

Environment Update: Dec 2011

Issue 6

Welcome to the sixth issue of the *Environment Update*. The purpose of this publication is to help support the work of environmental practitioners by highlighting recent worldwide information on environmental issues, developments, best practice, research studies, etc.

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Kat McAra, Information Advisor



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Conservation and restoration

What a character: Defining our natural coastal character is essential to creating policies to protect it. Part 1: Quantitative methodology for measuring the natural character of New Zealand's terrestrial and aquatic environments. Proude, Victoria. *Planning Quarterly (NZ Planning Institute)*; Jun 2011 (181), p.26-29

Code: Env 06/01

Gully degradation, stabilisation and effectiveness of reforestation in reducing gully-derived sediment, East Coast region, North Island, New Zealand. Marden, Mike et al. *Journal of Hydrology*; Jul 2011, Vol. 50 (1), p.19-36

Code: Env 06/02

The New Zealand people-park relationship: An exploratory model. McCleave, Julia et al. *Society & Natural Resources*; Jul 2006, Vol. 19 (6), p.547-561

Code: Env 06/03

Biblio Barrow Island: An annotated bibliography of the natural history of Barrow Island 1622-2004. *Conservation Science Western Australia*; 01/01/2006, Vol. 5 (3), p.296-364

Code: Env 06/04

The preservation of the intrinsic: Ecosystem valuation in New Zealand. Curran, Stephanie. *New Zealand Journal of Environmental Law*; 2005 Vol. 9, p.51-89

The intrinsic value of Nature is often cited as a reason for mankind to protect and preserve the environment, and there are a number of international instruments that acknowledge this. However, New Zealand has also recognized this concept in its domestic legislation, an inclusion that appears to be unique amongst States. Any discussion of intrinsic value inevitably raises fundamental philosophical questions of subjective belief and objective reality, issues that have captured and confounded philosophers for over two thousand years. This article examines the historic context of intrinsic value and identifies the problems that arise when a philosophical or "pure" interpretation is mandated. In order to avoid these difficulties and to give a functional meaning to the concept of intrinsic value this article proposes an ecosystemic approach under which ecosystem health forms the guidance for an environmental management practice. However, the issue still arises under this approach of how to measure the value of ecosystems. A study conducted for the Auckland Regional Council has responded to this in the form of economic modelling. This study will be examined and critiqued. Finally, three areas in which an ecosystemic approach to intrinsic value has been implemented and proved successful will be highlighted.

Code: Env 06/05

Forest Ecology and Conservation: A Handbook of Techniques. Simon A. Queenborough; Adrian C. Newton. *Environmental Conservation*; Dec 2007, Vol. 34 (4), p.343-344
Book review.

Code: Env 06/06

Ecosystem services as a stakeholder-driven concept for conservation science. Menzel, Susanne; Teng, Jack. *Conservation Biology*; Jun 2010, Vol. 24 (3), p.907-909

Code: Env 06/07

Direct seeding of indigenous tree and shrub species into New Zealand hill country pasture. Dodd, Mike B.; Power, Ian L. *Ecological Management & Restoration*; Apr 2007, Vol. 8 (1), p.49-55

Code: Env 06/08

Vertebrate pesticide risk assessment by indigenous communities in New Zealand. Ogilvie, Shaun C. et al. *Integrative Zoology*; Mar 2010, Vol. 5 (1), p.37-43

Code: Env 06/09

Environment, composition and conservation of coastal turfs of mainland New Zealand. Rogers, Geoffrey M.; Wiser, Susan K. *New Zealand Journal of Botany*; 01/03/2010, Vol. 48 (1), p.1-14
Code: Env 06/10

Biodiversity

Biodiversity in vineyards: worth the bother? Barnes, A. M. et al. *Australian & New Zealand Grapegrower & Winemaker*; 01/09/2010 (560), p.25-33
Code: Env 06/11

Experimental introduction of the alien plant *Hieracium lepidulum* reveals no significant impact on montane plant communities in New Zealand. Meffin, Ross et al. *Diversity & Distributions*; Sep 2010, Vol. 16 (5), p.804-815
Code: Env 06/12

Lack of scientific evidence and precautionary principle in massive release of rodenticides threatens biodiversity: Old lessons need new reflections. Olea, Pedro P. et al. *Environmental Conservation*; Mar 2009, Vol. 36 (1), p.1-4
 Pesticides are widely used throughout the world to control agricultural pests (Berny 2007). Owing to their well identified side-effects on wildlife (see for example Newton et al. 2000; Brakes & Smith 2005), the release of high quantities of pesticides to the environment should always require responsible use of both science-based information and the precautionary principle (Mason & Litten 2003). However, decision making in wildlife management and conservation is not systematically supported by scientific evidence (Pullin & Knight 2005). This is particularly worrying when decision making involves release of toxic substances to the environment, as often occurs in rodent plague control. Here we describe how poorly-informed management decisions to control a rodent plague can adversely affect wildlife, especially when chemical-based treatments are generically designed and applied on a broad scale, and discuss the high economic cost of such campaigns. We urge the implementation of a more cost-effective evidence-based and environmentally sustainable management to control rodent plagues in Spain. Cases similar to those reported here occurred in the UK a century ago, and throughout Europe in the 1950s (Elton 1942; Chitty 1996). Although abundant scientific information has since been generated about vole cyclic population dynamics and rodent plague control techniques in the world, lessons have apparently not been learned.
Code: Env 06/13

High-seas biodiversity and genetic resources: Science and policy questions. Blaustein, Richard J. *Bioscience*; 01/06/2010, Vol. 60 (6), p.408-413
Code: Env 06/14

Habitat and biodiversity of on-farm water storages: A case study in Southeast Queensland, Australia. Markwell, Kim; Fellows, Christine. *Environmental Management*; Feb 2008, Vol. 41 (2), p.234-249
Code: Env 06/15

Urban realities: The contribution of residential gardens to the conservation of urban forest remnants. Doody, Brendan J. et al. *Biodiversity & Conservation*; May 2010, Vol. 19 (5), p.1385-1400

The area studied here is Riccarton Bush and surrounds residential properties in Christchurch.

Code: Env 06/16

The diversity of biodiversity. *Conservation Biology*; Dec 2009, Vol. 23 (6), p.1647-1648

The article reviews the book "What Is Biodiversity?," by James Maclaurin and Kim Sterelny.

Code: Env 06/17

Conservation biogeography of freshwater fishes: recent progress and future challenges. Olden, Julian D. et al. *Diversity & Distributions*; May 2010, Vol. 16 (3), p.496-513

Code: Env 06/18

Floristic richness of three perhumid New Zealand alpine plant communities in comparison with other regions. Onipchenko, Vladimir et al. *Austral Ecology*; Aug 2005, Vol. 30 (5), p.518-525

Code: Env 06/19

Regulation of small-scale carbon sink projects in the clean development mechanism from the perspective of aspects of multidisciplinary biodiversity. Heiskanen, Marko. *International Journal of Biodiversity Science & Management*; Mar 2009, Vol. 5 (1), p.1-9

Code: Env 06/20

Public environmental reporting and sustainability reporting

Corporate environmental reporting and disclosure: Where to look and what you get.

Stray, Stephanie. *Environmental Research Journal*; 2011, Vol. 5 (4), p.463-483

Code: Env 06/21

Varieties of environmental labelling, market structures, and sustainable consumption across Europe: A comparative analysis of organizational and market supply determinants of environmental-labelled goods. Koos, Sebastian. *Journal of Consumer Policy*; Mar 2011, Vol. 34 (1), p.127-151

Code: Env 06/22

Championing sustainability reporting. Compere, Lauren et al. *Environmental Finance*; Apr 2010, Vol. 11 (6), p.26

Poor ESG disclosure is proving a drag on responsible investment into emerging markets. The authors explain how an investor initiative is aiming to improve reporting.

Code: Env 06/23

Differences that 'matter'? A framework for comparing environmental certification standards and government policies. McDermott, Constance L. et al. *Journal of Environmental Policy & Planning*; Mar 2008, Vol. 10 (1), p.47-70

Competition among environmental certification systems has created considerable demand for transparent comparison. Drawing on the case of forest certification, this article presents an analytical framework for comparing certification standards and government policies according to their policy approach and environmental threshold requirements. A detailed analysis of existing policies is applied to one key indicator, i.e. riparian buffer zones, where it reveals clear differences among the Forest Stewardship Council (FSC) regional standards and among the FSC, the Canadian Standards Association (CSA), and Sustainable Forestry Initiative (SFI) certification systems. The FSC regional standards of British Columbia and the Pacific Coast contain quantitative riparian buffer zone thresholds, with the FSC British Columbia standards being the most restrictive. The FSC Southeast standards are comparable with the SFI standards in deferring to state buffer zone guidelines but making those guidelines mandatory. The systems-based CSA standards contain no substantive prescriptions. Most certification standards appear to closely mimic government policy approaches. Standards that cover multiple jurisdictions resemble an averaging of the prescriptiveness and performance thresholds of government policies, resulting in an increase in some state requirements and no additional requirements in others. These findings lay the groundwork for further explanatory research on the interaction of state and non-state policies as well as the systematic comparison of policy effectiveness.

Code: Env 06/24

Integrating sustainability measures into strategic performance measurement systems: An empirical study. Gates, Stephen; Germain, Christophe. *Management Accounting Quarterly*; Spring 2010, Vol. 11 (3), p.1-7

Code: Env 06/25

Environmental management systems

Environmental performance, indicators and measurement uncertainty in EMS context: A case study. Eleonora Perotto et al. *Journal of Cleaner Production*; March 2008, Vol. 16 (4), p.517-530

EMS is a tool for managing the interaction between the organization and the environment. The aim of an EMS is to improve the overall environmental performance of the organization. The performance should be monitored through measurements, and managed by indicators. Indicators are variables that summarize or otherwise simplify relevant information about the state of a complex system. A correct evaluation of environmental performance arises from the choice of adequate "raw" data and from the relationships among "raw" data. This paper, after a short excursus concerning the rule of indicators in environmental performance evaluation and the mean of uncertainty, proposes an approach to the study and the evaluation, through indicators and indices, of the environmental aspect "wastewater discharges" of a Local Authority who is involved in EMS implementation. [Abstract shortened].

Code: Env 06/26

A rough set-based quality function deployment (QFD) approach for environmental performance evaluation: A case of offshore oil and gas operations. Ming Yang et al. *Journal of Cleaner Production*; Vol. 19 (13), Sept 2011, p.1513-1526

Activities in offshore oil and gas (OOG) that cause environmental impacts can be systematically managed through an environmental management system (EMS). Environmental performance evaluation (EPE) is an essential part of an EMS. However, previous studies on EPE indicate that existing lists of indicators little insight into how indicators are modified to more accurately assess environmental performance. In this paper, a way is proposed to identify and define specific environmental performance indicators on a case-by-case basis, which consists of five steps: (1) describing environmental requirements; (2) determining favourable outcomes corresponding to the requirements; (3) identifying required activities or issues to achieve the outcomes; (4) searching for proper measures of the activities or issues; and (5) generating a list of key indicators. Based on these steps, a quality function deployment (QFD) approach is developed to determine key indicators and evaluate environmental performance. To handle uncertainties in QFD, the decision makers' evaluations are quantified through rough numbers using the concept of rough sets. The outputs of the proposed approach are different environmental performance indices. Using these indices, decision makers can easily determine whether an improved performance has been achieved through an EMS. The proposed approach is transparent and promising for use as a unified tool for EPE. An application of the proposed approach is demonstrated through a numerical example.

Code: Env 06/27

Environmental management systems: How successful are they? Gibson, Kathleen. *Environmental Quality Management*; Spring 2005, Vol. 14 (3), p.25-30

Code: Env 06/28

Choosing an appropriate university or college environmental management system. Amelia Clarke; Rosa Kouri. *Journal of Cleaner Production*; July 2009, Vol. 17 (11), p.971-984

Code: Env 06/29

Public participation in environmental decision making

Enhancing benefits in health impact assessment through stakeholder consultation. Tamburrini, Ame-Lia et al. *Impact Assessment & Project Appraisal*; Sep 2011, Vol. 29 (3), p.195-204

Stakeholder consultation is a key mechanism in impact assessment. It not only helps identify what benefits may occur, but the process of consultation itself may also generate positive outcomes. This paper presents three case studies of stakeholder engagement in health impact assessment (HIA) conducted in Australia and the USA, between 2004 and 2008, that led to the enhancement of positive impacts: improved relations between diverse stakeholders, development of working relationships among unlikely partners, greater acceptance of recommendations by proponents, and empowerment of community residents to become involved in political decisions that impact their lives and livelihoods. Regulatory requirements and improved guidance are suggested to improve stakeholder engagement and enhance positive outcomes in impact assessment.

Code: Env 06/30

Citizen participation in the making of environmental decisions: Evolving obstacles and potential solutions through partnership with experts and agents. Mihaly, Marc B. *Pace Environmental Law Review*; 2009, Vol. 27 (1), p.151-227

Code: Env 06/31

Community engagement for local government. Matijevic, Mark. *New Zealand Local Government (LG)*; Aug 2010, Vol. 46 (8), p.39-40

Code: Env 06/32

Public participation in the governance of international freshwater resources edited by Carl Bruch, Libor Jansky, Mikiyasu Nakayama And Kazimierz A Salewicz xiii + 506 pp., 23.5 × 15.5 × 2.5 cm, ISBN 92 808 1106 1 paperback US\$ 38.00, New York, USA: United Nations University Press, 2005. Jakub Landovsky. *Environmental Conservation*; Sep 2006, Vol. 33 (3), p.275-276

Book review.

Code: Env 06/33

The taniwha's exile: The exclusion of Maori women from environmental policy and decision-making in Aotearoa/New Zealand. Clarke, Eileen. *Hecate*; 01/05/2004, Vol. 30 (1), p.119-140

Code: Env 06/34

Key principles of community-based natural resource management: A synthesis and interpretation of identified effective approaches for managing the commons. Gruber, James S. *Environmental Management*; Jan 2010, Vol. 45 (1), p.52-66

Code: Env 06/35

Many ways to say 'no', different ways to say 'yes': Applying Q-Methodology to understand public acceptance of wind farm proposals. Ellis, Geraint et al. *Journal of Environmental Planning & Management*; Jul 2007, Vol. 50 (4), p.517-551

Code: Env 06/36

Environmental practice

Handle with care: Assessing the risks of the precautionary principle. Cussen, K. *Australasian Journal of Environmental Management*; Jun 2009, Vol. 16 (2), p.66-69

Code: Env 06/37

Ecosystem-based management for the oceans. Ward, Trevor. *Australasian Journal of Environmental Management*; Sep 2010, Vol. 17 (3), p.193-194

The article reviews the book "Ecosystem-Based Management for the Oceans," edited by Karen McLeod and Heather Leslie.

Code: Env 06/38

Ethics for environmental professionals. J. Philip Wogaman. *Environmental Practice*; Mar 2004, Vol. 6 (1), p.7-9

The following presentation was given by the Rev. Dr. J. Philip Wogaman on June 25, 2003, at the National Association of Environmental Professionals' (NAEP) 28th Annual Conference, held in San Antonio, Texas.

Code: Env 06/39

Obstacles to researching the researchers: A case study of the ethical challenges of undertaking methodological research investigating the reporting of randomised controlled trials. McKenzie, Joanne E. et al. *Trials*; 2010, Vol. 11, p.28-37

Code: Env 06/40

Determinism within human-environment research and the rediscovery of environmental causation. Judkins, Gabriel et al. *Geographical Journal*; 01/03/2008, Vol. 174 (1), p.17-29

Code: Env 06/41

Managing non-point source pollution with an effects-based strategy in Otago. Onur Oktem; Fraser McRae. *Planning Quarterly*; 01/12/2010, (179), p.24-27

The business of farming would seem to be often at odds with good environmental practice. But Otago regional council has an idea that might make the two much better bed-fellows.

Code: Env 06/42

Tools of the tide. Faire, Stacey. *Planning Quarterly*, Mar 2009, Vol. 172, p.16-19

Coastal planning unplugged.

Code: Env 06/43

Coastal pollution: Effects on living resources and humans. Bridgeman-Sutton, David. *International Journal of Environmental Studies*; Feb 2010, Vol. 67 (1), p.81-83

The article reviews the book "Coastal Pollution: Effects on Living Resources and Humans," by Carl J. Sindermann.

Code: Env 06/44

Incorporating linguistic, probabilistic, and possibilistic information in a risk-based approach for ranking contaminated sites. Kejiang Zhang et al. *Integrated Environmental Assessment & Management*; Oct 2010, Vol. 6 (4), p.711-724

Code: Env 06/45

Environmental education and communication

Media literacy as a key strategy toward improving public acceptance of climate change science. Cooper, Caren B. *BioScience*; Mar 2011, Vol. 61 (3), p.231-237

Code: Env 06/46

Understanding student learning in environmental education in Aotearoa New Zealand. Eames, Chris; Barker, Miles. *Australian Journal of Environmental Education*; 01/07/2011, Vol. 27 (1), p.186-191

Code: Env 06/47

Environmental education (EE) for the 21st Century: Where have we been? Where are we now? Where are we headed? Hungerford, Harold R. *Journal of Environmental Education*; 2010, Vol. 41 (1), p.1-6

Code: Env 06/48

"Eco-Logical" engineering: A teaching-research model to foster students' paradigm thinking of wastes as commodities. O'Sullivan, A. D. *Australian Journal of Engineering Education*; 2010, Vol. 16 (1), p.21-33

This research involved Natural Resources Engineering students at the University of Canterbury.

Code: Env 06/49

Risk communication and media coverage of emerging contaminants. Lisa Ragain. *American Water Works Association. Journal*; May 2009, Vol. 101 (5), p.100-105,12

Code: Env 06/50

Knowledge exchange between academia and industry. A. Moncaster et al. *Proceedings of the ICE - Engineering Sustainability*; Vol. 163 (3), Sept 2010, p.167-174

The Intergovernmental Panel on Climate Change report unambiguously demonstrated the critical and serious nature of climate change. It specifically outlined the urgent need for new practices and technologies within the built environment, and this in turn needs effective and quick knowledge development and transfer. While, historically, construction research has presupposed the 'pipeline' model of knowledge transfer from academics to practitioners, often in a slow and piecemeal process, there has been a recent move towards greater involvement of practitioners in research, following theories from the social sciences about the roles of social networks and communities of practice in the co-production of knowledge. However, there is little empirical evidence to show whether the involvement of practitioners in construction research is changing either research practices or the acquisition of new knowledge by practitioners. This paper provides some of this evidence, by summarising the results from four studies to investigate how knowledge is being created within the Sustainable Urban Environment research consortia and how it is being accessed by the construction industry. It describes some of the successful approaches that are currently being followed and also highlights some of the continuing discontinuities between research and practice. Some recommendations for further improvement are suggested. *Abstract provided with the permission of The Institution of Civil Engineers.* http://www.ice.org.uk/services/services_journals.asp

Code: Env 06/51

Classroom as cinema: Using film to teach sustainability. Clemens, Bruce; Curt Hamakawa. *Academy of Management Learning & Education*; Sep 2010, Vol. 9 (3), p.561-563

Code: Env 06/52

Everyday epiphanies: Environmental networks in eco-makeover lifestyle television.

Craig, Geoffrey. *Environmental Communication*; Jun 2010, Vol. 4 (2), p.172-189

This article offers an analysis of the New Zealand eco-makeover program, WA\$TED! It outlines how eco-makeover programs are an emerging sub-genre of the makeover phenomenon of lifestyle television where people and homes are subject to transformation by lifestyle experts, culminating in the revelation of the transformation at the end of the program. The article argues that the featured families in WA\$TED! experience "everyday epiphanies" where they learn about their implication in existing environmental networks and they are ushered into new, more environmentally friendly networks. Drawing on actor-network theory, the article deconstructs the featured environmental networks, examining the roles of the program hosts, the transformations in the subjectivities of family members, and the functions of everyday household technologies and objects. The article argues that the significance of the program resides in the way the revelations make visible previously concealed linkages between families, everyday objects and practices, and the broader social and environmental domain.

Code: Env 06/53

Climate change

Climate change: from Copenhagen to Cancun. Iqbal, Badar. *New Zealand International Review*; 01/05/2011, Vol. 36 (3), p.21-24

Code: Env 06/54

Constituting leadership via policy: Sweden as a pioneer of climate change mitigation.

Steven Sarasini. *Mitigation and Adaptation Strategies for Global Change*; Oct 2009, Vol. 14 (7), p.635-653

Code: Env 06/55

Beyond stupid. Brooks, Mark. *Alternatives Journal*; May/June 2011, Vol. 37 (3), p.34-36

The article reviews the book "Requiem for a Species: Why We Resist the Truth About Climate Change," by Clive Hamilton.

Code: Env 06/56

Voluntary GHG management using a life cycle approach: A case study. Antonio Scipioni et al. *Journal of Cleaner Production*; Mar 2010, Vol. 18 (4), p.299-306

Voluntary GHG management is a primary issue for many organizations. To support organizations with this activity, authoritative bodies have published many different guidelines. Nevertheless, these guidelines show limitations in identification of the direct and indirect processes that have a major impact on climate change, which should be considered in GHG management. In this paper, a life cycle approach is used to identify the processes of an organization and its supply chain that have major impacts on climate change. The results show that this approach is compatible with the current ISO standards and that in the case study the greatest emissions come from the organization's indirect processes.

Code: Env 06/57

Offset providers directory. *Environmental Finance*; Feb 2011, Vol. 12 (4) p.26-28

Code: Env 06/58

Briefing: Adapting to a changing climate. *Urban Design and Planning*; Jun 2010, Vol. 163 (2), p.53-58

Climate change is already with us. It is the greatest emerging humanitarian challenge of our time. The effects of changing weather patterns and more extreme climate events can be seen around the world. Examining the scale of the global challenge through the threats posed by a changing climate across Europe and in the UK, this paper indicates that leadership and policy responses are needed at all levels – international, European national and local. The urban environment amplifies the impacts of climate change and adaptation of our towns and cities is essential to accommodate this change. Regional and local planning can make a major contribution to tackling climate change by shaping decisions that reduce carbon dioxide emissions and positively build community resilience to problems such as extreme temperatures or flood risk. Looking to examples of best practice across local authorities in Europe, the EU-funded green and blue space adaptation for urban areas and eco-towns (GRaBS) project is showcased. This paper presents the case for climate change adaptation and, in particular, argues that people or places facing poverty and disadvantage must not be disproportionately affected by climate change, or by policy or practice responses to it. *Abstract reprinted with the permission of Thomas Telford Limited: http://www.ice.org.uk/services/services_journals.asp*

Code: Env 06/59

Sustainable whale-watching tourism and climate change: Towards a framework of resilience. Lambert, Emily et al. *Journal of Sustainable Tourism*; Apr 2010, Vol. 18 (3), p.409-427

Code: Env 06/60

Assessment of post-Kyoto climate change mitigation regimes impact on sustainable development. Dalia Streimikiene; Stasys Girdzijauskas. *Renewable and Sustainable Energy Reviews*; Jan 2009, Vol. 13 (1), p.129-141

Code: Env 06/61

Eco-driving: An overlooked climate change initiative. Jack N. Barkenbus. *Energy Policy*; Feb 2010, Vol. 38 (2), p.762-769

Code: Env 06/62

Insights on different participation schemes to meet climate goals. Peter Russ; Tom van Ierland. *Energy Economics*; Dec 2009, Vol. 31, Supplement 2, p.S163-S173

Code: Env 06/63

Sustainability

Sustainability assessment and the revitalization of contaminated sites: Operationalizing sustainable development for local problems. Bleicher, Alena; Gross, Matthias. *International Journal of Sustainable Development & World Ecology*; Feb 2010, Vol. 17 (1), p.57-66

Code: Env 06/64

Comparative analysis of New Zealand and US approaches for agricultural nonpoint source pollution management. Caruso, Brian S. *Environmental Management*; Jan 2000, Vol. 25 (1), p.9-22

Compares and evaluates the New Zealand and US approaches to managing agricultural nonpoint source water pollution. The relevant legislation is covered and the possibility of future cooperation between the countries is discussed.

Code: Env 06/65

The role of indigenous communities in the pursuit of sustainability. Jamieson, Jemima. *New Zealand Journal of Environmental Law*; 2010, Vol. 14, p.161-196

Code: Env 06/66

Natural resources, new governance and legal regulation: When does collaboration work? Holley, Cameron; Gunningham, Neil. *New Zealand Universities Law Review*; 01/06/2011, Vol. 24 (3), p.309-336

Code: Env 06/67

The government–non-government dance: Collective action in New Zealand. Cullen, R. et al. *Australasian Journal of Environmental Management*; Sep 2011, Vol. 18 (3), p.135-138 (Editorial.)

Code: Env 06/68

Walking on water. Le Couteur, Clair. *Engineering Insight (Institution of Professional Engineers New Zealand, IPENZ)*; Sep/Oct 2011 Vol. 12 (5), p.39-41

Professor Misko Cubrinovski from the Civil Engineering Department at the University of Canterbury says Christchurch's experience with liquefaction has provided invaluable evidence for studies of the susceptibility of soils to liquefy. He is now working with his students to add important insights to research on the subject.

Code: Env 06/69

Voluntary Pollution Prevention Programs in New Zealand - An evaluation of practice versus design features. Kenneth F. D. Hughey; Donald G. Chittock. *Journal of Cleaner Production*; Mar 2011, Vol. 19 (5), p.532-541

Code: Env 06/70

The politics of science and sustainable development: Marcuse's new science in the 21st century. Farrell, K. N. *Capitalism, Nature, Socialism*; Dec 2008, Vol. 19 (4), p.68-83

This article discusses the philosophy of critical theorist Herbert Marcuse and the political aspects of sustainable development and environmentalism. Topics include: Marcuse's predictions about technology and ideology in "One-Dimensional Man"; the role of industrial systems of economic production in the domination of man and nature; and the concept of postnormal science presented by Thomas Kuhn in "The Structure of Scientific Revolutions."

Code: Env 06/71

Briefing: New geogrid technology for ground stabilization. J. Dixon; C. Hall. *Institution of Civil Engineers: Proceedings: Engineering Sustainability*; June 2010, Vol. 163 (2), p.65-67
Code: Env 06/72

Planning for sustainable utility infrastructure. Dexter V. L. Hunt et al. *Urban Design and Planning*; Dec 2009, Vol. 162 (4), p.187-201
Code: Env 06/73

Energy

Smart power: Climate change, the smart grid and the future of electric utilities. Mogell, William A. *Energy Law Journal*; 2010, Vol. 31 (1), p.183-184
The article reviews the book "Smart Power: Climate Change, the Smart Grid and the Future of Electric Utilities," by Peter Fox-Penner.
Code: Env 06/74

Marine renewables: a new innovation frontier. Elliott, David. *Technology Analysis & Strategic Management*; Feb 2009, Vol. 21 (2), p.267-275
The UK has a large marine renewable energy resource and has been developing a range of wave and tidal technologies for exploiting it. However, progress on moving to the commercial scale has been slow, in part, it is argued, as a result of the way this area of innovation has been supported by the government. This paper looks at the technologies and how they are being developed in the UK and elsewhere. It notes that, although the UK is still in the lead in terms of novel device development, unless better support is provided, the UK might lose out to device developers from other countries in the race to capture the very large global market that is opening up for the relevant technologies.
Code: Env 06/75

Tackling today's data center energy efficiency challenges: A software-oriented approach. Parker, James et al. *Strategic Planning for Energy & the Environment*; Summer 2009, Vol. 29 (2), p.24-52
Code: Env 06/76

Zero carbon Britain by 2030 - the radical alternative. *Energy World*; Jul/Aug 2010 (384), p.18-19
Why stop at low carbon ambitions when the Centre for Alternative Technology (CAT) in Wales has published a report showing how Britain could reduce its net emissions of carbon to zero by 2030? Only a flavour of the report can be gleaned from these edited abstracts - but the full report, which also discusses issues such as land use, is well worth a look.
Code: Env 06/77

Can environmental sustainability be used to manage energy price risk? Irene Henriques; Perry Sadorsky. *Energy Economics*; Sept 2010, Vol. 32 (5), p.1131-1138
Code: Env 06/78

The silver bullet myth of sustainable energy savings. Martin J. Pasqualetti et al. *The Electricity Journal*; Oct 2010, Vol. 23 (8), p.72-78

Especially in the U.S., people like to think that solving problems just requires finding the proper "silver bullet." Such fixes are not sustainable. Any utility company wanting sustainable long-term savings in personal energy demand requires a more thorough commitment that might be referred to as "head" (education), "heart" (motivation), and "hands" (action).

Code: Env 06/79

Optimization of remediation operations at petroleum-contaminated sites through a simulation-based stochastic-MCDA approach. Qin, X. S. et al. *Energy Sources Part A: Recovery, Utilization & Environmental Effects*; Sep 2008, Vol. 30 (14/15), p.1300-1326

Code: Env 06/80

Making the case for clean energy. Miller, Gabriel et al. *Environmental Finance*; Dec 2010/Jan 2011, Vol. 12 (3), p.38-40

The renewable energy sector has been under particular attack of late, with sceptics taking potshots at its viability and environmental effectiveness. But many of these attacks are flawed or unfounded, say Gabriel Miller, Camilla Sharples and Paul Ho.

Code: Env 06/81

Methods for calculating CO2 intensity of power generation and consumption: A global perspective. Wina Graus; Ernst Worrell. *Energy Policy*; Feb 2011, Vol. 39 (2), p.613-627

Code: Env 06/82

Small hydro and the environmental implications of its extensive utilization. Tasneem Abbasi, S. A. Abbasi. *Renewable and Sustainable Energy Reviews*; May 2011, Vol. 15 (4), p.2134-2143

Code: Env 06/83

A model clean energy standard. Steven Michel. *The Electricity Journal*; Apr 2011, Vol. 24 (3), p.45-51

Policymakers are now examining a "clean energy standard" as an alternative to greenhouse gas cap-and-trade regulation. This article presents a model CES that drives absolute CO2 reductions, and is indifferent to generation type. It awards credits based upon relative CO2 emissions and retires credits in a system that encourages energy efficiency. The system can link with existing and future GHG regulation, and would accommodate state renewable energy standards.

Code: Env 06/84

Water

The water footprint of food waste: Case study of fresh mango in Australia. B.G. Ridoutt et al. *Journal of Cleaner Production*; Nov 2010, Vol. 18 (16-17), p.1714-1721

Code: Env 06/85

On the crest of a wave: Indigenous title and claims to the water resource. Schroder, Mark B. *New Zealand Journal of Environmental Law*; 2004, Vol. 8, p.1-54

The doctrine of indigenous title originates from the theories of Francisco de Vitoria and Bartolomé de Las Casas, which informed the practice of European nations in their colonies. British colonial practice, the common law, and the doctrine of continuity therefore allowed indigenous peoples to retain control of their lands and natural resources. The modern doctrine of indigenous title has subsequently received recognition, at different stages, in the courts of the United States of America, Canada, New Zealand, and Australia. The formulation of the doctrine, although originating from a similar base, has begun to diverge in the four jurisdictions. Context specific solutions have been developed in relation to the content of indigenous title, however, there seems to be a growing consensus that the content of such a title is not limited to traditional uses. This view also reflects emerging international rights norms which suggest that indigenous title includes a right to modern forms of development. Nonetheless, differences exist in relation to methods of extinguishment, the payment of compensation, and the recognition of a fiduciary duty owed toward indigenous peoples. The jurisprudence of the four nations, however, still provides persuasive guidance in applying the doctrine to particular resources. Therefore in light of North American and Australian decisions and practices, Maori indigenous title rights clearly exist in respect of the sea. Maori title rights to the waters of rivers and lakes also remain because they have not been extinguished by the common law or legislation. Individual hapu and iwi can therefore claim a customary title to particular waters by proving the nature and content of that right via tikanga. Indigenous title is therefore a potent source for the recognition of Maori rights to the water resource. Subsequently any attempt by the Crown to extinguish a recognised title will require compensation to be paid to the relevant hapu or iwi.

Code: Env 06/86

Making asset investment decisions for wastewater systems that include sustainability. Ashley, Richard et al. *Journal of Environmental Engineering*; Mar 2008, Vol. 134 (3), p.200-209

Code: Env 06/87

Reducing the external environmental costs of pastoral farming in New Zealand: Experiences from the Te Arawa lakes, Rotorua. Abell, J. M. et al. *Australasian Journal of Environmental Management*; Sep 2011, Vol. 18 (3), p.139-154

Decades of nutrient pollution have caused water quality to decline in the nationally iconic Te Arawa (Rotorua) lakes in New Zealand. Pastoral agriculture is a major nutrient source, and therefore this degradation represents an external environmental cost to intensive farming. This cost is borne by the wider community, and a major publically funded remediation programme is now under way. This article describes the range of actions being taken to reduce nutrient loads from internal (lake bed sediments) and external (primarily diffuse) sources in the lake catchments. The high economic cost and uncertain efficacy of engineering-based actions to reduce internal nutrient loads is highlighted. Major changes to land management practices to control diffuse nutrient pollution are required throughout New Zealand if the need for costly and lengthy remediation programmes elsewhere is to be avoided. More action to educate farmers and the public about eutrophication issues, development and enforcement of environmental standards, and further consideration of the use of market-based instruments are proposed as ways to correct the current market failure. [ABSTRACT FROM PUBLISHER]

Code: Env 06/88

Water water everywhere. Matt Winthrop. *Engineering Insight (Institution of Professional Engineers New Zealand, IPENZ)*; Vol. 12 (4) Jul/Aug 2011, p.40-42

Lobbyists point to a gradual mismanagement of our water storage policy since the 1980s, leading to today's scenario: regional shortages, polluted waterways and inefficiencies that represent massive losses of economic opportunity. Added to this is climate change, leading to greater regional imbalances in water availability – and an increasing demand on water.

Code: Env 06/89

Water resources management: Its evolving role in corporate sustainability programs.

Martin, Bruce A. *Environmental Quality Management*; Autumn 2009, Vol. 19 (1), p.1-6

Code: Env 06/90

Business / Management

Small businesses and the environment: Turning over a new leaf? Revell, Andrea et al. *Business Strategy & the Environment*; Jul 2010, Vol. 19 (5), p.273-288

Code: Env 06/91

The social impact of businesses. Balby, Cecília. *Impact Assessment & Project Appraisal*; Sep 2011, Vol. 29 (3), p.247-248

The article reviews the book "Corporate Impact: Measuring and Managing Your Social Footprint," by Adrian Henriques.

Code: Env 06/92

Corporate sustainability communications: Aspects of theory and professionalization.

Signitzer, B.; Prexl, A. *Journal of Public Relations Research*; Jan 2008, Vol. 20 (1), p.1-19

Code: Env 06/93

The power of ethical work climates. Marshall Schminke et al. *Organizational Dynamics*; 2007, Vol. 36 (2), Special Issue on Ethics and Organizations, p.171-186

Code: Env 06/94

Corporate financial performance and corporate social performance: An update and reinvestigation. Callan, Scott J.; Thomas, Janet M. *Corporate Social Responsibility & Environmental Management*; Mar/Apr 2009, Vol. 16 (2), p.61-78

Code: Env 06/95

Green supply chains and the missing link between environmental information and practice. Solér, Cecilia et al. *Business Strategy & the Environment*; Jan 2010, Vol. 19 (1), p.14-25

Code: Env 06/96

It's only normal. Barker, Glenys. *Employment Today*; Aug 2010 (149), p.17-19
An article about a workplace mental health initiative at Vero Insurance New Zealand.
Code: Env 06/97

How to manage alliances better than one at a time. Ulrich Wassmer et al. *MIT Sloan Management Review*; Spring 2010, p.77-84
Companies are remarkably myopic when they go about forming strategic partnerships. Systematizing the analysis process should produce more gain and less pain.
Code: Env 06/98

The accountable leader. Guttman, Howard M. *Leader to Leader*; Winter 2009, Vol. 2009 (51), p.47-51
Code: Env 06/99

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We are open for requests until midday on Thursday 22nd December and we will reopen on Wednesday 4th January 2012. We hope you have a safe, happy and relaxing holiday season.