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EIANZ Environment Update Aug 2010 Issue 2

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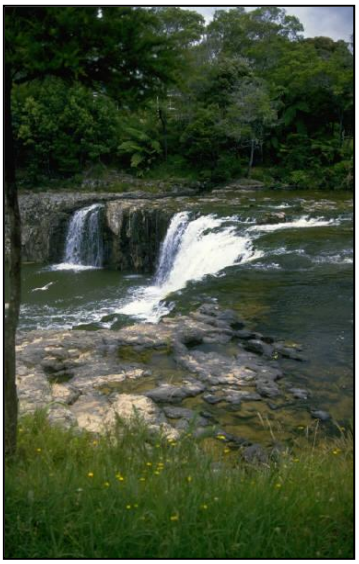

Contents

Special topic: Environmental education and communication

What do engineering students learn in sustainability courses? The effect of the pedagogical approach. J. Segalas et al. *Journal of Cleaner Production*; Vol. 18 (3), Feb 2010, p.275-284

The introduction of sustainable development (SD) courses into engineering education has been a key goal for many technological universities, accreditation agencies and national and international university networks. This paper presents the results of a 5-year research project that analysed how SD competences were introduced into technological universities. To evaluate which pedagogical approach best facilitates SD learning, ten courses on sustainability from five European technological universities were analysed using conceptual maps as assessment tools. The findings show that:

- Students initially perceived sustainability as mainly related to technology, which they consider should be able to resolve the environmental problems of the planet. They saw little relevance in the social and attitudinal aspects of sustainability. This misunderstanding was partially redressed by the course.
- Courses that apply a more community-oriented and constructive, active learning pedagogical approach, increase students' knowledge of SD.

This paper presents the methodology and results of the research, as well as recommendations for the teaching of SD in technological universities.

Code: Env 02/01

Environmental Sciences: A Student's Companion. Carter, J. *Australasian Journal of Environmental Management**; Sep 2009, Vol. 16 (3), p.186-187
The article reviews the book "Environmental Sciences: A Student's Companion," by Kenneth J. Gregory et al.
**This journal is published by EIANZ*
Code: Env 02/02

Communicating uncertainty: Models of communication and the role of science in assessing progress towards environmental objectives. Wibeck, V. *Journal of Environmental Policy & Planning*; Jun 2009, Vol. 11 (2), p.87-102
Code: Env 02/03

An educational tool for introducing concepts of environmental impacts in production systems. L. E. Whitman et al. *IIE Annual Conference. Proceedings*; 2009, p.205 (7 pages)
Code: Env 02/04

Learning communities, cities and regions for sustainable development and global citizenship. Morgan, A. D. *Local Environment*; May 2009, Vol. 14 (5), p.443-459
An emerging convergence is discernible in planning, governance and educational discourses towards place-based learning and participatory approaches in the pursuit of sustainable development (SD). Common themes include the development and application of strategies for facilitating multi-stakeholder learning communities to engage in collaborative learning, enquiry and action concerning issues of sustainability and global citizenship relevant to the home locality. The home locality is most often being formulated in terms of neighbourhood, city and/or regional scales since these represent identifiable and meaningful contexts within which social learning, participation and action can most readily be facilitated. The broad notion of "learning communities, cities and regions for SD and global citizenship" can be seen as powerful formulation emerging from this convergence characterised by concepts, approaches and tools currently emerging at the interface between participatory approaches to local/regional planning, and place-based education for SD and involving the partnership of a range of "learning stakeholders". This article seeks to outline the nature and potential of these convergences. A number of pointers towards good practice and exemplars are also indicated, notably in terms of emerging Regional Centres for Excellence in Education for SD.
Code: Env 02/05

An online innovation to enhance instruction and assess learning. Schwartz, K. et al. *Conference Papers -- North American Association of Environmental Education*; 2008 Annual Meeting, p.1 (11 pages).
This in-classroom water unit and online interactive story provides differentiated instruction, an approach that gives students multiple options for taking in information and making sense of ideas. The assessment consists of student responses to online questions that are integrated into the module so that assessment is next to transparent to the student users.
Code: Env 02/06

Bioscience enterprise: Postgraduate education at Cambridge and Auckland. Allan, L. et al. *Journal of Commercial Biotechnology*; Jul 2009, Vol. 15 (3), p.257-271
Code: Env 02/07

Teaching the assessment of landscape function in the field: Enabling the design and selection of appropriate restoration techniques. Tongway, D. J. *Ecological Restoration*; Jun 2010, Vol. 28 (2), p.182-187
Code: Env 02/08

Embedding sustainability in higher education through interaction with lecturers: Case studies from three European technical universities. Holmberg, J. et al. *European Journal of Engineering Education*; Jun 2008, Vol. 33 (3), p.271-282
In this paper, three universities compare their work on the integration of sustainable development into their educational programmes. The purpose is to show examples of how this can be done and to illustrate important generalised success factors. Methods used to achieve embedding of sustainability in curricula through individual interaction with teachers and other actors are described. The three universities are all technical universities with relatively high ambitions for their activities in relation to sustainable development.
Code: Env 02/09

Strategies for developing sustainable design practice for students and SME professionals. de Eyto, A. et al. *European Journal of Engineering Education*; Jun 2008, Vol. 33 (3), p.331-342
Code: Env 02/10

Sustainability in journalism education: Assessment of a trial module in New Zealand. Kolandai-Matchett, K. et al. *Applied Environmental Education & Communication*; Jul 2009, Vol. 8 (3/4), p.204-215
Code: Env 02/11

One environmental education center's industry initiative: Collaborating to create more environmentally and economically sustainable businesses. Hollweg, Karen S. *Applied Environmental Education & Communication*; Jan 2009, Vol. 8 (1), p.67-77
Code: Env 02/12

Coyote's Guide to Connecting with Nature: For Kids of All Ages and Their Mentors. Rowntree, Noeleen. *Australian Journal of Environmental Education*; 01/07/2009, Vol. 25, p.148-149
The article reviews the book "Coyote's Guide to Connecting With Nature: For Kids of All Ages and Their Mentors," by Jon Young, Ellen Haas and Evan McGown.
Code: Env 02/13

Environmental education for the 21st century: where do we go now? Potter, G. *Journal of Environmental Education*; 2010, Vol. 41 (1), p.22-33
Code: Env 02/14

Environmental education in small business: The owner-manager's perspective. Redmond, J.; Walker, E. *Australian Journal of Environmental Education*; 01/07/2009, Vol. 25, p.117-128
Traditionally, environmental education has been aimed at the community or primary schools and governmental pressure to reduce environmental damage has focussed on large businesses. More recently, the role and importance of small business and how to engage them in the environmental debate has come under scrutiny. Researchers have identified education as one method of increasing the understanding of small business owner-managers' role and knowledge of practices that, when implemented, will reduce the negative impacts of their businesses. However, there is little attention given in the literature to the perspective of the small business owner-manager and environmental education. This research was conducted to begin to address this gap. Research results confirm that there is limited environmental education for small businesses and that there is a disconnect in meeting the needs of such a disparate group. Six elements were identified by the small business owner-managers in the design of environmental education for them: use of plain language, provision of best practice examples, industry specific information, solutions for immediate improvement, practical content and use of trusted sources to deliver the program.
Code: Env 02/15

Aboriginal environmental wisdom, stewardship, and sustainability: lessons from the Walpole Island First Nations, Ontario, Canada. Beckford, Clinton L. et al. *Journal of Environmental Education*; 2010, Vol. 41 (4), p.239-248
Code: Env 02/16

Communicating how water works: Results from a community water education program. Cockerill, K. *Journal of Environmental Education*; 2010, Vol. 41 (3), p.151-164
Code: Env 02/17

A discussion paper: The development of professional teacher standards in environmental education. Cutter-Mackenzie, A. et al. *Australian Journal of Environmental Education*; 01/07/2008, Vol. 24, p.3-10
Code: Env 02/18

Conservation and restoration

From land to sea: The role of land trusts in marine protection. M. E. Portman. *Society & Natural Resources*; Jan 2009, Vol. 22 (1), p.12-26
Code: Env 02/19

If the price is right: Farmer attitudes to producing environmental services. Patrick, I. et al. *Australasian Journal of Environmental Management**; Mar 2009, Vol. 16 (1), p.36-46
**This journal is published by EIANZ*
Code: Env 02/20

Managing our treasured home: The conservation estate and the principles of the Treaty of Waitangi. Ruru, J. *New Zealand Journal of Environmental Law*; 2004 Vol. 8, p.243-266
Since 1987, the principles of the Treaty of Waitangi have been explicitly relevant in the management of New Zealand's conservation estate. This article examines how the courts, the Waitangi Tribunal, and the Department of Conservation have interpreted and applied section 4 of the Conservation Act 1987.
Code: Env 02/21

Environmental protection in deep seabed mining: International law and New Zealand's approach. Suhr, L. *New Zealand Journal of Environmental Law*; 2008 Vol. 12, p.97-144
Code: Env 02/22

Restoring Wildlife: Ecological Concepts and Practical Applications, 2nd ed. Clark, J. D. *Ecological Restoration*; Jun 2010, Vol. 28 (2), p.221-223
A review of the book "Restoring Wildlife Ecological Concepts and Practical Applications," 2nd ed., by Michael L. Morrison.
Code: Env 02/23

Ten factors that affect the severity of environmental impacts of visitors in protected areas. Pickering, C. M. *AMBIO - A Journal of the Human Environment*; Feb 2010, Vol. 39 (1), p.70-77
Code: Env 02/24

Contesting governance of indigenous forests in New Zealand: The case of the West Coast Forest Accord. Memon, P. Ali; Wilson, Geoff A. *Journal of Environmental Planning & Management*; Nov 2007, Vol. 50 (6), p.745-764
Code: Env 02/25

How much compensation is enough? A framework for incorporating uncertainty and time discouting when calculating offset ratios for impacted habitat. Moilanen, A. et al. *Restoration Ecology*; Jul 2009, Vol. 17 (4), p.470-478
Code: Env 02/26

ConsNet: New software for the selection of conservation area networks with spatial and multi-criteria analyses. Ciarleglio, Michael et al. *Ecography*; Apr 2009, Vol. 32 (2), p.205-209
Code: Env 02/27

Biodiversity

Reviewing the mix of methods to accelerate progress to achieving biodiversity targets in a Victorian Catchment Management Authority. K. Roberts et al. *Australasian Journal of Environmental Management**; Sep 2009, Vol. 16 (3), p.149-157
**This journal is published by EIANZ*
Code: Env 02/28

Biodiversity losses and ecosystem function in freshwaters: Emerging conclusions and research directions. C. C. Vaughn. *Bioscience*; 01/01/2010, Vol. 60 (1), p.25-35
Code: Env 02/29

On biodiversity impact assessment: The rationale, conceptual challenges and implications for future EIA. E. Wale; A. Yalew. *Impact Assessment & Project Appraisal*; Mar 2010, Vol. 28 (1), p.3-13
This paper highlights the need for and the conceptual challenges/issues in exercising biodiversity impact assessment (BIA), a subject hardly considered in most environmental impact assessment (EIA) activities so far. The paper attempts to lay the foundation for how future assessments can address biodiversity impacts more explicitly. The paper shows how development interventions and projects meant to take care of peoples' livelihoods are impacting on biodiversity. It presents the possible directions BIA has to focus on in integrating externalities to inform decision making on the feasibility of development interventions. This is in essence to prevent, reduce and offset any adverse impacts (on biodiversity) of future development interventions. Addressing biodiversity valuation issues and identifying the appropriate methods to quantify the impacts will remain imperative in future endeavours to evaluate biodiversity impacts.
Code: Env 02/30

Time for a green development mechanism? J. Metcalfe; F. Vorhies. *Environmental Finance*; Mar 2010 Vol. 11 (5), p.15 (1p.)
There is an urgent need to mobilise finance behind efforts to tackle biodiversity loss. Could a CDM-like offset mechanism be the answer?
Code: Env 02/31

Do urban areas act as foci for the spread of alien plant species? An assessment of temporal trends in the UK. M. S. Botham et al. *Diversity & Distributions*; Mar 2009, Vol. 15 (2), p.338-345
Code: Env 02/32

Comparative biogeography of New Zealand trees: Species richness, height, leaf traits and range sizes. M. S. McGlone et al. *New Zealand Journal of Ecology*; 2010, Vol. 34 (1), p.137 (15 p.)
Code: Env 02/33

Did you miss the biodiversity special topic in the last EIANZ Environment Update? You can find it here: www.energylibrary.org.nz/documents/EIANZEnvironmentUpdateOne2010.pdf

Public environmental reporting and sustainability reporting

Assessing the evolution of sustainability reporting in the mining sector. Perez, Fabiana; Sanchez, Luis E. *Environmental Management*; Jun 2009, Vol. 43 (6), p.949-961
Code: Env 02/34

How well do social ratings actually measure corporate social responsibility?
Chatterji, Aaron K. Et al. *Journal of Economics & Management Strategy*; Mar 2009, Vol. 18 (1), p.125-169
Code: Env 02/35

Debate: The Global Reporting Initiative and public agencies. Lamprinidi, S.; Kubo, N. *Public Money & Management*; Dec 2008, Vol. 28 (6), p.326-329
This article discusses issues relating to the adoption of the Global Reporting Initiative in sustainable development accounting by public agencies. The active adoption of public sector sustainability reporting by countries such as Australia and New Zealand is contrasted with the limited efforts of countries such as the U.S. and Canada. The lack of standardization of reporting practices is described as a barrier to international communication on sustainability. The development of transparent government operations is framed as a function of establishing champions who can actively promote sustainable practices.
Code: Env 02/36

Sustainability quotients and the social footprint. McElroy, Mark W. et al. *Corporate Social Responsibility & Environmental Management*; Jul 2008, Vol. 15 (4), p.223-234
Code: Env 02/37

Measuring organizational performance: Beyond the triple bottom line. Hubbard, G. *Business Strategy & the Environment*; Mar 2009, Vol. 18 (3), p.177-191
Code: Env 02/38

Public participation in environmental decision making

Co-managing environmental research: Lessons from two cross-cultural research partnerships in New Zealand. P. Lyver. *Environmental Conservation*; Dec 2005, Vol. 32 (4), p.365-370
Code: Env 02/39

Insurgent planning: Coming soon to a community near you. Fergusson, E. *Planning Quarterly (New Zealand Planning Institute)*, Mar 2010 (176), p.28-32
Examines the relationship between Transition Towns and local government, and issues that local government planners should consider when engaging with Transition initiatives in their community.
Code: Env 02/40

Community engagement in strategic planning for community well-being. Memon, A. *Planning Quarterly (New Zealand Planning Institute)*; Sep 2009 (174), p.28-30
Code: Env 02/41

Global environmental governance and the role of civil society groups. Gerdung, Anja. *New Zealand Journal of Environmental Law*; 2004 Vol. 8, p.55-98
Code: Env 02/42

Community environmental management in New Zealand: Exploring the realities in the metaphor. McCallum, W. et al. *Society & Natural Resources*, Apr 2007, Vol. 20 (4), p.323-336
There has been a resurgence of interest in the role that communities can play in addressing matters of environmental change and resource allocation in New Zealand. There has, however, been a paucity of research critically exploring the contribution of such community initiatives to environmental sustainability. We report from the qualitative analysis of six case studies, grounded on the themes of social capital, the social construction of nature, and sustainability. Insights emerging from observations, interviews, and documents suggest that community environmental management approaches are more complex than portrayed in normative descriptions, with matters such as social collectivity, interpretations of nature, and ideas about biophysical change being more variable than commonly portrayed. Appreciation of this and other factors appears necessary for aligning the expectations of community environmental management with the capacity of human and nonhuman systems. These observations have implications for the practice of community environmental management within New Zealand and internationally.
Code: Env 02/43

'Committing to Place' at the local scale: The potential of youth education programs for promoting community participation in regional natural resource management. Lane, R. et al. *Australian Geographer*; Nov 2005, Vol. 36 (3), p.351-367
Code: Env 02/44

Sustainability

Shaping a sustainable future - an outline of the transition. Lowe, Ian. *Civil Engineering & Environmental Systems*; Dec 2008, Vol. 25 (4), p.247-254
The warnings from scientists are urgent and unequivocal: our civilisation is unwittingly stepping in front of an ecological lorry that is about to flatten us (Steffen, W., et al., 2004. Global change and the earth system: a planet under pressure. Berlin: Springer-Verlag). We are using resources future generations will need, damaging environmental systems and compromising social stability by increasing the gap between rich and poor. In short, we are consuming the future. Without a radical re-thinking of the way we currently live, our society is doomed. We need to tackle this problem head-on and develop far-reaching solutions to our environmental and social crisis. This does not just require technical innovation. It also demands fundamental changes to our values and our social institutions. This paper develops a vision of a HEALTHIER society - one that is Humane, takes an Eco-centric approach, adopts Long-term thinking, uses our natural resources responsibly, is Informed about the fragility of our natural systems, is Efficient in turning resources into the services we need and is Resourced from natural flows of energy. The paper goes on to suggest the first concrete steps toward achieving this sort of desirable future. History has shown that human systems can change very quickly. Once we realise the need for a new direction - and act on it - an equitable and sustainable world is within reach. If civilisation is to survive, this century will have to be a time of dramatic transformation, not just in technical capacity but also in our approach to the natural world - and each other. The road we are travelling now can only end in disaster.
Code: Env 02/45

Sense and sustainability: The case of the Slow City movement. Pink, S. *Local Environment*; Mar 2008, Vol. 13 (2), p.95-106
In this article I draw on recent anthropological literature on the senses to propose a novel approach to sustainable local development. I suggest that attention to how the senses are engaged in both discourses concerning and corporeal experiences of sustainable urban development, can produce insights into how these processes operate. In developing the discussion I draw from examples from ethnographic research in British member towns of the Cittàslow (Slow City) movement.
Code: Env 02/46

Clean and green? A governance analysis of waste management in New Zealand. Davies, Anna R. *Journal of Environmental Planning & Management*; Mar 2009, Vol. 52 (2), p.157-176
Code: Env 02/47

Saving the world by saving the old. McClean, R. *Planning Quarterly (New Zealand Planning Institute)*; Jun 2010 (177), p.23-25
Robert McClean proposes that historic heritage and sustainability are intrinsically linked. He claims that creative 're-using' and adaptation of historical sites and buildings, can make a positive impact on the environment.
Code: Env 02/48

Information systems innovation for environmental sustainability. Melville, N. P. *MIS Quarterly*; Mar 2010, Vol. 34 (1), p.1-21
Code: Env 02/49

Animal, vegetable or mineral. Wilson, Jessica. *Consumer*; Jun 2010 (503), p.20-23
Is mining public conservation land in New Zealand worth it?
Code: Env 02/50

Funding the infrastructure required to mitigate the effects of development. Prendergast, C. *New Zealand Journal of Environmental Law*; 2004 Vol. 8, p.327-359
The planning and funding of infrastructure (power and water supply, sewage and stormwater services, and roads) so as to ensure its provision prior to or at the same time as development has long been a difficult challenge for Councils. Essentially, the costs of growth can be funded in two broad ways - by the community at large in the form of rates, fees and charges; or by those creating the demand on the basis of the "polluter pays" principle. This article examines the funding tools contained within the Local Government (Rating) Act 2002, the Local Government Act 2002 and the Resource Management Act 1991. After a brief overview of the historical position, the article looks at each of the tools and considers the purpose and procedural requirements of the relevant Act, the rationale behind the tool and the advantages and disadvantages arising out of its formulation and application. The article then looks briefly at the current sources and sufficiency of funding for infrastructure in three of the local authorities experiencing growth pressures within the Auckland region. The article concludes by identifying the circumstances where use of each of the tools is considered appropriate.
Code: Env 02/51

Agricultural subsidy reform and its implications for sustainable development: The New Zealand experience. Vitalis, V. *Environmental Sciences*; Jan 2007, Vol. 4 (1), p.21-40
Code: Env 02/52

Crying over spilt milk: A critical assessment of the ecological modernization of New Zealand's dairy industry. Jay, M.; Morad, M. *Society & Natural Resources*; May/Jun 2007, Vol. 20 (5), p.469-478
Code: Env 02/53

Water

Investigation of nutrient limitation status and nutrient pathways in Lake Hayes, Otago, New Zealand: A case study for integrated lake assessment. Bayer, T. K. et al. *New Zealand Journal of Marine & Freshwater Research*; 01/09/2008, Vol. 42 (3), p.285-295
Code: Env 02/54

Tracing the movement of irrigated effluent into an alluvial gravel aquifer. Sinton, L. W. et al. *Water, Air & Soil Pollution*; Sep 2005, Vol. 166 (1-4), p.287-301
Code: Env 02/55

Exploring indigenous understandings of river dynamics and river flows: A case from New Zealand. Tipa, G. *Environmental Communication*; Mar 2009, Vol. 3 (1), p.95-120
Indigenous communities are particularly sensitive to the use and development of freshwaters, as they hold distinct perspectives on water which reflect their identity, and their custodial obligations to manage tribal waters. Within New Zealand, Maori (the indigenous people) have, for generations, voiced their concerns about the continual modification of waterways within their tribal territories. Until about the mid-nineteenth century, water quality was at the forefront of issues concerning human manipulation of rivers and streams. A range of new issues then arose that were increasingly concerned with reduced river flows. Of the many techniques developed to address these issues, many rely heavily on professional expertise and objective, scientific philosophies, which often fail to recognize cultural values, and benefit from cultural knowledge. This essay presents examples of the knowledge of streams and rivers held within Maori communities that could benefit contemporary resource management if it can be determined how cultural knowledge and practices and scientific approaches can be communicated and integrated.
Code: Env 02/56

Double trouble: The importance of accounting for and defining water entitlements consistent with hydrological realities. Young, M. D.; McColl, J. C. *Australian Journal of Agricultural & Resource Economics*; Jan 2009, Vol. 53 (1), p.19-35
Code: Env 02/57

Water footprinting at the product brand level: Case study and future challenges. Journal of B.G. Ridoutt et al. *Journal of Cleaner Production*; Vol. 17 (13), Sept 2009, p.1228-1235
Code: Env 02/58

Investment in water infrastructure: Findings from an economic analysis of a national programme. Lawlor, J. et al. *Journal of Environmental Planning & Management*; Jan 2007, Vol. 50 (1), p.41-63
Mixed findings emerge from this ex post Cost-Benefit Analysis of a major water investment programme in Ireland. Water supply and conservation investments, where most benefits were internal, generally proved worthwhile. Wastewater investments could not be analysed fully due to lack of environmental data. Here the authors estimated the level of 'willingness-to-pay' that would have been required to 'justify' the investments. In some cases the required level seemed implausibly high, raising questions as to prioritisation of projects. The authors recommend a more systematic approach to recording environmental benefits in future investment programmes, the next likely wave being in new EU member states seeking to meet environmental standards. The EU, as likely co-funder of these investments, should require systematic recording of environmental benefits.
Code: Env 02/59

Improving effectiveness and evaluation techniques of stormwater best management practices. Fassman, E. A. *Journal of Environmental Science & Health, Part A: Toxic/Hazardous Substances & Environmental Engineering*; Jul 2006, Vol. 41 (7), p.1247-1256
Code: Env 02/60

Energy

Electricity and the environment: Current trends and future directions. Johnson, Deborah Lynne. *New Zealand Journal of Environmental Law*; 2008, Vol. 12, p.195-232
Code: Env 02/61

Climate change impacts on wind energy: A review. S.C. Pryor; R.J. Barthelmie. *Renewable and Sustainable Energy Reviews*; Vol. (1), Jan 2010, p.430-437
Code: Env 02/62

Ensuring effectiveness of information to influence household behavior. J. Desmedt et al. *Journal of Cleaner Production*; Vol. 17 (4), Mar 2009, p.455-462
The behaviour of household members has a significant impact on the resulting energy consumption of a household. Studies show that within the same buildings with the same installations, energy consumption can be reduced by an average of 37% by a more economical behaviour. There exists therefore, a large potential to reduce the demand by influencing behaviour. The question remains how this potential can be addressed. VITO conducted, in collaboration with the Catholic University of Louvain-la-Neuve, the SEREC-project. This project investigated the socio-economic factors influencing residential energy consumption; furthermore, in the larger framework different tools have been developed. Several were tested and evaluated in a number of dwellings in this research. They address both energy consumption for heating as well as electricity consumption. The tools are completely different, but all were designed to help make householders aware of their energy-related behaviour and to provide recommendations on energy saving measures. For each case, potential changes in habits were followed-up. The observed range is quite large, as full scale audits of every dwelling were performed as general comparisons of annual consumption were made. To gain more insight into the effectiveness of the tools, several families participated in in-depth sociological interviews. The overall results show the strengths and weaknesses of the different tools. More generally, the results reveal some of the key properties of recommendations that are necessary to ensure effectiveness for behavioural change.
Code: Env 02/63

Underground carbon dioxide storage in saline formations. S. Garcia et al. *Institution of Civil Engineers. Proceedings - Waste and Resource Management*; May 2010 Vol. 163 (2), p.77-88
Code: Env 02/64

Carbon emissions from international cruise ship passengers' travel to and from New Zealand. Oliver J.A. Howitt et al. *Energy Policy*, Vol. 38 (5), May 2010, p.2552-2560
Code: Env 02/65

Risk in review: Nuclear energy in the context of climate change. C. H. Eccleston. *Environmental Quality Management*; Summer 2009, Vol. 18 (4), p.45-52
Code: Env 02/66

Characterization of sustainable development indicators for various power generation technologies. S. Genoud; J.-B. Lesourd. *International Journal of Green Energy*; May 2009, Vol. 6 (3), p.257-267
Code: Env 02/67

The Danish vision: Carbon-neutral by 2050. S. Grenaa et al. *Energy World (Energy Institute)*; Dec 2009 (377), p.10-13
As decision-makers head to Copenhagen this month to thrash out a deal on climate change, some in Denmark already have an ambitious vision for the country - a carbon neutral society by 2050. Stine Grenaa and Lars Hansen from the Danish Energy Association describe the road towards that vision, a road paved with renewables, electric vehicles, energy efficiency and CCS. We also take a look at plans for one city - Aarhus.
Code: Env 02/68

Time for a low-carbon portfolio standard? C. Prell. *Environmental Finance*; Feb 2010 Vol. 11 (4), p.27 (1p.)
This may not be the year for comprehensive cap-and-trade legislation, but that gives US policy-makers pause to consider how to combine carbon capture with renewables targets.
Code: Env 02/69

Integrated cost-estimation methodology to support high-performance building design. P. Vaidya et al. *Energy Efficiency*; Feb 2009, Vol. 2 (1), p.69-85
Code: Env 02/70

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Climate change

The Social Construction of Climate Change: Power, Knowledge, Norms, Discourses. Reser, Joseph P. *Australasian Journal of Environmental Management**; Dec 2009, Vol. 16 (4), p.262-264
The article reviews the book "The Social Construction of Climate Change: Power, Knowledge, Norms, Discourses," edited by Mary E. Pettenger.
**This journal is published by EIANZ*
Code: Env 02/71

Running hot and cold. J. Stielike. *Planning Quarterly (New Zealand Planning Institute)*; Mar 2010 (176), p.38-41
Urban design and planning have a crucial contribution to make for the adaptation of human settlements to climate change. This article includes a case study: Open spaces at University of Otago campus.
Code: Env 02/72

The precautionary principle as a device for greater environmental protection: Lessons from EC courts. N. de Sadeleer. *Review of European Community & International Environmental Law*; 2009, Vol. 18 (1), p.3-10
Code: Env 02/73

Learning settings to face climate change. S. Burandt; M. Barth. *Journal of Cleaner Production*, Vol. 18 (7), May 2010, p.659-665
Meeting the manifold challenges connected to climate change makes high demands on individual competencies. To prepare actors for those challenges learning settings are needed in higher education that are suitable for that goal. A theoretical framework for relevant key competencies can be found in the discourse of Education for Sustainable Development (ESD). In this paper we introduce and discuss two learning settings that employ adapted sustainability science approaches: the syndrome approach and scenario analysis. Both approaches are discussed with reference to their didactic goals to foster the acquisition of the corresponding competencies. The usefulness of these two approaches in creating appropriate learning settings is demonstrated in empirical studies.
Code: Env 02/74

Fiddling while carbon burns: Why climate policy needs pervasive emission pricing as well as technology promotion. John C. V. Pezzey et al. *Australian Journal of Agricultural & Resource Economics*; Mar 2008, Vol. 52 (1), p.97-110
Code: Env 02/75

Addressing and communicating climate change and its uncertainties in project environmental impact assessments. P. Byer et al. *Journal of Environmental Assessment Policy & Management*; Mar 2009, Vol. 11 (1), p.29-50
Code: Env 02/76

Ecological citizenship and climate change: Perceptions and practice. J. Wolf et al. *Environmental Politics*; Jul 2009, Vol. 18 (4), p.503-521
Code: Env 02/77

The outlook for Homo Sapiens? Green, David A. R. *International Journal of Environmental Studies*; Jun 2009, Vol. 66 (3), p.371-376
The survival of the world's human populations in anything resembling their present numbers is unlikely. A number of interacting problems threaten future and present generations. The principal elements are continued population increase, accelerating adverse climatic change and all its consequences -especially increasing desertification, freshwater depletion, damaging climatic behaviour, crop damage, rising sea levels, and resource depletion. These events will probably accelerate attempts to migrate by ever larger numbers of people accompanied by civil and perhaps international conflict. The present fast evolving economic chaos is merely a precursor. This paper sketches the primary elements and postulates some grim possible consequences.
Code: Env 02/78

The private sector and the implementation of the Kyoto Protocol: Experiences, challenges and prospects. K. Kulovesi. *Review of European Community & International Environmental Law*; Jul 2007, Vol. 16 (2), p.145-157
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How do regulated and voluntary carbon-offset schemes compare? E. Corbera et al. *Journal of Integrative Environmental Sciences*; Mar 2009, Vol. 6 (1), p.25-50
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Environmental management systems

ISO 14001 in environmental supply chain practices. D. Nawrocka et al. *Journal of Cleaner Production*, Vol. 17 (16), Nov 2009, p.1435-1443.
This paper focuses on the role of ISO 14001 in environmental supply management practices in Swedish companies.
Code: Env 02/81

The influence of stakeholders on the environmental strategy of service firms: the moderating effects of complexity, uncertainty and munificence. Rueda-Manzanares, Antonio et al. *British Journal of Management*; Jun 2008, Vol. 19 (2), p.185-203
Code: Env 02/82

Introducing templates for sustainable product development. Ny, Henrik et al. *Journal of Industrial Ecology*; Aug 2008, Vol. 12 (4), p.600-623
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Greening the supply chain: When is customer pressure effective? Delmas, M.; Montiel, I. *Journal of Economics & Management Strategy*; Mar 2009, Vol. 18 (1), p.171-201
Code: Env 02/84

Adding value to your organization through EMS implementation. Giles, Franklin. *Environmental Quality Management*, Winter 2006, Vol. 16 (2), p.1-6
Code: Env 02/85

Environmental practice

Respect: Pipe dream or possible reality? Miller, C. *Planning Quarterly (New Zealand Planning Institute)*; Mar 2010 (176), p.42-43
Anyone can call themselves a planner and give "planning advice". When that advice is shoddy, it brings the whole profession into disrepute. But making planning a registered profession isn't as easy as it sounds.
Code: Env 02/86

Quality of environmental impact assessment: Finnish EISs and the opinions of EIA professionals. Jalava, K. et al. *Impact Assessment & Project Appraisal*; Mar 2010, Vol. 28 (1), p.15-27
This article presents and compares findings of two EIA quality studies conducted in Finland. First a survey was targeted at competent authorities and environmental consultants to investigate their perceptions of the quality of Finnish EIAs. Second, 15 EISs were considered using the European Commission's guidance on review criteria. The results show that the EIA professionals generally consider the quality as good, though they also recognized that the quality varies and suggested certain areas for improvement. In the professionals' opinion the performance of Finnish EIAs could be enhanced, especially with more profound alternative considerations. Based on the results it is also suggested that more efforts should be aimed at increasing the communicativeness of EISs.
Code: Env 02/87

From environmental to ecological ethics: Toward a practical ethics for ecologists and conservationists. B. A. Minteer; J. P. Collins. *Science and Engineering Ethics*; Dec 2008, Vol. 14 (4), p.483-501
Code: Env 02/88

Are conventional farmers conventional? Analysis of the environmental orientations of conventional New Zealand farmers. J. R. Fairweather et al. *Rural Sociology*; Sep 2009, Vol. 74 (3), p.430-454
Code: Env 02/89

Assessing the social impacts of extensive resource use activities. Lockie, Stewart et al. *Journal of Environmental Planning & Management*; Jun 2009, Vol. 52 (4), p.437-455
Extensive forms of resource use are rarely subject to detailed environmental and social assessment. This paper outlines a potential methodology for assessment of the social impacts of extensive resource use activities based on the Pressure-State-Impact-Response (PSIR) model of integrated indicator development. It then tests this methodology through a case study of changed water flow regimes in Central Queensland's Fitzroy River catchment. While resource degradation associated with interruptions to flow was expected to force all resource users to face higher costs and greater uncertainty, negative social impacts were particularly concentrated among vulnerable groups and downstream industries. Extension of the PSIR framework and methodology proved useful in linking social and biophysical research and would thus appear to offer some potential as a model for incorporating social concerns within natural resource decision making.
Code: Env 02/90

Avoidable pitfalls in environmental impact assessment practice. D. P. Lawrence. *Environmental Practice*; Jun 2003. Vol. 5 (2), p.94-96
Code: Env 02/91

Taking Action, Saving Lives: Our Duties to Protect Environmental and Public Health. Lacey, Hugh. *Ethics*; Jul 2008, Vol. 118 (4), p.757-761
A review of the book "Taking Action, Saving Lives: Our Duties to Protect Environmental and Public Health," by Kristin Shrader-Frechette.
Code: Env 02/92

Business / Management

Management for sustainability: A stakeholder theory. Garvare, R.; Johansson, P. *Total Quality Management & Business Excellence*; Jul 2010, Vol. 21 (7), p.737-744
This paper presents a conceptual model of stakeholder management and expands upon the relationship between organisational sustainability and global sustainability. The theoretical discussions have been inspired and deducted from theory on stakeholders, quality management and sustainability. A model is developed that takes account of practical and theoretical implications of stakeholder-oriented management in pursuit of organisational and global sustainability. The model might be used to explain actual behaviour of organisations and the distinction between organisational and global sustainability.
Code: Env 02/93

Strategy making in social enterprise: The role of resource allocation and its effects on organizational sustainability. Moizer, J.; Tracey, P. *Systems Research & Behavioral Science*; May/Jun 2010, Vol. 27 (3), p.252-266
Code: Env 02/94

The execution trap. Martin, R. L. *Harvard Business Review*; Jul/Aug 2010, Vol. 88 (7/8), p.64-71
The realization of a strategy depends on countless employees. So it's no surprise that when a strategy fails, the reason cited is usually poor execution. But this view of strategy and execution relies on a false metaphor in which senior management is a choosing brain while those in the rest of the company are choiceless arms and legs that merely carry out the brain's bidding. The approach does damage to the corporation because it alienates the people working for it. A better metaphor for strategy is a white-water river, in which choices cascade from its source in the mountains (the corporation) to its mouth (the rest of the organization). Executives at the top make the broader choices involving long-term investments while empowering employees toward the bottom to make more concrete, day-to-day decisions that directly influence customer service and satisfaction. For the cascade to flow properly, a choice maker upstream can set the context for those downstream by doing four things: explaining what the choice is and why it's been made, clearly identifying the next downstream choice, offering help with making choices as needed, and committing to revisit and adjust the choice based on feedback. When downstream choices are valued and feedback is encouraged, employees send information upward, improving the knowledge base of decision makers higher up and helping everyone in the organization make better choices.
Code: Env 02/95

Can corporate social responsibility survive recession? Quelch, J. A.; Jocz, K. *Leader to Leader*; Summer 2009, Vol. 2009 (53), p.37-43
Code: Env 02/96

Ecocentric management: An update. Cunha, M. P. et al. *Corporate Social Responsibility & Environmental Management*; Nov/Dec 2008, Vol. 15 (6), p.311-321
Code: Env 02/97

Characteristics of research on green marketing. Chamorro, A. et al. *Business Strategy & the Environment*; May 2009, Vol. 18 (4), p.223-239
Code: Env 02/98

Attributes of a harmonious project team. Rad, P. F.; Anantatmula, V. S. *AACE International Transactions*; 2009, p.1-9
Code: Env 02/99