, Connecticut, 1996.

Hanley, N., J.F. Shogren and B. White, *Environmental Economics in Theory and Practice*. MacMillan Press Ltd., London, 1997.

Hijaubiru, *Surat Penolakan RUU Pertambangan Mineral dan Batubara* (Letter of Refusal on the Draft of Mineral and Coal Mining Act). 31 January 2005. Viewed on 12th May, 2005.
<http://www.hijaubiru.org>.

Hill, H., *The Indonesian Economy*. Cambridge University Press, Cambridge, 2000.

Khan, N.A. and S. Hasan, 'Forest Management Through People's Participation: Practices and Problems in India and Nepal'. *Asian Journal of Environmental Management*, vol. 3 (1), 1995, pp. 51-60.

Kompas, *Kabupaten Kutai* (Kutai Regency). Newspaper, 16 August 2001. Viewed on 25th April 2002.
<http://www.kompas.com/kompascetak/0108/16/NASIONAL/kabu08.htm>.

——, *Kabupaten Berau* (Berau Regency). Newspaper, 24 August 2001. Viewed on 25th April 2002.
<http://www.kompas.com/kompas-cetak/0108/24/NASIONAL/kabu08.htm>.

——, *Kabupaten Bulungan* (Bulungan Regency). Newspaper, 21 August 2001. Viewed on 25th April 2002.
<http://www.kompas.com/kompas-cetak/0108/21/NASIONAL/kabu08.htm>.

——, *Konflik Pertanahan Petaka bagi Pasir* (Land Right Conflict, Disaster to Pasir). Newspaper, 28 August 2001. Viewed on 25th April 2002. <http://www.kompas.com/kompas-cetak/0108/28/nasional/konf08.htm>.

Kunanayagam, R. and K. Young, 'Mining, Environmental Impact and Dependent Communities: The View from Below in East Kalimantan', in *The Politics of Environment in Southeast Asia: Resources and Resistance*. P. Hirsch and C. Warren (eds), Routledge, London, 1998, pp. 139-158.

Lo, F.C., K. Salih and M. Douglass, 'Rural Urban Transformation in Asia', in *Rural-urban Relations and Regional Development*. F.C. Lo, J.S. Edralin and N.T. Dung (eds), Maruzen Asia-UNCRD, Nagoya, 1981, pp. 7-43.

Maskey, V., T.G. Gebremedhin and T.J. Dalton, 'Social and Cultural Determinants of Collective Management of Community Forest in Nepal'. *Journal of Forest Economics*, vol. 11, 2006, pp. 261-274.

Meriam-Webster Dictionary, 2006. Viewed on 16th May 2006. <http://www.m-w.com/dictionary/equity>.

Ministry of Forestry and Estate Crops, *Forest Statistics of Indonesia 1999*. Ministry of Forestry and Estate Crops of the Republic of Indonesia, Jakarta, 2000.

Ministry of Manpower and Transmigration, *Programs Report, 2002*. Ministry of Manpower and Transmigration of the Republic of Indonesia, Jakarta, 2002.

Oates, W.E., 'Environment and Taxation: The Case of the United States', in *Environment and Taxation: The Cases of the Netherlands, Sweden and the United States*, OECD (ed), OECD, Paris, 1994, pp. 103-143.

O'Connor, D., *Managing the Environment with Rapid Industrialisation: Lessons from the East Asian Experience*. OECD, Paris, 1994.

Pieterse, J.N., *Development Theory: Deconstructions/Reconstructions*. SAGE Publications, London, 2001.

Rawls, J., 'Social Unity and Primary Goods', in *Utilitarianism and Beyond*. A. Sen and B. Williams (eds), Cambridge University Press, Cambridge, 1982, pp. 159-186.

——, *A Theory of Justice*. Oxford University Press, Oxford, 1971.

Ross, M. L., *Timber Booms and Institutional Breakdown in Southeast Asia*. Cambridge University Press, Cambridge, 2001.

Rosser, A., K. Roesad and D. Edwin, 'Indonesia: The Politics of Inclusion', in *Journal of Contemporary Asia*, vol. 35 (1), 2005, pp. 53-77.

Sachs, J.D. et al., *Investing in Development: A Practical Plan to Achieve the Millennium Development Goals*. Earthscan, London, 2005.

Sachs, J.D. et al., 'Ending Africa's Poverty Trap'. *Brookings Paper on Economic Activity*, vol. 1, 2004, pp. 117-240.

Sade, U.I., 'Globalisation, Euphemism for Re-Colonisation'. *Africa News Service*, 1 April, 2002, pp. 1008091-1009890.

Sen, A., *Inequality Reexamined*. Oxford University Press, Oxford, 1992.

——, *Choice, Welfare, and Measurement*. Blackwell, Oxford, 1982.

——, 'Equality of What?', in *Tanner Lectures on Human Values I*. S. McMurrin (ed), Cambridge University Press, Cambridge, 1980, pp. 197-220.
Shari, M., 'Indonesia; In the post-Suharto era, everyone wants a piece of the action. Result: An investor nightmare', in *Business Week*, 20 May, issue 3783, 2002, pp. 20-23.

Sjoholm, F., 'The Challenge of Combining FDI and Regional Development in Indonesia', in *Journal of Contemporary Asia*, vol. 32 (3), 2002, pp. 381-393.

Slack, K., 'Sharing the Riches of the Earth: Democratizing Natural Resource-Led Development', in *Ethics and International Affairs*, vol. 18 (1), 2004, pp. 47-62.

Stiglitz, J.E., *Globalization and Its Discontents*. Penguin Books, London, 2002.

Tisdell, C.A., *Environmental Economics: Policies for Environmental Management and Sustainable Development*. Edward Elgar, Aldershot, 1993.

WALHI (*Wahana Lingkungan Hidup Indonesia*/Friends of the Earth Indonesia), *Hutan Indonesia Menjelang Kepunahan* (Indonesian Forest Towards Extinction). 14 April 2004. Viewed on 12th May, 2005. <http://www.walhi.or.id/kampanye/hutan/hut_punah>.

WCED, *Our Common Future*. Oxford University Press, Oxford, 1987.

World Bank, *World Development Report 2006: Equity and Development*. The International Bank for Reconstruction and Development/The World Bank, Washington, 2005.

Agung Sugiri is Lecturer at the Department of Urban and Regional Planning, Diponegoro University, Semarang, Indonesia. This article is excerpted from an important part of his ongoing PhD thesis, upon completion of which will be submitted to the University of Queensland (UQ), Australia. Mr. Sugiri would like to thank AusAID for supporting his study at UQ until 2007. He is also very grateful with the help of Dr. David Wadley at the School of Geography, Planning and Environmental Management, UQ, as his advisor.

Is There a Place for Mediation and Other Consensus Building Processes in Environmentally Threatened Communities in the Philippines?

Caroliza Tulod-Peteros

Abstract

The paper explores the use of mediation and other consensus building processes in communities confronted with environment-related conflicts in the Philippines based on the experiences of Mediators Network for Sustainable Peace, Inc. (MedNet). It starts with an overview of mediation and a presentation of MedNet's perspectives and approaches in promoting community mediation in environment-related conflicts it has handled. Commonalities are drawn from these experiences that made it possible for mediation to succeed. Important policy decisions and programs of government that resulted to conflicts and the challenge for MedNet to introspect on the appropriateness of mediation between communities and proponents of projects perceived to negatively impact on the environment follows. It ends with the conclusions and recommendations. MedNet has been promoting interest-based mediation, when appropriate, as an approach to address conflicts concerning environment, agrarian and other issues affecting marginalized sectors. In these experiences, power balance among parties is one key issue that mediators ensure; otherwise, mediation or other consensus-building processes are not the likely recourse. Affected sectors need to organize themselves first in order for them to have unified voice and strength. Enhancing their skills in issue analysis, effective communication and negotiation are important. Building associational power effectively evens out the power imbalance. However, the tempting material gains offered by project proponents favorably tilts the balance of power in favor of the project as most communities see this as relief to abject poverty. For local government units, it is an opportunity to secure infrastructure support not provided by the national government especially in far-flung villages unless in times of calamities. In divided communities, is there hope for consensus among them, beyond the project? Will mediation have value in exacting maximum benefits from the proponent to sustain them and address environmental concerns during and beyond the project cycle, and is this appropriate?

Key Words: Environmental conflicts, mediation, community-based approaches, power balance, mutually beneficial outcomes.

*****

1. An Overview of Mediation

Mediation is a dispute resolution approach where a neutral third party helps two or more disputing parties arrive at an agreement. It is "a voluntary process in which a mediator, selected by the disputing parties, facilitates communication and negotiation, and assists the parties in reaching a voluntary agreement regarding a dispute".[1] The mediator is an "acceptable, impartial, neutral third party who has no authoritative decision making power to assist contending parties"[2] because in mediation, "the mediator, in contrast to the arbitrator or judge, has no power to impose an outcome on disputing parties."[3] As the neutral third party, the mediator assists disputing parties in the negotiation process come up with "mutually acceptable and beneficial solution to their disputes."[4] This approach encourages parties to focus on their interests not on positions because "behind opposed positions lie shared and compatible interests, as well as conflicting ones".[5] As a facilitator, his/her role is to help parties focus on "the real issues of the dispute, and generate options that meet the interests or needs of all relevant parties in an effort to resolve the conflict."[6] Aside from litigation, mediation is only one among many approaches used to address disputes, broadly referred to as Alternative Dispute Resolution or ADR.

1.1. Philippine context: is mediation an alternative approach?

Alternative Dispute Resolution is the mainstream language used to refer to approaches outside of litigation. However, for Mediators Network for Sustainable Peace (MedNet), Inc., a conflict resolution NGO, mediation is inherent in Philippine culture; thus, it is not an alternative approach. Culturally as a people, we Filipinos are family and clan oriented. We value our relationships and in times of conflicts, intermediaries are sought within the family, clan or friends to facilitate conflicting parties to settle their disputes and preserve the relationship of parties. We are collectivist in culture, where "the self is defined by one's relationships within one's social world…where parties in conflict focus on the relational and affective aspects of the conflict."[7]

It is in this context that MedNet decided to use the term *Empowering Dispute Resolution/Management Processes (EDR/MP)* in its approach and framework rather than ADR because mediation is indigenous to Philippine culture. More importantly, MedNet wants to emphasize the term "empowering" to refer to the "desired process and desired outcome of dispute resolution and management".[8] The experience of parties trying to understand each other's interests is "an effective tool for empowerment".[9]

The founding Congress of MedNet further defined what constitutes an EDR/MP process as the following:

- inclusive, that is framed within a rights-based and gender responsive framework…ensuring that all women and men, groups and sectors with stake in the resolution of a dispute must be represented
- voluntary and participatory, as the final decision to attempt to jointly search for mutually acceptable solution still rests with them (the parties)
- culturally sensitive, as active participation…can only happen if done in a way and a language that is understandable to the stakeholders
- responsive to the sources and effects of power imbalance (including gender) between or among the parties, … that can be done by providing all the stakeholders with equal representation and voice in the process, and designing a process where the rights and interests of all are acknowledged and recognized, and where their common interests are identified and satisfied
- information-and analysis-oriented, where the mediator assesses the presence of the key ingredients of an effective mediation…and the design has to be based on an analysis of the conflict….the mediator has to look into the sources of the conflict and the power relations of the parties
- systematic yet flexible and creative, taking into account the organized concepts, principles and approaches in negotiation and mediation…and lessons from past mediation experiences
- non-violent
- educative, as the EDR/MP practitioner imparts to the parties empowering ways of resolving their conflicts, and
- with outcomes that are mutually beneficial and fair to all parties, and that provide comprehensive solution to substantive and relationship issues in dispute.[10]

2. The Philippines: A rich country, but ironically, its people are mired in poverty

The Philippines, located in the Southeast Asian Region, is an archipelagic country of 7,100 islands is endowed with natural resources, and is one of the countries in the world considered "in its entirety, both a hotspot and a mega diversity country, placing it among the top priority hotspots for global conservation".[11] Its coral reefs are "among the highest levels of marine biodiversity in the world"[12], and "ranks second to Australia's Great Barrier

Reef in diversity of reef fish, and its sea grass communities are considered the most diverse in the Indo-Pacific region."[13] Its forests are host to hundreds of endemic species of flora and fauna including the enormous Philippine Eagle, (that is three feet tall with a six and one half foot wingspan) and considered one, if not the world's largest eagle. It is also rich in mineral deposits such as gold, copper, nickel and coal among others, in fact one "among the world's 10 biggest producers of nickel and cobalt.[14] It is listed by the "Fraser Institute survey of global mining company executives as one of the top five countries in the world in terms of attractive mineral potentials."[15]

This rich country is inhabited by 88,574,614 million[16], where around sixty percent reside in coastal areas. Ranked as the 12th most populous country in the world as of 2007[17], it has a population density of 277 people per square kilometer[18] with denser coastal communities at 286 persons/km2[19]. It has a population growth rate of 2.04% (as of 2007). Over twelve percent (12.6%) of its population experienced moderate to severe hunger in the last ten years, with a record increase of 23.7% in the last quarter of 2008. There are 7.8% unemployed and 18.9% underemployed as of January 2008 labor force survey.[20] Overseas employment is the best option for many Filipinos. It is said that from January to April this year alone, there were already 516,466 migrant workers deployed, increasing the number of Filipinos scattered in 200 countries and territories.[21] Foreign remittances of overseas Filipino workers have even made Philippine economy afloat. In 2008, 104 billion US dollars were sent by overseas workers, more than triple the amount of aid given by donor countries (amounting to 300 US dollars).[22]

3. Landscape of Environmental Issues in the Country

There are only "about seven percent of original, old-growth and closed-canopy forest left in the country, with a mere three percent is estimated to remain in the lowland regions."[23] Loss of biodiversity has primarily been caused by logging, clearing of forest cover for agriculture and settlements, hunting for food and wildlife trade, pollution of coastal waters and over-extraction of biodiversity resources.[24] This results to scarcity of fresh groundwater supply, with the country ranking second to the lowest in terms of per capita fresh water rates in Asia even if the country is blessed with high average rainfall, with rainy months from June-October and an average of 20- 25 typhoons a year.

Forest denudations can be traced to the Spanish colonization of the Philippines and continued under the American rule.

> Forest destruction began under the Spanish, Philippine colonial rulers from 1565 to 1898 who sought lumber for shipbuilding and who deforested land for huge sugar, coconut and abaca plantations. The destruction accelerated

> under US colonial rule (1898-1946), which marked the start of modern commercial logging on the islands. U.S. lumber companies joined with Philippine businessmen to cut trees on Negros, in Bataan, and in other areas.

Since then, exportation of logs became the country's main sources of revenues. In the 60s-70s, the Philippines was Asia's top exporter of tropical rainforest and timber. Big business companies engaged in logging were also successful in influencing government policies and programs supportive of their interests by fielding or financing political candidates in local and national elections.

With large tracts of lands owned by a few rich individuals, majority of the people are competing for scarce resources. This partly explains the dense population in coastal areas where people depend on marine resources for a living since most of the upland areas were either denuded or privatized.

Now, the rich coral reefs are depleted. "They have been dramatically impacted by destructive fishing, which involves using dynamite and cyanide to catch fish, and sedimentation from poor land management practices."[25] Given the limited opportunities in the rural areas, many people flock to the main cities of the country to find a living.

Part of the consequence of urban migration is the increase in the number of slum dwellers. Another is the burgeoning problems related to garbage. In Metro Manila alone, the country's prime urban center, "5,345 tons of solid wastes are generated each day where only 65-75% is collected and 13% recycled."[26] The rest find its way into creeks and on rainy days, these clog the waterways resulting to massive floods.

3.1. Scare resources breed conflicts

Population management advocates believe that "uncontrolled population growth -particularly in biodiversity areas where growth rates average four percent - pose increasing threats to the already troubled ecosystems upon which people depend for food and livelihood"…and would result to "escalating conflicts among resource users that could threaten social stability in coastal communities."[27] Respondents to a pre-workshop survey on natural resource based conflicts also attributed the rise in conflicts to population increase resource depletion, resource access, tenure rights and poverty.[28]

Specific to coastal resources, a major source of conflict is the delineation of the municipal waters as defined in RA 8550 or the Fisheries Code. In particular, "the law provides for the preferential use of municipal waters (the area 15 kilometers from the shoreline towards the sea that used to be 7 kilometers) by municipal fishers."[29] Commercial fishers contest this as

they also assert their need for increased income and their rights to use the municipal waters. The case points to the conflict of policy and how resource users access these resources. Commercial fishers contest this as they also assert their need for increased income and their rights to use the municipal waters. The case points to the conflict of policy and how resource users access these resources.

The remaining forested lands on the other hand, are now threatened with mining applications, many of which are situated in areas occupied by the indigenous peoples. In fact, "80 percent of lands covered by large-scale mining overlap on indigenous people's lands".[30] In 1997, government signed into law the Indigenous People's Rights Act (IPRA). In theory, "it is one of the most enlightened laws dealing with Indigenous Peoples, recognizing the free prior and informed consent (FPIC) of Indigenous Peoples, and asserting that in the absence of such a clear level of consent, a project cannot proceed. However, the passage of the Mining Code in 1995 undermines the very principles of the IPRA because in many cases mining claims are given in lands supposedly covered by the IPRA.[31] However, the passage of the Mining Code in 1995 undermines the very principles of the IPRA because in many cases, mining claims are given in lands supposedly covered by the IPRA.

The Mining Act introduced the concept of a financial or technical assistance agreement, which allows a completely foreign-owned mining company to explore, develop, and mine in the country. With deposits use about "$90 billion worth of minerals, government aggressively pushes for its implementation."[32]

A study conducted in 2008 by the Ateneo School of Government to map out conflicts in mining areas identified four conflict points: 1) economics, specifically on costs vs. benefits and translating benefits to genuine development; 2) local governance, regarding power to decide and regulate as stipulated in RA 7160 (Local Government Code) and the Mining Act of 1995 that gives authority to national agencies to administer lands and resources and grant mineral agreements and monitoring; 3) indigenous peoples, on the matter of consent giving (free and prior informed consent), adequacy of benefits and implementation of mining company commitments, relations of indigenous and non-indigenous peoples and socio-cultural pacts; and 4) environment, on the protected areas, old growth forests and watersheds.[33]

Faced with an already fragile ecosystem and a burgeoning population, sound governance is important for the country to sustain. But a fact-finding report on mining and its implications to food security identifies the problem of governance.

> "Past willful negligence of the fundamental connection between natural resources management and food security

> has cost the Philippines dearly. As a result of this the country has suffered from two massive hemorrhages: the loss of most of its forests from the 1950s to the 1980s; and the loss of much of its fisheries since then. The forest loss has led to a decline, in turn, in the production of rice, the country's staple food, as the loss has affected rainfall and water supply.[34]
>
> The prognosis for the environmental sustainability of the country is poor. "Overall, the ability of the major ecosystems to provide and maintain a regular stream of economic good s and ecological services has been gnificantly constrained by declining stocks, reduced coverage and quality of environmental services."[35]

4. MedNet's contribution to address environmental conflicts: EDR/MP Application

> Case 1: Destructive fishing methods, entry of commercial fishers in delineated municipal waters and the role of volunteer and government employed sea guards or "Bantay Dagat"

In the coastal town of Mercedes, a fourth class municipality south of Manila where 90% of its population rely on fishing and fishing-related activities for livelihood, both small fishers and commercial fishers complained of reduced fish catch. Small fishers point to the incursion of commercial fishers and their use of destructive fishing methods as the culprit. Commercial fishers on the other hand insist they fish outside municipal waters. To address the problem, the fisherfolks organized a volunteer team of sea guards" to patrol their areas and report to concerned law enforcement agencies any violations observed. This proved successful, so the local government institutionalized the sea guards, with high powered boats operated by paid staff. The fisherfolks expected that the personnel would come from their ranks – small fishers who have a genuine stake in marine protection. In the course of its work, the some of the government sea guards were not trusted by the fisherfolks; they were perceived to condone the operations of commercial fishers in exchange for some favors. Resentment crept into the ranks of volunteer sea guards because arrested crew of commercial vessels and their fishing paraphernalia were ultimately released by the local police without court proceedings and without consultation from them. Tension was high among the fisherfolks when MedNet came into the area to conduct conflict mapping and later on consensus building processes.

What were the steps undertaken?

MedNet studied the conflict together with the local leaders who underwent a basic training in mediation by conducting a series of interviews and focus group discussions (FGD) representing all sectors affected and affecting the problem including the women, law enforcement agencies, the Department of Agriculture and other attached law enforcement agencies, representative of the mayor, church elders and village chiefs and known commercial fishers. These meetings provided space for the main protagonists to present their feelings and perspectives on the issue, in the process diffusing the tension between them. And the issue became public as more people, especially the affected small fishers, their organization and families as well as the local government officials became aware of the problem. Proposals were generated from the participants. The gender dimension of the problem was highlighted when the women cited the impact of the problem of reduced income to their reproductive roles (e.g. buying coffee instead of milk for the children or surplus clothes instead of new ones on special occasions for kids), while the men related it to their productive roles (gasoline budget not enough for a return trip or additional length of net required to increase potential to catch fish). Shuttle mediation proved effective to prepare the parties for the final face-to-face meeting through a workshop where resource persons from respected government agencies from the province who can resource on procedures regarding implementation of fishery laws especially apprehension, the role of law enforcement agencies, among others.

Key officers of the municipal government, though at first hesitant to acknowledge the seriousness of the problem were ultimately forced to confront the issue in the final mediation meeting. The presence of credible and acceptable officers from the province and the region put pressure on the municipal government to act on the issue.

What were achieved in these processes?

The focus of the conflict resolution process was on the issue of coordination between the volunteer and paid sea guards because there was possibility for mediation to succeed. Through the workshops, representatives of marginalized fisherfolks, majority of them volunteer sea guards and those from law enforcement agencies and attached agencies of government agreed to coordinate and participate in joint sea patrols as well as on procedures on apprehension and confiscation of illegal fishing paraphernalia. The LGU acted on the proposal to harmonize their ordinances to RA 8550 by reviewing their existing and pending laws and policies. On the trust issue felt by volunteer sea guards towards the government appointed operations manager and their demand for its relief, the mayor eventually acted on it but not immediately. In a post mediation assessment, MedNet realized that the external situation, like the local elections, ultimately convinced the mayor to

let go of his chief operations officer as his continued stay may affect his candidacy. During the elections, candidates were challenged by marginalized fisherfolks to include in their platforms, programs to address the major of depletion of marine resources and attendant conflicts.

Case 2: Compliance of Conditions stipulated in the Environmental Clearance Certificate [36]

In the northernmost part of Luzon, a hydro power plant was constructed in the late 1990s affecting three towns – Bakun, Benguet and Alilem. The construction of a bridge and access road was considered by the people of Alilem as part of the non-monetary benefits of host communities. The bridge was important for the people to link them to the town's market, schools and other facilities. At that time, crossing the river via barges was the only means for the people to go out and for this reason, they agreed to the construction of the power plant. But the responsibility to construct the bridge was contested by LCC, the current proponent who entered into a Power Purchase Agreement with the government's National Power Corporation, original proponent of the ECC which contained a provision obliging the proponents to secure the support of the three host municipalities through a Community Memorandum of Agreement (CMA) as an indicator of social acceptability. At that time, only the CMA of Bakun was perfected, but a draft was made for Alilem. More than a year after the issuance of ECC, ridge in Alilem was not constructed. The local government filed a notice of violation and wanted the ECC cancelled.

The Mediation Process

The mediators secured the willingness of LCC to discuss the matter in a meeting with the community/local government representatives. The cooperation of representatives from NPC, the Community Environment and Natural Resources Officer, the local government unit (LGU) and community were also secured. In a series of consultations with different stakeholders and face-to-face meetings, data conflicts were clarified, in particular: a) the construction of the bridge as part of non-monetary benefits; b) costs of ridge construction; (c) responsibility to construct including securing access rights; and (d) who would be proponents in the bridge construction.

Ultimately, LCC agreed that the bridge construction was part of non-monetary benefits; NPC and LCC agreed to shoulder the costs of the construction but their funds were not enough, so the community and LGU agreed to help. All four of them set up a fund sourcing committee and eventually the bridge was constructed from funds jointly raised by all of them. LCC also secured the access rights and together with NPC, stood as

proponents of the bridge. The LGU and community for its part promised not to pose any obstruction to the ECC application and that they would assume responsibility for the maintenance of the bridge when turned over after construction.

Preparatory meetings and caucuses were helpful in clarifying issues prior to face-to-face meetings. Most importantly, probing and focusing on the interests of parties helped in avoiding deadlocks in the whole process that ultimately resulted to a mutually beneficial outcome. What is unique in this case was the fact that the process was imposed on them by the Department of Environment and Natural Resources through its Environmental Management Bureau. Fortunately, the mediators, (except for one who came from an environmental NGO), were members of the legal division of DENR, were trained in ADR and in the course of their mediation process, distanced themselves from DENR officials and presented themselves as neutral third party facilitators.

From the two cases presented, some commonalities that facilitated the success of the process include: 1) Balance of power between stakeholders. In both cases, the marginalized groups were organized and ably represented. Representatives were present and assertive of their proposals in consultations; 2) Participatory processes which are inclusive of all parties concerned enabled the mediators to gather as many options as possible, secured their support to the succeeding processes, until the eventual agreement. These consultations, shuttle mediation and caucuses also served to diffuse tension and facilitated the readiness of parties to face each other and discuss possibly joint problem solving efforts; 3) presence of credible and acceptable mediators; 4) availability and willingness of convener to facilitate the meeting between parties and introduce the mediators; and 5) recognition of both parties of their rights to participate and decide on the outcomes of their conflicts.

4.1 Possibilities of mediation in environmentally challenged communities.

What are possibilities for mediation and other consensus building processes in communities confronted by mining and other projects perceived to seriously threaten the environment? Will MedNet engage itself in mediating conflicts related to mining? As a resource center of consensus builders anchored on empowered communities and where gender equity, justice, ace, democracy and ecological balance exists, what are ethical principles that need to be considered?

These are the questions that MedNet threw to its members for discussion in a general assembly three years ago. Members agreed that it should not position itself either as pro or against mining.[37] Rather, it can offer its services to communities who want to engage with mining companies in a

facilitated negotiation process. Recognizing the division existing in mining affected communities from the local government units to the family level, MedNet believes there is need for affected communities to find common ground that bind them as a community. Strengthening their community power as leverage against mining companies can be a starting opportunity. There is also need for communities to improve their communication and negotiation skills as they assert their right to be consulted in all decisions related to mining and to maximize possible acceptable benefits they would like to demand from mining companies. This can be addressed through training in effective communication and negotiation.

Opportunities for facilitating the building of consensus among communities are also possible in the area of understanding the benefits of mining, to include mechanisms to address potential conflicts, either among community members, between the community and the LGU, or between the community and the mining company. In existing mining operations, disputes concerning compliance to Environmental Impact Assessments and compensation can also be a possibility. MedNet can also assist government agencies such as the Department of Environment and Natural Resources ensure that its processes re fair. The challenge is how to use mediation as a tool for sound policy formulation.

In the area of local governance, there is an opportunity to help local government bodies in mining affected communities ensure that in their conduct of consultations, all the stakeholders who would be affected and will be affecting are represented and that their voices amply ventilated through a fair process. Transparent consultations through a neutral third party facilitator acceptable to all stakeholders will help establish trust and generate various options for the community that are helpful for the local government bodies in making informed and transparent decisions. The importance of local consultations is crucial. Dean Antonio La Viña, one of the country's foremost environmental experts believes it is a "meaningful right…not just pro forma". However, limitations of capacity and expertise of local government units to properly evaluate mining projects and prepare comprehensive land use plans hamper local participation. Another area is the capacity of both the LGUs and the affected communities to gauge if plans and funds presented by mining companies in the event of mine wastes and closure are enough to address various types of potential damages and risks and monitor and enforce compliance.[38]

However, it is important to consider that communities have to organize themselves and build their power. Power is at the heart of every negotiation and mediation process. Avenues for a participatory and transparent consultation process will not be fully maximized if the community members themselves are not organized and their power is not

sufficient to invite if not compel the mining company to listen to them. For in the end, in negotiation and mediation processes, the power of stakeholders determines its success.

This was shown by the people of Siocon town through their organization, the Save Siocon Paradise Movement. Through their collective force, they were able to temporarily halt the operations of TVI in 2004 by blocking the entry of heavy equipment brought in by Alnor Company, the contractor hired to start the excavation process from entering the town. At that time, entry to the mining site in the mountains of Canatuan was only through the town of Siocon. The townspeople composed of Christians, Muslims and Lumads physically blocked the heavy machineries with their bodies. To prevent violence, the parish priest, Fr. Mamert Dolera, who was trained in mediation by MedNet in 2003 mediated between the company and the people. Though at first wary of the possible legal consequences from TVI, financial setbacks from a lost business venture and possible retrenchment of workers, the company eventually withdrew its heavy equipment from the town. Confronted with dwindling food budget while waiting for the boat to pick up its equipment, the townspeople fed the employees of Alnor. For Fr. Dolera, it was the shared "value of survival, human life, and the ultimate significance of the environment to human existence that convinced Alnor Company not to proceed." [39] Unfortunately, TVI found an ally in the nearby town of R.T. Lim whose local government granted them permit for an access road to their site in Canatuan. Thus in the latter part of 2004, the company became operational.

It is interesting to note that the tri-people of Siocon in early 2000 was attacked by the Abu Sayaff, a group of Muslim bandits and its market torched, resulting to animosity and trust between Christians and Muslims. Fr. Dolera was also a victim in that attack, as he was held captive for hours and one of his companions, a seminarian, was killed. The community went through a difficult experience that also divided them and affected their trust. But their concerns for the environment united them as a people and enabled them to set aside their ethnic prejudices, helping them to succeed, though not tally, in their campaign against mining. Their struggle is far from over, though.

5. Conclusions and Recommendations

There are a lot of opportunities for mediation and other consensus building processes to be explored in addressing conflicts in environmentally threatened communities. There are existing laws and policies that provide for local community participation in decisions regarding projects that have serious impacts on the environment, the host and downstream communities. The local government code of 1991, the IPRA law, and the Environmental Impact Assessment process require community participation such as in the

conduct of scoping, environmental risk assessments and monitoring through the Multi-partite monitoring teams are opportunities for communities to participate.

The four conflict areas identified in the study of the Ateneo School of Government opens great possibilities to engage communities and the local government units towards a genuine and transparent dialogue to hopefully reach a common ground. The presence of an outsider who is credible and acceptable as third party facilitator can greatly help build trust among stakeholders. The task of the third party facilitator includes designing a process that is culturally sensitive. A trusted and respected convener is also very important to bring all the parties to a dialogue. Since power is at the heart of any negotiation and mediation process, it is important that communities organize and build their power prior to engaging with project proponents into a negotiation process. Here lies the important connection of community organizing and mediation. There must be sectors representing the men and women, youth, children and elderly in these consultations

At the level of local government units, mechanisms for conflict resolution between and among colleagues and among stakeholders needs to be prepared as there are complex issues they have to grapple with, and conflicts may arise at any time due to miscommunications and gaps in data, among others. Internally, they have to be prepared to manage conflicts among themselves, too.

Will MedNet be ready to act as third party neutral between communities and a mining company? At the very least, what it can offer is to conduct a study of the conflict and find out the potentials for mediation. But as a network of consensus builders that envisions itself to assist marginalized communities address their conflicts, its bias should be geared towards the benefits that such processes would redound to the community based on the principles of social justice, gender equity, peace and ecological balance. For after all, we do not own the environment we inhabit, we are only stewards of the earth. Thus, competing interests and needs have to be mediated.

Notes

[1] Philippine Congress, Republic Act 9285, *An act to institutionalize the use of an alternative dispute resolution system in the Philippines and to establish office for alternative dispute resolution and for other purposes*, Manila, 2004, retrieved 11 June 2009, http://www.lawphil.net/ statutes/repacts/ra2004/ra_9285_2004.html.

[2] C. Moore, *The mediation process: practical strategies for resolving conflict, social and behavioral science series*, Jossey-Bass Inc., San Francisco, California, 1986, p.6.

[3] SB Goldberg, FA Sander & N.H. Rogers, *Dispute Resolution: negotiation, mediation and other processes, 3rd ed., Aspen Law & Business*, New York, 1995, p. 123.
[4] Mediators Network for Sustainable Peace, (MedNet)Inc., *Negotiation and mediation skills enhancement workshop, a compilation of readings on interest-based negotiation and mediation,* 2003, p.44.
[5] R Fisher & W Ury, *Getting to yes: negotiating agreement without giving in* 2nd ed., New York, Penguin Books, 1991.
[6] C Honeyman & N Yawanarajah, Intractability Organization, *Knowledge Base Essay*, retrieved 9 February 2009, http://www.beyondintractability.org/essay/mediation/.
[7] M J Gelfand, L H Nishii, K M Holcombe, N Dyer, K Ohbuchi & M Fukuno, 'Cultural influences on cognitive representations of conflict: Interpretations of conflict episodes in the United States and Japan', *Journal of Applied Psychology*, 2001, pp. 86, 1059-1074, cited in M. Sta. Maria, *The indigenous psychology of conflict and conflict resolution The Lorenzo Tañada Professiorial Chair Lecture in Nationalism Studies, De La Salle University, Manila*, 2002, p. 4.
[8] B S Batistiana, R Aquino-Elogada & R F Quicho, Jr., *Building peace: best mediation practices in Filipino Communities*, Mediators Network for Sustainable Peace, Inc., 2004, p3.
[9] A Perez, 'Anatomy of Resource Use and Land Tenure Conflicts. *The Mediator* , July 2005, pp. 7-8.
[10] Batistiana, Aquino-Elogada & Quicho, pp. 4-13.
[11] Conservation International, Biodiversity Hotspots, retrieved 10 June 2009 http://www.biodiversity/hotspots.org
[12] ibid
[13] J Castro &F Magbanua (nd). *Integrated Approach Contributes to MDG in the Philippine*, retrieved 11 June 2009, www.ehproject.org/PDF/phe/ipopcorm-mdg.pdf.
[14] Mines and Geo Sciences Bureau. (nd). *Philippines*, retrieved 11 June 2009, http://www.mgb..gov.ph/asomm/min_resources.htm
[15] R Landingin *Local Solutions*, Newsbreak, Special Edition, July/September 2008, pp. 31-34.
[16] National Statistics Office, *Employment Rate*, 2008 Press Re leases, 2008 - 22, retrieved 12June 2009, www.census.gov.ph/data/pressrelease/2008/lf0801tx.html.
[17] Infoplease.com. *World's 50 most populous countries* (2007), retrieved 12 June 2009, www.infoplease.com/ipa/A0004391.html.
[18] R Landingin, p.10.
[19] J Castro and F Magbanua.
[20] National Statistics Office, *Population Census 2007*, retrieved 11June 2009, www.census.gov.ph/data/press release/2008/pr0830tx.html.

[21] M Asis, Scalabrini Migration Center-Philippines, *Migration In Source*, retrieved 12 June 2009, www.migrationinformation.org/Profiles/display.cfm?ID=364.
[22] Policy Study, Publication and Advocacy Empowerment in Governance, *Labor migration in the Philippines: A dangerous doctrine*, retrieved 12 June 2009, www.pinoypress.net/2008/11/10/labor-migration-in-the-philippines-a-dangerous-doctrine/.
[23] Conservation International, *Biodiversity hotspots.*
[24] United Nations Development Program, Energy and Environment, Bureau for Development Policy. (nd), *Progress towards sustainability, MDG7 Asiand the Pacific*, Philippines, retrieved June 2009, www.undp.org/energyandenvironment/sustainabledifference/PDFs/Asia/Philippines.com.pdf.
[25] Conservation International, *Biodiversity hotspots.*
[26] UNDP
[27] J Castro & F Magbanua
[28]Technical Working Group of Philippines. *Seeking Peace and Saving Forests: Forest conflict in Asia*, 2004, retrieved 10 June 2009,
[29]D Calvan, *Archipelagic Principle Towards Charting of the Municipal Waters*, retrieved June 12, 2009, http://www.scribd.com/doc/4938593/Archipelagic-Principle-Towards-Charting-of-the-Municipal.
[30] A Rufo, *Protracted War*, Newsbreak Special Edition, July/September2008, pp. 22-25.
[31] Philippine Indigenous Peoples Links. (n.d.). *PIP LINKS: Indigenous People's R ights Act*, retrieved 12 June 2009, </www.piplinks.org/indigenous_rights/Indigenous+People%27s+Rights+Ac+(IPRA>.
[32] CA Llaneta, *Sustainable Mining: Myth or Possibility*, retrieved May 20, 2009, www.up.edu.ph/upforum.php?i-200.
[33] J F Pamfilo, *Mapping Out Conflicts in Mining Areas: Drawing Lesson Seeking Spaces for Building Principled Consensus Towards Effective Mining Governance.* Makati: Ateneo School of Government, 2008, pp.10-30.
[34] R Goodland, & R Wicks, *Mining or Food, Abbreviated version*, Mining or Food Report, April 2009, retrieved 9June 2009, www.piplinks.org/system/files/Mining+or+Food+Abbreviated.pdf.
[35] UNDP.
[36] B Batistiana, R Aquino-Elogada, R F Quicho, Jr., pp. 33-46.
[37] A Lorenzana, *Should MedNet mediate in mining issues?* The Mediator, August 2006, p. 12.
[38] R Landingin, *Unearthing Strife,* Newsbreak, July/September 2008, pp. 5-11.

[39] Mediators Network for Sustainable Peace, Inc. *Case 1: Subanen Opposition to a Mining Operation in their Ancestral Domain in Siocon, Zamboange del Norte.* Proceedings, Conference on Best Mediation Practices in Resource Use and Land Tenure Conflicts in the Philippines, 2005, pp. 6-8.

Bibliography

Asis, M, Scalabrini Migration Center-Philippines. *Migration Information Source,* retrieved 12 June, 2009 www.migrationinformation.org/Profiles/display.cfm?ID=364.

Batistiana, BS, Aquino-Elogada, R & Quicho, Jr. RF, *Building peace: best ediation practices in Filipino Communities.* Mediators Network for Sustainable Peace , Inc. 2004.

Calvan, D, *Archipelagic Principle Towards Charting of the Municipal Waters* .retrieved June 12, 2009, http://www.scribd.com/doc/4938593/Archipelagic-Principle-Towards-Charting

Castro, J &FMagbanua (n.d.). *Integrated Approach Contributes to MDG in the Philippines, r*etrieved 11 June 2009, www.ehproject.org/PDF/phe/ipopcorm-mdg.pdf

Center for People Empowerment in Governance, Policy Study, Publication and Advocacy Program, *Labor Migration in the Philippines: A Dangerous Doctrine* retrieved 12June 2009 www.pinoypress/2008/11/10/labor-migration-in-the-philippines-a-dangerous-doctrine/

Conservation International; Biodiversity Hotspots, retrieved 10 June 2009, www.biodiversity/hotspots.org

Fisher, R and Ury, W, *Getting to Yes: Negotiating Agreement without Giving In*, 2nd edition, New York, Penguin Books, 1991

Gelfand, MJ, LH Nishii, KM Holcombe, N Dyer, K Ohbuchi & M Fukun'Cultural influences on cognitive representations of conflict: Interpretations of conflict episodes in the United States and Japan', *Journal of Applied Psychology*, 2001, pp. 86, 1059-1074, cited in M. Sta. Maria, *The indigenous psychology of conflict and conflict resolution, The Lorenzo Tañada Professiorial Chair Lecture in Nationalism Studies, De La Salle University,Manila, 2002 p.4*

Goldberg, SB, Sander, FA & Rogers, NH, *Dispute resolution: negotiation, mediation and other processes, 3rd edn, Aspen Law & Business, New York,1995, p. 123*

Goodland, R & Wicks, R *Mining or Food, Abbreviated version*, Mining or Food Report, April 2009, retrieved 9 June 2009 www.piplinks.org/system/files/Mining+or+Food+Abbreviated.pdf

Honeyman, C & Yawanarajah, N, Intractability Organization, Knowledge Base Essay, retrieved 9 February 2009 www.beyondintractability.org/essay/mediation/

Infoplease.com World's 50 Most Populous Countries 2007, retrieved 12 June 2009 www.beyondintractability.org/essay/mediation/

Landingin R., Local Solutions, Newsbreak: Special Edition, July/September 2008, pp 31-34

Landingin R., Unearthing Strife, Newsbreak: Special Edition, July/September 2008, pp 31-34

Llaneta, C.A., Sustainable Mining: Myth or Possibility, retrieved 20 May 2009, www.up.edu..ph/upforum.php?I>200

Lorenzana, A., *Should MedNet Mediate in Mining Issues?*, The Mediator, August 2006, p.12

Mediators Network for Sustainable Peace, (MedNet) Inc., *Negotiation and Mediation Skills Enhancement Workshop, A Compilation of Readings of Internet-Based Negotiation and Mediation*, 2003, p. 44

Mediators Network for Sustainable Peace, Inc. *Case 1: Subanen Opposition to a Mining Operation in their Ancestral Domain in Siocon, Zamboange del Norte*, Proceedings, Conference on Best Mediation Practices in Resource Use and Land Tenure Conflicts in the Philippines, 2005, pp. 6-8

Mines and Geo Sciences Bureau. (n.d.). *Philippines*, retrieved 11 June, 2009 www.mgb..gov.ph/asomm/min_resources.htm

Moore, C., *The Mediation Process: Practical Strategies for Resolving Conflict, Social and Behavioral Science Series*, Jossey-Bass Inc..San Francisco, California, 1986, p.6.

National Statistics Office, *Population Census 2007*, r etrieved 11June 2009 www.census.gov.ph/data/pressrelease/2008/pr0830tx.html

Pamfilo, JF, Mapping Out Conflicts in Mining Areas: Drawing Lessons and *Seeking Spaces for Building Principled Consensus Towards Effective Mining Governance* Makati: Ateneo School of Government, 2008, pp.10-30

Perez, A 'Anatomy of Resource Use and Land Tenure Conflicts. *The Mediator* , July 2005, pp. 7-8.

Philippine Congress, Republic Act 9285, *An act to Institutionalize the Use of an Alternative Dispute Resolution System in the Philippines and to Establish the Office for Alternative Dispute Resolution and for Other Purposes*, Manila, 2004, retrieved 11June 2009, <http://www.lawphil.net/statutes/repacts/ra2004/ra_9285_2004.html

Philippine Indigenous Peoples Links, (n.d.), PIP LINKS: Indigenous People's Rights Act, retrieved 12 June, 2009 www.piplinks.org/Indigenous+People%27s+Rights+Act_IPRA/

Rufo, A, *Protracted War*, Newsbreak Special Edition, July/September 200pp. 22-25.

Technical Working Group of the Natural Resource Based Conflicts in the Philippines. *Seeking Peace and Saving Forests: Forest Conflict in Asia*, (2004), retrieved, 10 June, 2009 </www.forestconflict.com/documents/natural_based/Survey_results.pdf> Waters?autodown=pdf

United Nations Development Program, Energy and Environment, Bureau Development Policy (n.d.). *Progress towards sustainability, MDG7 Asia and e Pacific, Philippines*, retrieved June 2009 ww.undp.org/energyandenvironment/sustainabledifference/PDFs/Asia Philippines.com.pdf

Caroliza Tulod-Peteros is Coordinator for Mediation Services of Mediators Network for Sustainable Peace (MedNet), Inc., a Philippine-based non-government organization pioneering in community mediation of public disputes concerning resource use and land tenure. She is also finishing her MA in Women and Development at the University of the Philippines.

So You Say: Ecological Knowledge vs. Economic Need in South America

Noomi Mozard

Abstract
Based on a ten-month field study of the village of Barranquitas, in north west Venezuela, this paper looks at the difficulty of merging that which is ecologically sound with existing perceptions and experiences of the local environment. Located on the shores of Lake Maracaibo, Barranquitas is one of many communities dependant on fishing to make a living. The community's experience of environment issues reflects the difficulty of accepting the expertise of ecologists and biologists in the light of their strong dependency on the environment which is under threat. It is the Instituto para el Control y la Concervación de la Cuenca de Lago de Maracaibo (ICLAM), a government agency, responsible for the care and protection of the lake and work with local communities. ICLAM stretch their resources to try to clean the lake of duckweed as well as battling increased pollution from wastewater and increased salt-levels. Although ICLAM manages to facilitate a certain level of ecological awareness among local communities, the demands and goals do not reflect the fishermen and villagers' understanding of their environment. In the experience of the villagers the environment appears to be something that is a given, a place of endless resources. This paper highlights the difficulty, but necessity, of recognising what local understandings of the environment entail. It is argued that an awareness of local perceptions and experiences of the environment will facilitate sustainable development and protection of the environment.

Key Words: Ecological anthropology, experience, knowledge, Venezuela, duckweed, sustainability.

*****

1. Introduction

In 2004 Lake Maracaibo, in the north west of Venezuela, was hit by a sudden infestation of duckweed (a small floating aquatic plant), resulting in both 'natural' (affecting the ecology in the lake), social and economic problems (for example obstructing fishing) that continue today.[1] It has since been the responsibility of the Institute for Control and Conservation of the Lake Maracaibo Basin (Instituto para el Control y la Conservación de la Cuenca de Lago de Maracaibo - ICLAM), a government agency, to try to find a solution to the situation and other ensuing problems. However, despite these efforts, a solution to the crisis is yet to be found. The difficulty is that

the duckweed, while a considerable problem, is also symptomatic of changes occurring in relation to the ecology of the lake. The presence of the weed, and its propensity to thrive and expand, indicates that there are high levels of nutrients in the water, mainly caused by the ever increasing pollution in the water. In its attempts to clean up the weed, ICLAM has worked with local communities to remove duckweed from the shorelines as well as erecting barriers in order to try and reduce its spread and prevent it from reaching residential zones on the coast. These programmes make up most of the interaction that the ICLAM has with local communities. However, so far, such action has only served to offer local communities temporary respite in their fight against duckweed. One of these communities is Barranquitas, a fishing village on the Western shores of Lake Maracaibo. The people in the village work regularly with ICLAM in their battle against the weed, in addition to organising initiatives to clean up rubbish that collects at the shoreline. A comparison of the different approaches and understandings of ICLAM and the villagers of Barranquitas reveal that, while they are cognisant of each other's reasoning and motivations, their experiences and perceptions of the environment are vastly different.

2. Region

The state of Zulia, in which Lake Maracaibo is located, holds the majority of Venezuela's oil reserves. Since the discovery of oil in 1914, Venezuela has grown to become one of the major 'oil nations' of our time, with petroleum exports today representing 60% of the national economy. [2] [3] As a result of revenues from the oil industry, large economic and social gaps between the rich and poor have developed. This is seen across the country but is particularly noticeable in this region, which is also the seat of the strongest opposition from Manuel Rosales, the governor of Zulia, at the time of fieldwork, to the incumbent President Hugo Chavez.[4]

The Lake Maracaibo basin makes up most of the Zulia state. It is fed by 135 rivers and, in the north, it opens to the Gulf of Venezuela which makes the lake naturally brackish. Due to canals dredged to allow oil ships to pass , there has been an increase in the saltwater levels in the lake. This issue formed an important part of the interaction between ICLAM and the lake communities in 2007/2008. Another issue pertinent to this discussion is the contamination of the lake due to human and industrial waste. The 1.4 million people who live in the city of Maracaibo produce much of this waste. Maracaibo, situated at the top western corner of the lake, is the second-largest city in Venezuela.[5] However, numerous petroleum-related factories and industrial plants, scattered all along the northern shoreline of the lake, also produce waste and waste water which is damaging to the environment. The waste and waste water produced by the population and industry is difficult to control due to the ineffectiveness of existing water treatment plants, many of

which are in various states of disrepair. As a result, much of the waste and wastewater produced by the population and industry is pumped directly into the lake. [6]

Although oil is the main source of income on a national level, in this region the majority of the population depend on a different natural resource on which to make a living, fish. Conde and Rodriguez estimate that, in this region, around 6000 fishermen and blue crab fisheries depend directly upon this industry.[7] In addition, there are also those who depend on the income brought in by the fishing industry. For example, within the village of Barranquitas many families run small business.[8] There are also a few who find work within the service or public sector. However, over 70% of the village depend on fishing, out of which 83% are employees and 18% are self-employed, owning a boat or delivery truck.[9] For these fishermen, and for the village of Barranquitas, duckweed is problematic because it can clog up the outboard motors of fishing boats.[10] Furthermore, if washed ashore, it creates a dense mass through which it can be difficult to navigate in order to fish. As it decomposes at the shore, it releases an unpleasant stench and has the potential to carry disease.[11]

Duckweed floats on the surface of the water and can double in size over 48 hours as it moves around the lake with the currents.[12] At times, it has covered up to 20% of the lakes surface.[13] Its quick growth can be attributed to the mix of salt and fresh water in the lake, which helps to stir up nutrients and hence accelerate the growth of the weed.[14] This increase in nutrients in the water can be traced back to the development of the industry in the region. In order to make it possible for ships to access local deposits of oil and coal, it was necessary to dredge canals that stretched from the sea into Lake Maracaibo. The deepening of the canals increased the flow of saltwater into the lake, causing an imbalance in salt-levels, something ICLAM focuses much of their energy upon.[15] Since 2004, physically removing the flowering duckweed from the lake is estimated to have cost millions of dollars US.[16] The task of keeping the weed at bay also constitutes the major workload currently faced by ICLAM.

3. *I*nstituto para el control y la conservación de la *C*uenca del *La*go de *M*aracaibo

ICLAM is a governmental organisation consisting of various sections including: biological and ecological science labs responsible for monitoring the life-forms and water quality of the lake; medical doctors and researchers who work on any infections or diseases related to the lake; an educational team which provides ecological education for the public; and a social outreach team that works with communities around the lake on various projects. It was with a team from this latter group that I spent most of my time during the first few months of my fieldwork in 2007.[17] During this

period, I travelled around the lake with members of this team, observing the work they did and getting to know the communities they worked with. The social outreach group comprised of four engineers and five individuals trained in social communication, and were overseen by Santiago Arconada, the Vice President of ICLAM. These individuals also worked with a few community representatives who were the main liaisons between ICLAM and various lakeside communities. The team was based in the *sala situacional* (the case room), in the main building of ICLAM, at southern edge of Maracaibo. While time was spent in the *sala* discussing past and ongoing projects, as well as holding meetings and debriefings (sometimes limited to the social outreach group and other times including community representatives), most of the work took place outside the *sala*, that is to say in various communities around Lake Maracaibo.

From the moment I entered into the *sala*, I was welcomed with both curiosity and enthusiasm. Some members of the team wondered why I was there but most were happy that someone from 'outside' was interested in learning more about the lake. Mostly, the team worked in small groups of three or four people, with both engineers and communications officers in charge of individual projects to ensure that both kinds of expertise were drawn upon. Although recently established out of necessity to help communities remove duckweed, the team also worked to restore the ecological balance of the lake through education initiatives and encouraging local people to clean up rubbish washed up on the shoreline.

For some lakeside communities the duckweed can be kept away from the main dwelling areas by erecting a post and net fence twenty meters or so out into the water. This stops the duckweed, as well as floating waste, from reaching the shores. It does not, however, assist against the waste being thrown into the water at the shore by the inhabitants. Neither does such a solution work everywhere. In many regions with more open waters this type of barrier breaks too easily as a result of strong winds and currents. Unable to find a preventative solution to keep the duckweed at bay, ICLAM instead mounted regular clean up projects aimed at temporarily removing the weed. Due to the fact that ICLAM only had one machine able to work in the water to systematically lift the duckweed, local communities had to do most of this work by hand. ICLAM supplied equipment, such as gloves, buckets, hats, and drinking water, as well as providing locals with a salary for their labour. Each clean up project is overseen and organised, after having been first assessed and decided upon, by a team from the *sala situacional*.

The individuals working in the *sala* are all tertiary graduates, with the exception of the community representatives. Nevertheless, everyone involved must complete an ICLAM ecology and environment course (taught by the educational officers), specifically outlining the ecosystem of Lake Maracaibo. Some of the main issues covered in this course relate to the

sensitivity of the ecology in the lake, including the dependency of different species on each other and the risks posed to them as a result of pollution. However, according to ICLAM, the most threatening problem to the ecology of the lake is the rise in salt-levels.

As salt water is heavier than the sweet water, salt water sits on the bottom of the lake in, what ICLAM describes as, a 'cone'. Due to the fact that the 'cone' is not disturbed for long periods of time, the concentration of salt creates a sort of vacuum in which very little can survive. Nutrients gather on the lake floor and remain unstirred until the rainy season, beginning around March.[18] When it rains the rivers increase their flow and, on reaching the lake, they are strong enough to break the 'cone', swirling it and disturbing the trapped nutrients. It is mainly as a result of this sudden burst of nutrients within the ecology of Lake Maracaibo that causes the massive explosion of growth in the duckweed.[19]

Based on this, ICLAM has come to the conclusion that to properly manage and decrease the duckweed the level of salt level needs to be lowered. By doing so, such action will get rid of, and prevent, the 'cone's' existence. To do this ICLAM have come up with an alternative to the dredged canal routes, which they hold wholly responsible for the existence of the 'cone'. The proposal by ICLAM is to create a harbour in the Gulf of Venezuela, big and calm (in regards to water) enough for the shipping industry. Roads and oil pipe lines would be built to allow loading of goods in the harbour. However, many scientists outside ICLAM to whom I spoke are sceptical of the reality of such a project as it would eliminate masses of already threatened mangrove trees, disturbing the ecology on a much more direct level, and also displace some communities. Nevertheless, this is the option, and *solution*, emphasised when speaking to communities. For example, during a visit to a small village on the eastern shore a meeting was held discussing the upcoming possibility of duckweed cleaning projects:

> Santiago [Vice President of ICLAM] spoke to the community first. He focused mainly on the importance of getting everyone to join in, to stick together to make a difference and to fight for their community. There seems to be a bit of a conflict with PDVSA [oil company] when they just offer to move the community and the people don't feel they have an option. Although it looked like they were planning on staying; making lots of plans about new schools and communal buildings. This would be helped, it seemed, by the money coming in from the duckweed collection and construction of a barrier that ICALM will pay for... [Santiago] then went on to explain to the community that it was the salt level in the water that was

> the main problem and when the new port is built the lake will be able to clean itself. He said that the lake had a natural 'self-cleansing' ability which would kick in as soon as the sea water would decrease.[20]

As Santiago Arconada is the Vice President of ICLAM I was surprised to hear him make such bold claims about the solution to such a huge problem. In other conversations with Santiago it was clear to me that he was well aware of the complexities of solving the continuous pollution of the lake. Even though there is research contradicting the idea that the salt-level is the main culprit for the degraded condition of the lake, this is the information, which is presented to many of the communities. The members of the community, however, often take ICLAM at their word, accepting their expertise as well as help. As this particular community had long been struggling with the oil companies as a result of the impact that the oil extraction has on their lives (the subsiding ground levels, barriers being built, pumps interrupting their view) they were happy to hear a solution which meant that the oil companies would have to pay a large sum for the new harbour.

4. Barranquitas

For the people of Barranquitas it is not difficult to accept that the oil industry, so clearly profiting from the destruction of the environment but giving little back, should be behind the problems in the lake. The oil industry's presence can never be ignored, being consistently present in the landscape. In many areas around the lake, the water is tightly dotted with oil pumps, rigs and platforms. Around Barranquitas there are less, only a few being visible just on the horizon.

The shoreline in Barranquitas is wholly taken up by small 'fishing beaches'.[21] Here, in small boats with outboard motors, men (with the exception of a handful of women) work in teams of two or four. The most lucrative catch is blue crab, followed by shrimp and various fish species, for example, Mariana, White Sea Catfish and Manamana. However, recently the blue crab has been put under restriction due to overfishing. This means there are a few months at the end and beginning of the year when fishermen are prohibited from catching blue crab to allow for an increase in stocks.

Apart from fishing, employment is scarce in Barranquitas and any opportunity to work is welcome. While the majority of houses are brick, a substantial number of shacks at the edges of the village are constructed from corrugated metal sheets. In a survey conducted in 2002, 74% of households (each with an average of seven individuals) in Barranquitas survived on less than two minimum urban incomes.[22]

The main concern is to fulfil needs from day to day. When possible people do think and plan ahead; saving up for a holiday to visit a relative, to ensure there is money for a school uniform or perhaps even to build a house. However, the main focus is on the here and now. Food is purchased on a daily basis; employment is often temporary and availability fluctuates. As a result, the day-to-day living in Barranquitas focuses on 'enjoying the moment now' with little contingency for what might happen in the future.

The organisation of the village follows the set structure of Venezuelan politics, being divided up in community councils (*consejo comunales).* A *consejo comunal* looks after the interests of a community as well as overseeing any community projects, for example the construction of new houses. When ICLAM runs any clean up projects in the village it is one of the *consejos comunales* that is given the task to coordinate the project in the village. Any project, which is approved, means additional work in the village, something that is always greatly desired. It then falls on the *consejo comunal* to ensure that the workload is shared fairly across the village. This is an issue that often causes arguments and discussions between people and groups.

For many villagers in Barranquitas, ICLAM offers an opportunity to add to their income. In recent years this has mostly been to clean up duckweed and at times to collect rubbish washed up along the shoreline. There are also occasions when people have been engaged to clean up oil spills. The high amount of oil extraction in the lake coupled with often under-maintained equipment increases the risk for leaks and spills.[23] Generally such eventualities are covered by oil companies but follow similar organisational structures as ICLAM and seemingly also often work closely with ICLAM. In a conversation with Luis, an engineer employed by ICLAM, he told me that they know people sometimes purposefully break the oil pipes. On one occasion, I brought up this topic when speaking to Humberto, a fisherman in Barranquitas, and Yadira, a single mother working as a community representative with ICLAM and living in Barranquitas:

> N: Humberto, someone once told me that people used to pull the pipes out of the lake and sell them. You know, the oil pipes. Is that true? Do people still do that?
> Humberto laughs and nods.
> H: Yes it happens still. It used to be more frequent I think, before, when there wasn't enough metal to go around. People would steal anything. They could sell it, and feed their family. But it was more on the other side. You know, around Cabimas and Lagunillas [two town on the eastern shore]. That is where most of the oil is, on that side.

N: But if they take the pipes doesn't the oil leak into the lake?
H: Yes.
N: Isn't that bad? I mean, wouldn't that damage the fish and the life in the lake?
H: Well, maybe a little bit. But they clean the oil up and the pipe is replaced. Besides sometimes it can be good when the oil leaks because it means people can get work.
N: What do you mean?
H: Well, if there is an oil leak or spill, or something, ICLAM or the oil company or the government will pay people to clean it up.

Yadira has been listening to our conversation and joins in:
Y: Last year there was an oil spill south of here that I was project manager for. Lots of people worked on that from here. It is good for people to get money.
N: And what about the lake?
Y: Well the oil is bad because it can hurt the life in the lake and the shores. It can be difficult for people too, who live on the lake, like down in Laguneta or Congo [two villages consisting of houses on stilts above the water that have no road contact with other communities]. And we learnt about how the ecology works in ICLAM on that course I did, remember? And that shows you how it is all connected and that it can damage the life in the lake. But we clean it up so it was fine and it happens rarely too, so it isn't a big problem really. And the oil companies have to pay for it if it happens, it is part of their responsibility.
N: And the fish? Do you ever notice that it affects the fish?

I direct my question towards Humberto since he spends most of his days out on the lake fishing.
H: No, I have never really noticed a difference in the fish. There are still plenty of fish in the lake.

The above conversation demonstrates how for the people of Barranquitas the environment is a place of endless resource. For them it is not a fragile place, nor being in need of care and protection, which to some extent is the view held by ICLAM (as implied even in their name). However, by promoting the view of a 'self-cleansing' lake, ICLAM somewhat unwittingly encourage the belief that nature is always strong and resilient at all costs. For the fishermen it is difficult to grasp that oil leaks, increased levels of

nutrients, and untreated wastewater should pose a very real threat to their livelihood. This is despite the fact that almost 80% of the village population is knowledgeable about their environment.[24] Fishermen do admit to seeing a change in the lake over the past few decades. Moreover, today it is no longer possible to drink the water, wash in it, or see much further than a few centimetres deep. Fishing, which could once be done easily from the shore, now requires more equipment and longer journeys, sometimes risking going to the prohibited areas around oil pumps in the lake as that is where many fish thrive. Fisherman also know that they must let the blue crab recuperate for it not to disappear, yet many still go out intentionally during the restricted season because blue crabs offer the most lucrative catch. Despite other fish being available, the immediate economic need is too great for many fishermen to ignore.

The way environment is understood and interacted with for the people of Barranquitas is not based only on ecological knowledge or awareness, although its impact should not be ignored. Their understanding incorporates, and emphasises, things such as social and economic need. In Bird-David's writing the social character of interaction with the environment is very clear. For the Nayaka of southern India, the forest is literally referred to as a parent and it is also in accordance to this kinship term they interact with it. [25] The villagers in Barranquitas do not use any kinship terminology in regards to their environment, it is simply there, as just that; environment. There are, however, similarities between the ways in which the Nayaka and villagers in Barranquitas treat the environment and social interactions with it. In both instances the exchange is often forceful (although not aggressive) and there is an acknowledged allowance to always look for the best possible opportunity. Sociability is emphasised in both among the Nayaka and in Barranquitas, however, there is no need for reciprocity or care of the environment in Barranquitas. The environment is seen as something durable, strong and not something in need of protection. The environment is there to care for the people and to continuously give, not to be given to or cared for.

While from a Western point of view the environment can be said to exist as a resource, the villagers in Barranquitas also have a strong awareness of the different ways of life among indigenous populations.[26] In the state of Zulia alone there are numerous indigenous groups, the largest one being the Wayyu, but also including Yukpa, Añu, and Barí. In the village they know that the Barí[27] live directly off the land and that there are beliefs which guide their treatment of their surroundings, or that the Wayuu[28] have a great knowledge about the properties and usefulness of plants and animal life. Although such forms of knowledge can be seen to traverse the ethnic boundaries, the villagers of Barranquitas see themselves as living in quite different ways from these indigenous groups.

Considering the experience of people in the village, who have witnessed the oil industry grow and who have watched those involved become wealthy, it is not unusual that people in Barranquitas should feel entitled to benefit from such development. When the oil company offers them money to clean up an oil spill they gladly jump at the chance, or even go to the extent of creating such an opportunity. Most local people realise that, for the oil companies, it is very much about creating a good public opinion when they offer work and support for local communities (at times providing funds for housing projects as well). However, that does not take away from the fact that the experience of an oil leak and even the duckweed infestation, while being inconvenient, provide an opportunity for work and perhaps a new home. Long-term damages on the ecosystem may be worthy consideration, but the opportunity to generate additional income is considered to be more important. This is now; that is 'some day'.

5. Conclusion

In conclusion, Milton has shown that a person's attachment to and understanding of nature is dependent on experiences, which run deep within each person.[29] Even for Yadira with her knowledge of ecology it is difficult for her to *really* see how an oil spill is a serious threat. She has seen herself how such an eventuality can be quickly cleaned up, and experienced how such a project is of benefit to Barranquitas. While ICLAM realises many of its limitations the organisation still finds it difficult to fully incorporate the needs and perceptions of many local people. To fully address the issue of the pollution and continued degeneration of the lake, consideration needs to be given to issues other than pure ecological knowledge. One obvious problem is the contradiction between the villagers' direct experience of the environment and the information they receive from ICLAM regarding ecology and environmental protection. This experience can also be argued to stretch further than that of fishing, or direct interaction with 'nature'. Social relationships and a sense of belonging, to mention only two aspects, also impact strongly on the way that people think of and treat their environment. By examining these aspects and taking them into consideration it may be possible for organisations such as ICLAM to do more than provide a short-term solution as well as avoid being seen as little more than an employment opportunity. They may be able to help villagers in Barranquitas plan for 'some day' in the future rather than solely focusing upon their struggle to survive in the here and now.

Notes

[1] This is but a symptom of problems within the lake, but one that is very visible and concrete. For this reason it is an easy issue upon which to focus attention and resources, making a visible difference but in actual terms doing little to amend the underlying problems.
[2] F. Coronil, *The Magical State: Nature, Money, and Modernity in Venezuela*, University of Chicago Press, Chicago, 1997, p. 4, pp. 67-118.
[3] J. E. Conde and G. Rodríguez, 'Integrated coastal zone management in Venezuela: The Maracaibo system' in W. Salomons, R. K. Turner, Le. D. Lacerda and S. Ramachandran (Eds), *Perspectives on integrated coastal zone management*, Environmental Science Series, Springer-Verlag, Berlin, 1999, pp. 306.
[4] L. Caldreón, O. Chirinos, I. López, and L. Pereira, 'Diagnóstico sociocultural Ceuta Tomoporo. Antropología del desarollo para la industria petrolera' in *Boletín Antropólogico*, vol. 21, no. 28, pp 167.
[5] INE - Instituto Nacional de Estadística de Venezuela (Institute of National Statistics of Venezuela), 2001 census, viewed 01.06.09: http://www.ine.gov.ve/censo/fichascenso/tiro.asp?cod_entidad=23
[6] Speaking to the people in ICLAM about water treatment plants it was clear that there was not enough money to maintain their upkeep once built. However, many were reluctant to be overly critical as they felt colleges may take it as criticism of the government. There was a strong consensus, however, that they had too little control over industrial waste and could implement no real consequences for companies who break the rules. Furthermore, they are often obligated to notify before any visit making it possible for a company to 'clean up' before arrival.
[7] Conde and Rodríguez, , p. 304.
[8] These may range from small food stands, a cloth shop, supply and food stores, and are mainly run out of the home and only dependent upon family for the workforce.
[9] Gil et. al p.41-42.
[10] J. Mendez, 'Venezuelan alert of lake weed' in *BBC NEWS*, 24th June 2004, Online: http://news.bbc.co.uk/go/pr/fr/-/1/hi/world/americas/3802977.stm

[11] ICLAM health report, 2007.
[12] R. A. Lang, T. R. Preston, L. Rodríguez, *Duckweed invasion of Lake Maracaibo: An evaluation of the causes and proposals for future action*, The University of Tropical Agriculture Foundation-UTA.
Online: http://www.penambulbooks.com/Downloads/reporteng072204.pdf p.8

[13] J. Olier, *Guía ilustrada para ayudar al lago de Maracaibo*, J & Eme Editores, S. A., Colombia, p. 26.
[14] Lang et. al. p. 19, ICLAM 2007 Personal communication.
[15] However, the research done by Conde and Rodrígues argue that the salt-levels are actually not posing a threat to the ecological system of the lake.
[16] M. Párraga, 'Fifty-three percent of Lake Maracaibo oil operations in critical conditions' in *El Universal*, 24th October 2006. Online: http://english.eluniversal.com/2006/10/24/imp_en_eco_art_24A794801.shtml
[17] The research was undertaken for a period of 10 months and focused mainly on participant observation, interviews and archival research. For five months I was based in Maracaibo, travelling out to visit and often stay with communities around the lake. The last five months in the field was based in Barranquitas, living with a family in the village.
[18] The nutrients in the lake are added to by the decomposing duckweed which helps to create the cycle. However, much of the nutrients are also the result of waste entering the lake from the numerous industries along its shore. There is a theory, communicated to me by several different biologists and ecologists in the area, that an explanation for the sudden growth in duckweed in 2004 is the appearance of shrimp farms all around the lake. The waste water from these farms are said to be thrown straight into the lake, which would increase the nutrient levels enough for the duckweeds quick spread. This, however, is not a theory or conclusion that was considered by ICLAM at the point of my fieldwork.
[19] This also means that duckweed becomes a seasonal issue, blooming from the months of March through to October/November.
[20] Extract from fieldwork diary, 14th August 2007.
[21] While some have enough money to create a small pier from which take off and loading can take place, most people push out their boats directly from the shore line. The term used locally is *playa*, meaning beach, and hence the term 'fishing beach'.
[22] Gil et al. p.42
[23] Calderón et al. p. 172.
[24] Gil et al. p.42
[25] N. Bird-David, 'The giving environment: Another perspective on the economic system of gatherer-hunters' in *Current Anthropology*, vol. 31, no.2. 1990, p.190
[26] The people of Barranquitas do not consider themselves strongly related to one particular ethnic group. However, through intermarriages almost all of the village can now trace their heritage back to one of the indigenous groups. Nevertheless, this is not an identity put forward by the villagers as they see themselves foremost as Barranquiteños and Venezulanos.

[27] L. Portillo, *¿Quiénes son los Barí?* , Cenamec, ministerio de educación y deportes, Maracaibo, 2007.
[28] C. Paz, *Sistema expicative del proceso salud-enfermedad en niños wayuu: Propuestas para la promocón de salud desde la interculturalidad*, Unviersidad de Zulia, Maracaibo, 2007.
[29] K. Milton, *Loving Nature: Towards and ecology of emotion*, Routledge, London, 2002.

Bibliography

Bird-David, N., 'The Giving Environment: Another Perspective on the Economic System of Gatherer-Hunters', in *Current Anthropology*, vol. 31, no. 2. 1990 pp. 189-196.

Calderón, L., Chirinos, O., López, I., and Pereira, L., 'Diagnóstico sociocultural Ceuta Tomoporo. Antropología del desarollo para la industria petrolera' in *Boletin Antropólogico.* vol. 21. no. 28, 2003 pp. 165-186.

Colchester, M., *The Economy, Ecology and Ethnobiology of the Sanema Indians of South Venezuela.* Unpublished Phd. Oxford University, Magdala College, Trinity, 1982.

Conde J.E., and Rodríguez, G., 'Integrated coastal zone management in Venezuela: The Maracaibo system' in Salomons, W., Turner, R.K., Lacerda L.D., and S. Ramachandran (eds), *Perspectives on integrated coastal zone management*, Environmental Science Series, Springer-Verlag, Berlin, 1999.

Coronil, F., *The Magical State: Nature, Money, and Modernity in Venezuela.* Chicago, University of Chicago Press, 1997.

Ellen, R., and Fukui, K., (eds.) *Redefining Nature: Ecology, Culture and Domestication.* Oxford, Berg, 1996.

Hinestroza, J. 'Manifesto Contra la Muerte del Lago de Maracaibo' in *Ambiente Ecologico.* 2004, Online: <http://www.ambienteecologico.com/ediciones/2004/088_01.2004/088_Columnistas_JorgeHinestroza.php3>.

INE - Instituto Nacional de Estadística de Venezuela (Institute of National Statistics of Venezuela), 2001 Census, viewed on 1st June 2009, <http://www.ine.gov.ve/censo/fichascenso/tiro.asp?cod_entidad=23>.

Ingold, T., *The Perception of the Environment: Essays on livelihood, dwelling and skill*. London and New York: Routledge, 2000.

King, T.J., 'Crisis of Meanings: Divergent Experiences and Perceptions of the Marine Environment in Victoria, Australia' in *The Australian Journal of Anthropology*, vol. 25 no. 3, 2005.

Leng, R.A., Preston, T.R., and Rodríguez, L., D*uckweed invasion of Lake Maracaibo: An evaluation of the causes and proposals for future action*. The University of Tropical Agriculture Foundation – UTA. 2004. Online: <http://www.penambulbooks.com/Downloads/reporteng072204.pdf>.

Menendez, J., 'Venezuelan alert of lake weed' in *BBC NEWS*, viewed on 24th June 2004.
<http://news.bbc.co.uk/go/pr/fr//1/hi/world/americas/3802977.stm>.

Olier J., (ed), *Guía ilustrada para ayudar al lago de Maracaibo*. J & Eme Editores, S.A: Colombia, 2005.

Párraga, M., 'Fifty-three percent of Lake Maracaibo oil operations in critical conditions', in *El Universal*, viewed on 24th October 2006. <http://english.eluniversal.com/2006/10/24/imp_en_eco_art_24A794801.shtml>.

Rodríguez, I.,'Conocimiento Idígena *vs* Centífico: El Conflicto por el Uso del Fuego en el Parque Nacional Canaima, Venezuela', in *Invercencia* vol. 29. no. 3. 2004 pp. 121-129.

Rodríguez Díaz, A.J., and Escamilla V.F., '500 Años del Nombre Venezuela', in *Biblio 3W. Revista Bibliográfica de Geografía y Ciencias Sociales.* Universidad de Barcelona. No.152. 1999. Online: <http://www.ub.es/geocrit/b3w-152.htm>.

Strang, V., *The Meaning of Water*. New York, Berg, 2004.

Noomi Mozard is a finishing her PhD in Social Anthropology at Queen's University Belfast. She is interested in ecological anthropology, phenomenology, emotions and inter-subjectivity. Her current work explores ways of knowing the world in Barranquitas, Venezuela, particularly how this relates to local understandings of the environment.

Incorporating People's Perception into Landscape Planning: Ethical Challenges in Dealing with Diversity of Opinion Within a Community

Elisabeth Conrad, Mike Christie and Ioan Fazey

Abstract
One aspect of effective and empowering citizen engagement in pursuit of sustainable development involves taking account of people's views. This exploratory study, carried out on the Mediterranean island of Gozo, considered people's perceptions relating to landscape. 480 individuals were questioned on their understanding of the term 'landscape', as well as on their opinion concerning characteristic aspects of the landscape of Gozo. Respondents were also asked about aspects revealing change in the landscape of Gozo, and about their personal desired future vision of the landscape. Whilst consideration of perception is fundamental to landscape planning (particularly given that a landscape is defined in the European Landscape Convention as "an area of land, as perceived by people"), several ethical issues emerge from the study. The idea of landscape appears to be understood very differently by different respondents; likewise people differ in the way they would like to see their local landscape evolve. Although one may talk of community-derived plans, there is evidently much diversity of opinion within a single community, which may present difficulties for those who need to make broad-level decisions, which affect all members of a community (such as decisions concerning areas of high landscape value which should be protected from development). The study also indicates that the views of specialists, as reflected in planning policies and documents presently in force, may not necessarily match up with those of the population at large. Thus, the question emerges of whose perception planning decisions should reflect. Results indicate, however, that elements of consensus are also present. The study was used as the basis for a landscape character mapping exercise, based exclusively on people's responses, and demonstrating that there is potential for more effective incorporation of perceptual aspects into planning and management, despite the various ethical and methodological challenges, which remain.

Key Words: Landscape, management, planning, perception, stakeholder involvement, citizen engagement, European Landscape Convention.

*****

1. Introduction

Landscape perception research has been an active field for several years, with studies focusing on the identification and understanding of beauty[1], methodological issues[2], variations in perception with different cultural contexts[3] and longitudinal studies of the stability of landscape perceptions[4], amongst other areas. The subject has become even more relevant following the adoption of the European Landscape Convention in 2002, in particular because of its landmark definition of landscape as "an area, as perceived by people".[5] The definition implies that landscape protection, management and planning should all be based on people's views and thus ties in with the democratic imperative of citizen participation in contemporary society. Citizen engagement is increasingly recognized not only as an ethical right, but also as having functional utility through (i) increasing the legitimacy of decisions taken and reducing conflict, (ii) contributing to improved quality of decision-making, and (iii) enhancing the likelihood of societal behavioural changes.[6]

The concept of landscape is characterized by the importance of individual interaction with place, incorporating both physical and metaphysical aspects, with social, cultural and artistic associations.[7] It follows that perceptions of landscape depend in part on the characteristics of the individual and in part on characteristics of place.[8] As Zube note:

> The human component encompasses past experience, knowledge, expectations and the socio-cultural context of individuals and groups. The landscape component includes both individual elements and landscapes as entities. The interaction results in outcomes, which in turn affect both the human and landscape components.[9]

Although there is general agreement on this philosophy of landscape perception, Coeterier[10] argues that it has become evident that there is no one-to-one relationship between outside elements and inside constructions, or perceived attributes. It may be that these traits may render the formulation of landscape policy difficult, when different people may perceive a place in different ways, yet decision-makers need to formulate strategies, plans and policies that will apply to one and all. A participatory policy formulation process would rationally seek to focus on addressing such difficulties by building consensus and addressing conflicts. However, both the potential for consensus and the existence and resolution of conflicts are also in part socially constructed.[11] To date, the implications of individual landscape perception for broad-level decision-making have been inadequately studied.

This study sought to explore issues of consensus and conflict in landscape perception through a case study on the Mediterranean island of

Gozo (Malta), with a view to highlighting ethical challenges involved in landscape policy making. The research questions addressed the different ways in which different stakeholders perceive key aspects of landscape, in order to evaluate the range of views put forward, in particular levels of agreement and disagreement, and the potential for identifying common themes within responses as a basis for community-based policy making.

2. Study area

Malta is a small island state situated in the central Mediterranean Sea (Figure 1), with a total land area of 320 km^2 and a population of over 410,000, resulting in one of the highest population densities (1281 persons/km^2) in the world. The island of Gozo is the second largest island of the Maltese archipelago (67.1 km^2) (Figure 2). It has a resident population of *circa* 31, 000 people (approximately 7.7% of the total population of Malta), and also has a transient population of frequent domestic and international visitors numbering over 700, 000 per year. The population is distributed in 15 main urban hubs.

Figure 1:
Location of the Maltese Islands in the central Mediterranean, south of Italy and north of the African continent.
Provided by the SeaWiFS Project, NASA/Goddard Space Flight Center, and ORBIMAGE

Figure 2:
Satellite view of the Maltese archipelago; the three main islands, in order of decreasing size, are Malta, Gozo and Comino. Provided by NASA/GSFC/METI/ERSDAC/JAROS, and U.S./Japan ASTER Science Team

The Maltese Islands have been inhabited for thousands of years, and Gozo's landscapes are very much a product of its history. As Farrugia[12] notes "there is no hilltop or valley in Gozo, no slope or plain, no wild or dale, no sea ledge or shore, no nook or cranny which does not carry some sign of human presence and activity whether remote, ancient or prosaically recent". Nevertheless, when compared to Malta, Gozo is in a more pristine state, having been subjected to less aggressive development initiatives than its sister island, Malta. This has been due to numerous factors, one of the most important undoubtedly being its relative isolation from the outside world, with a ferry service and until recently, limited helicopter access, providing the only links to the main island of Malta. Unlike Malta, which has several large, sheltered harbours, Gozo is practically unindented and Mgarr, where the ferry berths today, is an artificial harbour built only a few years ago. Gozo was also 'isolated' in another sense. Up to a few years ago, the island languished in the periphery of Maltese life, with primitive services, bureaucratic neglect and lack of opportunities in all sectors.[13] The situation is, however, changing rapidly. Gozo has made a quantum leap in terms of development in recent years, with new and varied opportunities in various fields, inevitable manifested through changing landscapes.

3. Methods

Data was collected by means of an internet-based survey (Figure 3). A pilot study was initially conducted using semi-structured interviews for data collection; however, it was immediately evident that respondents struggled to answer questions within the time-frame of the interview; several in fact contacted the researcher after the interview stating that upon further reflection, they would like to elaborate on answers given. It was thus clear that the data collection method must allow for respondents to answer questions in their own time. Issues in using the internet as a medium for landscape research have been discussed by several authors.[14] Key benefits include the ease of dissemination and response. However, it is also true that internet surveys allow for limited control of the respondent sample and preclude responses by a segment of the population.

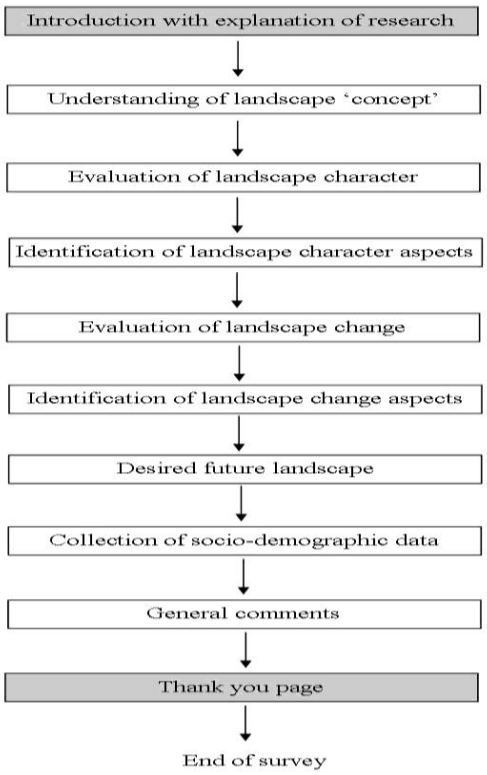

Figure 3: *Overview of internet survey*

Respondents for the survey were found in two ways. First, a number of individuals were emailed a link to the survey and invited to participate in the study. Second, the survey was submitted to a number of social groups of various kinds who were urged to disseminate it to their members. It was therefore not possible to control the respondent sample; nevertheless, socio-demographic profiles of respondents were monitored throughout the process of data collection. Where gaps were identified (e.g. disproportion between male and female respondents), further efforts were made to locate respondents of under-represented groups. Furthermore, the survey was provided in both English and Maltese languages, in order to make it more widely accessible to a general audience. A total of 480 respondents submitted completed surveys. These were primarily either Gozitan residents or Maltese visitors to Gozo, with a smaller sample of international tourists.

4. Results and discussion

Respondents were first asked what the term 'landscape' suggested to them. The word appears to conjure up different images for different respondents. Following coding of survey responses, ten key understandings of landscape were identified; sample quotations from survey responses follow in brackets:

1. 'Landscape' as aesthetic and scenic qualities, incorporating panoramas and views ("a beautiful view");
2. 'Landscape' as countryside and nature ("land in its natural state as created by God");
3. 'Landscape' as comprising man-made elements such as buildings ("something that is developed over centuries as a result of the weather and geological formations, and also including man-made products such as houses and buildings");
4. 'Landscape' as a general context and setting for everyday life ("a backdrop for man's activities");
5. 'Landscape' as physical land area and characteristics ("the interaction of elements such as hills, valleys, mountains, plains, etc.");
6. 'Landscape' as that related to people, including history, production functions and affective aspects ("customs and ways of a particular culture seen especially in the folklore activities and events which accompany a specific place");
7. 'Landscape' as a holistic concept embodied through overall character ("a combination of elements, both natural and anthropological, physical and biological, that give an area a distinctive character");

8. 'Landscape' as specific locations in Gozo ("Dwejra, Ta Cenc, Ghasri"[15]);
9. 'Landscape' as a utopian ideal of tranquillity, sustainability and lack of human influence ("a space free from human developmental input");
10. 'Landscape' as related to art and prints ("watercolour, brushes, paper").

When asked to think of landscape as 'an area of land, in any way you perceive it', the vast majority of respondents (96%) agreed that the landscapes of Gozo have a distinctive character, and considered this to be a positive attribute. When asked to identify aspects contributing to this distinctive character, respondents provided a wide range of responses. Key response groups included the following:

- Topographical features, particularly hills, valleys and cliffs;
- Green areas (natural and agricultural);
- Sea;
- Spatial distinction between villages;
- Relatively low extent of urban footprint;
- Traditional village structure, including nucleated layout around village church;
- Lower population density and lesser density of traffic;
- Relative silence and tranquility;
- Smells and sounds of the landscape e.g. bird song, church bells;
- Specific locations in Gozo.

These results demonstrate three points of particular interest. First, although a wide range of variables were listed independently by respondents (a total of 1981 individual entries were given), there was clear convergence of responses around key themes, suggesting that whilst perception is indubitably related to personal factors, there is also a strong contribution from objective aspects of place and/or common cultural backgrounds. Second, several key themes identified are in direct contrast with the situation on the sister island of Malta. Many respondents indeed specified that Gozo was "greener than Malta", "less developed and less crowded than Malta" or "more quiet". This would imply that character is defined not only on the basis of what is the landscape, but also on the basis of comparison with other areas. Respondents who live on the main island of Malta, in particular, seemed to highlight those aspects of the landscape which were different to what they experienced on an everyday basis. Third, whilst physical landscape characteristics featured prominently in responses, so did intangible landscape

aspects (e.g. quiet, tranquillity, way of life) suggesting that in protecting landscape character, landscape planning has to move beyond merely protecting physical sites.

There were similar elements of consensus in results relating to landscape change, albeit to a lesser extent. 81.1% of respondents felt that the landscape was changing, whilst 6.4% disagreed and others were unsure. Of those who felt that change was occurring, 84.5% thought that change was predominantly of a negative nature, and 82% felt that change was threatening Gozo's distinctive landscape character. In discussing specific threats to landscape character, respondents identified several factors. The majority spoke of specific changes, such as building & construction activity, population & visitor pressure, pollution, waste generation, infrastructural changes and tourism developments. Others spoke of underlying causes and driving forces, such as power relations within Gozitan (and Maltese) society, lifestyle and value changes, commercialization of the landscape, and issues with institutional capacity and implementation.

There were fewer consensuses when respondents were asked about the way they would personally like to see the landscape evolve. A distinction emerged between Gozitan residents and Maltese visitors, where the majority of the latter (62.7%) stated that they would not like to see the landscape change in any way. The majority of Gozitan residents (51%), on the other hand, would like to see the landscape evolve beyond its present state. This highlights a fundamental conflict in the way the Gozitan landscape is valued. To Maltese visitors, Gozo is a get-away from predominantly urban daily life in Malta, hence the preference for preserving it as is, in particular its rural and tranquil character. To Gozitans, however, Gozo has been politically neglected for far too long, and moves away from rurality can be seen as indicators of long-overdue progress. There were four groups of responses relating to desired evolution of the landscape. The first group comprises those who would not like to see any change in the landscape, either because of a positive perception of the present situation or because of a negative perception of change. The second most diverse group comprises those who would like to see change, either in the form of positive evolution or in the form of mitigation of damage already done. This category of respondents varied in the extent of mitigation recommended, with some respondents suggesting minor alterations and others radical measures, such as large-scale demolition of existing constructions. The third group of respondents were those who were in favour of change only given particular conditions, whilst the fourth group expressed a neutral opinion, based on the perception that change is inevitable and that they felt powerless to do anything about it.

The identified aspects of landscape character and landscape change were used as the basis for an experimental 'perception mapping' exercise. 50 survey sheets (scale of 1: 2500) covering the island of Gozo were subdivided

into polygons, each measuring 200m x 200m. Survey responses were re-coded into a number of variables; those variables which corresponded to physical features in the landscape (e.g. hills) which could be mapped were then sorted in order of frequency of responses, and the 25 most frequently mentioned variables selected. The presence or absence of each of these variables in the individual map polygons was determined. For each variable which was present a numerical weighting was determined based on the percentage of respondents making reference to it. As an example, polygon AA, where two variables are present, would have a value of (1 x 25%) + (1 x 22%) = 47. A numerical value for each polygon was thus determined based on the total number of variables present. This enabled the derivation, using Geographic Information Systems (GIS), of overall maps of landscape character and change, based exclusively on survey responses (Figure 4).

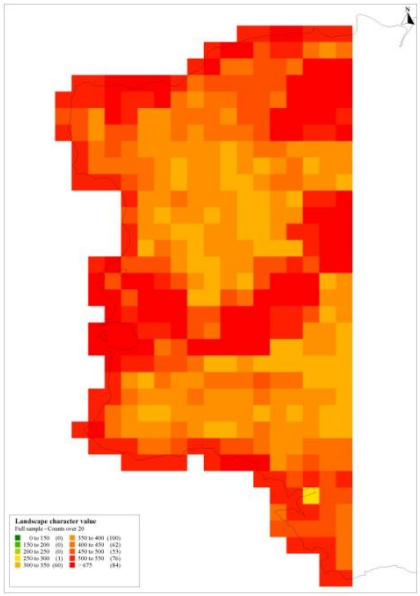

Figure 4:
Segment of indicative landscape character map for Gozo; darker shading represents areas where more identified aspects of landscape character are present.

A comparison was also carried out between the views expressed by respondents and positions adopted in official landscape policy documents authored by technical specialists. In the case of Gozo, the key reference document is the *Landscape Assessment Study of the Maltese Islands* produced by the Malta Environment and Planning Authority in 2004, as part of the process of reviewing the Structure Plan for the Maltese Islands. The Structure Plan provides a framework for planning and environmental management in the country. The study was predominantly expert-based,

although it also incorporated a public consultation exercise. When comparing results, both similarities and differences emerge. Similarities include the focus on physical landscape characteristics as determinants of landscape character, and agreement on trends in and causes of landscape change. However, a key difference was that survey respondents tended to discuss landscape more holistically, focusing on 'feel' and 'experience', and thus including references to several intangible features of landscape, as well as discussions of landscape values. The assessment study, on the other hand, specifically focuses on landscape as the "visual aesthetic"[16] dimension of an area. Because respondents tended to conceive of landscape more holistically, the subdivision of Gozo into 35 landscape character units in the *Assessment Study*[17] appears to hold little relevance to the way in which the landscape is perceived by the public in general.

It was also of note that whilst both the expert analysis and survey results included extensive discussion of causes of landscape change, with a focus in both on urbanization, respondents tended to delve deeper into driving forces of landscape change, discussing aspects such as a changing culture and way of life, commercialization of the island and power relations in Maltese society. In the case of the latter, several respondents blamed negative landscape change, in particular the boom of the construction industry and related urban sprawl, on the disproportionate influence of the business lobby and those involved in the local political scene. It is to be expected that such issues would not emerge in a formal policy document produced by an authority, which is subject to heavy political influence. It could be argued that people are freer to say what they feel in an independent research study where their responses are anonymous, than an institution, which needs to be transparent, where individuals are held accountable and where a formal mandate must be fulfilled. Whilst the formal policy document tended to answer the question "how is the landscape changing?" survey respondents also seemed to address the question of "why is the landscape changing in the way it is"? Whilst the validity of claims made by individuals would also need to be fairly assessed, it is nonetheless evident that there are key areas of concern in the public's perception that do not feature on the policy agenda.

5. Conclusions

The research highlights several points for reflection, which are of relevance to the process of citizen engagement in landscape policy formulation. The various understandings of 'landscape' exhibited in survey responses highlight a fundamental concern, namely that all those involved in a discussion should 'speak the same language'; for constructive outcomes, there should be an agreed understanding of fundamental concepts. A second point of concern is that the initial definition of landscape given by several

respondents indicates that few relate the idea of landscape to the place they live in, with a substantial number considering 'landscape' to relate to an ideal condition of pretty pictures, unspoilt nature and minimal human influence. This presents challenges for implementing the provisions of the European Landscape Convention, Article 2 of which specifies that the scope of the Convention extends not only to outstanding landscapes but also to "everyday" and "degraded" ones. For effective policy implementation, the relevance of landscape to every individual would thus need to be emphasized.

The research also suggests that landscape policy should move beyond a focus on 'special' areas (such as designations of 'Areas of High Landscape Value' in Maltese policy) towards a focus on safeguarding overall character. It would appear that landscape is perceived by many not only as elements and sites within a landscape but rather as the entire experience of a place. A holistic landscape strategy could indeed provide a framework for sustainable development in specific sectors, such as tourism, agriculture, and so forth. However, challenges remain in deciding what form a landscape strategy should take. Should it adopt the view of those respondents who feel that radical measures are needed to reverse damage already done, or should it seek simply to direct future change to a more sustainable trajectory? Should the character of Gozo's landscapes be safeguarded even at the cost of socio-economic advancement? Is there a happy medium between the desires of those who wish to keep Gozo as it is and those who wish to see more business and employment opportunities on the island? Should landscape planning be a case of 'majority rules' or should minority views also carry weight? The latter point is increasingly pertinent given growing immigration into the country from very different cultural contexts. Malta's minority groups may soon have a very different vision of the landscape than that of the present-day population. The questions become even more difficult to answer given Malta's status as a small island state, with all the land use constraints that that entails.[18]

It should also be noted that survey respondents and other members of the general public could also be implicated in the 'causes' of negative landscape change, even if they expressed concern about such trends. Whilst the business lobby does play a role in large-scale building developments, urban sprawl also results from numerous small-scale residential developments. This begs the question of whether expressed concerns would translate into concrete action – would those who spoke negatively of the impact of urbanization of landscape character be willing to accept further limitations on allowable building development if this were to affect them at a personal level? This raises the question of whether the European Landscape Convention's definition of landscape planning on the basis of people's perception is truly compatible with objectives of sustainability. The concern becomes particularly pertinent when one considers the disintegration of social

capital and the loss of a sense of community and citizenship in developed societies. Malta is certainly a case in point; although family networks remain strong, town and village networks have lost their traditional importance, particularly as a result of urban sprawl resulting in the loss of distinctive villages, instead replaced by one single urban conurbation. This is less the case in Gozo to date, but is certainly a factor to be considered. Can perception-based landscape planning result in policy outcomes that are merely a reflection of the public's self-interest?

Despite these concerns, the study would suggest that there is scope for optimism. The preliminary mapping exercise shows that there is the potential for developing methodologies that seek to more actively involve citizens in landscape planning. Similarly, several areas of consensus do hold promise for collaborative bottom-up planning. Nevertheless, it would appear that landscape planning based *exclusively* on people's perceptions may not be a wise policy move in the Maltese context – at least not until this can be shown to concretely contribute to sustainable planning objectives. However, better citizen engagement *is* urgently needed, not only for more effective policies but also to contribute to culturally driven behavioural changes towards a sense of community responsibility. For this reason, a prudent and mutually respectful marriage of 'expert-based' and 'public-based' policy making in the landscape domain is advocated.

Notes

[1] A Lothian, 'Landscape and the philosophy of aesthetics: is landscape quality inherent in the landscape or in the eye of the beholder?', *Landscape and Urban Planning*, 44 (1), 1999, pp. 177-198; T C Daniel, 'Whither scenic beauty?, Visual landscape quality assessment in the 21st century', *Landscape and Urban Planning*, 54 (1-4), 2001, pp. 267-281.

[2] S Yamashita, 'Perception and evaluation of water in landscape: use of photo-projective method to compare child and adult residents' perceptions of a Japanese river environment'. *Landscape and Urban Planning*, 62 (1), 2002, pp. 3-17; J F Palmer, 'Using spatial metrics to predict scenic perception in a changing landscape: Dennis, Massachusetts'. *Landscape and Urban Planning*, 69 (2-3), 2004, pp. 201-218.

[3] E H Zube, R O Brush, and J G Fabos (eds.) Landscape Assessment: values, perceptions and resources, Dowden, Hutchinson and Ross, Stroudsburg, 1975; A E Buijs, B H M Elands and F L Elands, 'No wilderness for immigrants: cultural differences in images of nature and landscape preferences'. *Landscape and Urban Planning*, 91 (3), 2009, pp. 113-123

[4] J F Palmer, 'Stability of landscape perceptions in the face of landscape change'. *Landscape and Urban Planning*, 37 (1-2), 1997, pp. 109-113; L

Musacchio, E Ozdenerol, M Bryant, and T Evans, 'Changing landscapes, changing disciplines: seeking to understand interdisciplinarity in landscape ecological change research', *Landscape and Urban Planning*, 73 (4), pp. 326-338.

[5] Council of Europe. *The European Landscape Convention*. 2000. Available online:http://conventions.coe.int/Treaty/EN/Treaties/Html/176.htm

[6] F H J MCoenen, 'Introduction', in *Public Participation and Better Environmental Decisions*. F H J M Coenen (eds.), Springer, The Netherlands, 2008, pp. 1-20; Y Rydin, *Conflict, Consensus and Rationality in Environmental Planning: An institutional discourse approach*. Oxford University Press, Oxford, 2003.

[7] Adrian Phillips, 1998, The nature of cultural landscapes—A nature conservation perspective. *Landscape Research* 23(1), 21-38.

[8] J Dewey and A Bentley, *Knowing and the Known*. Beacon Press, Boston, 1949; E H Zube, R O Brush, and J G Fabos, (eds.) *Landscape Assessment: values, perceptions and resources*. Dowden, Hutchinson and Ross, Stroudsburg, 1975.

[9] E H Zube, J L Sell, and J G Taylor, 'Landscape perception: research, application and theory'. *Landscape and Planning*, 9, pp. 3.

[10] J F Coeterier, 'Dominant attributes in the perception and evaluation of the Dutch landscape'. *Landscape and Urban Planning*, 34 (1), 1996, pp. 27-44.

[11] Y Rydin, *Conflict, Consensus and Rationality in Environmental Planning: An institutional discourse approach*. Oxford University Press, Oxford, 2003

[12] J Farrugia, 'Religion: a perspective into Gozo's mystery' *in* A Focus on Gozo. J Farrugia and L Briguglio (eds.), University of Malta Gozo Centre, Malta, 1996, pp. 58-73.

[13] M Tabone, 'The development options for Gozo' in *A Focus on Gozo*. J Farrugia and L Briguglio (eds.), University of Malta Gozo Centre, Malta, 1996, pp. 201-212.

[14] J R Wherrett, 'Issues in using the internet as a medium for landscape preference research'. *Landscape and Urban Planning*, 45 (4), pp. 209-217; Y Zhang, 'Using the internet for survey research: a case study'. *Journal of the American Society for Information Science*, 51 (1), 57-68; J Kangas, and R Store, 'Internet and teledemocracy in participatory planning of natural resources management'. *Landscape and Urban Planning*, 62 (2), pp. 89-101.

[15] All three are place-names in Gozo.

[16] MEPA (Malta Environment and Planning Authority). *Landscape Assessment Study of the Maltese Islands*. 2004. Available online: http://www.mepa.org.mt/index.htm?../spr/intro_spr.htm&1

[17] ibid

[18] G Baldacchino, *A World of Islands: An Island Studies Reader*. Institute of Island Studies, Canada, 2007.

Bibliography

Baldacchino, G., *A World of Islands: An Island Studies Reader*. Institute of Island Studies, Canada, 2007.

Buijs, A.E., Elands, B.H.M. and Elands, F. L., 'No wilderness for immigrants: cultural differences in images of nature and landscape preferences'. *Landscape and Urban Planning*, vol. 91 (3), 2009, pp. 113-123.

Coenen, F.H.J.M., 'Introduction', in *Public Participation and Better Environmental Decisions*. F.H.J.M. Coenen (eds.), Springer, The Netherlands, 2008, pp. 1-20.

Coeterier, J.F., 'Dominant attributes in the perception and evaluation of the Dutch landscape'. *Landscape and Urban Planning*, vol. 34 (1), 1996, pp. 27-44.

Council of Europe. *The European Landscape Convention*. 2000. Online. <http://conventions.coe.int/Treaty/EN/Treaties/Html/176.htm>.

Daniel, T.C., 'Whither scenic beauty? Visual landscape quality assessment in the 21st century'. *Landscape and Urban Planning*, vol. 54 (1-4), 2001, pp. 267-281.

Dewey, J., and Bentley, A. *Knowing and the Known*. Beacon Press, Boston, 1949.

Farrugia, J., 'Religion: a perspective into Gozo's mystery' *in* A Focus on Gozo. J. Farrugia and L. Briguglio (eds.), University of Malta Gozo Centre, Malta, 1996, pp. 58-73.

Kangas, J., and Store, R., 'Internet and teledemocracy in participatory planning of natural resources management'. *Landscape and Urban Planning*, vol. 62 (2), pp. 89-101.

Lothian, A., 'Landscape and the philosophy of aesthetics: is landscape quality inherent in the landscape or in the eye of the beholder?'. *Landscape and Urban Planning*, vol. 44 (1), 1999, pp. 177-198.

MEPA (Malta Environment and Planning Authority). *Landscape Assessment Study of the Maltese Islands*. 2004. Online:
<http://www.mepa.org.mt/index.htm?../spr/intro_spr.htm&1>.

Musacchio, L., Ozdenerol, E., Bryant, M., and Evans, T., 'Changing landscapes, changing disciplines: seeking to understand interdisciplinarity in landscape ecological change research', in *Landscape and Urban Planning*, vol. 73 (4), pp. 326-338.

Palmer, J.F., 'Stability of landscape perceptions in the face of landscape change', in *Landscape and Urban Planning*, vol. 37 (1-2), 1997, pp. 109-113.

Palmer, J. F., 'Using spatial metrics to predict scenic perception in a changing landscape: Dennis, Massachusetts', in *Landscape and Urban Planning*, vol. 69 (2-3), 2004, pp. 201-218.

Phillips, A., 'The nature of cultural landscapes—A nature conservation perspective', in *Landscape Research*, 1998, 23(1), 21-38.

Phillips, A., 'International policies and landscape protection' in *Landscape and Sustainability*. J.F. Benson and M.H. Roe (eds.), Spon Press, London, 2000, pp. 78-96.

Rydin, Y., *Conflict, Consensus and Rationality in Environmental Planning: An institutional discourse approach*. Oxford University Press, Oxford, 2003.

Tabone, M., 'The development options for Gozo' in *A Focus on Gozo*. J. Farrugia and L. Briguglio (eds.), University of Malta Gozo Centre, Malta, 1996, pp. 201-212.

Wherrett, J.R., 'Issues in using the internet as a medium for landscape preference research', in *Landscape and Urban Planning*, vol. 45 (4), pp. 209-217.

Yamashita, S., 'Perception and evaluation of water in landscape: use of photo-projective method to compare child and adult residents' perceptions of a Japanese river environment', in *Landscape and Urban Planning*, vol. 62 (1), 2002, pp. 3-17.

Zhang, Y., 'Using the internet for survey research: a case study', in *Journal of the American Society for Information Science*, vol. 51 (1), 57-68.

Zube, E.H. and Pitt, D.G., 'Cross-cultural perceptions of scenic and heritage landscapes', in *Landscape and Urban Planning*, vol. 8(1), 1981, pp. 69-87.

Zube, E.H., Sell, J.L., and Taylor, J.G., 'Landscape perception: research, application and theory', in *Landscape and Planning*, vol. 9(1), 1982, pp. 1-33.

Zube, E.H., Brush, R.O., and Fabos, J.G. (eds.), *Landscape Assessment: values, perceptions and resources*. Dowden, Hutchinson and Ross, Stroudsburg, 1975.

Elisabeth Conrad is an academic member of staff at the International Environment Institute at the University of Malta; her research interests include citizen engagement in environmental management and techniques for stakeholder participation. She is currently completing doctoral research on aspects of stakeholder perception in landscape systems at the Institute of Biological, Environmental and Rural Sciences, University of Aberystwyth.

Mike Christie is a lecturer in environmental economics at the Institute of Biological, Environmental and Rural Sciences, University of Aberystwyth. His main areas of research interest focus on environmental economics, with particular specialization on environmental valuation approaches, as well as mechanism for sustainable rural development both in development and developing countries.

Ioan Fazey is a lecturer in sustainable development at the School of Geography and Geosciences, University of St. Andrews. He is an interdisciplinary researcher, with particular interest in contributing to understanding about what it means to be sustainable and how individual, community and societal behaviour can be transformed towards sustainable trajectories.

The Role of Stakeholder Engagement in Conservation: Integrating Ecological Sciences and Participatory Methods in a Mediterranean Island Context

Louis F. Cassar, Stephen Morse and Geoffrey H. Griffith

Abstract

Decision-making in the Mediterranean has traditionally been influenced by the natural sciences, particularly where environmental resources are concerned. Conservation practices are largely a synthetic construct whose roots lie within the notion of biodiversity preservation alone rather than on the holistic concept of sustainability. The fact that protected areas are selected on the basis of their ecological assets is evidence of such trend. However, ecosystems are intricately linked to human affairs.

Indeed, there is widespread recognition regarding the necessity to extend narrow reserve-based approaches to a broader, more holistic view to conservation through landscape management, which encompasses the semi-natural and cultural dimensions. In a region such as the Mediterranean, where natural resources are especially vulnerable due to a significant human footprint and considerable land-use conflict, and where biodiversity hotspots are pocketed into refugia, the challenge is to integrate biodiversity conservation with the sustainable management of land resources. Planning at broad spatial scales to achieve conservation aims within the context of a mosaic of land-uses is an essential aspect of an integrated landscape approach. This study seeks to address a key constraint in conservation, namely, the gap between the domain of natural science and stakeholder concerns/involvement. The approach implemented aims to bridge this gap by combining specialist input and that of other stakeholders through a hybrid expert-driven/participatory process. The study site selected is Gozo, comprising Mediterranean rural landscapes surrounding a network of hotspots bearing high ecological value. Results obtained are prioritised through the application of conservation value appraisal criteria, following which the involvement of key actors was sought through a soft systems approach of systemic sustainability analysis. This participatory process identified prevailing pressures operating at landscape scale. In turn, these were ranked by a broad selection of stakeholders. The value of such research is its applicability to the wider Mediterranean context.

Key Words: Conservation, ecological sciences, stakeholder involvement, participation, landscape ecology, Gozo, Mediterranean.

*****

1. Introduction

The Mediterranean Basin possesses some considerably interesting ecosystems, which are important from both the biological and socio-economical standpoint. Nevertheless, numerous areas of ecological importance are threatened, essentially by development. Growing populations, whose greatest demand is land area to develop, are subjecting remnant pristine areas to intense pressures. Biodiversity within the Basin, therefore, is increasingly at risk since mounting pressures often lead to changes in land-use patterns; such escalation often leads to demands on ecological resources that are unsustainable. Conversely, economic activities such as agriculture and tourism, which to a great extent depend on the vitality of ecosystems, will suffer if haphazard region-wide development is not contained. Moreover, a further loss of species will diminish the aesthetic value of the region, a factor, which may have an unquantifiable effect on future generations.[1]

There are serious questions today about the Region's environmental ability to support its growing human populations in the medium term. In the thousands of years during which humans have colonized this enclosed Sea, and in particular during recent past decades of exceptionally fast development, the human agency has profoundly influenced the Basin's ecology and degraded the environment. In ancient times, vast forests often extended down to the shore; today, forests have been largely replaced by dense scrub vegetation and even lower seral stages. Depletion and degradation of resources, including freshwater, forests, coastal areas, and marine fisheries, is a growing concern, as is pollution within the region itself.[2] The island of Gozo, the study area in question, is no exception, and even if population numbers are still somewhat contained demographically, over time, the landscape was gradually transformed to one that sustained an agriculture-dominated matrix. To a significant extent, this has resulted in the pocketing of ecological assemblages into isolated 'refugia'. As landscapes are modified, biodiversity is adversely affected and the richness and diversity of the flora and fauna, much dependent on the maintenance of stable and functioning of ecosystems, is diminished. As food chains are disrupted, the effects can be far-reaching, notably leading to the loss of essential functions in the balance of ecosystems, reduction in goods and services provided, and species extinction.

2. The notion of participation

There is a history of 'participation' in the realm of development and a numerous environmental and planning agencies as well as conservation NGOs have endeavoured, at some point during the procedure, to involve people, as stakeholders, in some aspect of the planning process and implementation. Terms such as 'people's participation' and 'popular participation' are now part of development agencies' jargon.[3] Participation

has been used to justify the extension of state control and to build local capacity and self-reliance; it has been used to justify external decisions and to devolve decision-making power away from external agencies; it has been used for data collection and for interactive analysis. Regrettably, it has also been used, time and time again, to justify developments or projects through the involvement of people when these have little interest in the operations and yet they are asked or 'dragged' into the process of participation.[4] If participation is to have any (positive) impact on the process, it should be real and must genuinely reflect the interests of stakeholders involved in the decision-taking process, in particular, making provision even for the will of minority groups. Thus, the term 'participation' should only be accepted when appropriate qualification is made[5] and when people are invited to actively participate, at par with other stakeholder groups, to meet predetermined objectives. Participation should encompass a wide reach of stakeholders, including interest groups, the public and politicians, since support must be visible and based on an understanding of the process and its envisaged costs and likely benefits. An appropriate course of action is to combine the development aspect of sustainability and conservation/environmental initiatives into one, involving stakeholders in decision-making while building and improving on existing processes, institutions and policies.[6]

The challenges of participation are indeed considerable, with possibilities of a horizontal approach to participation across sectors on the macro-scale and vertical participation at the local level.[7] Introducing elements such as participatory inquiry, awareness and educational campaigns, round tables and other soft methods can have considerable impact, and local councils (local government) and environmental lobby groups can help bring this about, even if a degree of bias will have some bearing on their efforts. Conversely, it would be folly to think that participation is entirely a non-official agency/non-specialist affair, as these entities have role to play as facilitators in the participatory process.[8] The role of what is often referred to as 'stakeholder' participation in conservation is typically based upon an assumption that participation is a fundamental human right. Thus, those affected have a right to be involved in the decision-making processes, while participation also has the potential of making conservation more effective.

3. Methods

The model of Sustainability Indicators (SIs) adopted for the study is based upon the Pressure - State - Impact - Response (PSIR) configuration.[9] Through the PSIR model, different variables for measuring up to what point the system has been affected in its sustainability may be identified. Through this process it was necessary to include stakeholders in the course of identification. One methodology that involves the participation of key actors

in the development of SIs is based on Systemic Sustainability Analysis (SSA). The SSA process involves a number of phases (Figure 1).

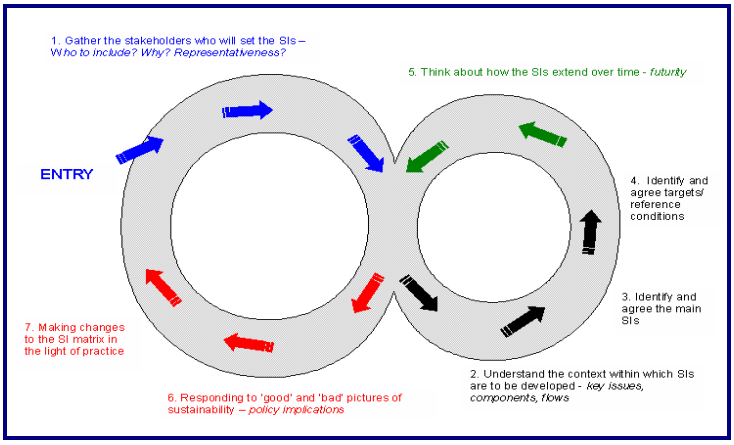

Figure 1. *An outline of Systemic Sustainability Analysis [SSA]. (after Bell & Morse 2003.)*

There are various possibilities for combing specialist and stakeholder inputs through the SSA process. In this particular case, specialist knowledge was used to identify indicators of ecological value, that is, state SIs, which have been utilized to distinguish areas within a landscape that require protection. A detailed two-tiered ecological study of the entire island of Gozo identified a number of sites, nine in total, as having outstanding scientific value in ecological terms. The initial expert-driven approach provides the entry into the system (SSA), while the subsequent phase of the research involved the identification of pressures through stakeholder involvement. During its quasi-final phase, this process guides stakeholders to propose what particular response they feel is possible, as well as feasible, within the local context. During its final phase, the process then reverts back to the specialists who would ensure implementation of proposed changes to policy as well as the implementation of any mitigation measures in order to counter the environmental impacts and risks identified.

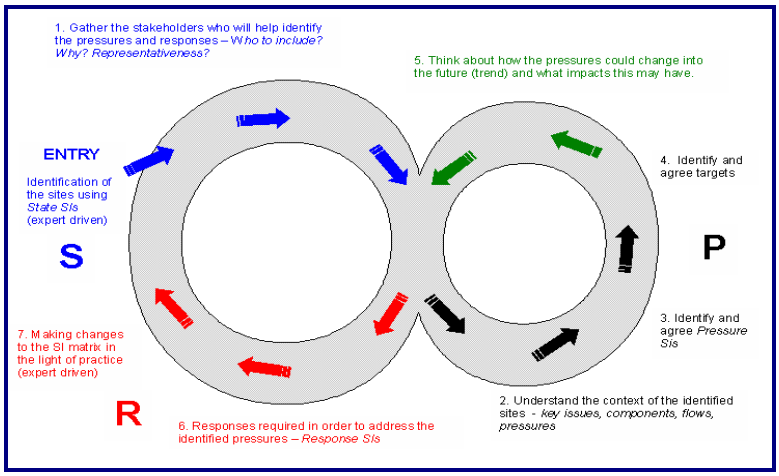

Figure 2. *SSA combined with specialist input to derive indicators for protected area management.*[10]

The approach taken in the current research is more akin to that of Figure 2 than of Figure 1 in the sense that the nine sites were identified through an 'expert' driven process, after which, work was undertaken in relation to the socio-environmental facet of the research.

In order to derive the main issues, a number of discussion meetings and participatory seminars were held with key stakeholder groups. The first of a series of such consultations was held with a key informants group, whereby a discussion meeting-cum-seminar for a multidisciplinary group of specialists was organized. The main goal was to discuss and affirm the real issues on the island of Gozo. This was followed by two focus group seminars, whose aim was to identify pressures adversely affecting the sites and their contextual landscapes. The final phase of the research involved the weighting of the pressures identified using the 'soft systems methodology'. Laminated cards with images representing the pressures were produced and, through interviews, a total of 230 stakeholders were asked to rank the pressures in terms of their perceived importance on the island. Stakeholders fell within 5 key categories, namely (i) affected locals, (ii) resource users, (iii) scientific community, (iv) official agencies and (v) NGOs. Ranking results obtained were tested for statistical significance in relation to stakeholder categories and socio-demographic variables using the SPSS software package.

4. Discussion and Results

A. Analysis of pressures

The pressures identified and subsequently ranked by stakeholders were:

- Grazing
- Hunting and trapping
- Landfill
- Pollution from agriculture
- Quarrying
- Reclamation, land abandonment and proliferation of alien species
- Urbanization
- Visitor/Recreational pressures

The overall importance attributed to different pressures by all respondents was analyzed. The highest ranked issue was urbanization. This was followed by quarrying. Hunting and trapping, landfill, and reclamation, land abandonment and proliferation of alien flora received approximately the same median rating. Similarly, pollution from agriculture and visitor pressure received approximately the same, slightly lower, median rating. The almost unanimously lowest-rated pressure on the landscape was grazing.

B. Analysis by stakeholder category:

The dominant pressure identified by all stakeholder groups appears to be urbanization, with grazing considered the least important pressure by all groups. The importance attributed to the other six pressures varied with different stakeholder groups. The pressures whose results proved to be statistically significant were (i) pollution from agriculture, (ii) urbanization and (iii) visitor pressure. Pollution from agriculture was ranked as more significant by affected locals than by official agencies, resource users and the scientific community; the pressure was rated as least significant by NGOs. Official agencies, resource users and the scientific community are all exposed, in one way or another, to day-to-day realities, including those of rural life. The high ranking elicited by affected locals may similarly be explained by their constant exposure to rural landscapes. With reference to urbanization, the issue was ranked as most significant by NGOs, official agencies and the scientific community. Although it appears that all the stakeholder groups perceive urbanization as a potential threat to local landscapes, affected locals and resource users have an economic interest in building development, while other stakeholder groups, notably the environmental lobby groups (NGOs), official agencies and the scientific

community, perceive a larger and more extensive urban footprint as an irreversible environmental management constraint. It is possible that affected locals and resource users would have a stake in urban development, which may explain their judgment. Visitor pressures was rated as most significant by NGOs and the scientific community. Visitor pressure equates with tourism, both domestic and international, which essentially translates into economic gain, explaining the reason for the low ranking by affected locals and resource users who consider tourism as a revenue spinner. Again, official agencies, being part of the government machinery, probably perceive tourism as a positive economic factor. NGOs and the scientific community, on the other hand, may equate high tourist numbers with a demand for more leisure-related development and associated infrastructure, and with increased pressures on the environment.

C. Analysis by gender

As with the different stakeholder categories, both gender groups identified urbanization as the dominant pressure, and grazing as the least important pressure. In general, there were no major differences between the results given by males and females for the different pressures; nevertheless, some minor differences did emerge. The majority of these differences were, however, not found to be significant. There was only one statistically significant result, namely for reclamation, land abandonment and proliferation of alien flora. The median rank elicited by males is significantly larger than the median rank elicited by females, for this pressure. One possible explanation for the differences in rankings of this pressure between males and females could be that men are more exposed to rural land and to the impacts and repercussions of land reclamation, the abandonment of agricultural land and the proliferation of weeds on cultivated areas. Women in Gozo, on the other hand, are traditionally more restricted to family and household domains, although this, with time, is becoming less the case.

D. Analysis by age

Seven age groups were identified, namely (i) under 20, (ii) 20 to 30, (iii) 31 to 40, (iv) 41 to 50, (v) 51 to 60, (vi) 61 to 70, and (vii) over 70. The age groups were then aggregated into four groups for purposes of statistical analysis, namely (i) under 31, (ii) 31 to 40, (iii) 41 to 50, and (iv) over 50. Results were found to be significant for (i) quarrying, (ii) grazing and (iii) landfill. Quarrying was ranked low by the over-50s age group, a response which may be attributed to the perception of this generation that quarrying is a necessary economic driver, vital to the local economy. People in the under-31 age group also considered the pressure to be of low significant, which may possibly be due to the fact that they are either too young to be significantly concerned about the long-term effects of quarries, or they may be at an age in

life when they would be looking favourably at building or buying a new home, hence their general 'support' for quarrying activity. Moreover, the under-31 age group would not know a Gozitan landscape without the large-scale quarries that have existed and indeed intensified during the last three decades. Thus, in their minds, these quarries are an accepted every-day feature that forms part of the contemporary landscape. Grazing was rated as most significant by the 31-40 age group. This result may be attributed to greater environmental awareness amongst the 31-40 age group, in addition to the fact that this generation may associate grazing with a more antiquated way of life. The <31 age group, on the other hand, may have less recollection of such activities and therefore may not consider them as significant. Persons over 41 may remember such activities well and associate them with their childhood, when as youngsters they would have accompanied their parents or grandparents in the countryside nearer their village in search for suitable pasture and hence may perceive this pressure as less negative. Landfill was rated as most significant by the <31 age group. The concern exhibited by the under-31 age group is understandably linked to environmental consciousness, particularly since an awareness campaign was conducted about the issue of waste in local news media.

5. Conclusions

As is evident from the above, the challenges of participation are immense, as are the considerable advantages over the notion of mere consultation. The involvement of a broad spectrum of stakeholders, including key respondents, through soft systems approaches has helped identify the main pressures afflicting sites of ecological importance and their surrounding landscapes. No doubt, the whole process was designed and facilitated by specialists knowledgeable in participatory affairs, so the role of 'experts' is also crucial to a fair extent. However, the very core of the matter, that is, the identification of issues and the debate that was initiated as a result of the participatory process, was a direct output of the stakeholder exercises. Such was the effort in maintaining horizontality - a balance, as it were, between stakeholders, facilitators and all those involved – that many of those who participated prided themselves with a sense of ownership and, for many months later, still talked about the findings as their own. As a result, participation, in this case, validly made conservation more effective.

Notes

[1] L F Cassar, *Integrated Coastal Area Management Part 1: Training Manual*. Vienna, Austria: United Nations Industrial Development Organisation (UNIDO), 2001.

[2] R Margalef ed., *Western Mediterranean*. Oxford, UK: Pergamon Press, 1985; J Blondel and J Aronson, *Biology and Wildlife of the Mediterranean Region*. Oxford, UK: Oxford University Press, 1999; G Benoit and A Comeau, *A sustainable future for the Mediterranean Basin: The Blue Plan's Environment & Development Outlook*. London, UK: Earthscan, 2005.
[3] S Adnan, A Alam, S M Nural and A Brustnow, *People's Participation, NGOs and the Flood Action Plan.* Dhaka, Bangladesh: Research and Advisory Services, 1992.
[4] M Rahnema, Participation. *In:* W. Sachs, ed. *The Development Dictionary*. London, UK: Zed Books,1992, pp 116-131.
[5] J N Pretty, Alternative systems of inquiry for a sustainable agriculture. *IDS Bulletin*, 25(2), 1994, pp 37-46.
[6] J Carew-Reid, R Prescott-Allen, S Bass and B Dalal-Clayton, *Strategies for National Sustainable Development: A Handbook for their Planning and Implementation.* London, UK: Earthscan, 1994.
[7] ibid
[8] ibid
[9] G B Guy and C J Kibert, Developing indicators of sustainability: US Experience. *Building Research and Information, 1998, vol* 26(1), 39-45; B Crabtree and N Bayfield, Developing Sustainability Indicators for Mountain Ecosystems: A Study of the Cairngorms, Scotland. *Journal of Environmental Management*, 52, 1998, pp 1-14.
[10] S Morse, *Indices and indicators in development. An unhealthy obsession with numbers.* London, UK: Earthscan, 2004.

Bibliography

Adnan, S., Alam, A., Nural, S.M. and Brustnow, A., *People's Participation, NGOs and the Flood Action Plan.* Dhaka, Bangladesh: Research and Advisory Services, 1992.

Bell, S., and Morse, S., *Measuring sustainability. Learning from doing*. London, UK: Earthscan, 2003.

Benoit, G., and Comeau, A., *A sustainable future for the Mediterranean Basin: The Blue Plan's Environment & Development Outlook*. London, UK: Earthscan, 2005.

Blondel, J., and Aronson, J., *Biology and Wildlife of the Mediterranean Region*. Oxford, UK: Oxford University Press, 1999.

Carew-Reid, J., Prescott-Allen, R., Bass, S., and Dalal-Clayton, B., *Strategies for National Sustainable Development: A Handbook for their Planning and Implementation.* London, UK: Earthscan, 1994.

Cassar, LF., *Integrated Coastal Area Management Part 1: Training Manual*. Vienna, Austria: United Nations Industrial Development Organisation (UNIDO), 2001.

Crabtree, B., and Bayfield, N., Developing Sustainability Indicators for Mountain Ecosystems: A Study of the Cairngorms, Scotland, in *Journal of Environmental Management*, vol 52, 1998, pp 1-14.

Guy, GB., and Kibert, CJ., Developing indicators of sustainability: US Experience, in *Building Research and Information,* vol. 26(1), 1998, pp 39-45.

Margalef, R., (ed). *Western Mediterranean*. Oxford, UK: Pergamon Press, 1985.

Morse, S., *Indices and indicators in development. An unhealthy obsession with numbers.* London, UK: Earthscan, 2004.

Pretty, JN., Alternative systems of inquiry for a sustainable agriculture, in *IDS Bulletin*, vol 25(2), 1994, pp 37-46.

Rahnema, M., 'Participation', in W. SACHS, (ed), *The Development Dictionary*. London, UK: Zed Books, 1992, pp 116-131.

Louis F Cassar, Ph.D., is a landscape ecologist and environmental planner. He is currently the Director of the International Environment Institute of the University of Malta. His research interests include environmental management and conservation, specifically corridor ecology, fragmentation and ecological restoration, and participatory methods for stakeholder involvement, as also aspects of entomology.

Indigenous Land Management in a Modern World: A Case Study from Papua New Guinea

Estelle L. Weber

Abstract

The current global situation of environmental degradation, climate change, economic instability and social disorder calls for new thinking and action. As citizens of the industrialised world we carry a responsibility to the developing world where much of the resources and intact biodiversity resides. Additionally the developing world represents the remaining cultural practices, which incorporate respect and co-existence with nature. These pressing issues present many sensitive ethical challenges, which need to be put on the table and considered with sincerity and intent. A preliminary study was undertaken in the northern Adelbert Mountains of Papua New Guinea. The communities developed conservation agreements and land use management plans in conjunction with The Nature Conservancy and the Local Level Government. The objective of the study was to identify and progress the current situation in the communities, in terms of their relations, perspectives, awareness and concerns. This was achieved by using reference questions in a field survey exercise, consulting different gender and age groups independently. Essentially the project aims to develop a mechanism for strengthening governance of conservation co-operatives, which present a potential incentive for best practice in land and resource use. The success or failure of Adelbert's Conservation Project ultimately depends on landowners receiving tangible benefits for protection and good management of their environment. This initiative addresses a suite of inherent challenges, involving reinforcing traditional land management through conservation compatible businesses and improving livelihoods without introducing dependency on a cash economy or increasing competition and conflict. This project probes the boundaries of many issues, which challenge our world today; it has the potential to become a working model of how to mobilise an ecologically and culturally sustainable reality. Standardised tools developed from this project can be tailored to unique contexts and implemented on a global scale.

Key Words: Environmental ethics, responsibility, conservation co-operatives, ecological and cultural sustainability.

*****

1. Introduction

This paper discusses the manner and approach of facilitating the strengthening process for conservation co-operatives in Papua New Guinea. In order to provide reasonable alternatives to other exploitative industries that threaten the Indigenous people's traditional land and livelihoods (by mining and logging), It has been determined that conservation must be incentivised through conservation compatible businesses (potentially also payments for Reducing Emissions from Deforestation and Forest Degradation and ecosystem services).[1] This initiative involves many inherent challenges that require more sensitive consideration than ever before in order to achieve ecological and cultural sustainability in the world today.

Underpinning this case study are central themes such as environmental ethics, responsibility and use of traditional ecological knowledge, the role of awareness raising, capacity building and resilience development. Within these themes are numerous interplaying discourses, which are central to shaping the emerging paradigm. A cutting edge approach is required for enacting the transformation towards sustainability that is in being called for in response to the crisis state evident in environmental, cultural and economic systems.

A. The Current Crisis

The 'dominant' industrialized world of the 21st century is characterized by the dysfunctional relationship between social and environmental components, stemming from the fundamental un-sustainability structure. The prevailing paradigm fails to aptly conceive of our interdependent reality and the emerging environmental ethic. In contrast a "…sustainable society restores, preserves and enhances nature and culture for the benefit of all life present and future".[2] These are the ethics of the highest common good for all species; it is of central importance that all future undertakings are imbued on every level with these intrinsic values.

The majority of scientists now agree that resource use and the dominant paradigm of consumerism, associated with western civilization and globalisation, is the source of the current environmental crisis.

"In order for the entire world's population to live as Australians do, we would require five earths". Each person's average 'ecological footprint' (sustainability index) increases from low to middle and high income countries, represented by 0.8ha, 1.9ha to 6.4ha respectively. Forty percent of all species are presently at risk from human inflicted ecosystem destruction. Climate change accelerates species loss, and deforestation accelerates climate change, by producing a quarter of all greenhouse gases.[3] The biological diversity of species, integrity of ecosystems and function of their services is crucial to our fundamentally interdependent existence.[4]

The exponential population growth of this consumer-based society has led to unprecedented deterioration of all natural systems. As a civilization we are only now beginning to come to terms with the finite nature of the earth's resources. Human accelerated climate change is a central concept in the modern human psyche raising countless questions of ethical and environmental concern. The embedded limitations and extent of the consequences are surfacing, alternatives and resolutions are "…rapidly being sought as two possible trends have emerged; collapse or transform".[5] The current global situation of environmental degradation, climate change, economic instability and social disorder, calls for new thinking and action.

B. Responsibility and Use of Knowledge

Considering the efficiency required to address these issues, Fahlquist ascribes the greatest responsibility to wealthy, educated, knowledgeable or skilled individuals, governments and corporations. The reasoning behind this is that they have heightened prospects of increasing the available opportunities for others to act in a socially and environmentally responsible way. Those who are not aware or incapable of behaving responsibility can not be expected to do so, initially. Individual consumers are strongly influenced by cultural, social and institutional settings. Structural and conceptual change in institutions, corporations and organisations, is necessary to create viable alternatives so that individuals can themselves take responsibility. This stimulates a process of change on all levels and on the scale required, to tend to these concerns in the somewhat limited time frame.[6]

Previous opportunities for western populations and minority groups to engage with or access these governing bodies (in a way which encourages participation, builds self determination, responsibility and empowerment) have been very limited. This denotes the prevailing situation where oppression can make people "…seriously doubt their ability to effect meaningful change and consequently withdraw from vital decision making processes".

> The current crisis requires the reinvigoration of an active environmental citizenship dedicated to the principles of ecological democracy. These include grassroots participation and inclusiveness, social and economic justice, sustainability and environmental protection. These pillars on which the concept of ecological democracy rests, provide a meaningful vision for building a more socially and ecologically just existence.[7]

The compounding stresses we currently face require delegation of priorities to invest energy and resources while still commonly available. It

seems we now possess more effective means to deal with this ever intensifying challenge, with more 'power' and 'knowledge' to enact change than ever before. However, we no longer can simply tend to it as a technical issue, for it has become a deep cultural one. We must act now to address these issues in a collaborative, interdisciplinary, inter generational manner that is adaptive and transformative, by harnessing our technology and skills and apply them with wisdom and responsibility. In undertaking this objective we must be careful not to perpetuate the flaws and habits of the current system. I believe we must tend to these issues in both ethical and structural ways, by creating carefully reasoned alternatives and being truly responsible for our daily choice of actions and the impacts they have.

> While technological advances can improve efficiencies and reduce waste, they will not change the societal values and structures that promote limitless consumption and growing inequality. Technology can postpone environmental collapse but only social advances can transform an unsustainable consumer society into a sustainable conserver society.[8]

Education of both child and adult, if revised can be an invaluable tool to evoke learning and awareness and thus catalyze the emerging ethical and structural transformation. There is a growing sense of all humanity belonging to a global community, in this context such skills and ethics are of central importance and must be shared widely. Converse to globalisation (where cultures are homogenised and disempowered), the global community is a network that appreciates diversity and builds resilience and self-determination in people.

> With such narrowly defined academic achievement we face the risk of becoming a world of economically developed and technically competent people who have lost or never gained the ability of reasoning cross culturally and thinking critically to celebrate the humanity.[9] (and our diversity, as global citizens).

In all learning processes it is necessary to develop an inter-cultural understanding of relatedness and respect. The formal Indigenous education processes of ritual and ceremony "…affirm individual and community identity and spiritual affiliations to country; the 'formal classroom' is the 'University of Life' ".

> Successfully managing sustainable use of natural resources requires a deep knowledge combined with a value system that drives and supports the practice…it is part of an entire value and social system-a way of life rather than a profession or job.[10]

As people develop their understanding, awareness, knowledge and skills, they also become increasingly responsible for applying and sharing it with the next generation[11], thus maximizing the practice of ecological and cultural ethics to realize 'true' sustainability.

C. Contemporary Tools and Ancient Wisdom

Indigenous cultures tend have a sustainable relationship with their environment consisting of proximal resource use (housing etc.) and subsistence agriculture. Central to this is the profound emotional and spiritual connection whereby their 'resource use or environmental management' is integral to their being.[12]

Traditional Ecological Knowledge (TEK) is continually developed and applied for local situations by local people. Recently it has been increasingly recognised as valuable to western environmental management practices. I would like to caution that there are possible ethical issues in the western desire to obtain and integrate this knowledge into our own. "This knowledge both inspires and governs a way of life, it cannot be separated from it and mean anything".[13]

By understanding the Indigenous connection to their environment as well as their intergenerational respect and spiritually imbued knowledge, western society may better envision and apply the principles of sustainability.[14] In no way should it continue to simultaneously exploit and subjugate these peoples. This process must be embarked upon collaboratively to raise awareness of such issues, build respectful relations and develop collective ecologically sensitive values. For this undertaking to have longevity it must also be reinforced and reflected in governance, decision making and economic structures.

2. Conservation Co-operative Case Study

A. Background Information

The study undertaken concerns what is considered as a best practice approach of a not for profit conservation Non Government Organisation (NGO), in developing viable land use management agreements including conservation compatible businesses for mutual benefit of Indigenous peoples in Papua New Guinea (PNG) and their highly endemic ecology. The motivating concept being that conservation can improve livelihoods (as they define it) and become a working example of environmental ethics, with the

fusion of contemporary tools and ancient wisdom. Landholders receiving tangible benefits for good management can make this initiative a viable alternative to other more exploitive industries, (by conservation co-operatives) and is an important constituent in achieving lasting successful conservation

This study also describes the role of The Nature Conservancy (Brisbane Office-TNC) as a Non Government Organisation in facilitating this initiative and endeavoring to address the social and ecological needs for conservation in Papua New Guinea (PNG). Undertaking this study entailed the co-ordination of many inter-disciplinary skill sets and tools, a small case study of a much larger and more complex initiative. Knowledge and skills including: community development; co-operative governance (structure & function); indigenous knowledge systems; environmental ethics; global citizenship; capacity building; fair trade and international co-op principles were central to achieving the ethical and environmental objectives in this study.

The International Co-operative Alliance principles include: voluntary and open membership; democratic member control; economic participation; autonomy and independence; training, education and information; co-operation and a concern for the community. A co-operative is defined by The International Co-operative Alliance as:

> An autonomous association of persons united voluntarily to meet their common economic, social and cultural needs and aspirations through a jointly owned and democratically controlled enterprise.[15]

> Fair trade provides a stable and ethical market for conservation compatible businesses and/or co-operatives.

> Fair Trade seeks greater equity in international trade and contributes to sustainable development by offering better trading conditions to and securing the rights of marginalised producers and workers.[16]

The study emphasis was to utilize best practice from the many converging disciplines to actively facilitate the strengthening process of the conservation co-operatives, by working towards a sustainable and resilient mechanism through the consolidation and expansion of existing agreements.[17] Thus attempting to develop and actively implement effective tools in the most ecologically and socially informed manner with the intention to set a new standard and initiate the formation of a continually adapting and improving ethical framework for similar efforts. By identifying

and considering the inherent challenges, sensitivities and threats in all stages of planning and involvement, and by actively planning to reduce threats and positively inspire a realistic outcome, this approach designed to be effective and transformative.

B. The Context

Situated between Southeast Asia and Australia, Papua New Guinea (PNG) exhibits phenomenal cultural and ethnic diversity with approximately 800 distinct languages. Around 97% of the country remains under traditional communal tenure. PNG contains 6% of the earth's biodiversity in 1% of its area (TNC, 2008). More than 77% of the country is covered in tropical rainforest, however 60% of this is under serious threat from logging. The nation's forests have been logged and exported at a tripled rate in the last 10 years. The greenhouse gas emission from current degradation is estimated to comprise 20% of the world total for deforestation.[18] The likely social and cultural consequences of the potential deforestation include mass displacement of clans, unprecedented upheaval and cultural degradation.

The study communities located in the Adelbert's region of PNG, north of Madang include Turatapa, Urumarav, Gurube and Mima. TNC has been working with 23 communities in this region and all levels of Government since 1993 (and developed Conservation Law 2003 to protect and manage customary land under PNG Organic Law). Nine spatially explicit conservation agreements or Land Use Management Plans (LUMP) have been developed in conjunction with the traditional landholders, securing 15883ha of managed forest, 4977ha of which is fully protected.

Established and registered conservation compatible co-operatives involve 54 financial members from 15 participating communities. Initially cocoa is the primary interest, subsequently others such as sewing, trade stores and ecotourism may follow. The fair trade registration has been progressing, however health standards, road access, ability to meet quota, facilities and effective governance are limiting the final process. In the meantime co-operatives will trade through larger co-operative that will assist their progression. A business planner/technical assistant in the local government is available for assistance. A demonstrator from a large cocoa plantation is also due to visit and help increase knowledge and skills.

Currently each family burns and prepares a new garden every year, the soil is kept bare and not all plantations are shaded with local native species. Sufficient area of plantations has been prepared and many seedlings are propagating. The bio-sensitive improvement of yield is essential to reduce the risk of compounding environmental pressures along with the diversification of tradable crops to reduce vulnerability incase of changing seasonality or change in market price.

Communal facilities are in the early stages of construction however transportation remains the biggest physical hindrance as some communities are many hours of hiking from the nearest road. Minimal funds from the odd bag of produce carried all day by hand are currently financing the facility construction. More financial members are required to increase the base revenue. Currently funds are being sought from the local government for an access road. In my view the delay is not seen as problematic due to the need for more widespread awareness and further established governance before the communities are increasingly exposed to external influences. Careful planning and adapting to these new strategies is believed to aid the building of resilience within the initiative and amongst social groups.

C. Study Objectives

The aims of this study were to develop a strengthening mechanism for the co-operatives' governance (structure and function) and tangible benefit sharing. Primarily the objective was to further the process of incentivising conservation and improving livelihoods (by assisting them to comply with their LUMP). There is an intention to generate a standard but adaptive approach to developing and implementing this process so that it could be adapted and used in worldwide conservation initiatives (both Indigenous and Western).

3. The Approach Employed

From the analysis of numerous case studies around the world ten success factors and ten failure factors were identified. A survey composing detailed and sensitive reference questions was designed. This was to assist in the development of an understanding of what role the conservation co-operative plays in the communities and identify what concerns or weaknesses exist or could potentially occur. The survey process itself was intended to raise awareness and facilitate the strengthening process.

The questions (see below) were directed at four key informant groups in each community (elders, men, women and youth) to allow for liberal expression. At each community there was a group discussion to gather the members and introduce the activity, followed by key informant interviews. The more in depth discussion with the separate groups gave more specific information on how members are going to share benefits from the fair trade or conservation compatible business. Care was taken not to raise expectations i.e. of acquiring finances and material wealth.

Reference Questions-addressing four key themes during the group discussions (questions are only a sample of full list and for reference only):

1. What is the communities understanding of the co-op (For all groups)?

2. How is the co-op functioning and what are your views on its decision making process, the markets it can access and the fair trade distribution of real benefits (Just for the cooperative members, not for the other groups)?
3. What are the expectations with respect to the contributions of the cooperative to the community (For cooperative members only)?
4. What are the expectations of what the co-operative can do for Conservation and the Conservation agreements?

The format of the questions was adjusted or adapted according to the specific circumstances. Two additional interviews were held addressing the whole community as one group, to raise awareness and provide equal opportunities. Some of the communities were intentionally targeted as they had historical lack of attendance to meetings or internal communication issues. The attendance of the meetings drew from broader neighbouring communities than anticipated; this is an indication of the level of interest or concern and the general effectiveness of current modes of communication. It is also acknowledged that some attendance was involuntarily limited due to the challenges of terrain and climate. Responses were collated and used to assess which threats existed in the communities. A check list was developed to aid awareness of entire process overview and structured implementation of the whole initiative. Recommendations from the case study were relayed to TNC's Brisbane staff to inform effective action, which is currently occurring along with a program review (i.e. printing signs). My communication with local people has continued via letters and I personally hope to carry out follow up exercises in the near future.

4. Observations

While it is recognised that these observations are only made from a single contact survey, the nature of the questioning and the diversity enabled detailed and comprehensive observations with numerous individuals in each group for each village. Given more funding and resources further analysis of the results obtained or additional surveys could refine and verify these observations. However I am of the belief that the information gained is highly reflective of the true situation as extra care was taken in the survey design, approach and use of an effective, locally knowledgeable translator.
The observations made indicate the need for further involvement, however it is believed that this particular initiative has all the right features to potentially become self sufficient and lasting.

Threats Identified from the Survey (In descending order of priority):

1. Low efficiency farming practices causing intensification of land use and inability to produce sufficient quality or yield.

2. Insufficient level of communication by directors to community members in regards to the co-operative function.
3. Low-level community involvement in the development and awareness of bylaws.
4. The financial planning appears to be in its early stages e.g. commitments to community services/facilities and environmental monitoring are not detailed.
5. Low level of community involvement in decision making process due to lack of consultation.
6. Minimal access to reference materials i.e. bylaws and conservation agreement (LUMP).
7. Lack of financial members to stimulate the co-op.
8. Conservation activities are not specified.
9. There are many goals to obtain services and facilities with little strategy to actualise them.

Table 1. *Threats identified (detailed above) in each village visited.*

	Turutapa	*Avipa*	*Gurube*	*Urumarav*	***Mima***
Threat					
1.	✓	✓	✓	✓✓	✓
2.	✓	✓✓	✓	✓	✓✓
3.	✓	✓✓	✓	✓	✓✓
4.	✓	✓	✓	✓	✓
5.	✓	✓✓	✓	✓	✓
6.	×	✓✓	×	✓	✓✓
7.	×	✓✓	×	×	✓✓
8.	✓	✓✓	✓	×	✓✓
9.	✓	✓	✓	✓	✓

KEY:
× - not apparent
✓ - apparent
✓✓ - obvious

5. Discussion

A. Recommendations

The result reveal the stage of progress each village is currently at and thus determine the action required at each to suit their individual development and ensure equal enabling conditions to reduce conflict arising. The Turutapa, Gurube and Urumarav villages exhibit the least presence of weakness identified. While the Avipa and Mima villages are shown to posses the most potentially weakening factors to their co-operatives strength.

From the study undertaken the following recommendations and strategies are suggested based on the identified threats and weaknesses. It is believed that by carrying out these steps the awareness and knowledge gained will assist both TNC and landholders to most effectively and efficiently contribute to achieving their objectives.

Posters and/or permanent signs need to be produced for the village, this will provide a reference for the members of their bylaws and conservation agreement. These should be displayed in public at each community to allow equal access to information. A translation of the International co-operative principles should be readily accessible to all members along with a step by step checklist to guide the strengthening process and assist the function and resilience of the community.

A follow up survey should be conducted to establish whether financial planning has progressed and strategies have been developed to execute the conservation and community activities. It should also gauge if communication has improved between co-operative directors and the community and if an understanding of bylaws is widespread. Further more it should identify if the number of financial members has increased.

It was locally considered that the biggest risk to the forest in this area is the increasing population and the relative inefficiency of land use and farming methods resulting in the increase of garden area required. Training programs are required to improve these practices to reduce stress on the natural systems while maintaining adequate food supply and preventing reliance on chemical or technological means. The techniques used are simple but efficient in this context, concerning soil moisture and organic matter retention, shade crops and organic multi crop farming techniques.

In order for the co-operatives to undertake fair trade transactions, assistance (guidance and advice) in further developing their business plans (finance and governance) can be arranged along with the services available through the local government. Additionally the ability to meet the required quota for export (not under or over) is crucial in maintaining the trade relationship and prevent over-expenditure. Farmers would benefit from a more comprehensive understanding of how to achieve this.

Through a follow up exercise progress can be consolidated to further the strengthening process by continuing to reduce threats and reinforce principles. In the later stage of co-operative establishment, capacity building in cooperative management, financial accountability and good governance can continue to improve and ensure success of the initiative.

B. Inherent Challenges

The conservation work NGO's undertake in the developing world performs a significant role in shaping and demonstrating the modern sustainable environmental ethic by guiding or facilitating the relevant

projects through an integral process of awareness raising and skills development (education). Increasing rights and opportunities for indigenous people, incentivising good land and resource management, detailing costs and compensation for exploitation (env. economics) all show the inter-disciplinarity present. Three different ethically informed strategies and /or approaches seem to be necessary for collaborating with corporate, government and the public respectively: one compensatory or compromising; the second reinforcement and support (property rights etc. and funds, skills, respectively); and the last involving maintaining the cultural and environmental integrity which makes indigenous cultures unique and sustainable, while introducing protective (legal) and economic incentivising mechanisms.

Negotiation of compromises with interested industries or corporations is a testing yet crucial component of these projects. Additionally the collaboration with governments and policy makers to build reinforcing mechanisms through legislation, registration, funds, and technical support networks is of high priority. This range of negotiations requires careful consideration in order to build functional relationships and mutually beneficial outcomes.

A large component of the work relies on partnerships with Indigenous people who inhabit and depend upon rich ecosystems that are of interest to exploitative industries. Professionals working to try and reduce this risk can be unaccustomed to dealing with Indigenous communities. The approach employed by this case study, was designed to prevent the raising of expectations, undermining cultural/social structure and function (resilience and sustainability) and avoid drastically changing relationships to the land and each other (especially with the introduction of a cash economy). Culturally appropriate interactions that are specific to the unique study contexts are crucial to the projects success.

In the field equal opportunity and the important contribution made by women and youth were highlighted, along with collaboration between the villagers to minimize conflict. Emphasis was made by encouraging the members to identify possible threats associated with the introduction of income to their traditional social functioning. Strategies are being developed by the members, specific to each village to ensure the ethical and equitable use of profits. With the ever present reality of exploitative industries the process of introducing an alternative that promotes full awareness and good governance, is considered a more environmentally and ethically viable option in contrast to the alternative scenarios negatively effecting the integrity of these diverse cultures and natural habitats.

6. Conclusion

This approach could be further developed and applied to many different conservation efforts world wide as a holistic strengthening mechanism that increases awareness of participants, builds capacity for good management and governance as well as community/cultural resilience. The recommendations help ensure the facilitation process is continued until the co-operative is well-established and actively demonstrating ecological sustainability. While survey questions, group interaction, observations and recommendations varied, it is believed that with ongoing studies this process will demonstrate mutually beneficial outcomes for all peoples involved as well as for ecosystem integrity.

This initiative addresses a suite of inherent challenges, involving reinforcing traditional land management through conservation compatible businesses and improving livelihoods without introducing dependency on a cash economy or increasing competition and conflict. This project probes the boundaries of many issues, which challenge our world today; it has the potential to become a working model of how to mobilise an ecologically and culturally sustainable reality.

Notes

[1] REDD Programme once implemented can provide tangible benefits for reduced deforestation and degradation: The United Nations Collaborative Programme on Reducing Emissions from Deforestation and Forest Degradation in Developing Countries, viewed on 3rd June 2009 < www.undp.org/mdtf/UN-**REDD**/overview.shtml>.

[2] This determination has been expressed by authorities such as the: International Union of Architects., Declaration of Interdependence for a Sustainable Future, *Proceedings of the World Congress of Architects*, Chicago, 1993.

[3] Such prominent facts are outlined in works like: Taylor, G., *Evolutions Edge: The Cosmic Collapse and Transformation of Our World*, New Society Publishers, Canada, 2008.

[4] Statements such as this are becoming more frequently acknowledged as in: Egoh, B., Rouget, M., Reyers, B., Knight, AT., Richard, M., Van, C., Jaarsveld, AS., and Welz, A., Integrating Ecosystem Services into Conservation Assessments: A Review, *Ecological Economics*, Vol. 63 (2007) pp. 714-721.

[5] Taylor, G., 2008 presents simply and profoundly the two possibilities our civilization faces.

[6] This study concerns determining the level of responsibility according to people of varied situations (with practical and ethical considerations):

Fahlquist, J., N., Moral Responsibility for Environmental Problems: Individual or Institutional? *Journal of Agric Environ Ethics*, Vol. 22 (2009) pp. 109-124.

[7] This highlights the central importance of participation and empowerment: Faber, D., and McCarthy, D., The Evolving Structure of the Environmental Justice Movement in the United States: New models for Democratic-Decision Making, *Social Justice Research*, Vol. 14 (4) (2001).

[8] Taylor, G., 2008.

[9]Developing cross-cultural communications skills: Grossman, DL., Democracy, Citizenship Education and Inclusion: A Multi-dimensional Approach, *Prospectus*, Vol. 38 (2008) pp. 35-48.

[10] Indigenous issues discussed in: Atkinson, J., and Graham, J., *Trauma, Trauma Recovery and Healing*, Course Handouts, Masters of Indigenous Studies (Well Being), GNIBI, Southern Cross University, Lismore, 2003.

[11] World Indigenous Peoples' Conference on Education, *Coolangatta Statement of Indigenous Rights in Education* (1999) pp.2.4-2.4.4.

[12] Susuki, D., The Sacred Balance: Rediscovering our Place in Nature, Allen and Unwin, Australia (1997).

[13] Atkinson, J., and Graham, J., 2003.

[14] Menzies, CR., and Butler, C., *Traditional Ecological Knowledge and Natural Resource Management*, University of Nebraska Press, 2006.

[15] International Co-operative Alliance, viewed on 16th December 2008 <www.ica.coop/principles.html>.

[16] Fair Trade Foundation, viewed on 12th December 2008 <www.fairtrade.uk>.

[17] Pers. Comm. Dr. Geoff Lipsett-Moore, Conservation Planner Asia Pacific, The Nature Conservancy, December 2008.

[18] The Nature Conservancy, Asia-Pacific: Papua New Guinea, *Adelbert Mountains. REDD and Community Forest Conservation*, October, 2008.

Bibliography

Atkinson, J., and Graham, J., *Trauma, Trauma Recovery and Healing*, Course Handouts, Masters of Indigenous Studies (Well Being), GNIBI, Southern Cross University, Lismore, 2003.

Egoh, B., Rouget, M., Reyers, B., Knight, A.T., Richard, M., Van, C., Jaarsveld, A.S., and Welz, A., Integrating Ecosystem Services into Conservation Assessments: A Review, *Ecological Economics*, vol. 63 (2007) pp. 714-721.

Faber, D., and McCarthy, D., The Evolving Structure of the Environmental Justice Movement in the United States: New models for Democratic-Decision Making, *Social Justice Research*, vol. 14 (4) (2001).

Fahlquist, J., N., Moral Responsibility for Environmental Problems: Individual or Institutional? *Journal of Agric Environ Ethics*, vol. 22 (2009) pp. 109-124.

Fair Trade Foundation, viewed on 12th December 2008 <www.fairtrade.uk>.

Grossman, D.L., Democracy, Citizenship Education and Inclusion: A Multi-dimensional Approach, in *Prospectus*, vol. 38 (2008) pp. 35-48.

International Co-operative Alliance, viewed on 16th December 2008 <www.ica.coop/principles.html>.

International Union of Architects., Declaration of Interdependence for a Sustainable Future, *Proceedings of the World Congress of Architects*, Chicago, 1993.

Menzies, C.R., and Butler, C., *Traditional Ecological Knowledge and Natural Resource Management*, University of Nebraska Press, 2006.

Pers. Comm. Dr. Geoff Lipsett-Moore, Conservation Planner Asia Pacific, The Nature Conservancy, December 2008.

Susuki, D., The Sacred Balance: Rediscovering our Place in Nature, Allen and Unwin, Australia (1997).

Taylor, G., *Evolutions Edge: The Cosmic Collapse and Transformation of Our World*, New Society Publishers, Canada, 2008.

The Nature Conservancy, Asia-Pacific: Papua New Guinea, *Adelbert Mountains. REDD and Community Forest Conservation*, October, 2008.

The United Nations Collaborative Programme on Reducing Emissions from Deforestation and Forest Degradation in Developing Countries, viewed on 3rd June 2009,
< www.undp.org/mdtf/UN-**REDD**/overview.shtml>.

World Indigenous Peoples' Conference on Education, *Coolangatta Statement of Indigenous Rights in Education* (1999) pp.2.4-2.4.4.

Estelle L. Weber is a graduating student (Bachelor of Applied Science) in Land and Resource Management, School of Environmental Science and Management, Southern Cross University, Lismore, Australia. In her travels Estelle actively observes ecologically and culturally diverse community and conservation initiatives. Estelle's previous experience includes eight years of pre-tertiary and undergraduate research projects in the discipline of soil science, recognised with awards both nationally and internationally. Estelle currently works as a laboratory assistant for Southern Cross Geo Science.

PART III

Environmental Education

Virtue Ethics, Biodiversity and Environmental Education

Paul Knights

Abstract
In this paper I offer a contribution from the discipline of philosophy to the appeal for an increase in field-based environmental education. I claim that environmental virtue ethics can both ground claims regarding what is of value in such educational opportunities and structure the contribution made by the empirical evidence invoked to support the calls for its increase. I orient these claims around an argument for the preservation of biodiversity known as the transformation argument. The grounding of these claims within virtue ethics has significant implications for environmental education. Firstly, virtue ethics emphasises the importance of moral guidance and training when young. Secondly, if, as psychological evidence indicates, direct rather than vicarious experiences of biodiversity are able to transform moral character into the environmentally virtuous, it is imperative that environmental education has a substantial field-based, in addition to class-based, element. This paper therefore provides philosophical grounding and continued impetus to the Real World Learning campaign of the RSPB, the Field Studies Council and others. I link these implications by way of Aldo Leopold's notion of the faculty of 'perception'. This involves both awareness and understanding of evolutionary and ecological processes and the place of human beings within them, but also habitual or internal desire for harmony with the natural world. The development of this faculty requires the guidance of instructors who are able to both impart ecological and biological knowledge in the field but also evoke the appropriate moral attitude to the objects of study. In this way environmental education becomes not abstract learning but the realization of a sustainable society through the training of the good ecological citizens of the future.

Key Words: Virtue ethics, environmental education, biodiversity, philosophy.

*****

1. Introduction

This paper presents a contribution from the discipline of philosophy to the appeal for an increase in field-based environmental education. This appeal – founded upon the 'combined practical experience, evaluation and research' of organisations belonging to the Real World Learning partnership[1] – advances the claim that children's education is impoverished if the

opportunities for 'real world' or 'out-of-classroom' learning are restricted, and that it is enriched – and benefits to children and to society accrue – if such opportunities are afforded. The empirical research used to support these claims consists of studies that purport to demonstrate the positive impact of out-of-classroom learning on children's cognitive, affective, social and behavioural development. The contribution that philosophy can make to the appeal for an increase in field-based environmental education is to provide an ethical framework within which (i) the claim regarding what is of value in such opportunities may be articulated and (ii) the empirical research invoked to support this claim may be structured. This paper will suggest that environmental virtue ethics can provide that framework. I will firstly introduce this normative ethical theory, before outlining an argument for the preservation of biodiversity – the transformation argument –, which will serve to order and illuminate the main claims of this paper.

2. Virtue Ethics

Virtue ethics is a normative ethical theory, which takes as its orienting question: 'What kind of person should I be?' In contrast, the rival ethical theories of consequentialism and deontology take as their orienting question: 'What should I do?' Thus, where for consequentialists and deontologists judgments of *actions* are foundational, for virtue ethicists, judgements of *character* are foundational.[2] The virtues are those settled character dispositions such as kindness, generosity and honesty that are 'necessary conditions for, or…constitutive elements of, human flourishing and wellbeing'.[3] It is not merely that the exercise of the virtues accords with moral rules or results in good outcomes for others: their possession and exercise is also good for their possessor. Conversely, the vices are those settled dispositions of character that do not contribute to, or actively threaten, an agent's well-being. *Environmental* virtue ethics is an approach to normative environmental ethics, which attempts to specify the norms of character we ought to have regarding our relations with the natural environment.[4] This approach is emerging as the central framework for the articulation of an environmental ethic after 35 years of the dominance of consequentialism and deontology.

3. The Transformation Argument for Biodiversity Preservation

I turn now to introducing the transformation argument for the preservation of biodiversity, which exhibits the following form:

> P1. If experiences of some entity or phenomenon are apt to engender positive transformations[5] in individuals then that entity or phenomenon ought to be preserved;

P2. Experiences of biodiversity[6] are apt to engender positive transformations in individuals.

I will leave P1 unargued for in this paper. P2 requires justification for the claim that such transformations as are effected by experiences of biodiversity are appropriately characterised as *positive*. The consequentialist or deontologist might justify this claim in the following way: humans bear moral obligations to the natural environment and its nonhuman inhabitants, therefore insofar as experiences of biodiversity are apt to make individuals' subsequent actions more consistent with these moral obligations, then the transformations effected by those experiences are positive. The virtue ethicist, however, would justify the claim thus: insofar as a life that includes the possession and exercise of the virtues is a good human life, and insofar as experiences of biodiversity are apt to transform individuals' character dispositions away from vice and in the direction of virtue, then the transformations effected by those experiences are positive. It is the second approach to the transformation argument for biodiversity preservation that I will pursue here.

The first claim in this justification – that a life that includes the possession and exercise of the virtues is a good human life – is a central element of virtue ethics. As noted above, for the virtue ethicist, the virtues are not merely instrumentally good, but are an essential part of well-being. The second claim – that experiences of biodiversity are apt to transform individuals' character dispositions away from vice and in the direction of virtue – is an empirical proposition. The substantiation of this empirical claim would require: (i) the enumeration of those character dispositions that are virtues and those which are vices; (ii) a method by which we could determine whether and to what degree an individual possessed such dispositions; and (iii) observations that established that individuals who had undergone experiences of biodiversity were transformed such that their vices were weakened or eliminated and their virtues developed or strengthened. It is in this way that the framework of virtue ethics structures the contribution of the empirical evidence (to which I will return below) invoked in support of the appeal for an increase in field-based environmental education.

4. The Form of the Experience and Leopoldian Perception

The general claim made by P2 of the transformation argument for biodiversity preservation is, of course, relevant to this appeal. If experiences of biodiversity are apt to engender positive transformations of individuals in terms of the weakening of the vices and the development of the virtues, then such experiences should surely comprise a component of any good educational programme. But what form should those experiences take?

Firstly, the phrase 'experiences of biodiversity' is ambiguous between direct and vicarious, and therefore field-based and class-based, experiences. If vicarious experiences of biodiversity – films, photographs, textual representations – bear equal potential for the positive transformation of individuals, then those transformations may be achieved in the classroom, thereby avoiding the health and safety, budgetary and curriculum concerns that appear to be motivating the restriction of out-of-classroom learning. But the empirical evidence indicates that direct, rather than vicarious, experiences of biodiversity engender more significant and lasting impacts upon attitudes to the natural environment. For example, Kellert and Derr[7] assessed the impact of participation in courses run by Outward Bound, the National Outdoor Leadership School and the Student Conservation Association in the United States. Most of the 700 respondents to the study reported 'greater respect and appreciation for nature…and support for nature conservation'.[8] Kals et. al.[9] also find a strong (though limited) data set in the research literature for the importance of direct encounters with nature in the development of emotional affinity towards, and subsequent behaviour protective of, the natural world.

Secondly, we might ask if, to realise the transformative potential of experiences of biodiversity in terms of the fostering of the environmental virtues, it is necessary to:

a. inform those experiences with natural scientific knowledge; and
b. guide the affective and evaluative responses to those experiences.

I will frame an answer to these two questions by outlining Aldo Leopold's notion of 'perception'.[10] Perception of the natural environment and its nonhuman inhabitants, for Leopold, involves both an intellectual element, consisting in awareness and understanding of evolutionary and ecological processes and the place of human beings within them, and an appropriate response to this understanding, consisting in a habitual or internal desire for harmony with the natural world.[11] To develop the faculty of perception thus requires that a broad range of evolutionary, ecological and biological knowledge inform direct experiences of biodiversity. But Leopold cautions us that instruction in the intellectual element of perception will not be sufficient for the development of the appropriate response, and it is the response – manifested in attitudes, values and behaviour – that is partly constitutive of virtuous character dispositions. The development of this faculty therefore requires the guidance of instructors who are able to both impart ecological and biological knowledge in the field but also evoke the appropriate affective and evaluative response to the objects of study.

5. An Example Virtue: Proper Humility

I turn now to enumerate some of the virtues that, through such scientifically informed and affectively guided field-based environmental education, practitioners could aim at developing. Virtues are distinguished from one another according to their bases and forms of responsiveness.[12] The *environmental* virtues are those virtues which either take as their base environmental entities (i.e. nonhuman organisms, biological collectives such as species, or ecosystems) or involve environmental entities in their forms of responsiveness (e.g. the restoration of a clear-felled forest). The kinds of environmental virtues I suggest field-based environmental education is apt for fostering are:

- proper humility
- wonder
- care
- aesthetic sensibility
- compassion
- respect
- attentiveness
- appreciation
- ecological sensitivity

I will illustrate how we may begin to support the claim that direct, scientifically informed experiences of biodiversity afforded by field-based environmental education can be positively transformative in terms of the weakening of environmental vices and the fostering of environmental virtues by briefly indicating how transformation might occur with regard to one of the above traits, namely, proper humility.

Let us take the example of a child who is on the path to developing the environmental vice of arrogance. This arrogance, if it becomes embedded as a settled character trait in adulthood, will manifest itself in narrow-mindedness towards natural entities such that they are only considered as resources for, and valuable only insofar as they contribute to, the satisfaction of human preferences. The arrogant person who is not open to appreciating biodiversity as anything other than instrumental to their own ends is both deprived of richer experiences of the natural world and is likely to be less sensitive to the harmful consequences of their actions on the environment.[13] This indifference to the natural world, argue Thomas Hill, Jr. and Geoffrey Frasz, signals the absence of certain traits, such as self-understanding, self-acceptance and other-acceptance, which serve as a natural basis for, or an important psychological preliminary to, divesting oneself of environmental arrogance.[14] To the extent that direct, scientifically informed experiences of

biodiversity promote these traits, they can be said to effect a transformation consisting in the divestment of environmentally arrogant dispositions. Moreover, in weakening such dispositions, the environmental virtue of proper humility is in turn fostered.

Firstly, self-understanding comes from an appreciation of one's place in the natural world. This appreciation consists of both an intellectual element and an evaluative element. The intellectual element is an understanding of, and an appropriate perspective on, one's place in geological, evolutionary and human history and on one's place among the millions of species in the present moment of this history. The evaluative element consists in the adoption of a certain attitude towards one's own importance and value among this measure of time and life. As Hill argues,[15] a fitting response to a full appreciation of one's temporal, biological and evolutionary location in the natural world is a proper humility.[16] The development of proper humility requires overcoming an arrogant self-importance. Hill suggests that learning to value things beyond their contribution to our own interests is essential in this overcoming, and that one of the ways in which this is learnt is experiencing nature. By coming to learn about, and directly encounter, living organisms and ecosystems, the child can come to appreciate, understand and – through guidance – cultivate a fitting response to his location, and that of human beings in general, within the natural world.

Secondly, self-acceptance comes from an acknowledgment of one's status as a natural being. Again, this acknowledgment involves both an intellectual understanding of one's biological nature and similarity – in terms of our capacities, needs and vulnerabilities – to many other forms of life, and also the adoption of an attitude of equanimous acceptance of this biological nature.[17] Hill argues that indifference and, worse, hostility to nature both reflects and encourages a denial of our status as natural beings. In providing the child with opportunities to directly experience nonhuman organisms and thereby discover and perceive their affinity with other forms of life, this kind of self-acceptance is promoted.

Thirdly, Frasz suggests that in addition to a lack of self-acceptance, a lack of 'other-acceptance' also needs to be overcome in order to develop a proper humility. Other-acceptance is an acceptance of the nature of natural entities without anthropomorphisation, sentimental distortion and denial of the facts of death, predation and disease.[18] Frasz criticises popular wildlife documentaries and films for fostering this kind of sentimentalisation of nature. Direct experiences of wild, nonhuman organisms avoid the possibility that, through the use of editing techniques, music or commentary, natural entities will be anthropomorphised or distorted.[19] Further, if those direct experiences are informed by a reasonable degree of biological knowledge

then this will ensure that the behaviour of the natural entity is not misinterpreted or sentimentalized.

6. Conclusion

This paper has attempted to show the way in which a virtue ethics framework can help advance the claim that field-based environmental education is a desirable component of a child's education, and structure the contribution that empirical evidence makes to this claim. Virtue ethics provides a framework within which to articulate what is of value about field-based environmental education experiences and activities that result in the development of certain character traits, namely, the virtues. What is of value is their relationship to well-being; individuals who possess and exercise the virtues enjoy, all other things being equal, greater well-being than those who do not. The empirical evidence indicating that such educational opportunities result in the weakening of the vices and the development of the virtues can then be invoked to support the maintenance and, given the recent decline, increase in such opportunities. Moreover, this argument functions as a constituent in the transformation argument for biodiversity preservation. Not only, therefore, does it contribute to the appeal for an increase in field-based environmental education, but also the justification for the preservation of the very biodiversity that is the object of such education.

Notes

[1] Real World Learning Campaign, 'Memorandum from the Real World Learning Campaign', in Appendix 36 to the UK Parliament Environmental Audit Committee's Fifth Report of session 2004-05, 'Environmental Education: Follow-up to Learning the Sustainable Lesson', 2005, viewed on 27 July 2009, <http://www.publications.parliament.uk/pa/cm200405/cmselect/cmenvaud/84/84we37.htm>. The central organisations belonging to the Real World Learning partnership are the Field Studies Council, the Royal Geographical Society and the Royal Society for the Protection of Birds.

[2] Some have objected that the virtuous character dispositions cannot be foundational – that is, the only primitives of ethics – in the way virtue ethicists characterise them. See for example J. O'Neill, 'Cantona and Aquinas on Good and Evil'. *Journal of Applied Philosophy*, vol. 14, 1997, pp. 97-105.

[3] D. Statman, 'Introduction to Virtue Ethics', in *Virtue Ethics: A Critical Reader*. D. Statman (ed), Edinburgh University Press, Edinburgh, 1997, p. 8.

[4] R. Sandler, 'Introduction: Environmental Virtue Ethics', in *Environmental Virtue Ethics*. R. D. Sandler and P. Cafaro (eds), Rowman and Littlefield Publishers, Lanham, Md, 2005, p. 1.

[5]The terminology of 'transformation' and 'transformative' is, I concede, suggestive of experiences of a revelatory or epiphanic nature. While some individuals may undergo such immediate conversion in response to a single experience of biodiversity, what I have in mind – and what is certainly much more common – is a gradual process of change in an individual's attitudes, values and behaviour, during which they continually seek out experiences of biodiversity. And indeed, the notion that an individual's character dispositions could undergo a sudden change is antithetical to the long virtue ethics tradition of insisting that the virtues are acquired and formed through a slow, even life-long process of education and habituation. The transformation argument for biodiversity preservation, developed by Bryan Norton in B. G. Norton 'Environmental Ethics and Weak Anthropocentrism'. *Environmental Ethics*, vol. 6, 1984, pp. 131-148 and B. G. Norton *Why Preserve Natural Variety?*. Princeton University Press, Princeton, 1987, and also Sahotra Sarkar in S. Sarkar, *Biodiversity and Environmental Philosophy: An Introduction*. Cambridge University Press, Cambridge, 2005 takes adults with currently consumptive and materialistic dispositions as the subjects of transformation. While, therefore, the terminology of character 'formation' and 'formative' experiences would be more appropriate when talking of the effects of experiences of biodiversity on children, I will retain the original terminology with the above caveats in place.

[6] By 'experience of biodiversity' I do not mean an experience of numerous different kinds of organisms at once. Rather, I intend to refer to experiences of particular natural entities which are *components of* biodiversity, i.e. individual living organisms and collectives of natural entities such as habitats and ecosystems. It is therefore sufficient to undergo an experience of biodiversity to encounter a grass snake on a plot of urban wasteland.

[7] S. R. Kellert and V. Derr, *National Study of Outdoor Wilderness Experience*. Yale University School of Forestry and Environmental Studies, New Haven, 1998.

[8] S. R. Kellert, 'Experiencing Nature: Affective, Cognitive, and Evaluative Development in Children', in *Children and Nature: Psychological, Sociocultural, and Evolutionary Investigations*. P. H. Kahn, Jr and S. R. Kellert (eds), MIT Press, London, p. 137.

[9] E. Kals, D. Schumacher and L. Montada, 'Emotional Affinity toward Nature as a Motivational Basis to Protect Nature'. *Environment and Behavior*, vol. 31, 1999, pp. 178-202.

[10] The subsequent account of Leopoldian perception – developed by C. J. List (see endnote 11) – is drawn from A. Leopold, *A Sand County Almanac, With Essays on Conservation from Round River*. Oxford University Press, Oxford, 1966.

[11] C. J. List, 'The Virtues of Wild Leisure'. *Environmental Ethics*, vol. 27, 2005, pp. 362-363.
[12] R. Sandler, *Character and Environment: A Virtue-Oriented Approach to Environmental Virtue*. Columbia University Press, New York, 2007, pp. 40-41.
[13] G. B. Frasz, 'Environmental Virtue Ethics: A New Direction for Environmental Ethics'. *Environmental Ethics*, vol. 15, 1993, p. 273.
[14] T. E. Hill Jr., 'Ideals of Human Excellence and Preserving Natural Environments'. *Environmental Ethics*, vol. 5, 1983, p. 216.
[15] Hill Jr., p. 219.
[16] By a *proper* humility Hill wishes to avoid the implication of obsequiousness, meekness and false modesty.
[17] Hill Jr., p. 222.
[18] Frasz, p. 271.
[19] It might be objected that science is capable of distortion with its own 'commentary' on our experience. Further, my heavy and uncritical reliance on the natural sciences to provide the conditions for positive transformative experiences is open to criticism. Unfortunately, anything beyond an acknowledgment of this reliance is beyond the scope of this paper.

Bibliography

Frasz, G. B., 'Environmental Virtue Ethics: A New Direction for Environmental Ethics', in *Environmental Ethics*, vol. 15, 1993, pp. 259-274.

Hill, Jr., T. E., 'Ideals of Human Excellence and Preserving Natural Environments', in *Environmental Ethics*, vol. 5, 1983, pp. 211-224.

Kals, E., Schumacher, D. and Montada, L., 'Emotional Affinity toward Nature as a Motivational Basis to Protect Nature', in *Environment and Behavior*, vol. 31, 1999, pp. 178-202.

Kellert, S. R., 'Experiencing Nature: Affective, Cognitive, and Evaluative Development in Children', in *Children and Nature: Psychological, Sociocultural, and Evolutionary Investigations*. P. H. Kahn, Jr and S. R. Kellert (eds), MIT Press, London, pp. 117-152.

Kellert, S. R. and Derr, V., *National Study of Outdoor Wilderness Experience*. Yale University School of Forestry and Environmental Studies, New Haven, 1998.

List, C. J., 'The Virtues of Wild Leisure', in *Environmental Ethics*, vol. 27, 2005, pp. 355-373.

Norton, B. G., 'Environmental Ethics and Weak Anthropocentrism', in *Environmental Ethics*, vol. 6, 1984, pp. 131-148.

——, *Why Preserve Natural Variety?*. Princeton University Press, Princeton, 1987.

O'Neill, J., 'Cantona and Aquinas on Good and Evil', in *Journal of Applied Philosophy*, vol. 14, 1997, pp. 97-105.

Real World Learning Campaign, 'Memorandum from the Real World Learning Campaign', Appendix 36 to the UK Parliament Environmental Audit Committee's Fifth Report of session 2004-05, 'Environmental Education: Follow-up to Learning the Sustainable Lesson', 2005. Online. <http://www.publications.parliament.uk/pa/cm200405/cmselect/cmenvaud/84/84we37.htm>.

Sandler, R., 'Introduction: Environmental Virtue Ethics', in *Environmental Virtue Ethics*. R. D. Sandler and P. Cafaro (eds), Rowman and Littlefield Publishers, Lanham, Md, 2005, pp. 1-12.

——, *Character and Environment: A Virtue-Oriented Approach to Environmental Virtue*. Columbia University Press, New York, 2007.

Sarkar, S., *Biodiversity and Environmental Philosophy: An Introduction*. Cambridge University Press, Cambridge, 2005.

Statman, D. 'Introduction to Virtue Ethics', in *Virtue Ethics: A Critical Reader*. D. Statman (ed), Edinburgh University Press, Edinburgh, 1997, pp. 1-31.

Paul Knights is a philosophy PhD student at the University of Manchester. His thesis is on the ethics of sustainable consumption. His other research interests include the philosophy of conservation, environmental aesthetics and theories of well-being.

The Problem with Consensus: The Contested Terrain of Sustainability in a University Setting

Judy Rogers and Jane Shepherd

Abstract
When environmental ethics and sustainability are discussed in many teaching contexts there are explicit or implicit assumptions that it is essential or at least desirable to reach consensus. This is based on a belief that there is (or should be) a shared understanding about what environmental ethics and sustainability is and how it should be enacted in the world. However, in this paper we argue that this desire for consensus and agreement leads to the imposition of a particular moral and ethical agenda based on defining 'right' and 'wrong' behaviours and ideas. Values, life experiences and concerns about sustainability and environmental ethics are lost in the quest for a common, shared vision, which potentially has more to do with the teacher imposing a particular viewpoint than with the student. This effectively closes down debate and inhibits student's potential for transformative learning experiences.
In this paper we will present case studies of three courses offered in the School of Architecture & Design, RMIT University, Melbourne, Australia. While different in content and in focus each are premised on an ethic of valuing debate, discussion and often contest along with a respect for different points of view. We argue that contestation, debate and divergent opinions should be actively encouraged to create a learning environment that values differences rather than seeks similarities. This sets up the circumstances not only for potential transformations in individual thinking but importantly an ethic of openness to diverse points of view and experiences. Such an approach also has the potential to transform sustainability discourse from one characterized by messages of constraint and imposition – or of simply saying 'no' - to one of openness to innovation and change.

Key Words: Sustainability, sustainability education, discourse, consensus

****

1. Introduction

Sustainability as a concept, an approach - a manifesto is currently de rigueur across courses and programs in higher education. Whether it enters the academy through explicit teaching and learning priorities (the University may, for instance, have a commitment to the Talloires declaration) or through engagement with external cultural imperatives and normative practices there

is a sense that sustainability should be integrated into courses or programs somewhere, somehow. But how is sustainability to be understood within a University context? What does sustainability education look like and how is it enacted? What does it mean to teach sustainability? What is included (and excluded) in curriculum? And how does (or doesn't) it fit within the academic programs offered to students? What happens to 'our' understanding of sustainability when it meets and often collides with specific disciplinary conventions and understandings of sustainability?

The Talloires declaration provides a globally agreed upon framework for incorporating sustainability and environmental literacy in teaching, research, operations and outreach at colleges and universities.[1] Initially developed in 1990 the declaration has since been signed by 350 Universities in over 40 countries worldwide. The declaration frames sustainability in terms of urgency, responsibility, involvement and partnerships and there is a focus on waste reduction, recycling and resource conservation.[2] In line with this the declaration presents sustainability as a common problem, a common challenge, a common concern: something 'we' and our students need to know about and enact. According to the Declaration:

> '…urgent actions are needed to address these fundamental problems and reverse the trends. Stabilization of human population, adoption of environmentally sound industrial and agricultural technologies, reforestation, and ecological restoration are crucial elements in creating an equitable and sustainable future for all humankind in harmony with nature'. [3]

The sense of urgency suggests that agreement and consensus has already been reached and so the aim is to ensure students as graduates will know how to practice 'appropriately' in their respective professions and to be 'ecologically responsible citizens'. [4] In this way the declaration reflects what Yanarella and Bartilow refer to as the powerful tendency of such overarching, global statements about sustainability and the future to become caught between the poles of environmental moralism and policy incrementalism.

> That is, on the one hand, these international policy enunciations on sustainability are often couched in the ethical language of 'oughts' growing out of a scenario of the present and near future caught up in an almost apocalyptic vision of imminent ecological degradation, catastrophe or doom. Curiously such ecological

> forebodings are routinely followed by policy recommendations enunciated in 'oughts' and 'shoulds'.[5]

Use of terms like ought and should suggest that there is a 'right' and a 'wrong' way to approach sustainability, or two alternatives – a sustainable or an unsustainable one. And so the role of universities is simply to teach students the 'right' way to ensure a sustainable future for all. This is despite the fact that sustainability as a concept is widely understood as contested and as having no fixed meaning. As Becker, Jahn and Steiss have observed 'the only consensus on sustainability appears that there is no shared understanding'.[6] With no shared understanding and no end point sustainability has instead been described as a process of change towards an unknown future requiring reflexive thinking. For O'Riordan sustainability is simply not achievable as it is an ongoing process where '[e]ach stage is a reflection of its predecessor and a prognosis for the next'.[7]

So what if instead sustainability was understood as an open ended, fluid process of change that hovers always in the future and therefore by definition cannot necessarily be achieved? As Dryzek has noted:

> Sustainable Development refers not to any accomplishment, still less to a precise set of structures and measures to achieve collectively desirable outcomes. Rather, it is a discourse.[8]

Understood as a discourse, sustainability remains relatively undefined and is continuously evolving. The process of definition, redefinition and evolution occurs in and through discourse where meanings are debated, contested and also where some level of agreement can be reached, at least for a time. From this perspective sustainability can be understood as a site of struggle over words, meanings and knowledge(s). And this struggle cannot simply be resolved by appeals to urgency, or by suggesting that there is a 'right' or 'wrong' pathway. To do so is to overlook the fact that far from being a technical 'problem' sustainability is also deeply political. As O'Riordan has argued when 'sustainability is touched, there are new sets of losers'.[9]

2. Sustainability Education

And so what does this mean for sustainability education? In their study of sustainability education Wals and Jickling[10] suggest because decisions about sustainability ultimately rest on different interests and values the concept needs to be openly challenged, negotiated and discussed rather than masking its complexity under a seemingly 'shallow consensus'. They argue that education for sustainability typically:

> …breathes a kind of intellectual exclusivity and determinism that conflicts with ideas of emancipation, local knowledge, democracy and self-determination. The prepositional use of 'for' prescribes that education must be in favour of some specific and undisputed product, in this case sustainability'.[11]

They contrast two approaches to education for sustainability. The first adopts an instrumental view of sustainability where 'sustainability is fixed, pre-and expert determined (i.e. academics) and to be reproduced by novices (i.e. students)'.[12] They argue that such an approach is not necessarily educational. This is contrasted to education for sustainability which can contribute to the creation of a (more?) democratic and environmentally just world - whatever such a world may look like'.[13] For Wals and Jickling an emancipatory approach to education for sustainability must necessarily be participatory, open and respectful of different perspectives and attitudes and provide 'a means to become self-actualized members of society, looking for meaning, developing their own potential and jointly creating solutions'.[14] This approach to education is based on a process of seeking rather than setting the sustainability agenda:

> The process of seeking, rather than setting standards for education for sustainability, from an emancipatory vantage point, above all means the creation of space. Space for alternative paths of development. Space for new ways of thinking, valuing and doing. Space for participation minimally distorted by power relations. Space for pluralism, diversity and minority perspectives. Space for deep consensus, but also for respectful dissensus. Space for autonomous and deviant thinking. Space for self-determination. And, finally, space for contextual differences and space for allowing the life world of the learner to enter the educational process.[15]

So rather than simply prescribe what sustainability is, the process of seeking sustainability takes place with a framework of discussion, debate, contestation, disagreement and agreement. Wals and Jickling's distinction between shallow and deep consensus is an important one. It suggests that shallow consensus is reached based on a pre-prescribed idea of what sustainability is and that this desire for consensus leads to the imposition of a particular moral and ethical agenda based on defining 'right' and 'wrong' behaviours and ideas. Values, life experiences and concerns about

sustainability and environmental ethics are lost in the quest for a common, shared vision which potentially has more to do with the teacher imposing a particular viewpoint than with the student. This effectively closes down debate and inhibits student's potential for transformative learning experiences. Deep consensus, on the other hand, can only occur within a learning environment that is respectful of differing perspectives and ideas. Such an approach also has the potential to transform sustainability discourse from one characterised by messages of constraint and imposition – or of simply saying 'no' - to one of openness to innovation and change. In doing so the potential exists for students to move beyond stories of catastrophe and doom, along with apocalyptic visions of the future towards imagining futures where they can actively intervene; where they can in fact imagine a future.

So if as Wals and Jickling argued, part of sustainability education is to provide 'spaces' to reflect and critique and challenge taken for granted concepts and precepts like sustainability that currently frame our everyday lives, then the issue for educators is where can we find such spaces. This paper reflects on the development of three such 'spaces' – one a fully on line elective, the second a field trip and the final example a design studio. However while the educational setting is quite different all share a common intention to unsettle students existing understandings of sustainability through a process of privileging dialogue and exchange, debate and contestation. The aim is to encourage students to think beyond prescriptive and fixed ideas about sustainability, to grapple with the possibilities of what it could mean. As Bruce Mau so clearly puts it in his *Incomplete Manifesto* 'When the outcome drives the process we will only ever go to where we've already been'.[16]

3. Case study 1: An interdisciplinary on-line course: 'Challenges in Sustainability'

'Challenges in Sustainability' is offered as a fully on-line general elective to students across RMIT University. Students are required to complete three general electives as part of their undergraduate degree. The broad aim of the elective program is to offer students opportunities to customize their degree to reflect their needs and interests. The course attracts undergraduate students from a wide range of disciplines particularly business, engineering and planning.

'Challenges in Sustainability' aims to facilitate a process of learning that explicitly reflects 'sustainability' as a process of dialogue and exchange and which openly questions, debates and challenges some of the dominant ways in which the concept is understood and applied in practice. So from the outset students are made aware that learning needs to go beyond acquiring or even sharing knowledge about sustainability (although this is part of the process) to learning that engages with its uncertain, contested and

open ended nature. So rather than simply assume that sustainability is a given 'good', students are asked to consider the questions – 'sustainability of what and for whom?' The on-line environment provides a forum for students to engage in these questions without some of the difficulties or awkwardness of face-to-face interaction.

The course is divided into two parts. The first part of the course focuses on the 'theory' of sustainability – what it is, where the concept came from and how is has been debated and challenged. The aim is to firstly, expose students to varying definitions and approaches to sustainability, including their own, and to consider and debate the ways in which these definitions are informed by different political and philosophical orientations along with divergent understandings of environment. Discussion forums are established around key questions, ideas and issues and students are required to identify differing points of view and discuss and debate them on-line. Issues emerge out of students on-line discussions and in these forums the role of the teacher is to raise questions/issues/ideas for discussion rather than judge what is being said. Part 2 of the course has the theme of introducing students to the practice of sustainability: the students own practice and sustainability approaches in the discipline domain of the student. The aim is for students to apply knowledge learnt in the first part of the course to examine, critique and reflect on the practice of sustainability within their own discipline and in the disciplines of others. They also are asked to speculate on how the tools and techniques employed in practice could be developed further. Interestingly and importantly, in Reflective Report at the end of the semester most student feedback tends to focus on what they have learnt from other students in the course rather than the teacher. The focus is on the process of learning rather than simply describing or defining sustainability. Even more importantly however, students learn about the value of differing points of view, that sustainability cannot simply be reduced down to one perspective and that it is through this process of dialogue and exchange that new ideas emerge.

4. Case Study 2: An Interdisciplinary field trip based course: 'Farming the Future'

'Farming the Future' is also an RMIT wide elective and is available to student across the University. It is a fieldtrip based course, with two face-to-face classes preceding four days in the field. In recent years this course has been particularly popular with Civil and Mechanical Engineering and Building Construction Management students. It is taught twice a year with field trips to a variety of regional and rural locations. Farming the Future was first offered as a course in mid 1990s. The course was developed to expose a largely urban-based local and diverse international student cohort to issues being faced by people living in rural and regional Australia.[17] Students are

briefed on the challenges for future farming and land management in rural Australia by local people. In the mid 1990s the course engaged students in 'real' socio-environmental problems – and the aim was to explore whatever environmental or social issue seemed most pertinent for people on the land. By the end of the 1990s a sustainability discourse framework was introduced to assist students to challenge some of the assumptions they brought to this course and that they were exposed to during field trips. Fieldtrip locations were chosen that were topical and controversial highlighting conflictual issues in relation to land-use planning and land management.

This case study focuses specifically on a field trip held at the end of June, 2008 to the Wonthaggi district. Wonthaggi is a small coastal town, 150 kilometres south east of Melbourne, Victoria's capital city. It is the site of a proposed desalination plant intended to reduce water insecurity for Melbourne's population, (now exacerbated by ten consecutive years of drought). The main theme of this particular field trip was industrialisation of the landscape and included visits to both the desalinisation plant pilot project and an adjacent wind farm. The focus was not on the merits of either development, or even whether they were sustainable but rather how each of these projects were written and spoken about. Students were asked to consider why each of the projects generated so much conflict and disagreement locally and regionally, what was meant by industrialisation of the landscape anyway and what did sustainability mean within the context of what had been occurring in the region.

The field trip included visits to the community blockade of the pilot project, the site itself: archaeological and cultural heritage sites in the area. Students also listened to representatives from local government, from the local action group, to landholders and to local experts who introduced them to the flora and fauna and to local history. We also visited the local wind farm and spoke to local community members who were opposed to that development. Issues that emerged over the four days included concerns about governance -How state government planning regulations overrode those of local government, what was seen as a refusal by government to engage with community groups, along with concerns about the level of privacy around the decision to build a desalinisation plant. It was these local embedded understandings, experiences and knowledge that students were given access to and gained so much from during the field trip. What became clear over the four days was that there was not one unified 'community' voice in the region. While the voices of protest were clearly evident others in the community supported the development arguing that the injection of funds represented a significant boost to the local economy. And the concerns were different too. While some of the speakers focused on the loss of visual amenity in the region others were much more concerned about climate change. Meetings with people who had had their land compulsorily acquired

helped students to understand that rather than simply being a space on which to site a desalinisation plant it was also a place, a home, an integral part of many people's identity.

Through out the fieldtrip students were exposed to multiple and often conflicting stories about what either the desalination plant and/or the wind farm development meant for those living in the region. It became increasingly clear that at the local level what was considered 'sustainable' by some in the community was often seen to be the opposite or irrelevant by others. While some in the community embraced each project, there were others that remained bitterly opposed to it. These differing concerns challenged the students understanding of what constitutes 'community' and what constitutes a sustainable solution. But while opinions differed an overarching theme that did emerge was one of powerlessness. This insight also challenged students' assumptions about what constitutes a 'sustainable' outcome; that for instance, from afar a wind farm can and does appear like a sustainable solution until it hits the ground.

As the layers began to unfold it became increasingly clear – that opposition could not be understood as a case of anti development – that more was at stake. And the disquiet within the community could not simply be resolved using categories like right or wrong, sustainable or unsustainable. Rather than sustainability being seamless and unproblematic it was (and is) also deeply political.

5. Case Study 3: A Landscape Architecture Design Studio: 'Rupture: Sustainable Suburb?'

The third case study is taken from design studio education. Design studios are a project-based education model that emphasises experimentation and iterative process culminating in design proposition/s or investigation of design processes and often combinations of processes and propositions. Students study in small groups with six hours of classes a week with a staff to student ratio of 1:16. In the Landscape Architecture Program students from years 2, 3 & 4 undertook studios together. Students develop propositions primarily through drawings and models. The approach to each studio is directed by the brief set by the studio teacher. Studio briefs range from highly prescriptive to open –ended inquiries, from theoretically based speculations to 'live' projects grounded by community consultations or government and industry clients.

The simplest way to enact an obligation to design 'sustainably' is to view sustainability instrumentally and have students use the appropriate green technology and achieved the 'checklist' requirements' in green design codes. When this approach to sustainability is taken in combination with a tightly fixed industry brief then it is possible to envisage the likely student project outcomes before the students even begin the project. An alternative to

the combination of a fixed brief and fixed view of sustainability is to take a discursive, open-ended approach to sustainability of the type we have advocating in this paper and combine this with a fixed brief. This offers students a safety net. While the approach to 'sustainability' is loose and fluid the brief is reassuringly concrete. The students can experiment with how to approach sustainability knowing that their end goal is set, for example, designing a small park or public plaza. The most radical and difficult option for student is to set an open-ended approach to 'sustainability' and to the studio brief. In this model, students are exposed to a high degree of risk as they must develop and position their view on sustainability while simultaneously creating a project brief to direct their design process and to test their developing view on sustainability. The case study: 'Rupture: Sustainable Suburb?' a Landscape Architecture design studio taught in 2004 took this double open-ended approach as its operating method.

The site for the Rupture: Sustainable Suburb?' studio was North Melbourne, an inner city suburb stretching from the edge of the central business district to an recently inserted freeway built over a denuded urban waterway and abutting an industrial zone on the suburbs western edge. The predominate land use is residential with housing types ranging from restored Victorian terraces and villas to eight full street blocks of flats built in the late 1960s and 1970s. The flats house a mixture of renters and owner-occupiers with significant numbers of public tenants in purpose built estates and scattered through private developments as social housing tenants. North Melbourne has the highest concentration of NGO and government services for homeless people in a Melbourne suburb.

The brief described the studio to the students as 'the container for your investigative and experimental work', with students 'seeking to invent projects that rupture the smooth neat glossiness of many definitions of sustainability'[18]. Students were advised that sustainability is a 'highly contestable possibility that at its best can be a creative process'.[19] Concerning sustainability the students were warned in the brief that sustainability is a difficult, unstable, and value-laden concept where the complexity can be frustrating, distressing and annoying in circumstances where students are attempting to learn on so many 'fronts' simultaneously. However students were encouraged to see this very complexity as a web of possibilities through which they could weave their studio projects. The students' semester long task was to invent a project to their own brief that grappled with issues of sustainability on their own terms.

It was observable that the process of an open-ended project brief and attitude to sustainability was, as promised by the brief, a difficult learning environment for many students. Overwhelmed and frustrated a number of students opted for a project focusing on green technology, for example, water-recycling water for a block of flats. However students taking this

option did complete projects of the green technology kind knowingly, and where able to situate where their projects fitted into the spectrum of sustainability projects. In this studio environment students found themselves having to fight for the right to undertake a status quo green technology project and some students did this with conviction. Students able to grapple with the fluid nature of the studio processes produced work of a great variety of project types including a discursive end-of-semester exhibition project; a quirky social marketing campaign and a design for a 'sublime' recreational experience under the freeway, beside the degraded creek with an emphasis on the possibility of extreme play rather than the normally expected ecological restoration. The wide ranging nature of the project suggests that the studio had to some degree realised one of Bruce Mau's principles for design 'If the process drives the outcomes we may not know where we're going, but we will know we want to be there'.[20] As such a number of students' project outcomes clearly embodied an educational approach where sustainability is not limited to a set of predetermined parameters and therefore predictable outcomes.

4. Conclusion

Each of the three case studies explored in this paper adopted an approach to sustainability education that privileges dialogue and exchange over the more familiar version of sustainability education that sees it as fixed and immutable. The courses encouraged students to engage with the multiple, conflicting and contested nature of contemporary discussions around sustainability, rather than simply hiding the contestation under a seemingly 'shallow consensus'. The aim was to provide spaces for students to consider sustainability not as an imperative, as something that one 'ought' or 'should' subscribe to, but rather as a site where multiple possibilities to imagine and create futures can emerge. As Wals and Jickling argue:

> Higher education has first and foremost something to do with creating possibilities, not defining or prescribing the future for our students. These possibilities arise when universities promote the exploration, evaluation and critique of emerging ideas and the creative contribution to their development. Viewed as such, sustainability is best seen as only one of many stepping-stones.[21]

Notes

[1]University Leaders for a Sustainable Future *Talloires Declaratio*1990 http://www.ulsf.org/programs_talloires.htm
[2] ibid
[3] ibid
[4] ibid
[5] Yanarella E, Bartilow H Beyond environmental moralism and policy incrementalism in the global sustainability debate: case studies and an alternative framework. *Sustainable Development*. 8, 2000, p. 125.
[6]Becker, E Jahn, T and Steis, I 'Exploring Uncommon Ground : Sustainability and the Social Sciences Chapter 1 in Becker, E and Jahn, T *Sustainability and the Social Sciences*, Zed Books, London and New York, 1990, p.1.
[7] O'Riordan, T 'preface' in O'Riordan, Tim (ed) *Globalism, Localism and Identity. Fresh Perspectives on the Transition to Sustainability*. Earthscan Publications Ltd, U.K. and USA, 2001p. xviiii.
[8] Dryzek, J.S. *The Politics of the Earth: Environmental Discourses* second edition, Oxford University Press, Melbourne 2005, p. 144
[9] O'Riordan *op cit* p. xx
[10] Wals, A. and Jickling, B. 2002, "Sustainability" in higher education: from doublethink and newspeak to critical thinking and meaningful learning', *International Journal of Sustainability in Higher Education*, vol. 3, no. 3, pp. 221-224, 2002.
[11] *ibid* p. 222
[12] *Ibid* p. 224
[13] *Ibid* p. 224-225
[14] *Ibid* p. 225
[15] *Ibid* p. 230
[16] Mau, B. *An Incomplete Manifesto for Design* 1998 http://www.brucemaudesign.com (accessed 9.03.07).
[17] Australia is and has always been highly urbanised with approximately 85% of Australians living in cities and towns within 50 kilometres of the coastline.
[18] Rupture: Sustainable Suburb? Course Guide, Landscape Architecture Program, School of Architecture and Design RMIT, February 2009.
[19] *Ibid*
[20] Mau, *op cit*
21 Wals and Jickling *op cit* p 230

Bibliography

Alvarez, A., and Rogers, J., 'Going "Out there": learning about sustainability in place', in *International Journal of Sustainability in Higher Education* Volume 7, No. 2, 2006.

Becker, E., Jahn, T., and Steis, I., 'Exploring Uncommon Ground: Sustainability and the Social Sciences' Chapter 1 in Becker, E., and Jahn, T., in *Sustainability and the Social Sciences,* Zed Books, London and New York, 1990.

Mau, B., *An Incomplete Manifesto for Design* 1998, viewed on 9th March 2007,
<http://www.brucemaudesign.com>.

O'Riordan, T., 'Preface' in O'Riordan, T. (ed), *Globalism, localism and identity: fresh perspectives on the transition to sustainability,* London, Earthscan Publications 2001.

Shepherd, J., Rogers, J., and Alvarez, A., 'Grappling with Sustainability in Design Education', in *ConnectED 2007 International Conference on Design Education*, Zehner, Robert and Reidema, Carl (ed.), University of New South Wales, Sydney, Australia (ConnectED 2007 International Conference on Design Education), 2007.

Wals, A., and Jickling, B., '"Sustainability" in higher education: from doublethink and newspeak to critical thinking and meaningful learning', in *International Journal of Sustainability in Higher Education,* vol. 3, no. 3, pp. 221-224, 2002, 2002.

'University Leaders for a Sustainable Future', in *Talloires Declaration,* 1990, viewed on 2nd June, 2009.
<http://www.ulsf.org/programs_talloires.html >.

Yanarella E, and Bartilow H., 'Beyond environmental moralism and policy incrementalism in the global sustainability debate: case studies and an alternative framework', in *Sustainable Development*. 8: 123-134, 2000.

Judy Rogers and Jane Shepherd teach in the School of Architecture and Design at RMIT University, Australia.

Teaching Environmental Law: Curriculum and Methodologies

Erika J. Techera

Abstract
As the range and complexity of environmental laws has expanded over the last 30 years, so too has the job of teaching environmental law. However, simply enlarging the number of subjects or groups of specific laws that are taught is not enough. It is clear that the field of environmental regulation has evolved from a series of media-specific statutes to much more integrated systems which incorporate, for example, market-based mechanisms, adaptive management techniques and ecosystem-based approaches. These complexities and the increasing interconnectedness of legal issues with other areas of environmental studies necessitate students developing an understanding of the role of other disciplines in addressing environmental issues. Therefore, environmental legal education must engage with, involve an appreciation of and embrace inter-disciplinarity and multi-skilling. Different regions of the world have adopted a variety of approaches to environmental problems, each influenced by socio-cultural, economic and geographic diversity. It is also important that these different approaches and perspectives be analysed in order to identify best practice where possible. Environmental law, perhaps more than any other legal field, cannot be taught in a vacuum. This chapter will address the changing way in which environmental law is taught. It will consider ways in which environmental law teachers can incorporate interdisciplinary perspectives and comparative studies into the classroom to facilitate the development of the necessary skills and knowledge in law students to meet future challenges.

Key Words: Environmental law, environmental education, inter-disciplinarity, legal education, sustainability, tertiary sector teaching.

*****

1. Introduction

Environmental law is not a core or compulsory subject in most undergraduate and graduate law (LLB) curricula.[1] For a long time there was some question as to whether environmental law was a separate subject area suitable for the university curricula.[2] Indeed in some cases still today, there is a tendency by some to suggest that legal practitioners in this field are not 'real lawyers'. This is instructive because one of the main reasons it may not be considered a 'proper legal subject' is that it draws upon and incorporates a range of non-law disciplines. In the past this was frowned upon in legal

education where emphasis was placed on strict theories of justice, legal concepts and black letter law. Environmental law is informed by both legal philosophy and many other disciplines including the physical and social sciences, environmental studies, politics and international relations. Furthermore, graduates of environmental law programmes, whether practising lawyers or not, will need to develop an understanding of the role of other disciplines in addressing environmental issues in order to contribute positively to this growing field.

Environmental law emerged as a subject area in the 1990s but has evolved far beyond its origins in local government planning law.[3] Today environmental law is a subject which is expanding rapidly in terms of its content and popularity. The purpose of this paper is to consider the changing context in which it is taught and what separates it from other areas of the legal curricula. Thereafter, the aim is to consider what this means for teachers of environmental law and to offer some suggestions on curricula and methodologies. In large part this paper draws upon personal experiences in Australia of teaching students enrolled in environmental law and international environmental law undergraduate and postgraduate programmes.[4]

The first section of this paper will consider in detail the context in which environmental law is taught in terms of the University setting, student cohort and rapidly expanding subject area. This will be followed by a consideration of why the teaching of environmental law needs to change and ways and means by which this might be achieved. Finally, conclusions will be drawn as to the future of environmental legal education.

2. The Context of Contemporary Environmental Law Teaching

The University environment is changing in a number of ways which impact upon the teaching of this and many other subjects. However, for teachers of environmental law these changes are compounded by a transforming student cohort and rapidly expanding subject area. These three very relevant contexts are considered below as they inform the development of environmental legal education curricula.

A. The Changing University Environment

The tertiary sector is becoming much more business-oriented.[5] In the past the tertiary sector was more public service-like in style but more recently a corporate model has been adopted. This can be seen from the increasing focus upon the economic viability of degree programmes. This has also translated into students being seen as ‘customers’ whose needs must be satisfied. Therefore, teaching must take much greater account of student expectations of the university experience. This will be considered further below in the context of the student cohort.

A second incidence of this shifting attitude is that a more centralised approach has been taken by Universities in the development of curricula. This can be seen from the flurry of curriculum reviews and learning and teaching plans resulting in the setting of graduate attributes or capabilities to be embedded as core values in students university-wide.[6] In many cases these attributes include sustainability, internationalisation and global citizenship, which are key themes of this conference.[7] At my own University 'core values of Scholarship, Ethical Practice, Sustainability and Engagement are seen as the Guiding Principles within which the curriculum is developed'.[8] Therefore, their development directly affects the ways in which we teach.

B. The Diversifying Student Cohort

The range and variety of students enrolled in environmental law courses is perhaps the most diverse of all areas of law.[9] Students may be international or domestic, come from many different cultures and backgrounds and have a wide range of nationalities. This brings considerable strengths to the classroom in terms of the perspectives and cultural viewpoints involved. However, it also brings some challenges, predominantly in terms of language but also related to the differences in legal tradition in the countries from which students come.

The second area of diversity is the range of experience and expertise of the student cohort. In the past environmental law subjects, within law schools, tended to include only law students. However, this is no longer the case.[10] Particularly in the Masters programme students are drawn from a range of backgrounds, occupations and with a variety of qualifications: planners, environmental consultants, conservation biologists, hydrologists, environmental engineers, policymakers, politics, lawyers and other physical and social sciences. Whilst these students tend to be mature and highly motivated they are in many cases experts in their own fields.

It is important to identify and appreciate these backgrounds as they are relevant to and inform student expectations. Where students are drawn from environmentally related professions they are often studying environmental law with the specific goal of filling a gap in their knowledge – in order to understand how to 'think like a lawyer' or at least to 'understand how lawyers think'. In many cases they intend to apply their studies in their workplace as they may be required to provide the link between their work and the legal profession. For example, team leaders who work with in-house counsel or make the decision to brief out. In other cases these graduates could be future members on statutory advisory panels or law- and policymakers on Government boards or international environmental agencies.

The last observation relates to the prior knowledge of the law these students have. In some cases they have quite detailed knowledge of their own specific area in which they work. For example, planners tend to know a great

deal about town planning legislation and development assessment. And conservation biologists are adept at quoting sections of the threatened species legislation. This prior knowledge can be a strength but also a weakness if students find it difficult to overcome ingrained knowledge.

In addition to this, environmental law is often being taught to both law and non-law students together. This is certainly the case in terms of my own experience where Master of Laws (LLM) and non-law Masters students are taught together. In some cases undergraduate units are cross-accredited in other degree programmes such as a Bachelor of Planning. Therefore, the qualifications, experience and expectations of the students in any given environmental law class is extremely varied.

C. Expanding Range of Environmental Laws

Environmental law is a rapidly evolving field. There has been a well-documented exponential growth in multilateral environmental agreements (MEAs) over the last few decades.[11] In addition to this there is a growing body of regional and bilateral agreements as well as domestic law. These laws do not exist in isolation and are vertically and horizontally connected, affecting both their implementation and enforcement.

National law has also progressed well beyond town planning law and pollution control statutes which once dominated this area.[12] Today the body of law includes these areas but many others such as water law, marine protection, biodiversity conservation, heritage law and policy.[13] In addition there are a number of cross-cutting areas such as trade and environment, human rights and environment, and Indigenous peoples and natural resource management. These add to the range and complexity of environmental laws, which in turn increases the difficulty of teaching this subject area.[14] Gone are the days when there was some issue as to whether it truly was an area of law to be studied within a law course. It is now firmly established as a subject of law albeit often a piecemeal one.

3. What does this mean for the teaching of environmental law?

So what does this contextual analysis mean for teachers in this field? Firstly, environmental law is here to stay with growing popularity not only amongst professionals but also the general populace. Where once environmental law was offered only run in alternate years with low enrolments, now it is a fashionable subject area attracting an ever increasing cohort of students.

But this increased attention comes at a time of great change. With the growth in the subject area come challenges: the need to cover a great deal of material and develop key skills in a changing university setting. At the same time demands are also being placed on teachers in two other key areas: Teaching practices are being affected by centralised management and

academics are also being asked to take on greater administrative roles whilst also increasing their research output.

So how can academics deal with this teaching conundrum under so much pressure? Rather than seeing this as a problem, it should be viewed as a challenge and opportunity for diversification of teaching practices. Now is the time to change the way that environmental law is taught in order to meet this challenge and to rethink teaching practices in light of new skills and knowledge needed by graduates.

4. Curricula and Methodologies

There is a large body of literature related to quality teaching and student learning in the tertiary sector, both generally and related specifically to legal education.[15] This literature cannot be considered in detail here. Rather the purpose is to draw attention to key trends that necessarily impact upon any discussion of the teaching of environmental law.

Firstly, there is a trend towards outcomes-based education and student-centred rather than teacher-focused learning.[16] This is important because it is impacted upon by student expectations which go back to understanding the student cohort.

Secondly, the increasing focus in education literature upon constructive alignment.[17] It is well recognised that learning activities and assessments must be constructively aligned with learning outcomes. These learning outcomes need to be informed not only by good teaching practices but by student expectations. Equally students must be engaged in learning activities in order to achieve the learning outcomes.

Thirdly, there is a turn away from traditional lecture and tutorial modes of teaching to a wider variety of class structures and activities including workshops and seminars not constrained by the physical classroom.[18] In part this is a reflection of the technology now available which permit virtual environments as well as online chatrooms, discussion boards and blogs.

However, these developments are still based upon legal education in isolation from other subject areas. Despite the fact that in most cases undergraduate students are studying law as part of a double degree programme, and postgraduate students invariably have qualifications in another discipline, law is still taught in a 'siloed' fashion. Any interconnectedness is between environmental law and other areas of law such as contract, tort and administration. But this ill equips graduates to deal with the multi- and inter-disciplinary contexts in which they are likely to work. There is concern that teaching in this area 'has not provided students sufficient understanding of the complex systems that form the bulk of environmental law'.[19] Lawyers practising in the environmental law field will need to be able to understand and work with people from many other

disciplines. For example, those involved in environmental litigation will need to be able to explore complex issues with expert witnesses drawn from many fields such as planning, environmental science, conservation biology, hydrology and many more. Non-lawyers will need to connect their own discipline with environmental law.

As noted above the subject matter now comprised within the field of environmental law is huge. But it is not enough simply to expand the areas taught. What is needed are changes in the way we teach environmental law to incorporate this material and ensure students learn from it but also the skills for our graduates to be able to use it in the workplace.[20] In this sense environmental law is quite different from more traditional areas of law taught in law schools with the preponderance of graduates not practising law. But in order to ensure that graduates can meet future challenges in the area of environmental governance and sustainability, there must be an increased focus on inter-disciplinarity and green skilling. Therefore the greatest changes are perhaps needed in the methodologies of teaching this subject.

This call to change teaching practices is reflected to a certain extent in the literature on legal education. There has been a turn away from teaching law via case studies and legislative analyses alone.[21] Whilst it is recognised that these remain important they do not address the inherent inter-disciplinarity in environmental law nor the diversity of the student cohort. Furthermore, the literature on learning and teaching more generally refers to the development of learning activities through the student lens with the inherent student-centred focus.

5. Contemporary Teaching of Environmental Law

Having identified the need to change teaching practices it is necessary to consider how this can be achieved. Two key areas are identified here: Firstly, in order to identify more diversified learning activities and teaching methodologies, lessons can be learned from other disciplines. These can be drawn upon to develop learning activities not traditionally used in legal education. Secondly, the expertise of students in the classroom can be harnessed.

A. Borrowing ideas from other disciplines

An example of one type of learning activity, underutilised in legal education, is field studies. In many other disciplines field trips are used quite extensively. Whilst in law a field trip might be arranged to see a court, this activity could be used to great effect to connect the environmental with the implementation of environmental law. For example, taking planning law students to visit a suburb to see a local environment plan ‘in action’, observe by-laws and conservation orders. Internships and clinical programmes also provide particularly useful experiential learning opportunities.[22]

A further example is experiential learning activities such as case simulations[23] and role-plays.[24] Although law students are often required to take part in a moot trial this may not be appropriate for postgraduate classes with mixed law and non-law students. However, another type of role play, such as a facilitated negotiation, can be used which incorporates legal as well as non-law roles centred around a legal issue. Another example could involve a model United Nations conference where states, NGOs and UN agencies are involved in negotiating an environmental issue.[25]

Furthermore, other learning activities can be developed based upon teaching and learning practices used in other discipline areas. Students could be asked to negotiate a new protocol to a treaty or re-negotiate an Indigenous co-management agreement for a National Park. These are the equivalent of the design studios utilised in the teaching of architecture. Students are asked to workshop ideas and identify creative solutions. Again this is supported by the literature in relation to problem-based learning.

B. Use of in-class expertise

Classes in environmental law attract a diverse cohort of students, as discussed above. These students bring invaluable knowledge, expertise and qualifications to the classroom. This is often seen as a negative in terms of bringing these students 'up to speed' in relation to the law. But it also provides an excellent opportunity to share knowledge and expertise. This empowers and engages students and also assists in understanding the complexity of issues and different perspectives from which environmental law issues can be seen. The expertise of these students in the class can be utilised to teach the role of environmental law in a multi-disciplinary context. Role plays can be constructed which provide an opportunity to understand the complexity of environmental issues. For example, a negotiation exercise can be developed in which fishing quotas are determined or fishing licences granted. Students can initially be asked to take on roles aligned with their own areas of expertise: such as government fisheries officer, local council planner, Indigenous person, environmental activist, commercial or recreational fishers, conservation consultant or national parks officer. A reverse role-play can then give students the opportunity to play an unfamiliar part in which they are forced to consider another perspective.

Again these learning activities are supported by the education literature in relation to experiential learning.

6. Conclusions

It is clear from the above discussion that courses in environmental law are growing in popularity attracting a diversifying cohort at the same time as increasing pressures are being placed upon academics. What is apparent from the above consideration on the context of environmental law

teaching is that more must be done in less time. Multiple objectives need to be achieved in each class, in relation to both the subject matter and development of key skills. Whilst academics are used to designing assessments to achieve multiple aims this has been done in a very isolated way in terms of law subjects and much less so in relation to learning activities.

There is relatively little literature specifically related to the teaching of environmental law. However, for the reasons noted above, further research in this area is warranted and therefore it is timely to consider this area of legal education.[26] There is much to be learnt from both other disciplines and the students themselves. Law needs to embrace inter-disciplinarity. This will allow graduates, whether they are lawyers or non-lawyers to be more prospective in addressing environmental problems and work together to identify solutions.

Notes

[1] A quick review of legal programmes from several continents clearly indicates this: For example, Macquarie University, Australia, viewed 1 August 2009, <http://www.law.mq.edu.au/html/undergraduate/compulsory.htm>; Harvard Law School, USA, viewed 1 August 2009, < http://www.law.harvard.edu/academics/degrees/jd/pos/index.html>; University College London, UK, viewed 1 August 2009, < http://www.ucl.ac.uk/laws/prospective/undergraduate/index.shtml?llb_hons>.

[2] In 1981 the following article was published in which the author makes the case for the reaching of environmental law at university: G J Cano, 'Education in Environmental Law' *The Environmentalist* Vol. 1 (4) (1981) pp. 259-266.

[3] UK Centre for Legal Education, *Teaching Environmental Law*, viewed on 20 January 2009, <www.ukcle.ac.uk/research/projects/environmental.html>.

[4] This author teaches in the Centre for Environmental Law at Macquarie University in Sydney. Currently five undergraduate environmental electives units are offered as well as seventeen postgraduate units accredited in multiple programmes. The postgraduate programmes involve domestic and international law and non-law graduates in the same classroom context.

[5] J Biggs and C Tang, *Teaching for Quality Learning at University,* Open University Press, Maidenhead, 3rd Edition, 2007, pp.1-2.

[6] For example, Macquarie University, *Review of Academic Programmes White Paper*, viewed 1 August 2009, <http://www.mq.edu.au/provost/reports/docs/FINALWHITEPAPER_revised _17102008.doc>; La Trobe University, *Curriculum Review and Renewal at*

La Trobe University: White Paper, viewed 1 August 2009, <http://www.latrobe.edu.au/teaching/assets/downloads/curriculum/White_Paper_Ac_Board_approved_version.pdf>.

[7] For example, Macquarie University, *Review of Academic Programmes White Paper*, op.cit., p.6.

[8] Ibid.

[9] My business law colleagues might disagree with me here. However, whilst business law courses do attract many international students from non-law disciplines, they tend to be from the commercial field only. Environmental law attracts students from various fields.

[10] This was noted in UKCLE Report, op.cit.

[11] There are over 500 global environmental instruments related to environmental protection: D Craig and MI Jeffery, 'Global Environmental Governance and the United Nations in the 21st Century', Paper presented to the *European Union Forum: Strengthening International Environmental Governance*, Sydney Opera House, 24th November 2006. For an excellent summary of the key instruments see UNEP Register of International Treaties and Other Agreements in the Field of the Environment (2005).

[12] HG Robertson, 'Methods for Teaching Environmental Law: Some Thoughts on Providing Access to the Environmental Law System' *Columbia Journal of Environmental Law* Vol.23 (1998) pp.237-298.

[13] This is clear from a review of any current textbook on national environmental law. For example, R Lyster et al *Environmental Planning Law in New South Wales*, Federation Press, Annandale, 2nd Ed 2009.

[14] This is commented upon in ZB Plater, 'Environmental Law and Three Economies: Navigating a Sprawling Field of Study, Practice and Societal Governance in which Everything is Connected to Everything Else' *Harvard Environmental Law Review* Vol. 23 (1999) 359.

[15] For example, J Biggs and C Tang, op.cit.

[16] Ibid, pp. 3 and 20.

[17] Biggs and Tang make it clear that the focus of the book is to 'explain the background and lead you through all the stages of implementing constructive alignment': Ibid, p.7

[18] This is commented upon generally in Biggs and Tang p.104.

[19] Robertson, op.cit., p.239.

[20] The need to learn skills in association with substantive environmental law is considered in detail in Robertson, op.cit., pp.241-242.

[21] Ibid p.239-240.

[22] M Robinson-Dorn, 'Teaching Environmental Law in the Era of Climate Change: A Few Whats, Whys and Hows' *Washington Law Review* Vol.82 (2007) pp.619-648, p.639; Robertson, op.cit., pp.266-270.

[23] Robinson-Dorn, op.cit., p.638.
[24] Robertson, op.cit. p.264.
[25] Many universities run versions of the Model United Nations workshops. For example, American Model United Nations, viewed on 3 August 2009 <www.amun.org/>; Asia Pacific Model United Nations, viewed on 3 August 2009 <www.amunc.net>.
[26] A recent subject survey was conducted by the UK Centre for Legal Education. The survey aims included identifying what is being taught under the banner of Environmental Law'; to whom and by whom such courses were being taught; and how the courses are being taught including the factors which influence teaching and learning strategies: UKCLE, *Teaching Environmental Law*, op.cit.

Bibliography

American Model United Nations, viewed on 3rd August 2009, <www.amun.org/>.

Asia Pacific Model United Nations, viewed on 3rd August 2009, <www.amunc.net>.

Biggs, J., and Tang, C., *Teaching for Quality Learning at University*, Open University Press, Maidenhead, 3rd Edition, 2007.

Cano, G.J., 'Education in Environmental Law', in *The Environmentalist*, vol. 1 (4) (1981) pp. 259-266.

Craig, D., and Jeffery, M.I., 'Global Environmental Governance and the United Nations in the 21st Century', Paper presented to the *European Union Forum: Strengthening International Environmental Governance*, Sydney Opera House, 24th November 2006.

Harvard Law School, USA, viewed 1st August 2009, <http://www.law.harvard.edu/academics/degrees/jd/pos/index.html>

La Trobe University, *Curriculum Review and Renewal at La Trobe University: White Paper*, viewed 1st August 2009, <http://www.latrobe.edu.au/teaching/assets/downloads/curriculum/White_Paper_Ac_Board_approved_version.pdf>.

Lyster, R. et al *Environmental Planning Law in New South Wales*, Federation Press, Annandale, 2nd Ed, 2009.

Macquarie University, Australia, viewed 1st August 2009, <http://www.law.mq.edu.au/html/undergraduate/compulsory.htm>.

Macquarie University, *Review of Academic Programmes White Paper*, viewed 1st August 2009, <http://www.mq.edu.au/provost/reports/docs/FINALWHITEPAPER_revised_17102008.doc>.

ZB Plater, Z.B., 'Environmental Law and Three Economies: Navigating a Sprawling Field of Study, Practice and Societal Governance in which Everything is Connected to Everything Else', in *Harvard Environmental Law Review* Vol. 23 (1999) 359.

Robertson, H.G., 'Methods for Teaching Environmental Law: Some Thoughts on Providing Access to the Environmental Law System', in *Columbia Journal of Environmental Law* Vol.23 (1998) pp.237-298.

Robinson-Dorn, M., 'Teaching Environmental Law in the Era of Climate Change: A Few Whats, Whys and Hows', in *Washington Law Review* Vol.82 (2007) pp.619-648.

UK Centre for Legal Education, *Teaching Environmental Law*, viewed on 20th January 2009, <www.ukcle.ac.uk/research/projects/environmental.html>.

UNEP Register of International Treaties and Other Agreements in the Field of the Environment (2005).

University College London, UK, viewed 1st August 2009, <http://www.ucl.ac.uk/laws/prospective/undergraduate/index.shtml?llb_hons.

Erika J Techera LLB (Hons) (UTS), M Env Law, LLM, PhD (Macq). Senior Lecturer at the Centre for Environmental Law, School of Law, Macquarie University, Australia. Erika teaches and researches in a range of international and comparative environmental law areas. Erika's previous experience includes seven years practice as a Barrister in Sydney.

State Neutrality and Compulsory Environmental Education

Anders Schinkel

Abstract
Compulsory environmental education (CEE) is likely to conflict with liberal neutrality. Instead of arguing for the compatibility of CEE with liberal neutrality, I investigate to what extent proponents of CEE should let themselves be constrained by a common (Rawlsian) understanding of liberal neutrality. I propose a somewhat different interpretation of state neutrality, suggesting a principle of ecological neutrality: the state should be neutral with regard to ecologically acceptable conceptions of the good, but need not be neutral with regard to ecologically unacceptable conceptions of the good. A moderately anthropocentric interpretation of ecological acceptability is offered, supplemented by the notion of justice for nonhuman animals. I then sketch some of the parameters for a defensible form of CEE. Finally, I discuss CEE as a form of moral education, against the background of state neutrality. In short, what I suggest is that some form of CEE is justifiable, so as to make sure education does not conflict with the criterion of ecological acceptability; that state interference with educational content should be fairly minimal, and that environmental education is to some extent (inevitably) part of moral education.

Key Words: environmental education, state neutrality, liberal neutrality, Rawls, moral education, sustainability, justice for future generations, justice for nonhuman animals

*****

1. Introduction

This paper is a follow-up on an article in which I discussed three defences of the compatibility of Compulsory Environmental Education (CEE) with liberal neutrality (Schinkel forthcoming). I use the term 'CEE' to cover all compulsory subjects or forms of education - whether they are called ESD (Education for Sustainable Development), or ES (Education for Sustainability), or otherwise - that are centrally concerned with anything from the transmission of knowledge about the environment to the formation of 'green citizens'. Thus, the term 'CEE', if left unspecified, does not tell us whether this is education *about* the environment, education *for* the environment (or sustainability), or something in between. The word 'compulsory' denotes that the type of Environmental Education in question is mandatory for all schools, public or not. In the aforementioned article I was concerned with the compatibility of compulsory education *for* sustainability

with liberal neutrality. A conflict with liberal neutrality seemed to arise, firstly, because of the strong (trans)formative expectations attached to this type of education, and secondly, because it was to be compulsory. Derek Bell, Simon Hailwood and Andrew Dobson all put forward sympathetic arguments designed to demonstrate the compatibility of such education with liberal neutrality - indeed, they argue that, if a (Rawlsian) liberal framework is accepted, CEE (in the sense of education *for* sustainability) is actually *required*.[1] My conclusion was that all three defences ultimately fail for different reasons. I ended by sketching a form of CEE that would accomplish at least some of the goals often set for it, while remaining compatible with liberal neutrality. In this sketch I included some elements I took from Bell, Hailwood, and Dobson, such as the observation that the state can be non-neutral through omission, and the idea that in environmental education we are concerned at least partly with moral issues, more particularly with matters of justice.

In the present paper 1) I wish to develop the constructive part of the article, and 2) I wish to investigate to what extent I should let myself be constrained by the Rawlsian liberal framework in general, and the principle of liberal neutrality in particular. Although the first is my primary goal, the second will have to come first. Sections 2 and 3 relate to the second purpose, while section 4 sets the parameters for CEE – and thereby for the constructive work of giving shape to CEE. The concluding section 5 develops the idea that environmental education can be seen, to a large extent, as a form of moral education; this is discussed in connection with the issue of state neutrality.

2. The importance of liberal neutrality and its limits

Bell, Hailwood, and Dobson all seem to work with a conception of liberal neutrality like the one defended by Rawls in *Political Liberalism*.[2] He distinguishes between procedural neutrality and neutrality of aim, explaining that "justice as fairness is not procedurally neutral."[3] Neutrality of aim relates to "the aims of basic institutions and public policy with respect to comprehensive doctrines and their associated conceptions of the good"; it "means that those institutions and policies are neutral in the sense that they can be endorsed by citizens generally as within the scope of a public political conception."[4] Rawls offers three possible interpretations, of which he accepts the second: "…the state is not to do anything intended to favour or promote any particular comprehensive doctrine rather than another, or to give greater assistance to those who pursue it."[5]

Why should the state not do "anything intended to favour or promote any particular comprehensive doctrine", et cetera? Some arguments appeal to the value of individual autonomy, possibly in combination with the value of equality. Diversity liberals see it as a good in itself that as much

space as possible is allowed to the pursuit of various conceptions of the good. Epistemic arguments are provided by people like Brian Barry, Thomas Nagel, and John Rawls. Because reasonable disagreement on comprehensive doctrines (whether, ethical, religious, or metaphysical in nature) is possible, the state may not justify policy or principles underlying policy in terms of such doctrines. In other words, the state should maintain *justificatory neutrality*.[6] Another possible reason for state neutrality is that it prevents the abuse of state power; in the context of education, it might function as a protection against indoctrination. (It seems to me, however, that there is a wide gap between non-neutrality in the field of education on the one hand, and the indoctrination of pupils on the other).

In liberal theory, the idea of state neutrality is connected with a particular view on the relation between the right and the good. Whereas the latter notion pertains to ultimate ends, things worth doing or pursuing for their own sake – in other words, to what is intrinsically valuable, the notion of the right has rather a negative or limiting function. In Lecce's words,

> propositions about rightness (…) do not constitute a single, coherent plan of life; rather, they are moral principles that regulate the interactions of a plurality of agents pursuing different conceptions of the good by specifying what people can and cannot fairly demand of one another.[7]

Intimately connected with the idea of state neutrality is that of the priority of the right over the good: the state should guard and enforce the norms and principles of the right, but take an agnostic stance with regard to the good and conceptions of the good life. That the right has priority over the good also entails that conceptions of the good are limited by the right: only those conceptions of the good that do not conflict with the right - i.e. with those principles necessary for the preservation and well-functioning of a just society - are permissible.

> The liberal state must be neutral only between *permissible* conceptions of the good, (…) those that are consistent with principles that would be freely chosen by democratic citizens (or their hypothetical trustees) from an original position of equality.[8]

These principles can then be said to be the subject of an *overlapping consensus*: they are principles that reasonable people with different comprehensive doctrines can agree upon, each for his or her own reasons.[9] Beyond this, the state may require that the education system

> prepare [children] to be fully cooperating members of society and enable them to be self-supporting; it should also encourage the political virtues so that they want to honor the fair terms of social cooperation in their relations with the rest of society.[10]

In short, the state need *not* be neutral with respect to *all* conceptions of the good, but only those in accordance with the principles of justice, and it may positively promote the virtues associated with those principles and/or those necessary for the maintenance of (the institutions of) the just society.[11]

I propose that we narrow the range of permissible conceptions of the good by introducing a *principle of ecological neutrality*. According to this principle, the state should be neutral with respect to *ecologically acceptable* conceptions of the good, but *not* with regard to *ecologically unacceptable* conceptions of the good. The difficulty, of course, is then to determine what 'ecologically acceptable' means, and what are the criteria for ecological acceptability. The principle of ecological neutrality requires a redefinition of 'the right'. This brings me to the ambiguous title of this section: in so far as such redefinition is possible within the Rawlsian liberal framework and the common understanding of liberal neutrality, the limits referred to are those of neutrality; but in so far as this is not the case, they are limits of the *importance* of liberal neutrality as commonly understood. That is, to the extent that the Rawlsian conception of the right (represented by the principles of justice) cannot accommodate the (adjustments required by the) principle of ecological neutrality, the importance of liberal neutrality - being defined in terms of the priority of the right over the good - is diminished. (However, this would not entail that translations of the principle of ecological neutrality to educational practice may disregard liberal neutrality altogether; it would still constrain what might count as legitimate forms of education.)

3. Ecological acceptability

What might it mean to say that a conception of the good is 'ecologically acceptable'? The possible interpretations of this notion may be set out on a scale with a radically anthropocentric view on one end, and a radically ecocentric view on the other.[12] John Barry describes the former as a "position [that] holds that the natural world is essentially meaningless and [that] its only value lies in the instrumental value human beings accord it in using it to fulfil their ends" and quotes Eckersley's definition:

> the belief that there is a clear and morally relevant dividing line between humankind and the rest of nature, that humankind is the only or principal source of value and

> meaning in the world, *and that non-human nature is there for no other purpose but to serve humankind*.[13]

An advocate of this view, if (s)he were to come up with the notion of ecologically acceptable conceptions of the good at all, might describe them as conceptions of the good that do not tend towards or promote anything that might harm humankind or its potential to serve its own interests, however it defines these.

The ecocentric view, as Barry says, "is most commonly associated with deep ecology," which "holds that nature should be seen as having intrinsic value and should be protected for its own sake and not simply because it is of benefit to human beings."[14] Also part of this view is the idea that "anthropocentrism is part of the ecological problem and needs to be replaced with a more ecocentric or earth-centred world view."[15] An ecologically acceptable conception of the good, according to the ecocentric view, would be one that reflects nature's intrinsic value, and that would not give rise to individual or collective behaviour that ignores this value.

A fully ecocentric interpretation of ecological acceptability of conceptions of the good would entail a complete departure from the Rawlsian approach to justice and neutrality. I think this is undesirable, not because that approach is necessarily better than others in all respects, but because the ideas of neutrality, the priority of the right over the good, and an overlapping consensus express important insights concerning what is desirable and what is feasible in designing and implementing policy in liberal democracies.[16] As Achterberg writes:

> [A] necessary condition for a structural solution to the environmental crisis is that it is permanently supported by as many people involved (citizens) as possible. Participation in the decisions which affect one's own life is a central political value of democracy anyhow; but, for strategic reasons also, a structural solution to environmental problems can only be a democratic one: the required sacrifices and the changes of lifestyle connected with it can never be lasting if they are imposed in an authoritarian way. These sacrifices and changes demand voluntariness, understanding and the (conditional) preparedness of all people involved.[17]

My suggestion is that the criterion of ecological acceptability of conceptions of the good should be interpreted in a moderately anthropocentric way, with one added element. Moderate anthropocentrism would imply justice between generations - or perhaps I should say: justice *for*

future generations - and the recognition that radical anthropocentrism is not in our (enlightened) self-interest, let alone that of future generations. To this we should add the element of justice for nonhuman animals. A conception of the good is ecologically acceptable if the view of the relation between human beings and their environment, including nonhuman animals, it implies and behaviour in line with that view accord with justice for nonhuman animals and future generations, as well as our enlightened self-interest.

My justification for this interpretation of ecological acceptability of conceptions of the good can only be very short in the context of this paper. I take for granted that radical anthropocentrism is incompatible with any conceivable solution to the environmental crisis we face. So, I must justify my choice of moderate anthropocentrism, rather than ecocentrism. I can't say much more about this here than I did above, concerning the rejection of full ecocentrism: although my own sympathies lie with ecocentric views, I believe that, at present, they stand little chance of becoming the subject of an overlapping consensus or the basis of legitimate and (enduringly) effective policies.[18] However, given the present environmental situation, and the timescale of the depletion of natural resources (for energy and the production of goods varying from fertilizers to plastics), moderate anthropocentrism may not differ too much from full ecocentrism in its *practical* implications. It is even doubtful whether the practical implications of the injunction to meet the legitimate claims of future (that is: unborn) generations differ much from the prescriptions arrived at by the enlightened self-interest of present generations (with the possible exclusion of the elderly).

This leaves the justification of including justice for nonhuman animals, a topic largely avoided by Rawls - and where he does express himself on the subject, it is to exclude nonhuman animals from the scope of (full) justice.[19] Firstly, there is no good argument for the conflation of the category of moral patients with that of moral agents, as Rawls does, thereby excluding animals from the scope of justice.[20] Consideration of how we should treat (or behave towards) animals should fall, for the most part, under the heading of the right rather than (just) the good. Whether we fatten cows as quickly as possible to the point where they can no longer stand on their own legs or not is not a matter of benevolence, but of justice.[21] A difficult question is whether allowing killing for food, for instance, is compatible with viewing animals as proper recipients of justice. I cannot discuss this matter here, but will assume that it is possible, depending on how one constructs the basis for justice for animals.[22] The reason I mention this is that I wish to avoid the implication that environmental education, to meet the criterion of ecological acceptability, should advocate vegetarianism. (It can, of course, draw attention to the many environmental, animal welfare, and health advantages of vegetarianism.)

4. Setting the parameters for CEE

What I have in effect tried to show so far is that, while state neutrality is important, it can be interpreted in such a way as to allow for some form of CEE. If the state were to remain neutral between ecologically acceptable and ecologically unacceptable conceptions of the good, CEE could not be justified. But if we accept my proposal (for which I have not been able to argue here) to adopt a principle of ecological neutrality, stating that the state should be neutral only with respect to ecologically acceptable conceptions of the good, CEE is a justifiable option.[23]

That does not mean, however, that *all forms* of CEE are acceptable. In this section I will list a number of considerations that seem relevant to this issue; each of them could (and should) be developed more fully, but I must content myself with merely indicating them.

A. Neutrality (again)

We can distinguish between maximizing or perfectionist conceptions of (liberal) neutrality and more minimal or defensive conceptions, depending on the grounds or values adduced. I would defend a defensive conception, which would entail that the state: a) should not attempt to use education to 'create' a certain kind of people, i.e. 'green citizens' (to use Bell's words)[24]; b) should not prescribe controversial educational content. The fact that some (reasonable) people disagree with educational content is not enough to make it controversial - if that were the case, at least all history, biology, and economics curricula would be controversial. School curricula are inevitably tied to what is broadly accepted by a majority of scientists in each discipline. They always lag behind current developments, and there is a danger that the curriculum reflects power relations within scientific communities rather than actual consensus. With regard to contested issues, curricula should not ignore alternative positions.

A further question is how far state influence on educational content should reach. My idea is: not far. In the case of CEE, at least, it should not go beyond a stipulation of the theme and the general purpose of providing CEE. As much as possible should be left to the schools' and teachers' discretion. Most religions and worldviews contain plenty of sources for CEE; to allow room for the perusal of these sources is in line with the ideal of an overlapping consensus.

B. The state as educator

The state must here be conceived as educator; like any educator, the state should itself be fully committed to what it teaches (i.e. what it makes compulsory in the curriculum). The state's full commitment cannot be proven by the fact of its making EE compulsory alone (e.g. on the basis that this is the only or by far the most effective means of realising sustainability - for

that is plainly nonsensical). In other words, the state's commitment to sustainability, the protection of the environment, the replacement of non-renewable by renewable energy sources, et cetera, should be evident from other policy measures. CEE should be part of broader, structural changes in the socio-economic organisation of society. This is also necessary if CEE is to have a chance of being effective.

C. Aims, effects, and effectiveness

Where I speak of (C)EE, others tend to speak of ESD or ES. The formulated aims of these subjects tend to be rather ambitious (see, for instance, the website of the United Nations Decade of Education for Sustainable Development). The various organisations supporting these types of education often have strong (trans)formative expectations of them: they are to endow pupils not just with sustainability-related knowledge and skills, but also with the motivation and disposition to use them, and an environmentally desirable character in general. (In other words: this comes close to an intention to create 'green citizens'.)

These ambitions are themselves enough to create a conflict with liberal neutrality as this is commonly conceived, and even if we accept the modification to this principle suggested above, I still think the formulation of these aims is dubious. But the acceptability of CEE, from the viewpoint of state neutrality, also and importantly depends on the *feasibility* of these aims. Fear of non-neutral education would certainly be more justified to the extent that these aims would actually be feasible. With feasibility zero, there would be no serious conflict with neutrality - but then the justification for CEE would also fail. If we are to be able to justify compulsory environmental education as one means among others to respond to an environmental crisis, then it must be (likely to be) effective to some extent - that is, its effects must correspond with the aims we had in mind to a minimal degree.

The effects and effectiveness of CEE depend on the form this education receives, as well as on the broader societal context in which it takes place. I mentioned the latter point above; as to the former: I assume that the proper form would be a whole-school approach, with an important (though not dominating) place for EE in certain subjects (such as economics, biology, chemistry, and civic education), but not all. It should not come at the cost of realizing the proper aims of the 'ordinary' subjects.

5. CEE as moral education

David Orr observes that "all education is environmental education."[25] This is not just because any form of education will teach people to interact with their environment in certain ways,[26] but because education entails induction into a language, and thereby into implicit ways of knowing and seeing that greatly determine how people relate to their environment and

to each other. All education is environmental education *and* all education is moral education. "In effect," according to Bowers, to learn the language of an ideological/epistemological group is to learn, mostly at a taken-for-granted level, what is included in the group's moral ecology - as well as what is excluded."[27] What is often put in terms of the 'hidden curriculum' is phrased by Bowers as follows:

> [B]y understanding that the linguistic and epistemological aspects of an ideology may be the most formative on individual consciousness, we can see how the process of moral education concurs concomitantly with other forms of learning. Thus, when a science, art, or social science class introduces students to a vocabulary that encodes an ideological/epistemological orientation, the teacher is engaging in moral education. (idem)

This supports a number of observations made above: that it is no use to introduce environmental education in a broader societal context that does not support it, or correspond to what is taught, that it demands a whole-school approach, and that it should not be a separate subject next to others, but integrated in the relevant subjects.

Such education is obviously not value-neutral, but neither is any other kind of education. Bell, Dobson, and Hailwood are right to point out that the state can be non-neutral by omission. Our present education systems and curricula preserve and transmit epistemological and ideological (or metaphysical[28]) orientations that are part of - not to say: central to - the problem. Some simple examples: in economy classes, pupils learn to think of our environment in terms of natural resources, and they learn to see the exploitation of these resources as contributing to the GDP as if an infinite stock of them were available. The silence regarding the dwindling of oil and other reserves - the absence of diminishing stocks and reserves from the negative side of the balance - enhances the feeling of limitless abundance promoted by our consumer culture. In economy and geography classes (*and* through aid campaigns!), children learn that there are developed and underdeveloped or developing countries; there are mature or advanced economies and there are less advanced economies. As Keekok Lee points out, economists judge economies to be more advanced, the smaller the agricultural sector is in comparison to the manufacturing (or service, we may add) sector, and the smaller the proportion of rural to urban population.[29] From an ecological perspective, however, this is highly problematic: "[I]n a rationally organized society which respects ecological integrity, the manufacturing sector would be smaller in relation to that of the agricultural sector."[30] Two final examples: the history curriculum is likely to leave the

impression that history is a story of progress in civilization and human well-being (in the 'civilized' part of the world, at any rate); an ecological history of the world, however, would look very different. Finally, schools may embody an ecologically problematic ideology in other ways than through the curriculum. By the time I left school, my high school had a kind of snack bar that offered rolls, sandwiches, and fruit, but also meat snacks. These were not organic, of course, and they conveyed the message that not only is it okay to eat meat, it is fine to eat it as a snack, an extra between meals. Moreover, sponsoring and commercial advertisements had by then been introduced into the school, so that the consumer ethic confronted children even there.[31]

I assume, then, that formal education plays a role, both implicitly and explicitly, in moral education. Moreover, I assume that schools are *expected* by most people to play a role in explicit moral education. My claim is that moral education encompasses (or should encompass) much of what goes under the name of environmental education. While *implicit* moral education is, in my view, by far the most effective, worries about state neutrality are more likely to arise with respect to deliberate inculcation of specific sets of values. I will assume, therefore, that the transition from implicit ecologically unacceptable moral/environmental education to ecologically acceptable or even more ecocentric implicit moral/environmental education raises no serious problems. If the neutrality of the hidden curriculum is not seriously questioned *now*, why would it be when its messages promoted an ecologically responsible ethic? With respect to more deliberate and explicit forms of moral/environmental education, I would argue that the state can demand that the curriculum be in accordance with the criterion of ecological acceptability, and that EE be made an integral part of the curriculum. The state cannot, in my view, actively promote a fully ecocentric perspective. However, it should allow schools (whether public or publicly financed, or not) and teachers great discretion in doing so - that is, in going beyond moderate anthropocentrism and justice for nonhuman animals. I will briefly sum up a number of arguments to support the points made above.

A. Environmental education is inevitably part of moral education

Assuming that there is a consensus among the general public that schools should promote the value and the virtue of justice, what should this value include, and what should be the scope of this virtue? Does it make sense to say that neutrality requires that the 'frontiers of justice' coincide with the borders between *homo sapiens* and other species, and moreover, between present and future generations of *homo sapiens*? The question makes sense only on very specific conceptions of justice (and neutrality), such as the Rawlsian conception. Rawls includes future generations in the scope of justice, but nonhuman animals (as well as human beings with specific

characteristics) fall well outside of it. Especially with regard to future generations of human beings, this is probably more a theoretical than a practical problem. For instance, most people will certainly regard as unfair using up more resources than we need, with the result that future generations lack the resources they require to meet their own needs. In this case, one may well ask whether a justification *on principle* is really needed to justify state promotion of a principle of intergenerational justice.[32] There may be less consensus on whether justice applies to nonhuman animals, but even in this case, one wonders whether limiting justice to the human species really has anything to do with neutrality. It seems fair - and in line with the precautionary principle - that the burden of proof should lie with those who advocate a narrower conception of the scope of justice.

Furthermore, if children are 'taught' the value of justice, and if schools promote the virtue of justice and other moral sensibilities - and especially if this occurs in a context that promotes 'sustainable' ways of life - it is hard to prevent 'spill-over' to concern for future generations and other species. If a child is praised for being considerate, attuned to the needs of others, and concerned to give each his or her due, these virtues will in many cases not stop at the borders between generations or species. A conception of state neutrality that would require the state to demand that schools prevent such 'spill-over' would be simply perverse. The normative part of environmental education is simply concerned with fostering the same virtues, values, and sensibilities promoted in 'ordinary' moral education: justice, care, responsibility, attentiveness, responsivity, benevolence, et cetera. The attempt to limit their scope to anthropocentric and hodiecentric concerns is likely to be based on arbitrary distinctions or ecologically unacceptable ideologies, rather than a commitment to neutrality.

B. Wide discretion for schools and teachers

Using the term 'environment' in an ecological, systems theoretical sense, to refer to "the whole external environment - natural, cultivated, built, social, economic and cultural, and the temporal environment of past and future - not merely some 'green' abstraction from it", John Smyth states:

> Education is not meant to promote fixed agendas either for environmental management or for social engineering, but to give people the best possible chances to develop as environmental citizens, armed with knowledge and understanding and practised in applying them to real situations. In those circumstances the values will grow by themselves…[33]

This is in line with a defensive conception of state neutrality, to which there are two sides: 1) the state should not use the education system for indoctrinatory purposes, or to promote controversial (sets of) values; 2) the state should ensure every child's right to proper education, but interfere with educational practice as little as possible. (The principle of ecological neutrality provides one possible ground for interference.)

Schools or individual teachers often organise excursions into 'nature' not just with the purpose of enhancing pupils' knowledge of biology, but also in the hope that they will respond to the intrinsic value of the landscape and its inhabitants. In other words: the hope is that the children will develop certain ecocentric sensibilities. To promote the development of such sensibilities goes beyond the state's permit, but it seems obvious to me that the state should *allow* schools and teachers to do so. Neither state neutrality nor anything else should prevent that. It would be another matter altogether if public schools would embrace deep ecology in such numbers that school choice would become severely restricted. Parents should be able to count on the availability of schools embodying broadly shared, consensual values (in so far as these are morally and ecologically acceptable). But that does not mean there can be no differences between schools and within schools. I see no reason why children should not be exposed, within reasonable limits, to different moral voices - those of their parents, and those of different educators.

To demand that schools and teachers observe the same restrictions with regard to value education as the state would run counter to the essence of the practice of education as expressed by people like Dewey and Buber: to offer the child an "Auslese der wirkenden Welt", "eine Auslese der Welt, gesammelt und dargelegt im Erzieher, die entscheidende Wirkungsmacht verleihen", "to select the kind of present experiences that live fruitfully and creatively in subsequent experiences."[34] While the world educates, this is a conscious purpose only for the educator.[35] This inevitably includes an element of personal duty and responsibility on the part of the educator. Moral education, if it is to be effective, cannot abstract from this element altogether.

Notes

[1] D Bell, 'Creating Green Citizens? Political Liberalism and Environmental Education'. *Journal of Philosophy of Education*, Vol. 38, No. 1, 2004, pp. 37-53; S Hailwood, 'Environmental Citizenship as Reasonable Citizenship'. *Environmental Politics*, Vol. 14, No. 2, 2005, pp. 195-210. Dobson goes beyond this liberal framework in certain respects, but accepts the principle of liberal neutrality; he in fact provides a justification of CEE on the basis of

this principle. See A Dobson, *Citizenship and the Environment*, Oxford University Press, Oxford, 2003.
[2] J Rawls, *Political Liberalism (Expanded Edition)*, Columbia University Press, New York, 2005, pp. 191-193.
[3] ibid., p. 192.
[4] idem.
[5] ibid., p. 193.
[6] S Lecce, *Against Perfectionism: Defending Liberal Neutrality*, University of Toronto Press, Toronto, 2008, pp. 163-164.
[7] ibid., p. 234.
[8] ibid., p. 237; cf. Rawls, *Political Liberalism*, p. 180, p. 190f.
[9] Cf. J Rawls, *A Theory of Justice (Revised Edition)*, The Belknap Press (HUP), Cambridge (MA), 2003, p. 340, and especially Rawls, *Political Liberalism*, Lecture 4.
[10] Rawls, *Political Liberalism*, p. 199; cf. Lecce, p. 237. See also, e.g., A Gutmann, 'Civic education and social diversity'. *Ethics*, Vol. 105, No. 3, April 1995, pp. 557-579, and S Macedo, 'Liberal Civic Education and Religious Fundamentalism: The Case of God v. John Rawls?'. *Ethics*, Vol. 105, No. 3, April 1995, pp. 468-496.
[11] Perfectionist liberals would of course go way beyond this in terms of state interference with education. Among neutralists, autonomy liberals tend to be more perfectionist than political (or diversity) liberals (see, for instance, D McCabe, 'Liberal Education *Is* Moral Education'. *Social Theory and Practice*, Vol. 21, No. 1, 1995, pp. 83-96); the practical difference this makes for education is in dispute (cf. Gutmann, op. cit.).
[12] Cf. W Achterberg, 'Can Liberal Democracy Survive the Environmental Crisis? Sustainability, Liberal Neutrality and Overlapping Consensus' in A Dobson and P Lucardie (eds), *The Politics of Nature: Explorations in Green Political Theory*, Routledge, London, 1993, pp. 81-101, i.c. p. 85.
[13] J Barry, 'Green Political Thought' in A Lent (ed), *New Political Thought: An Introduction*, Lawrence & Wishart, London, pp. 184-200, i.c. p. 185; p. 186. Barry quotes from R Eckersley, *Environmentalism and Political Theory: An Ecocentric Approach*, University of London Press, London, 1992, p. 51.
[14] Barry, p. 186.
[15] idem.
[16] To state my reasons for taking Rawlsian liberalism as my point of departure, and for not departing from it completely, more fully: it is one of the dominant strands in political theory, much of what it articulates is accepted by liberal-democratic regimes (and embodied in the Constitution or political organisation of liberal-democratic countries), and this certainly holds for the principle of neutrality - although interpretations of this principle

differ, of course. Moreover, I subscribe to the importance of state neutrality (of some kind), I believe the notion of the priority of the right over the good is valuable in the political sphere if this is not conceived too broadly (e.g. people should not be required to leave their comprehensive doctrines behind when they enter the voting booth), and I think the chance of success of environmental policy increases with the extent to which it can be the subject of an overlapping consensus.

[17] Achterberg, p. 82.

[18] I disagree with Achterberg at this point. He adopts the 'transmission principle' (which is to operate as a constraint on Rawls' two principles of justice), the formulation of which he takes from Richard and Val Routley (1982: 123): "We should not hand the world that we have used and exploited on to our successors in a substantially worse shape than we 'received' it." He backs up this principle with an anthropocentric argument, as well as a non-anthropocentric one, which depends on recognition of nature's intrinsic value. At least in the Netherlands, he sees this as part of (the beginning of) an overlapping consensus, but this is no more than a (majority) consensus between political parties. For invasive policies aimed at sustainability to be successful, a broader consensus - that is, one outside the political arena itself - is likely to be necessary, as Achterberg himself suggests. (Even in a representative democracy, they are not the same thing.)

[19] Rawls, *A Theory of Justice*, pp. 15, 441, 448; Rawls, *Political Liberalism*, p. 244ff. Cf. M Nussbaum, *Frontiers of Justice: Disability, Nationality, Species Membership*, The Belknap Press (HUP), Cambridge (MA), 2006, chs. 1 and 6.

[20] Cf. Nussbaum, p. 17, 335, and 349-350.

[21] Rawls points out that 'the right' encompasses more than the principles of justice, which means that there may be scope for discussing our treatment of animals in terms of the right, but not justice. To simplify things, I will leave this matter aside here.

[22] In A Schinkel, 'Martha Nussbaum on Animal Rights'. *Ethics & the Environment*, Vol. 13, No. 1, 2008, pp. 41-70, I argue (among other things) that, given the (sympathetic) way Martha Nussbaum construes justice for animals, she cannot consistently allow killing for food where this is not necessary for human survival.

[23] Perhaps I should work on the name of the principle, for 'principle of ecological neutrality' might suggest exactly the opposite of what it is intended to convey.

[24] Bell, op. cit.

[25] Quoted in C A Bowers, *Educating for an Ecologically Sustainable Culture: Rethinking Moral Education, Creativity, Intelligence, and Other Modern Orthodoxies*, SUNY Press, New York, 1995, p. 23.
[26] ibid., p. 36.
[27] ibid., p. 37.
[28] Cf. M Bonnett, 'Environmental Concern and the Metaphysics of Education'. *Journal of Philosophy of Education*, Vol. 34, No. 4, 2000, pp. 591-602.
[29] K Lee, 'To De-Industrialize – Is It So Irrational?', in Dobson and Lucardie (eds.), pp. 105-117, i.c. p. 111.
[30] ibid., p. 112.
[31] See H Brighouse, 'Channel One, the Anti-Commercial Principle, and the Discontinuous Ethos'. *Educational Policy*, Vol. 19, No. 3, 2001, pp. 528-549 for a critique of this practice.
[32] Paris (1991) nuances the importance of justification on principle, and emphasizes the importance of consensual values and contextual justification; he advocates a bottom-up view of consensus and justification to defend explicit and implicit moral education in schools.
[33] J Smyth, 'Environmental Values and Education', in J M Halstead and M J. Taylor (eds.), *Values in Education and Education in Values*, The Falmer Press, London, 1996, pp.54-67.
[34] J Dewey, *Experience and Education*, Collier Books, New York, 1965, pp. 27-28.
[35] J Dewey, *Democracy and Education: An Introduction to the Philosophy of Education*, The Free Press, New York, 1968, p. 6; Buber, op. cit., p. 23.

Bibliography

Achterberg, W., 'Can Liberal Democracy Survive the Environmental Crisis? Sustainability, Liberal Neutrality and Overlapping Consensus', in A Dobson and P Lucardie (eds.), *The Politics of Nature: Explorations in Green Political Theory*. Routledge, London, 1993, pp. 81-101

Barry, J., 'Green Political Thought'. in Adam Lent (ed.), *New Political Thought: An Introduction.* Lawrence & Wishart, London, 1999, pp. 184-200
Bell, D., 'Creating Green Citizens? Political Liberalism and Environmental Education', in *Journal of Philosophy of Education*, vol. 38, No. 1, 2004, pp. 37-53.

Bonnett, M., 'Environmental Concern and the Metaphysics of Education'. *Journal of Philosophy of Education*, Vol. 34, No. 4, 2000, pp. 591-602

Bowers, C. A., *Educating for an Ecologically Sustainable Culture: Rethinking Moral Education, Creativity, Intelligence, and Other Modern Orthodoxies*. SUNY Press, New York, 1995.

Brighouse, H., "Channel One, the Anti-Commercial Principle, and the Discontinuous Ethos". *Educational Policy*, Vol. 19, No. 3, 2001, pp. 528-549
Buber, M., *Reden über Erziehung*. Verlag Lambert Schneider, Heidelberg, 1962.

Dewey, J., *Experience and Education*. Collier Books, New York, 1965
Dewey, J., *Democracy and Education: An Introduction to the Philosophy of Education*. The Free Press, New York, 1968.

Dobson, A., *Citizenship and the Environment*. Oxford University Press, Oxford, 2003.

Gutmann, A., 'Civic education and social diversity'. in *Ethics*, vol. 105, 1995, pp. 557-579.

Hailwood, S., 'Environmental Citizenship as Reasonable Citizenship'. *Environmental Politics*, vol. 14, No. 2, 2005, pp. 195-210

Lecce, S., *Against Perfectionism: Defending Liberal Neutrality*. University of Toronto Press, Toronto, 2008.

Lee, K., (1993). 'To De-Industrialize – Is It So Irrational?', in Dobson and Lucardie (eds.), pp. 105-117.

Macedo, S., (1995). 'Liberal Civic Education and Religious Fundamentalism: The Case of God v. John Rawls?" in *Ethics*, vol. 105, 468-496.

McCabe, D., "Liberal Education *Is* Moral Education'. *Social Theory and Practice*, vol. 21, No. 1, 1995, pp. 83-96.

Nussbaum, M. C., *Frontiers of Justice: Disability, Nationality, Species Membership*. The Belknap Press (HUP), Cambridge (MA), 2006.

Paris, D. C., 'Moral Education and the 'Tie That Binds' in Liberal Political Theory'. *The American Political Science Review*, vol. 85, No. 3, 1991, pp. 875-901.

Rawls, J., *A Theory of Justice (Revised Edition)*. The Belknap Press (HUP), Cambridge (MA), 2003.

Rawls, J., *Political Liberalism (Expanded Edition)*. Columbia University Press, New York, 2005.

Schinkel, A., 'Martha Nussbaum on Animal Rights', in *Ethics & the Environment*, vol. 13, No. 1, 2008, pp. 41-70.

Schinkel, A., 'Justifying Compulsory Environmental Education in Liberal Democracies', in *Journal of Philosophy of Education*, forthcoming.

Smyth, J. C., 'Environmental Values and Education'. in J. M. Halstead and M. J. Taylor (eds.), in *Values in Education and Education in Values*. The Falmer Press. London, 1996, pp. 54-67.

United Nations Decade of Education for Sustainable Development. Online. <http://portal.unesco.org/education/en/ev.php-URL_ID=27234&URL_DO=DO_TOPIC&URL_SECTION=201.html>.

Anders Schinkel (Ph.D.) is a postdoctoral researcher at the Faculty of Psychology of Education of VU University Amsterdam (until 31-07-2009), and at the Faculty of Philosophy of Erasmus University Rotterdam.