



PREEN newsletter

Pacific Resource and Environmental Economics Network

Issue 09

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Dear members of PREEN,

Welcome to the December 2013 Edition of the PREEN Newsletter.

This edition includes reviews of current work in the field including appraisals of economic benefits of community-based Marine Protected Areas (MPAs) and a cost benefit analysis of disaster risk reduction methods for an atoll of French Polynesia. You will also find news from the annual Science, Technology and Resources Network (STAR) Conference, a workshop held on Environmental-Economic Accounting and a report on the first Post Disaster Needs Assessment training workshop to be run in Fiji. Finally we have a few upcoming events and announcements, like the launch of our new PREEN site and forum.

We hope you will find this newsletter useful in keeping up to date with the economics research and events in the Pacific region.

The next edition of this Newsletter will be mid-2014. We welcome new articles as they emerge so please do share your new findings, projects and events with us in view of keeping the network informed of developments in the Pacific.

Best wishes

Anna Rios Wilks
PREEN coordinator

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System of Environmental-Economic Accounting for PICs

It has been long recognised that GDP alone cannot provide a true measurement of the well-being of a nation. In August of this year, government statisticians from PICs therefore attended a workshop on a strategy to implement a System of Environmental Economic Accounting (SEEA) Central Framework and supporting statistics in Apia, Samoa.¹

Environmental economic accounting in general acts as a framework to measure and track of the components of a nation's ecosystem, such as the volumes of fresh water, forest and mineral reserves as well as indicators of the health of rivers and coastal areas so that these may also act as a means to assess a country's development and policies.

PICs at the workshop discussed environmental indicators of relevance to them and began country-specific plans for future progress in the collection of environmental and ecosystem data.

For more information on the SEEA please contact: seea@un.org

Post disaster needs training in Fiji

Over October - November 2013 the Secretariat of the Pacific Community (SPC), the United Nations Office for Disaster Risk Reduction (With cyclone season looming, the Government of Fiji, SPC and World Bank collaborated in a programme of training in post disaster needs assessment (PDNA). The training targeted extension and policy staff at divisional and district levels involved in post disaster assessment, with workshops taking place in Suva, Lautoka and Labasa.

Opening the training programme, the Minister for Rural and Maritime Development and National Disaster Management, Inia Seruiratu, said that incorporating post disaster needs assessment to Fiji's disaster management processes would allow for a more efficient and effective response to national disasters.

"PDNA not only gives us the opportunity to better position our collective capacity to response when disaster occurs, but also to take a long-term approach to how best to mitigate, adapt and minimize the risk from future disasters which has become regular than ever before," Mr Seruiratu said.

Highlighting the successful compilation of the PDNA report for Tropical Cyclone Evan earlier this year, he added that Government would ensure that the fundamentals of post disaster needs assessments would be fed into government's overarching national development agenda.

"The Strategic Planning Office will be highlighting some salient features on the need for accurate and reliable data for informed decision making, particularly the transition from the conventional Initial Damage Assessments and Detailed Damage Assessments to the PDNA. The PDNA will provide vital data beyond the physical damage to property, infrastructure and productive assets. It also accounts for losses resulting from the disruption of economic flows brought by disasters," Mr Seruiratu said.

The three-week training, which was attended by around 75 participants across Fiji, ended at the beginning of November, just in time for the 2013 cyclone season.

For more information on this initiative please contact: Paula Holland at paulah@spc.int



Source: Paula Holland, 2013

¹ The conference was supported by the United Nations Statistics Division (DESA/SD), in collaboration with the United Nations Economic and Social Commission for Asia and the Pacific (UN-ESCAP), the Samoa Bureau of Statistics, the Secretariat of the Pacific Regional Environment Programme (SPREP), the Secretariat of the Pacific Community (SPC) and in collaboration with the Australian Bureau of Statistics (ABS), Statistics New Zealand (SNZ), the Pacific Financial Technical Assistance Centre (PFTAC), the Food and Agriculture Organization of the United Nations (FAO).

STAR Conference

The 30th Science, Technology and Resources Network (STAR) Conference, hosted by the Government of the Cook Islands in collaboration with SPC was held in Rarotonga in October this year. Pacific county delegates, geophysical scientists and social scientists shared their work in the Pacific region. Many of the presentations and discussions were linked to the area of Seabed Mineral Mining in the Pacific, a topic that is becoming ever more present in the economic development plans for many Pacific Island Countries (PICs). Presentations offered indications of the likely value of certain deposits, challenges in extracting the minerals and possible implications for biodiversity and the environment.

To download conference presentations and outcomes please go to: <http://www.sopac.org/index.php/star-2013>



Source: Paula Holland, 2013

6th Ecosystem Service Partnership Conference 2013

The 6th Ecosystem Service Partnership conference was held during the second half of August 2013 in Bali, Indonesia with a special session titled “Capturing Marine Ecosystem Services: Payments for Ecosystem Services, Financing. The case of Pacific coral reef ecosystems”.

The session provided concrete illustrations of economic instruments for marine ecosystems management. Issues in the implementation process (legal framework, user rights, etc.) as well as knowledge gaps in ecosystem processes were highlighted and discussed.

The session comprised of 2 components: firstly the understanding of the payment capacities of certain beneficiaries of the coral reef ecosystem services including tourism, commercial fisheries and real estate developers. The second component presented financial instruments adapted to the legal and economic context of the reef countries which develop and secure financing sources to fund the operational costs associated with ecosystem services management. Corrective economic mechanisms to incentivise the sustainable use of ecosystem services were also set to be discussed.

For more information on the conference please visit: http://www.esconference.org/ESP_Conference

International Marine Protected Areas Congress

The International Marine Protected Areas Congress (IMPAC3) was held in Marseille, France from October 21st to 25th 2013. A workshop was run on concrete examples of market financing for marine protected areas. The potential of market instruments to fill the annual financial gap of MPAs as well as the main key factor of success have been highlighted through short and impacting presentations of 10 case studies (from Tanzania, Croatia, Madagascar, Western Africa, Fiji, Palau, Honduras and Biobanking in Florida).

For more information please see: <http://www.impac3.org/en/>



International Coral Reef Initiative (ICRI) general meeting

ICRI held their 28th General Meeting in Belize City in mid-October 2013. Their Committee on Economic Valuation aims to increase public investment in coral reef management through better awareness of the societal benefits produced by coral reefs and their positive economic return as a public investment. They also encourage countries to integrate coral reef sustainable funding mechanisms in their national laws to provide advice to countries wishing to set up a framework to encourage private funding for coastal management.

This meeting produced a “Continuing Call for Action” focusing on 4 activities which seek to facilitate the dissemination of relevant information on coral reef economic valuation, act as a coordinating platform to take stock of relevant international and regional initiatives related coral reef management and to provide guidelines of best practice for coral reef compensation mechanisms of anthropogenic damages to coral.

For more information on ICRI please see: <http://www.icriforum.org/>

RECENT WORK



Protected areas, tourism and island livelihoods: linking incentives to triple bottom line objectives, final report of the IUCN-AFD project 2010-2013

An appraisal of economic benefits of community-based Marine Protected Areas (MPAs) has been conducted in 10 villages in Vanuatu and Fiji. A bottom line analysis of their impacts on local development, poverty reduction and world biodiversity as a public good was identified as a way to inform & convince decision-makers of the great value that ecosystem services produce. The principal effects of MPAs on selected ecosystem services (fisheries, tourism, coastal protection against floods and bequest value) have been assessed to be between US\$110,000 and US\$ 530,000 per year per 1km² of protected area.

All the studied MPAs were estimated to produce positive benefit -cost ratios, reflecting the significant benefits that investments in MPAs have for tourism and coastal protection values.

Future analysis will also be undertaken by IFRECOR (French ICRI international coral reef initiatives), which will conduct the economic valuation of coral reef ecosystem services of French Polynesia and Wallis and Futuna in 2014.

For further information please contact Nicolas Pascal at: nicolas.pascal@criobe.pf



PACC CBA technical reports

As part of the SPREP/UNDP-implemented Pacific Adaptation to Climate Change (PACC) project, a Cost-Benefit Analysis (CBA) work program was implemented to improve selection and design of PACC pilot projects, as well as to build Pacific island country (PIC) capacity in the use of CBA. The PACC CBA work programme was collaboratively delivered by SPREP, SPC, GIZ, UNDP, and later PIFS.

Key elements of the PACC CBA work programme were:

1. Assembling multidisciplinary country teams to conduct PACC CBAs;
2. Training workshops and development of work plans to conduct CBAs of selected PACC pilot projects;
3. Ongoing technical support to help countries implement CBA workplans (i.e. conduct a CBA of their PACC pilot project); and
4. A conclusion workshop to help PACC officials effectively communicate CBA results and findings to decision makers, and to share findings and lessons learned from the CBA experience across PACC countries.

Two technical reports have been prepared which document the activities, outputs, outcomes and lessons learned of the PACC CBA Work Program. These technical reports are available at <http://www.pacificclimatechange.net/index.php/eresources/documents?task=showCategory&catid=121>

A special thank you is extended to PREEN members that reviewed and provided comment on draft CBA reports. This assistance was very constructive and very much appreciated.

For more information on the PACC CBA Work Program, please contact Aaron Buncle on aaronb@sprep.org.



Source: Aaron Buncle, 2013

Socio-economic study of Vitawa milkfish farming, Rakiraki, Fiji

The milkfish farm in Vitawa village in the Ra province, was first initiated as a form of securing a food source and education scholarships for the community. Due to the increased attention that has been given to the milkfish fry resources abundantly appearing in the mangrove coasts of northern Viti Levu, the Japan International Cooperation Agency (JICA) was asked to provide its technical cooperation to verify a milkfish farming industry as a new commodity development.

Milkfish are produced in a sustainable way in the coastal ponds constructed at the adjacent Vitawa community in order to ensure household food security. Their farming has been verified as an alternative livelihood for the rural coastal communities.

Key study findings indicate:

- Village households reported that the farm was able to secure income and scholarship funds, increase food security and assist other developments in the village.



- Farming strengthened governance skills particularly in the Vitawa development committee.
- It boosted the community's knowledge and skills on aquaculture (production, marketing and management – involving youth, women and men.
- There was increased popularity of the Vitawa village as a candidate for research by tertiary institutions and study sites by governments and NGO's.

For more information on this project please contact Tareguci Bese at: tareguci@gmail.com

Coastal hazard mitigation in the Tuamotus, French Polynesia

The low-lying atolls in the Tuamotu Archipelago are vulnerable to extreme weather and to changes in climate. To investigate ways to protect the inhabitants of these atolls, a team from SOPAC division of SPC undertook a series of EU funded studies completed in 2013. Well established techniques were used to predict the likelihood, intensity and form of cyclone storm surge waves in various atolls and this information was employed in an economic evaluation of risk mitigation options for the atoll of Rangiroa.



Waves surge onto the Rangiroa's unprotected coast.

Source: Anna Rios Wilks, 2013

The following mitigation measures were investigated:

- seawall construction;
- relocation of buildings (immediately or gradually) out of the 'high hazard zone' to an area further inland;
- elevate (immediately or gradually) all buildings so the floor is 1 metre aboveground;
- replace (immediately or gradually) existing buildings with kit houses elevated to 1.5 metres aboveground.

Options were ranked according to cost-effectiveness and affordability. The most efficient option proves to be the gradual replacement of buildings with kit houses, even though no option was valued to generate sufficient savings to cover their total costs. Nevertheless, both the elevation and the kit house options were estimated to generate extra benefits that were not valued, such as less damage to household goods and fewer on-going post-disaster losses to business and services from stock or machinery inundation during disasters. These advantages would raise the benefit-cost ratio of these options, making them more attractive. Overall the analysis finds the gradual implementation of MTR as the best option as MTR kit houses also help prevent damage from more frequent and smaller weather events.

Results were presented in October 2013 to the Government of French Polynesia which plans to use these findings in urban planning and disaster prevention policies.

For more information please contact Anna Rios Wilks at: annar@spc.int



UP COMING EVENTS AND ANNOUNCEMENTS



9th Pacific Islands Conference on Nature Conservation and Protected Areas (2–6 December 2013)

This one of the big events for biodiversity conservation in the Pacific region. It will take place in Suva, Fiji and is open to all. Government representatives, NGOs, development partners, international organizations and Pacific Island communities will attend. This year's conference theme is 'Natural Solutions – Building Resilience for a Changing Pacific'.

Of interest to fellow economists will be the parallel session on Tuesday afternoon which will cover Economics of Climate Change, Natural Resource Management, Risk Reduction and Cost-benefit analysis.

The conference's key output is an Action Strategy for Nature Conservation to guide Pacific conservation work for the next 5 years. The sessions will allow all participants to join forces in reviewing the progress of previous action plans, to develop new ones and to outline the priorities for work on conservation in the Pacific over the next 5 years.

For more information please go to: <http://www.sprep.org/pacificnatureconference>

Marine Ecosystem Services Partnership Library

The Marine Ecosystem Services Partnership (MESP) continues to expand its library of valuation studies as well as its community of practice. In 2013 the MESP expanded its library which now references over 800 valuation studies, searchable by ecosystem and country. The partnership has PDFs for over 500 of those studies. If interested in a specific study you are invited to contact the MESP who will help you to find what you are searching for. The MESP community of practice, which brings together researchers and decision-makers, has also grown; over 500 people are now subscribed to the MESP listserv and newsletter.

The MESP's services are free to use – to learn more about the MESP or to sign up for their newsletter email: info@marineecosystems-services.org.

PREEN website and forum open for use

PREEN's new website is now available at: <http://www.sopac.org/preen> where you will also find the new PREEN forum. Please use the forum to post updates of your work, comments and queries regarding economic practices in the area of Pacific resources and the environment.

We look forward to receiving feedback and articles from our readers

Please send these to annar@spc.int

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.