



PREEN newsletter

Pacific Resource and Environmental Economics Network

Issue 02

June 2010

In this 2nd edition of the PREEN newsletter, we are happy to introduce the new PREEN logo. The PREEN logo design competition commenced late last year and was finally won by Sailesh Kumar Sen of Fiji. His winning logo entry shows examples of living and non-living resources on which Pacific communities rely (fish, land, etc) and highlights Pacific people's role in influencing these vital resources. Sailesh has also flagged the economic dimension of resource use with a dotted line at the bottom of the logo which appears as a graph but can also appear as a topological figure to represent a Network. A great story, a great logo and a fantastic representation of the mission of PREEN. Congratulations to Sailesh and to everyone who participated by submitting ideas or judging the entries.

Thanks also to individuals and organisations who contributed articles to this edition of the newsletter. We are excited to share these with our network and beyond as well as informing you of other interesting events happening in the Pacific region.

In this Edition ...

Highlights

PREEN gets a Logo	2
-------------------------	---

Recent Publications

Natural Resource Economics of Bathymetry Mapping.....	3
Coral Ecosystems of New Caledonia – Economic value of ecosystem services.....	3
Community Conserved Areas: A review of status and needs in Melanesia and Polynesia.....	4
SEM-Pasifika Guidelines and Training Program.....	4
Collaborative Environmental Governance Down Under, in theory and in practice.....	5
Regional Economic Impacts of National Parks in the Riverina Bioregion of New South Wales.....	5

Research in Progress

Economics of Coastal Zone Management.....	6
Effects of MPA on small scale coral reef fisheries and communities: evidence from Vanuatu Community Conserved Areas: A review of status and needs in Melanesia and Polynesia.....	6
Mangrove Valuation and MESCAL Project.....	7
The Economics of Water Safety Planning	7

Upcoming Events

15th International Biennial Conference of IIFET on 'The Economics of Fish Resources and Aquatic Ecosystems: Balancing Uses, Balancing Costs'.....	8
4th Australasian Natural Hazards Management Conference.....	8
Course on Disaster Valuation.....	8
Workshop on 'Evaluation of effectiveness of coral reef economic assessments in influencing policies and multilateral investments	8
Pacific Nature Conservation Roundtable and the PREEN.....	8



PREEN gets a Logo...



The winning logo was unveiled last month at a prize giving ceremony held at the IUCN Oceania Regional Office in Suva.

"The logo is intended to illustrate examples of resources that communities across the Pacific rely on for their well being" said Taholo Kami, Regional Director of IUCN Oceania which cofounded the PREEN along with SOPAC and the SPC. "The fishers emphasise that people's decisions and actions are at the core of the natural resource and environmental issues we face. The effective management of these kinds of issues is then critical to supporting and sustaining livelihoods in the region. The PREEN members will provide key analytical inputs to support sustainable use and management decisions"

Designer of the logo, **Sailesh Kumar Sen**, explained that his logo was not only inspired by the people and resources in the Pacific but also economics work itself. "The dotted line at the bottom of the logo represents both the graphs that economists usually use as well as the network of economists working together with scientists and communities" he said.



Left to right: Taholo Kami - Regional Director of IUCN Oceania, Sailesh Kumar Sen - Graphic Designer and Dr Russell Howorth - Director of SOPAC at the prize giving ceremony at IUCN. ©PREEN

Dr Russell Howorth, Director of SOPAC, congratulated Sailesh on the logo, noting that "the logo presents the face of environmental and resource economics in the region". Dr Howorth reiterated the importance of the PREEN as a forum for environmental and resource economics practitioners, and others interested in the use of economics to exchange information, ideas and experiences for mutual learning and professional development.

The PREEN was established in 2009 and has over 30 members spanning 18 organisations including 5 Regional Organisations and 10 countries.

Natural Resource Economics of Bathymetry Mapping

One of the more quirky natural resource economic analyses done in the Pacific in recent months is that completed by Angela Ambroz (SOPAC) on the economic benefits of information on natural resources – in this case, information from bathymetric mapping. Bathymetric mapping refers to maps of the seabed and is used for a variety of purposes in coastal management including fisheries management, navigation planning and coastal flood prediction. SOPAC has conducted a large degree of bathymetric mapping work in recent years, particularly under (although not limited to) its recently completed EU funded project to reduce the vulnerability of Pacific island states. An economic analysis of the bathymetry mapping work conducted on Niue for this project was conducted over 2009. The analysis was intended to provide a case study of the kinds of economic benefits that such information could generate and the types of impacts on natural resource use.

The findings of the study include that there is a crucial need for good information sharing to realise any potential benefits from mapping. It turns out that, even in small countries like Niue, not all potential user groups can be aware of the new information and maps, unfortunate given the potential benefits that their use could generate. Ultimately the report indicates some pre-conditions to generate social benefits from such new natural resource information in the future.

Angela Ambroz has now left SOPAC so, for further information, please contact: Paula Holland at paulah@sopac.org

To download the report, visit <http://www.sopac.org/data/virlib/ER/ER0149.pdf>

Coral Ecosystems of New Caledonia – Economic value of ecosystem services

This socio-economic study was overseen by Nicholas Pascal as a joint initiative between CRISP, CRIOBE and IFRACOR. The study assesses the total financial value of services generated by New Caledonia coral reef ecosystems and associated ecosystems. The principal ecosystem services covered include fisheries, tourism, protection against the waves, bio-prospecting, and research and education.

Based on the research, the consolidated financial value for all coral ecosystem services is estimated between 23-39 billion F XPF per year (€190-€320 million Euro or US\$ 250-\$425 million). The most important ecosystem service in terms of economic impact at the island level was estimated to be coastal protection against waves representing two thirds of the estimated total value. It is followed by fishing (20% of the total value) and tourism (10%).

Possible applications of the study were discussed in several meetings with policy makers and managers of New Caledonia. The main potential applications of the findings appear to be to underpin valuation of compensatory measures for environmental impact studies, to provide assistance in environmental budget tradeoffs and to advocate to better manage ecosystem services. The limits of the approach are described to ensure optimum use of the results.

To download the report, visit <http://www.crisponline.net>

For further information, please contact: Nicholas Pascal at nppacific@gmail.com



©Helen Pippard

Community Conserved Areas: A review of status and needs in Melanesia and Polynesia

Melanesia and Polynesia have seen an impressive increase in the number of marine protected areas over the last decade almost entirely due to the implementation or recognition of Community Conserved Areas (CCAs) based on regional specificities of traditional tenure and governance mechanisms. The same time period has seen the virtual demise of any other form of marine protected area in the independent countries of the South Pacific. CCAs account for over 500 sites covering over 12,000 km² of which more than 1,000 km² is no-take.

The resulting report provides detailed information on the characteristics of CCAs including their socio-economic attributes and consequently makes a number of recommendations to improve their use in the region.

The review concludes that the proliferation of CCAs seems set to define the site based agenda for marine conservation in the South Pacific. Governments are slowly gearing up to increasing support for these sorts of approach and in many ways the very success of the phenomenon poses its biggest threat. Large investments and institutionalization of CCAs may undermine their sustainability by decreasing their self reliance or even introducing excessive dependencies such as on incentives or external policing.

The report concludes that CCAs are being revitalized in the South Pacific in a unique global phenomenon and one of the untapped riches of the Pacific has begun to show its true potential; villages, communities, tribes, clans and districts are planning, implementing and enforcing management at the local level based on customary tenure. The challenge for policy-makers, scientists, government and non government institutions is to move beyond the emphasis on protected areas in isolation and support and promote this de-centralized Island way as a vital foundation in a truly regional approach to Integrated Island Management that can address the pressing issues associated with sustaining the region's biodiversity and livelihoods.

To download the report, go to: http://www.sprep.org/att/IRC/eCOPIES/Pacific_Region/422.pdf or <http://bit.ly/cYjoao>

For further information, please contact: Hugh Govan at hgovan@gmail.com

SEM-Pasifika Guidelines and Training Program

Incorporating the needs of local communities is vital to the success of marine conservation initiatives. In 2008 SPREP published the SEM-Pasifika guidelines to guide socioeconomic monitoring in Pacific Island countries. Following publication of the guidelines, a three-phase training program was developed for Micronesian countries. The first phase was a regional training workshop in the Republic of the Marshall Islands and was aimed at introducing socioeconomic tools and techniques based on SEM-Pasifika guidelines to regional partners who will draft assessment surveys and work plans for individual target sites within their jurisdiction. For the second phase off-site technical advice was provided to further guide development of surveys, and seed funding was provided to implement site assessments in all jurisdictions. Finally, on-site technical support was provided to help trainees analyze survey data and communicate and apply results into management planning.

Outcomes of this training will support development and adaptive management of on-site management activities. Additionally, this training will link human dimensions information into on-going conservation work that contributes to the goals of the Micronesia Challenge. This training program was being sponsored and facilitated through a partnership between NOAA Coral Reef Conservation Program, the Micronesians in Island Conservation (MIC), the Pacific Islands Marine Protected Area Community (PIMPAC), and the Secretariat of the Pacific Regional Environment Programme (SPREP)

For further information, please contact Christy Loper at Christy.Loper@noaa.gov or Caroline Vieux at carolinev@sprep.org



Collaborative Environmental Governance Down Under, in theory and in practice

A recently produced paper from Australia reviews theoretical reasons to be pessimistic or optimistic about collaborative governance, testing both attitudes against Australian experience with a collaborative Natural Resource Management (NRM) programme.

Collaborative governance is a relatively new form of environmental governance heralded as delivering outcomes which are more democratic, less overtly political, and better for the environment. Collaborative governance can be appealing to several competing interests, offering: more flexible and cheaper regulations than centralized legislation; greater awareness, understanding, and peace while arriving at some form of economic sustainability; environmental outcomes that are as good or better and less painful to achieve.

There is scope for either optimism or pessimism concerning what collaborative governance has to offer environmental policy. Public choice theory, the neo-pluralist school of political science, and displacement theory all agree that collaboration can work socially, but not environmentally. By contrast, recent Nobel laureate Elinor Ostrom has theorised and observed empirically that under the right conditions, collaboration can work socially and environmentally.

It seems that there is room for optimism about collaboration's ability to succeed if the structure contains sufficient institutional nestedness, among other things. However the study finds no compelling reason to discard pessimistic predictions that collaborative governance will favour development over conservation and insiders over outsiders.

Ann Brower's co-authored paper results from supervised IUCN internships of Shaun Coffey and Bailey Peryman.

For further information, please contact: Ann Brower at ann.brower@lincoln.ac.nz

Regional Economic Impacts of National Parks in the Riverina Bioregion of New South Wales

During 2009/10 the New South Wales Natural Resources Commission (NRC) carried out a major assessment of management options for New South Wales River Red Gum forests. River Red Gums are iconic trees seen along many watercourses in inland Australia and play an important role in providing shade, stabilising river banks, holding soil and reducing flooding. About 9% of NSW River Red Gum forests occur in the NSW Riverina Bioregion, an area of 9.7 million hectares in the south-west of NSW, which includes a large part of the Murray and Murrumbidgee River channels and floodplains.

To assist the NRC Assessment, the New South Wales Department of Environment, Climate Change and Water engaged consultants to carry out a regional economic impact assessment of the contribution of national parks to the regional economy of the Riverina through the direct and flow-on effects of park management and park visitor expenditure. The assessment also looked at the potential economic impacts on the Riverina economy of the creation of new River Red Gum national parks. On the basis of projected park management expenditure, visitor numbers and estimated tourist expenditure, the report estimated that the creation of new River Red Gum national parks would add about 50 per cent to current park management expenditure, with a combined impact on Gross Regional Product of \$A17.1 million and approximately 200 jobs (approximately 0.5 per cent of the Riverina regional economy). The report did not value the non-economic benefits associated with the creation of new national parks, such as the protection of biodiversity and cultural heritage. In May 2010 the NSW parliament passed legislation to establish more than 100,000 hectares of River Red Gum parks in the Riverina, with a support package of up to \$A97 million for affected timber industry workers and regional communities and to set up and manage the new parks. (<http://www.riverredgums.nsw.gov.au/>).

To download the report, visit:

http://www.riverredgums.nsw.gov.au/_data/assets/pdf_file/0013/105430/RegEcImpactsNatParksRiverina.pdf

For further information, please contact: Nicholas Conner at nicholas.conner@environment.nsw.gov.au



Economics of Coastal Zone Management

Throughout the region, coastal resources continue to be under pressure from over-exploitation and ecosystems continue to be degraded. A number of government reports and studies have already highlighted some of the pressures and drivers of exploitation and degradation. Several regional, national and local initiatives have been implemented or are underway to address some of the highlighted coastal management problems.



©Helen Pippard

A project is currently underway to review some of these studies to synthesize key issues and concerns. Through use of economic concepts, the study will also look at the effectiveness of the different management approaches used in the Pacific Island countries and territories by considering their strengths and weaknesses and lessons to learn. It is hoped that this information will assist in developing analytical frameworks that would help to understand and address coastal management issues from an economic perspective. It will act as a useful guide for coastal managers and others when dealing with coastal zone problems. The project is funded by CRISP through IUCN and is a joint effort between IUCN, World Conservation of Protected Area (WCPA) Economics Working Group and the Division of Marine Studies of University of the South Pacific.

For further information, please contact: Vina Ram at ram_v@usp.ac.fj or Dr Padma Narsey Lal at padma.lal@iucn.org

Effects of MPA on small scale coral reef fisheries and communities *evidence from Vanuatu*

Marine Protected Areas have been widely applied in the Pacific as conservation tool, with more than 550 now existing in the South Pacific – mostly community-managed. While the expectations of the ecological and socio-economic effects are high, very few studies have been conducted to confirm their impact on fishery yield, tourism or social development.

This study was conducted by Nicholas Pascal (EPHE/CNRS), Eric Clua (SPC), Hugh Govan (consultant) and Sompert Gereva (Vanuatu Fisheries Department). The study, based at a control-impact approach conducted on three established MPA sites and related control sites, was conducted in Vanuatu to assess the effects of MPAs locally and internationally.



©Kelvin Passfield

At the local level, the direct effects of MPAs on the coral reef ecosystem services such as fisheries and site attractiveness for the tourism industry were assessed. Other impacts on the social capital levels and governance of local communities were also assessed. At a broader scale, the benefits to governments of avoided costs of damage to the value of world heritage conservation were considered.

The results show variability in the outcomes between the sites. Some MPAs appear to generate only small quantifiable benefits on fishery or tourism at a community level. An imbalance between the benefits gained by local and global stakeholders was also identified in some areas, questioning the long term sustainability of MPAs. Limits to the western economic approach in the Melanesian cultural context were also outlined. The second phase of this project involving MPA economic valuation will commence in August 2010 for the next 2 years to consolidate results and lessons learnt. The objective is to extend the number of case studies of MPA evaluation to ensure replicability of results at a regional level. Financing is ensured by AFD (French ADB) and the project is governed by IUCN.

The results of this study will be presented in the upcoming IIFET Montpellier conference in July 2010.

For further information, please contact: Nicolas Pascal nppacific@gmail.com

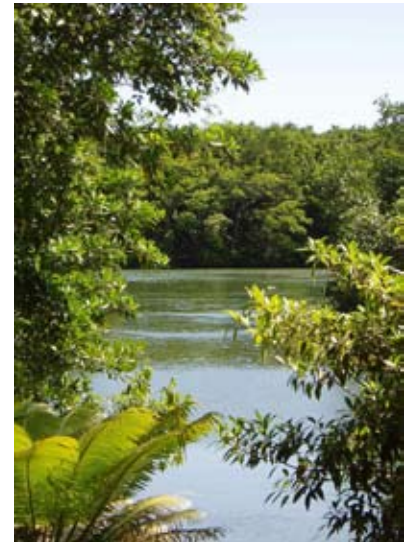
Mangrove Valuation and MESCAL project

Economic valuation of mangroves will be an integral part of a new project recently launched by IUCN under German Government funding in December 2009. Mangrove resources in the Pacific are being gradually lost to alternative uses, such as up-market housing development, landfill sites for solid waste disposal and squatter settlements despite locals deriving many valuable goods and services such as food, timber, fuelwood and traditional dyes. Mangrove habitats also provide natural protection against storm surges and cyclones, as well as act as filtering areas for silt and nutrients.

One of the main reasons for the continued losses is the lack of awareness about the economic values of healthy mangrove ecosystems. It is known that economic (and financial) considerations are important aspects to decision making in the use and management of natural resources at the individual household, community or government level. People explicitly or implicitly consider benefits and costs of their actions when making a decision. Thus, having information about the economic value of mangroves will be important to help advocate for sustainable use of mangroves, as well as help make choices between alternative uses and management decisions. The economics of mangrove ecosystems in the countries participating in the project is part of the baseline information to be generated in the project, Mangrove Ecosystems for Climate Change and Livelihoods (MESCAL). This € 2.3 million action project involves Fiji, Samoa, Solomon Islands, Tonga and Vanuatu and is due for completion in December 2013.

For more information, please contact: Dr Padma Narsey Lal at padma.lal@iucn.org or visit the MESCAL webpage at

http://www.iucn.org/about/union/secretariat/offices/oceania/oro_programmes/oro_initiatives_pmi/oro_mescal/



©Helen Pippard

The Economics of Water Safety Planning

The World Health Organization (WHO) has long published guidelines for drinking water for several years (WHO 1984, 1993) which were heavily dependent on treated drinking water standards as a basis for monitoring water quality. Over the years the WHO recognized limitations in relying on end-product testing as a water quality guarantee, particularly because any negative results might not be sufficiently timely to prevent the consumption of contaminated water that has already been distributed (WHO/SOPAC, 2008). This led to the development of the more proactive Drinking Water Safety Plan (DWSP) approach, which assesses all aspects of the water supply from catchment to consumer, to consistently ensure the safety of drinking water supplies (WHO 2005). The key difference with the WSP and its predecessors is the fact that DWSP is a preventative, rather than a reactive approach.

SOPAC's work on the economics of DWSP has this year included 2 cost-benefit analyses of WSPs in the Republic of Palau and Niue. Factors considered specifically in WSP CBAs include: leakage due to old piping infrastructure; the treatment cost of gastrointestinal diseases related to unsafe water; potential reduction in expenditure on alternative water sources following improved public distribution of water; and the costs of education and maintenance involved in upholding an effective and financially-efficient WSP in the longer term. Both the CBAs are aimed at providing economic advocacy support to continued investments in water safety and improved drinking water in the Pacific region and will be released by early 2011.

World Health Organisation, 2005. Guidelines for Drinking Water Quality. Third Edition, Geneva, Switzerland.

WHO/SOPAC (2008) Joint Contribution Report 193. Drinking Water Safety Planning, A Practical Guide for Pacific Island Countries, Suva, Fiji.

For more information, please contact: Deveraux Talagi at deveraux@sopac.org or Federica Gerber at federica@sopac.org



Upcoming Events



15th International Biennial Conference of IIFET on 'The Economics of Fish Resources and Aquatic Ecosystems: Balancing Uses, Balancing Costs'

When: 13-16 July 2010.

Where: Montpellier, France.

Who: Organized by IRD, Ifremer, UMR Amure (University of Brest & Ifremer), University of Montpellier I, University of Nantes.

For further information, visit <http://oregonstate.edu/dept/IIFET/conferences.html>

4th Australasian Natural Hazards Management Conference

When: 10-13 August 2010.

Where: Wellington, New Zealand.

This conference provides a forum to discuss the integration of hazard information into effective risk management and will include poster sessions and workshops concerning the lessons learned from the 2009 Samoan earthquake and tsunami, as well as numerous other presentations. PREEN member Dr Shona van Zijl de Jong will be presenting/co-presenting eight presentations relating to intangible and indirect losses in Disaster Loss Assessments.

For further information, please contact: Shona van Zijl de Jong at s.vanzijldejong@niwa.co.nz or visit <http://www.hazardseducation.org/conference/2010/2010index.php>

Course on Disaster Valuation

Title: Disaster and Loss assessment – economic impact assessment of disasters.

Date: October 2010 (final dates to be advised).

Who: Course to be delivered by SOPAC, IUCN Oceania Regional Office and UNESCAP in collaboration with the World Bank and with the assistance of the ISDR.

For further information, please contact: Paula Holland at paulah@sopac.org

Workshop on 'Evaluation of effectiveness of coral reef economic assessments in influencing policies and multilateral investments'

When: 22-24 November 2010.

Where: Nouméa, New Caledonia.

Who: Organized by SPC-CRISP, in association with SPREP, IRCP, IFRECOR and IUCN.

Call for papers documenting practical applications in the above themes. Papers will be evaluated by the Conference Programme Committee and can be sent to Aude Chenet at audec@spc.int. The committee will contribute to the funding of 5 conference speakers coming from Pacific Island Countries. Acceptance of papers and notification of funding will be provided via email in late July 2010.

For further information, please contact: Nicolas Pascal at nppacific@gmail.com

Pacific Nature Conservation Roundtable and the PREEN

There is increasing interest in the value of economics in environmental conservation and management. PREEN members could play an important role in providing expertise to help nurture this interest and mainstream economics into environment conservation and management. This is something that Pacific Islands Forum Leaders have called for in recent years as well as identified in the Pacific Plan, for example, including economics information to support sustainable financing of biodiversity conservation efforts.

PREEN coordinators have been holding discussions with scientists and resource managers about how economic information can help them in their effort to improve conservation of natural resources and improve the health of our environment, including addressing the issue of invasive species. This will be one of the subjects for discussion at the upcoming Nature Roundtable to be held in Apia, Samoa, 2-10 July 2010.

For further information, please contact: Dr Padma Lal at padma.lal@iucn.org or Etika Rupeni at etika.rupeni@fsp.org.fj



The natural resource economics unit of SOPAC wonders: what statistical packages do you use in your organisation to analyse your economic data? We use Excel but are there better options for small survey analysis?

Please let us know by sending your answers to the PREEN coordinators

We look forward to receiving feedback and articles from our readers

Please send these to federica@sopac.org or neehal.khatri@iucn.org

The Pacific Resource and Environmental Economics Network...

Aims to progress economic analysis for sustainable resource management in the Pacific by providing a forum for practitioners in Pacific resource and environmental economics to exchange information, ideas and experiences for mutual learning and professional development.