

Pacific Integrated Island Management Principles, case studies and lessons learned



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Front cover photo

Fulaga Lagoon, Fiji

SPREP Library/IRC Cataloguing-in-Publication Data

Secretariat of the Pacific Regional Environment Programme (SPREP)

Pacific Integrated Island Management – Principles, Case Studies and Lessons Learned.
Secretariat of the Pacific Regional Environment Programme (SPREP), Apia, Samoa and
United Nations Environment Programme (UNEP), Nairobi, Kenya

72pp.

Includes references.

ISBN: 978-982-04-0504-2 (print)

ISBN: 978-982-04-0506-6 (e-copy)

1. Ecosystem management – Oceania. 2. Conservation of natural Resources – Oceania
I. Jupiter SD, II. Jenkins AP, III. Lee Long WJ, IV. Maxwell SL, V. Watson JEM, VI. Hodge KB,
VII. Govan H, VIII. Carruthers TJB, IX. Pacific Regional Environment Programme (SPREP)
and United Nations Environment Programme (UNEP)
X. Title.

574.5267



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Recommended Citation:

Jupiter SD, Jenkins AP, Lee Long WJ, Maxwell SL, Watson JEM, Hodge KB, Govan H,
Carruthers TJB (2013) Pacific Integrated Island Management – Principles, Case Studies and
Lessons Learned. Secretariat of the Pacific Regional Environment Programme (SPREP),
Apia, Samoa and United Nations Environment Programme (UNEP), Nairobi, Kenya. 72pp.



This report was prepared through collaboration between Wildlife Conservation Society,
Alluvium Consulting, Edith Cowan University, Sustainable Island Innovations, Hodge
Environmental, the Secretariat of the Pacific Regional Environment Programme (SPREP),
and United Nations Environment Programme (UNEP).



The project was funded by UNEP and the Australian Government's AusAID programme and
International Climate Change Adaptation Initiative.

The views expressed in this report are not those of SPREP, UNEP or their partners.

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SPREP Vision: The Pacific environment,
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Pacific Integrated Island Management

Principles, case studies and lessons learned

A technical report by the Secretariat of the Pacific Regional Environment Programme and the United Nations Environment Programme

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Acknowledgements: This publication has been prepared through collaboration between United Nations Environment Programme (UNEP), Secretariat of the Pacific Regional Environment Programme (SPREP), Wildlife Conservation Society (WCS), Alluvium Consulting and expert partners. The project was implemented through SPREP with funds from UNEP and the Australian Government's AusAID programme, via the International Climate Change Adaptation Initiative.

The authors obtained enormous input and advice from practitioners within projects and programs across the Pacific through direct interviews and surveys. A full list of contributors to case studies appears on page 63.

Invaluable review and suggestions on the drafts were obtained from Jerker Tamelander (Head, Coral Reef Unit, UNEP) and Ole Vestergaard (Marine and Coastal Ecosystems Unit, UNEP).

We are particularly grateful to those who generously provided use of their images for this document, see page 64 for full list.

Symbols used in diagrams are courtesy of the Integration and Application Network, University of Maryland Centre for Environmental Science (ian.umces.edu/symbols/)

Online availability: The guidance document and supporting synthesis document are also available in electronic format at: www.sprep.org/library-information-resource-centre/publications
www.unep.org/publications
www.unep.org/ecosystemmanagement

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Design & layout: Kate Hodge, Hodge Environmental

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This document is supported by an illustrated synthesis and electronic materials for use in communicating and promoting use of Integrated Island Management approaches (located at: www.sprep.org/library-information-resource-centre/publications). These products are designed to raise awareness of Integrated Island Management (IIM) and promote more effective and widespread uptake of good practice principles. The intended target audiences include a diversity of decision-makers, potential partners and stakeholders across the Pacific, such as government agencies and managers, community groups, civil society, private sector, regional environment and development organisations, and donor agencies.

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Islands are isolated systems by nature. While this isolation promotes unique biological and cultural attributes, island social and ecological systems are also highly vulnerable to most types of disturbance. With high connectivity between land and sea and high specialisation of species, disturbance in one ecosystem has consequent impacts on natural resources, ecological processes, and ecosystem services in adjacent, highly linked island ecosystems. This close geographic proximity of ecosystems does not give much flexibility for social and ecological systems to adjust in response to environmental and climate change.

Integrated Island Management (IIM), responds to the unique circumstances of small island ecosystems through development of holistic integrated management systems that operate at the scale of ecological, social or physical processes within, and to, islands. IIM provides a framework for achievement of island-wide, integrated sustainable development goals through bottom-up, people-centred approaches at multiple scales and across all sectors with consideration of ecosystem linkages and the emerging threats posed by human-forced climate change (Govan 2007; Govan et al. 2011). IIM calls for sustainable and adaptive management of natural resources through coordinated networks of institutions and communities that bridge ecosystems (e.g., land-river-sea) and stakeholders (e.g., communities, business, industry, government) with the common goals of maintaining ecosystem services and securing human health and well-being.

The fate of Pacific Island species, ecosystems and human populations is also strongly tied to the global forces of climate change. There is enormous pressure on all island programs to plan for the future and ensure that ecosystems and social systems have the ability to withstand, or adapt to, these changes. As such, a separate discussion section is dedicated to summarise specific strategic approaches for IIM projects to incorporate adaptation and preparedness for climate change. Appropriately applied IIM should enable simultaneous and cost-effective achievement of social and ecological island systems that can adapt to the growing direct and indirect impacts of climate change.

This document results from a comprehensive effort to identify guiding principles for IIM in the Pacific. In recognition that enormous amounts of jargon exist in the scientific and planning literature, a short description of commonly used terms for other environmental management approaches is provided. This is followed by a brief description of ten guiding principles for maximizing effectiveness of IIM projects. Fifteen case studies from the Pacific region were selected to illustrate application of these guiding principles.

Finally, over-arching lessons learned to date and some cross-cutting recommendations for improving IIM are presented. These include important over-riding considerations such as: ensuring sustainability of human and financial capacity for ecosystem management projects; incorporating considerations of future climate change scenarios into IIM planning; and planning simultaneously for environmental outcomes and public health benefits.



Definitions

Programs and approaches for guiding environment management are numerous. Application of each of these individual approaches has often resulted in narrowly focussed projects and/or has been unable to avoid duplication of efforts across different agencies, consequently wasting resources that could have been more efficiently allocated with more coordinated planning and implementation. IIM is not meant to replace any of these approaches; rather it represents a framework for more efficiently planning, implementing, coordinating and adapting the other approaches in Pacific Island systems. Some definitions will help to clarify how each of these approaches overlap and may play important roles in IIM across the Pacific (e.g., Mercer 2010; Govan et al. 2011). As IIM is a holistic approach to management of island human and ecological systems, appropriately applied IIM should enable simultaneous and cost-effective achievement of multiple environmental and societal goals. Integration of IIM principles into planning, management and development frameworks for each of these listed approaches is likely to enhance their outcomes in a small island environment.

Community-Based Adaptive Management, CBAM

the integration of design, management and monitoring in order to learn and to improve responses to management efforts - carried out by, or with a major role played by, local communities

Ecosystem-Based Management, EBM

the management of cumulative impact of human activities in order to maintain ecosystems in a healthy, productive and resilient condition to enable delivery of ecosystem services and protect biodiversity.

Ecosystem-Based Adaptation, EBA

the use of biodiversity and ecosystem services to help people adapt to the adverse effects of climate change, taking into account the multiple social, economic and cultural co-benefits for local communities.

Ecosystem-Based Fisheries Management, EBFM

fisheries management that considers the status of

Disaster Risk Reduction, DRR

the practice of reducing exposure to hazards and reducing vulnerability of people and property through environmental stewardship and preparedness for adverse events.

Integrated Water Resources Management, IWRM

the coordinated management of water, land and related resources in order to maximise economic and social welfare, equitable benefits sharing, and sustainability of use.

Integrated Coastal Zone Management, ICZM

the process to plan for, coordinate between and balance environmental, economic, social, cultural and recreational objectives for use of coastal areas.

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