World Heritage papers 38

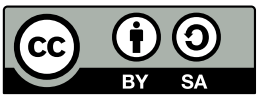
Safeguarding Precious Resources for Island Communities

United Nations Educational, Scientific and Cultural Organization
World Heritage Convention
United Nations Educational, Scientific and Cultural Organization
Supported by Japanese Funds-in-to UNESCO
International Year of Small Island Developing States 2014

Safeguarding Precious Resources for Island Communities

Published in 2014
by the United Nations Educational, Scientific and Cultural Organization
7, place de Fontenoy, 75352 Paris 07 SP, France

ISBN 978-92-3-100041-6



Supervision, editing and coordination:
Sachiko Haraguchi, UNESCO World Heritage Centre
Ron van Oers, World Heritage Institute of Training and Research for Asia and the Pacific

Copyediting and proofreading:
Caroline Lawrence

Coordination of the World Heritage Paper Series:
Vesna Vujicic-Lugassy, UNESCO Culture Sector

Cover photo:
Traditional fish trap of an outer island, Manihiki (Cook Islands). © Ron van Oers

Graphic design:
Original layout by Recto Verso
Realization by UNESCO/MSS/CLD/D
Composed and printed in the workshops of UNESCO
The printer is certified Imprim'Vert®, the French printing industry's environmental initiative.

Printed in France

Acknowledgements: This publication was made possible thanks to the support of the UNESCO/Japanese Funds-in-Trust.

World Heritage Paper Series No.38: http://whc.unesco.org/en/series/

Foreword

In anticipation of the approval by the United Nations General Assembly of the Post-2015 Sustainable Development Goals, UNESCO has reorganized parts of its institutional and operational capacity in order to strengthen its Culture and Development policy. To this end it has grouped its cultural policies along two main axes – Heritage and Creativity. Its Conventions on World Heritage (1972) and Intangible Heritage (2003) support the safeguarding and conservation of natural, cultural and intangible heritage, which are key components of social identity and cohesion as well as collective memory and dialogue among communities. The Convention on the Diversity of Cultural Expressions (2005), on the other hand, supports the creative economy and its cultural industries. Together they constitute a suite of policies and practices aiming to guide innovations in socio-economic development, regeneration and resilience-building. Although the emphasis rests on the World Heritage Convention, all these key components and factors feature in this publication.

Given its relatively long history, with insights and practices gained by forty-two years of implementation in all corners of the globe, World Heritage today is indeed considered one of the cornerstones in the debate on sustainable development. Whereas previously preservation for preservation's sake was the norm, gradually this has been replaced by the search for improvement of local livelihoods through wise resources management, which nowadays is at the heart of the World Heritage process. On the occasion of the 40th anniversary of the World Heritage Convention, celebrated in 2012, UNESCO gathered evidence-based material that demonstrated, among others, the reciprocal links between the well-being of local communities and their commitment to heritage conservation, which was published as World Heritage: Benefits Beyond Borders *in 2012. This reciprocity is arguably the strongest in regions where vulnerabilities are greatest and where history has taught local communities how to care for their environment, so that it takes care of them – such as in Small Island Developing States (SIDS).*

UNESCO's involvement with SIDS runs deep and spans a multitude of activities, as readers will learn in this publication, including support through the World Heritage process, essentially going back to the World Heritage Committee's Global Strategy for a Balanced, Representative and Credible World Heritage List (launched in 1994), which provided a framework for enhanced support and technical assistance to underrepresented regions in the world, among which the Caribbean and the Pacific. After the United Nations International Meeting to Review the Implementation of the Programme of Action for the Sustainable Development of Small Island Developing States, which took place in Mauritius in 2005 and where UNESCO organized a Plenary Panel on Culture, the Committee adopted the World Heritage Programme for SIDS. Since then a progressive increase in funding, technical support and successful inscriptions of World Heritage properties in SIDS has taken place, which is also reported here.

The next round of debates and reviews of action-oriented programmes and activities relating to the sustainable development of SIDS will take place in September 2014 in Samoa and UNESCO will have a strong presence to promote its Culture and Development policy. This publication has been prepared, with the generous support of the Government of Japan, to inform and guide decision-makers, professionals and local communities in their endeavours to create synergies between improving living conditions and caring for the environment, both natural and human-made.

Kishore Rao
Director of the UNESCO World Heritage Centre

Table of Contents

Introduction

© UNESCO/S.Haraguchi

One of the offshore islands in the north of Nuku'alofa, Tonga.

UNESCO's SIDS agenda: from Barbados via Mauritius to Samoa

Khalissa Ikhlef
Small Islands and Indigenous Knowledge Section, UNESCO

General background and context

Spread across the Atlantic, Pacific and Indian Oceans, as well as the Caribbean and South China Seas, Small Island Developing States (SIDS) form a distinctive group, each with their own particular characteristics but nevertheless sharing many features, including diverse cultural and biological environments. Recognized as among the most vulnerable states in the world, SIDS face many challenges arising from small size, large exclusive economic zones, geographical dispersion and remoteness, vulnerability to natural hazards and disasters, small but growing populations, economic vulnerability due to limited terrestrial natural resources, heavy dependence on imports, limited commodities, isolation from markets, among others. Many of the SIDS also figure in the list of least-developed countries (LDCs).

Recent indications[1] are that economic growth both in the Pacific and the Caribbean was slow in 2013. Most of the SIDS economies rely on a relatively narrow base of commodity exports, as well as a limited range of service sectors such as tourism, offshore finance or real estate. This economic fragility has recently been exposed by the global financial and economic crisis, which severely impacted export earnings, foreign investment and tourism revenues of SIDS. Effects of natural disasters and climate change are other challenges that the SIDS economies and populations have to face, generating socio-economic issues in addition to loss of life and infrastructure.

The Millennium Development Goals (MDGs) Report released in 2013[2] shows that, despite some regional disparities in progress, both the Caribbean and the Pacific regions made significant advances in achieving some of the MDGs. For example, the target for safe drinking water has been reached by most of the countries (pp. 46–48), however disparities still exist in rural communities, where access to an improved drinking water source is often still lacking. Access to freshwater remains a serious challenge for SIDS due to their specificities. Despite some regional disparities, the SIDS geophysical settings, their vulnerability to natural disasters impacts (e.g. saline intrusion, erosion, floods), as well as their relatively short length of surface water circulation, limits their options of developing freshwater resources, in terms of both quality and quantity. Access to education has been expanded in both the Caribbean and the Pacific regions (pp. 14–17), however quality education remains a concern. Progress towards the achievement of gender equality has been slow in almost all regions, including the Caribbean, Pacific and African SIDS (pp. 18–23). Whereas parity in access to education between boys and girls has been achieved in most countries of these regions, representation of women in national parliaments has undergone a marked regression, hampering the achievement of equal opportunity with men to participate in decision-making that affects their lives. SIDS also need to take further actions on maternal mortality and protection of forests (pp. 28–33).

While SIDS have to meet numerous and complex challenges, they also prove to be resourceful, adaptable and resilient: small island societies often have rich cultural resources and creativity, show a profound level of resilience, a strong record of success stories, renewed innovative approaches to development, technological adaptation and a coherent social mobilization.[3]

International recognition of SIDS as a special case

On the international stage, the specific vulnerability of SIDS appeared in 1989 in UN General Assembly Resolutions, such as A/RES/44/206. Possible adverse effects of sea-level rise on islands and coastal areas, particularly low-lying coastal areas. But it was at the 1992 Earth Summit in Rio de Janeiro that they received special attention through

1 World Bank, *Global Economic Prospects*, Washington DC. http://www.worldbank.org/en/publication/global-economic-prospects/overview

2 UN, 2013, *The Millennium Development Goals Report 2013*, New York, United Nations. http://www.un.org/millenniumgoals/pdf/report-2013/mdg-report-2013-english.pdf

3 UNDP, 2010, *SIDS-SIDS Success Stories: An innovative partnership in South-South cooperation*, Paris, United Nations Development Programme. http://sustainabledevelopment.un.org/content/documents/961sids-sids_success_stories.pdf
UNFCCC, *Vulnerability and Adaptation to Climate Change in Small Island Developing States,* in United Nations Framework Convention on Climate Change Database on Local Coping Strategies, pp. 17–19. http://maindb.unfccc.int/public/adaptation/

one of the conference's outcome documents, *Agenda 21*, which included a chapter on the Sustainable Development of Small Islands (17G) and calling for a special conference on islands. As a result, the first Global Conference on the Sustainable Development of SIDS was held in Barbados in 1994, leading to the adoption of the Barbados Programme of Action for the Sustainable Development of Small Island Developing States (BPoA). The BPoA addressed fifteen priority areas for sustainable island development: Climate change and sea-level rise; Natural and environmental disasters; Management of wastes; Coastal and marine resources; Freshwater resources; Land resources; Energy resources; Tourism resources; Biodiversity resources; National institutions and administrative capacity; Regional institutions and technical cooperation; Transport and communication; Science and technology; Human resource development; Implementation, monitoring and review.[4]

After adoption of the BPoA of 1994, there had been progress towards sustainable living and sustainable development in many SIDS. At the same time, new concerns emerged and older ones sharpened. In September 2002 in Johannesburg, the World Summit on Sustainable Development (WSSD) reaffirmed the special case for SIDS and called for a full and comprehensive review of the 1994 BPoA. Resolution A/C/57/262 was adopted by the UN General Assembly in December 2002 (requesting the relevant organs and agencies of the UN system to undertake concrete measures for the further implementation of the Barbados Programme of Action, as well as to participate in the Barbados+10 review and forward-planning process to be organized in Mauritius in 2004.

Consequently, the second International Conference on SIDS was held in Mauritius in January 2005 to review the ten-year implementation of the BPoA, carried out under the aegis of the UN Commission on Sustainable Development (UNCSD) and the UN Department of Economic and Social Affairs (UNDESA).

© UNESCO/S.Haraguchi

Figure 1. View from the venue of the second International Conference on SIDS in Mauritius, January 2005.

The Mauritius meeting reaffirmed the BPoA's continuing validity as the framework for sustainable development in SIDS, whilst taking into account the WSSD Plan of Implementation and the MDGs, all put down in the Mauritius Strategy for the Further Implementation of the BPoA. The review process also highlighted that while many SIDS have managed to effectively address and manage some aspects of their vulnerability, with progress in many priority areas, others have remained static and some have even regressed. One major reason for the lack of implementation of the BPoA has been the decline in international support and resources. In terms of Official Development Aid (ODA) alone, a 50 per cent reduction in the period 1994–2002 has been observed.[5] This was highlighted at the international conference on Financing for Development (FfD) in Mexico of March 2002. The outcome document adopted at the conference, the Monterrey Consensus, contained a comprehensive agenda for international action, including in favour of SIDS, which generated a series of explicit commitments by Member States.[6] The Mauritius Strategy builds on and reassesses the original BPoA areas, as well as highlighting several new priorities and emerging issues considered

4 UN General Assembly, 1994, *Report of the Global Conference on the Sustainable Development of Small Island Developing States*, Bridgetown, Barbados, p. 6. http://www.un.org/esa/dsd/dsd_aofw_sids/sids_pdfs/BPOA.pdf

5 Statement by H.E. Edwin W. Carrington, Secretary-General, Caribbean community, at the Interregional preparatory meeting to review the implementation of the BPoA, 2004.

6 *European Commission Report on Millennium Development Goals 2000–2004*, 2004, Brussels, Directorate-General Development, p. 36. http://www.dochas.ie/Shared/Files/4/EC_on_MDGs.pdf

important dimensions of sustainable development in SIDS, which among others include graduation from least-developed country status, trade, education for sustainable development, knowledge management and information for decision-making, health, culture and heritage.[7]

After five years of implementation of the Mauritius Strategy (MSI+5), a further review was undertaken in New York during the high-level session of the 65th UN General Assembly meeting in September 2010. As a result, on 25 September 2010, the General Assembly adopted the Political Declaration of the MSI+5 high-level review meeting. Para. 33 of the Declaration requests the Secretary-General to 'conduct a comprehensive review and examine ways to enhance the coherence and coordination of the United Nations system support for small island developing states and to put forward concrete recommendations to Member States in this regard'.[8]

The Rio+20 UN Conference on Sustainable Development, which took place in 2012 and provided the UN system with a unique opportunity to 'reset the world on a sustainable development path', further reaffirmed its support to the SIDS agenda in its outcome document, stating: 'We reaffirm our commitment to take urgent and concrete action to address the vulnerability of small island developing states, including through the sustained implementation of the Barbados Programme of Action and the Mauritius Strategy, and underscore the urgency of finding additional solutions to the major challenges facing small island developing states in a concerted manner so as to support them in sustaining momentum realized in implementing the Barbados Programme of Action and the Mauritius Strategy and achieving sustainable development'.[9] The outcome document also acknowledged once again that SIDS 'remain a special case for sustainable development' and decided to convene the Third International Conference on the Sustainable Development of SIDS (paras 178–180), which will be hosted by Samoa from 1 to 4 September 2014 in its capital, Apia.

UNESCO and SIDS: a long-term cooperation

As of December 2013, one-fifth of UNESCO Member States are SIDS, representing forty-seven Member States and Associate Members. Their sustainable development is thus a particular priority within the Organization's mandate. The priority status which UNESCO assigns to its SIDS Member States is reflected in its successive Medium-Term Strategies (C/4s). SIDS receive support from the Organization through a wide range of channels, including substantive contributions through the Regular Programme, Participation Programme and Extrabudgetary Sources.

UNESCO is well positioned to support SIDS in responding to the challenges they face, as the main component of its mandate is to help build a lasting and sustainable peace through cooperation in education, science, culture, communication and information. The Organization has facilitated and implemented projects specifically focused on small islands for more than forty years, starting with initiatives such as the establishment of the International Tsunami Information Centre in Honolulu in 1965 by the UNESCO Intergovernmental Oceanographic Commission (IOC), and the International Coordination Group for the Tsunami Warning System in the Pacific (ICG/ITSU) in 1968.[10]

In May 1994 UNESCO sent a delegation to Barbados to contribute to the First Conference on SIDS. An account of some of the Organization's projects specifically focused on small islands was compiled as part of its own preparations for this conference and published in a 132-page document in 1994.[11] Subsequent to the Barbados Conference, the different sectors and units of UNESCO reviewed their programmes of work relating to SIDS, in the light of contributing to the implementation of the BPoA. Relevant activities and projects have spanned a wide range of technical fields and areas of concern, including distance education, basic and life-long education, environmental education and education for sustainable development, freshwater resources, global sea-level monitoring, renewable energy, natural hazards and disasters, coastal

7 http://unctad.org/en/Docs/a60d401_en.pdf
8 http://www.un.org/en/ga/search/view_doc.asp?symbol=A/RES/65/2
9 UN, 2012, *The Future We Want* (outcome document), p. 7, para. 33, Resolution A/RES/66/288. http://www.un.org/en/ga/search/view_doc.asp?symbol=%20A/RES/66/288

10 *UNESCO-sponsored activities on small islands: a chronology of selected projects and events* http://portal.unesco.org/en/ev.php-URL_ID=13838&URL_DO=DO_TOPIC&URL_SECTION=201.html and www.unesco.org/en/sids
11 *Island Agenda: An overview of UNESCO's work on island environments, territories and societies*, 1994, Paris, UNESCO. http://unesdoc.unesco.org/images/0010/001012/101276eb.pdf

area management, local and indigenous knowledge, biodiversity conservation, tangible and intangible cultural heritage, tourism and its environmental and socio-cultural effects, social inclusion, collective community empowerment for development, application of modern communication technologies to mitigate problems of geographic isolation, and encouraging inter-island interaction and exchanges, to mention the most relevant.

The Organization has also designed internal mechanisms to ensure an integrated approach and to emphasize cross-regional linkages and cooperation. In this respect, in 1996, the 28th General Conference established the Coastal Regions and Small Islands Unit (CSI)[12] 'to contribute to environmentally sustainable, socially equitable, culturally respectful and economically viable development in small islands and coastal regions',[13] which channelled UNESCO's contribution to the SIDS Programme of Action.

In October 2003, the UNESCO General Conference at its thirty-second session adopted Resolution 32 C/Res.48 specifically addressing the Sustainable Development of Small Island Developing States: further implementation and review of the Barbados Programme of Action (Barbados+10). The Resolution included operative paragraphs addressed to Member States and Associate Members, non-governmental organizations in official relations with UNESCO, and the Director-General addressed the continuing implementation of the BPoA, participation in the preparations for the Mauritius meeting, and reporting to UNESCO's governing bodies on the planning, outcomes and follow-up of the meeting.

From 10 to 14 January 2005, the Government of Mauritius hosted the high-level International Meeting to Review the Implementation of the Programme of Action for the Sustainable Development of SIDS. UNESCO's contributions to this Barbados+10 review process and events focused on a series of activities consistent with the Organization's mandate and comparative advantage, and through working closely with collaborating institutions. These included a panel on The Role of Culture in the Sustainable Development of SIDS and a special event on Youth Visioning for Island Living.

The Role of Culture in the Sustainable Development of SIDS

As part of the review process, UNESCO took the lead in the organization of the Plenary Panel on The Role of Culture in the Sustainable Development of SIDS. The panel, which took place on 11 January 2005, examined the broad, holistic definition of culture embraced by UNESCO. It featured experts in small-island cultural development, who were invited to provide incisive viewpoints from their specific fields and propose specific actions for follow-up and consideration by Ministerial Round Tables later in the week. Among the eminent participants were Rachmat Witoelar, State Minister for Environment of Indonesia (chair); Pearlette Louisy, Governor-General of Saint Lucia, specialist in comparative education (moderator); and panellists Philippe la Hausse de la Louvière, President of the Société de l'Histoire de l'Ile Maurice (the largest historical NGO in Mauritius) and chair of the National Heritage Fund Board; Adi Meretui Ratunabuabua, Principal Cultural Development Officer with the Fiji Government Ministry of Fijian Affairs, Culture and Heritage and Regional Development; Ralph Regenvanu, anthropologist, Director of the Vanuatu Cultural Centre and member of the Vanuatu National Commission for UNESCO; Keith Nurse, senior lecturer at the Institute of International Relations, and coordinator of the postgraduate diploma in Arts and Cultural Enterprise Management, University of the West Indies, Trinidad and Tobago; and Sydney Bartley, Director of Culture at the Ministry of Education, Youth and Culture in Jamaica, involved in activities within UNESCO's Global Alliance for Cultural Diversity.

The five panellists provided an overview of the importance of culture for the sustainable development of SIDS, emphasizing the issues of cultural identity and diversity, protection of tangible and intangible heritage, incorporation of local languages and traditional knowledge in formal education, as well as the economic opportunities provided by culture, in particular through cultural industries. Ten speakers took the floor in the ensuing debate, representing Barbados, the Cook Islands, Fiji, France, Jamaica, Mauritius and Morocco, as well as the Caribbean Development Bank and NGOs representing

12 UNESCO Approved Programme and Budget for 1996–1997 (28 C/5 Approved). http://unesdoc.unesco.org/images/0010/001036/103627e.pdf (see organigramme on last page)

13 CSI brochure, 1996, *Land, Sea and People, Seeking a Sustainable Balance*, Paris, UNESCO. http://www.unesco.org/csi/intro/broche.pdf

youth and women. All expressed strong and enthusiastic support for the recognition of culture as an indispensable and all-pervading component of human living and development. Mention was also made of 'Culture' as a fourth pillar of sustainable development. Several speakers expressed support for an international normative approach to protect cultural diversity, endorsing the drafting process of a Convention on the Protection of the Diversity of Cultural Expressions and Artistic Content.

© UNESCO/S.Haraguchi

Figure 2. Panellists at the Plenary Panel on The Role of Culture in the Sustainable Development of SIDS in Mauritius.

Youth Visioning for Island Living

This special event brought together youth from the different island regions of the world to discuss their perceptions and aspirations for the future of their islands. Taking part were ninety-six young people from thirty-seven SIDS and island territories with other affiliations. During the meeting from 7 to 12 January 2005, discussions were organized around three main themes: Life and love in islands (island lifestyles and cultures); My island home (safeguarding island environments); and Money in my pocket (economic and employment opportunities). Conclusions of the Youth Visioning event were summarized in a four-page Declaration that included commitments to follow-up action by the delegates and was presented to the plenary session of the Mauritius meeting on 12 January 2005. The young people were joined in their closing ceremony by UN Secretary-General Kofi Annan, Mrs Annan and UNESCO Director-General Koïchiro Matsuura. This provided an occasion for the young people to express some of their thoughts and aspirations and intentions for follow-up activities in their countries.

The whole Youth Visioning for Island Living event was a partnership activity initiated in 2003 involving UNESCO (through the CSI Platform and the Section for Youth) and the Mauritius authorities, as well as a range of other regional and international partners, including the Lighthouse Foundation, Indian Ocean Commission, Secretariat of the Pacific Community, Caribbean Community, UNICEF and the international youth NGO TakingITGlobal. This multipartner initiative succeeded in fully involving young people in the review of the SIDS-BPoA and its future implementation, by articulating how they want their islands to develop in the future and how they plan to help make this happen. The process included poor, marginalized and disaffected young people. A structured preparation took place throughout 2003 and 2004, leading to the Youth Visioning for Island Living event in Mauritius. This included youth consultations, launching of the first phase of an interactive website for small island youth and the progressive involvement of other bodies as partners and donors in the project.

© UNESCO/S.Haraguchi

Figure 3. Youth delegates at the closing ceremony of the Youth Visioning for Island Living event.

A follow-up to the Youth Visioning for Island Living event, particularly in terms of mobilizing support for national youth groups in the implementation of specific projects, was ensured. A number of UNESCO programmes and projects provided pump-priming support, such as the use of ICTs in HIV/AIDS education, the YouthPATH initiative in the Caribbean, and the preparation of a Pacific region version of *World Heritage in Young Hands*. Since then, Youth Visioning for Island Living has empowered young people in SIDS to take action for sustainable living and development, and by doing so to encourage local development of new skills and opportunities. The concept is based on the capacity of young people to conceptualize, develop and implement their own projects, thus envisioning and taking action for the sustainable future of their islands. Youth Visioning for Island Living operates as a small grants programme providing support to activities developed and implemented by and for young people. Since 2006, the diverse range of youth-led projects has ranged from fish farming to community radio.

Other events in which UNESCO has played a substantial role include Parallel Event, Small Islands Voice (SIV); Civil Society Forum; Ocean and Coastal Management; Small Island States Universities Consortium; and Lest We Forget: The Triumph Over Slavery.

In addition to the above-mentioned contributions from UNESCO, a 48-page booklet providing an overview into UNESCO's concerns and activities in SIDS was published and distributed at the Mauritius meeting.[14] The document gave priority to new and emerging issues, emphasized future directions and activities, and highlighted how UNESCO can contribute to improving the lives of local communities.

Outcome of Mauritius International Meeting: Strategy and Declaration

The principal negotiated outputs of the Mauritius International Meeting (MIM), which included the Strategy document and the political Declaration, call for action in many fields relating to UNESCO's concerns, programmes and priorities. In overview it involves the following:

Mauritius Strategy

The 30-page Mauritius Strategy for the Further Implementation of the Programme of Action for the Sustainable Development of SIDS is one of two negotiated outcomes adopted by delegates at the conclusion of the MIM.[15] The introductory paragraphs describe the overarching issues that concern the implementation of the BPoA for the sustainable development of SIDS. They also address, inter alia, South–South and SIDS–SIDS cooperation, culture, the role of youth, and gender equality.

The Strategy document then elaborates a wide range of actions under twenty broad chapters: Climate change and sea-level rise (paras 16-18); Natural and environmental disasters (para 19); Management of wastes (para 20); Coastal and marine resources (paras 21–26); Freshwater resources (paras 27–31); Land resources (paras 32–40); Energy resources (paras 1–44); Tourism resources (paras 45–47); Biodiversity resources (paras 48–50); Transport and communication, including the development of ICTs and community multimedia centres (paras 51–56); Science and technology (paras 57–62); Graduation from least-developed country status (paras 63–64); Trade: globalization and trade liberalization (paras 65–67); Sustainable capacity development and education for sustainable development (paras 68–70); Sustainable production and consumption (para. 71); National and regional enabling environments, including involving youth in visioning sustainable island living (para. 72); Health, including support to address HIV/AIDS (paras 73–74); Knowledge management and information for decision-making (paras 75–76); Culture, including recognition of the importance of cultural identity in advancing sustainable development, the need to develop cultural industries and initiatives, the development and implementation of national cultural policies and legislative frameworks, and measures to protect cultural heritage (para. 77); Implementation (paras 78–100).

14 UNESCO, 2004, *Island Agenda 2004+: Coping with change and sustaining diversities in small islands.* http://unesdoc.unesco.org/images/0013/001377/137708e.pdf

15 http://unctad.org/en/Docs/a60d401_en.pdf

Mauritius Declaration

The 23-paragraph Mauritius Declaration reaffirms the continuing validity of the Barbados Programme of Action as the 'blueprint providing the fundamental framework for the sustainable development of small island developing States'.[16] Reiterating that the acknowledged vulnerability of such states will grow unless urgent steps are taken, it reaffirms the international community's commitment to support the efforts of SIDS for their sustainable development through the further full and effective implementation of the Barbados Programme of Action.

The Mauritius International Meeting and its follow-up implementation were of strategic importance to the SIDS Member States and Associate Members of UNESCO, and to the wider international community. Of special importance to UNESCO's contribution is the building of capacities, bridges and networks of various kinds, in promoting effective collaboration between societal/organizational sectors (intersectoral cooperation) that cut across societal sectors and institutional specialities, between regions (interregional cooperation), and between generations (intergenerational cooperation) that mobilize key actors and constituencies. The Organization also has special responsibilities in generating effective momentum and impact, which give importance to education, are culturally sensitive and scientifically sound, and take advantage of the opportunities opened up by modern information and communication technologies, in working towards a new vision and commitment for small islands. In addition, UNESCO pays particular attention to the easily marginalized or more difficult dimensions, components and locations, local knowledge, disaster preparedness, indigenous peoples, youth, and outer islands.

As a follow-up to the 2005 Mauritius International Meeting, UNESCO continued to assign a high priority to SIDS, as clearly reflected in its Medium-Term Strategy for the period 2008 to 2013, which calls for specific interventions in 'the small island developing States (SIDS) in line with the Mauritius Declaration and the Mauritius Strategy, developing a holistic and interdisciplinary approach and bearing in mind the latest report of the Intergovernmental Panel on Climate Change, Climate Change 2007: Impacts, Adaptation and Vulnerability (13 April 2007)'. The Organization's intersectoral work in support of the SIDS Programme of Action was also given new impetus through the creation of a dedicated UNESCO Intersectoral Platform for SIDS in 2008. The so-called Intersectoral Platform on UNESCO's contribution to the Mauritius Strategy for the Further Implementation of the Programme of Action for the Sustainable Development of SIDS (i.e. the SIDS Platform) was created to coordinate the Organization's various disciplines in a more intersectoral and integrated manner for the benefit of its SIDS Member States. In addition to a dedicated SIDS Platform, several UNESCO programmes have established distinct SIDS sub-programmes to better target the delivery of activities. These include, for example, a special SIDS World Heritage programme, as well as an Intangible Cultural Heritage portal.

Figure 4. Brochure highlighting UNESCO activities in SIDS from 2006 to 2013.

The integrated approach to sustainable island living pursued by UNESCO also allowed the Organization to actively contribute to the high-level five-year review of the implementation of the Mauritius Strategy held at UN Headquarters in New York in September 2010. Key outcomes of the review included a call for further priority action towards addressing the unique and particular vulnerabilities of SIDS. Particular emphasis was placed on the challenge represented by global climate change and sea-level rise, while other causes of vulnerability identified included small size, remoteness, narrow resource and export base, and exposure to global environmental

16 http://daccess-dds-ny.un.org/doc/UNDOC/GEN/N05/237/16/PDF/N0523716.pdf?OpenElement

challenges. In parallel, the 2010 three-day United Nations Summit on the MDGs, held in connection with the 65th session of the UN General Assembly, adopted an outcome document that referred to the unique and particular vulnerabilities of SIDS, and committed to support them 'in view of their unique and particular vulnerabilities, towards their sustainable development through the further full and effective implementation of the Barbados Programme of Action and the Mauritius Strategy'.[17]

With a proactive attitude, UNESCO quickly aligned its focus with the outcomes of the five-year review of the Mauritius Strategy, as well as with Decision 185 EX/41 of UNESCO's Executive Board at its 185th session, and maintained regular thematic debates, dialogues and meeting with SIDS representatives to ensure that UNESCO's targeted programmes and activities constantly and fully reflect the updated concerns of its SIDS Member States and Associate Member States. Numerous intersectoral and transdisciplinary projects have been funded and undertaken since then with major achievements in SIDS. These were the results of joint planning and implementation with the various programme sectors, field offices, and other international, regional and national partners. Among many others, these include:

- strengthening of island cultural and biological diversity through UNESCO Biosphere Reserves and World Heritage sites;
- supporting traditional medicinal knowledge;
- reinforcing island languages and traditional knowledge;
- safeguarding the cultural and natural heritage in SIDS;
- using satellite images to understand climate change effects on SIDS;
- islands of the future: youth building sustainable prospects for SIDS;
- enhancing open suite (open educational resources, open access to scientific information and free and open source software) strategies in SIDS; as well as various projects relating to climate change, natural disasters, tsunami warning systems, underwater cultural heritage, and information and communication.

17 UN General Assembly, 2010, *Outcome document of the High-level Review Meeting on the implementation of the Mauritius Strategy for the Further Implementation of the Programme of Action for the Sustainable Development of Small Island Developing States*, p. 2, para. 2. http://www.sidsnet.org/msi_5/docs/res/res_65_2E.pdf

In November 2013, UNESCO's General Conference at its 37th session adopted Resolution 37 C/4/DR.4, entitled Reinforcing UNESCO's strategy on Small Island Developing States and contribution to implementation of the outcomes of the Third International Conference on Small Island Developing States, Apia, Samoa, September 2014. The Resolution recalls the importance of UNESCO's contribution to the twenty-year review of the Barbados Programme of Action at the Samoa Conference in 2014 and recommends the development of an action plan for implementing its outcomes in areas relevant to UNESCO's mandate. To ensure its renewed commitment to the sustainable development priorities of SIDS, UNESCO, in addition to its active participation in the twenty-year review process of the BPoA (Mauritius+10) as detailed below, will enhance its targeted action plan and identify specific follow-up in response to the Samoa Conference during the implementation of its 2014–2021 Medium-Term Strategy, which pays special attention to the needs of SIDS. The interregional preparatory meeting, which took place in Barbados (26–28 August 2013), and its follow-up deliberations in New York in September 2013, already shaped the preliminary priorities identified by SIDS. These include climate change, waste management, social development, health and non-communicable diseases (NCDs), food security, oceans and seas, biodiversity, forests, sustainable energy, disaster risk reduction, sustainable consumption and production, green economy and ICTs, and genuine and durable partnerships at the national, regional and international levels. UNESCO, complementary to other UN agencies, has great potential within its interdisciplinary programmes to address many of these issues.

Conclusion: preparation for the Third International Conference on SIDS, Samoa 2014

2014 has been designated as the International Year of Small Island Developing States. It is the year in which SIDS are at the centre of the international community's agenda, especially on the occasion of the Third International Conference on SIDS to be hosted by Samoa in September 2014. The Barbados Programme of Action and related Mauritius Strategy will then be reviewed to determine what progress has been made in twenty years, what challenges still exist and key priorities for internationally

agreed development goals in the post 2015-era (linking with the outcomes of the Rio+20 Conference held in 2012: The Future We Want). The SIDS priorities and issues that have emerged so far from the conference preparatory meetings[18] identified current and emerging challenges for the sustainable development of SIDS including: Sustainable economic development, Climate change, Sustainable energy, Disaster risk reduction, Oceans and seas, Biodiversity, Forests, Food security, Water, Sustainable consumption and production, and Social development (including Gender equality and Women's empowerment, Local and traditional knowledge, Culture, Sport, and Promoting peaceful societies). Most of these are of direct relevance to UNESCO's mandate.

UNESCO, here too, is contributing actively to the review process that started in 2013 with national, regional and interregional preparatory workshops. Following advice from the Samoa SIDS 2014 Organizing Committee, UNESCO, UNICEF and UNFPA with support from the regional organizations in SIDS areas (such as the Secretariat of the Pacific Community, Forum Islands Secretariat, the Secretariat for the Pacific Environment Programme and the Indian Ocean Commission) supported youth consultation so that young people from SIDS could share their issues, envision the future young people want, and participate in developing the outcomes of the Apia 2014 Global Conference. This is part of a process for building longer-term partnerships to launch at SIDS 2014 in Apia. Indeed, young islanders are the future of their countries, as one of the major assets in SIDS in human capacity, and their views have to be considered. Younger generations are capable of bringing innovation, energy and fresh creative ideas, making a positive contribution to regional, national and local communities. Since the inaugural meeting in Barbados in 1994, UNESCO has been the lead agency on youth inputs for the global initiative on SIDS and this time youth inputs are also being developed at national (through government initiatives), regional, interregional and global stages of the SIDS 2014 process.

In the framework of an initiative entitled My World, My SIDS: Y.E.S.! Youth Empowerment Sustainability, a SIDS Youth Consultation Design and Planning Workshop was held in June 2013 in Suva (Fiji), to share information, build capacity and plan design ability to empower young people to take the lead in the youth consultation process. A five-day workshop allowed young people from Fiji, Samoa, Solomon Islands, Mauritius, Seychelles, Dominican Republic and Barbados, aged between 14 and 29, to work together to design three regional workshops and a long-term networking and communication structure to enable young people in SIDS to become partners in sustainable development. Subsequently, in July 2013, three regional youth consultation workshops were organized and conducted in which seventy young people between the ages of 12 and 30 gathered together to discuss and envision the future for their small island homes. Representing thirty small islands countries and territories in the Caribbean, Pacific and AIMS regions (Atlantic, Indian Ocean, Mediterranean and South China Sea), these young people developed their own outcome documents and presented their ideas on the development needs of SIDS at the three regional preparatory meetings held the following week. Six of them were elected by participants to take the messages from the regional workshops to the Interregional Preparatory Meeting in Bridgetown, Barbados, in August 2013, which culminated in a combined and consolidated youth outcome document.

This joint initiative was a platform for the young people of the SIDS from which to contribute to shaping the future of their islands through their youth perspective. It gave them an opportunity to share their issues, their vision of the future, exchange the development perspectives of their islands, build and strengthen youth networks, and in particular make recommendations to the AIMS Preparatory Meeting and participate in developing the outcomes of the Apia 2014 Global Conference. The final stage will benefit from the concept of Youth Visioning for Island Living, based on the capacity of young people to conceptualize, develop and implement their own projects benefiting other youth. Through the provision of small grants to support activities developed and implemented by and for young people, the action plans initiated during the inter-SIDS workshops will be supported during the preparation phase for the 2014 BPoA+20 meeting in Samoa.

18 *Zero Draft of the Outcome of the Third International Conference on Small Island Developing States* (with attributions). http://sids2014.org/content/documents/298SIDS%20zero%20draft_14%20March%20WITH%20ATTRIBUTIONS.pdf

UNESCO's contribution to the Samoa Conference and its preparatory process covers specific priority areas for SIDS such as:

- enhancing island resilience through quality education, education for sustainable development, human resource development and institutional capacity-building;
- harnessing the potential of ocean sciences and technologies for healthy oceans;
- preventing biodiversity loss and ensuring environmental sustainability;
- ensuring sustainable management of freshwater resources;
- preserving tangible and intangible cultural heritage and promoting culture for development;
- increasing connectivity and access to ICTs;
- engaging youth.

Prominent among these is the Sandwatch project. Sandwatch is an educational tool[19] that uses a practical 'hands-on' approach to empower citizens of all generations to develop awareness of the fragile nature of their marine and coastal environment and use it wisely. Initiated by UNESCO in 1999 and now active in more than thirty countries worldwide, the Sandwatch methodology[20] focuses on measuring, analysing, sharing and taking action to build beach resilience to climate change through a framework of education for sustainable development. Students are first trained in the scientific observation, measurement and analysis of beaches utilizing an interdisciplinary approach; and second in identifying beach-related issues and developing wise practices and implementing projects to address the problems in a sustainable way. It teaches students to apply their school-based learning to everyday life, to develop critical thinking skills and apply them to conflict resolution, and to instill a sense of 'caring' for their beaches in particular and their environment in general.

19 http://www.unesco.org/csi/sandwatch
20 http://www.sandwatch.org/

© *Lausanne Olvitt*

Figure 5. Measurement and analysis of beaches under Sandwatch project in Cabo Verde.

Small Island Developing States and the World Heritage Convention

Sachiko Haraguchi
Coordinator, World Heritage SIDS Programme, UNESCO

Introduction

In January 2005, the United Nations International Meeting to Review the Implementation of the Programme of Action for the Sustainable Development of Small Island Developing States took place in Port Louis (Mauritius). At that meeting UNESCO led Plenary Panel three on The Role of Culture in the Sustainable Development of Small Island Developing States. The meeting concluded with the adoption of the Mauritius Strategy for the Further Implementation of the Programme of Action for the Sustainable Development of Small Island Developing States.

In a direct follow-up to the Mauritius meeting, the World Heritage Centre designed the World Heritage Programme for Small Island Developing States (SIDS), aiming at coordination of efforts to exchange information on and implement the Mauritius Strategy within the context of the 1972 World Heritage Convention and the Action Plans for the Caribbean and the Pacific. This programme was adopted at the 29th session of the World Heritage Committee in Durban (South Africa), in 2005 (Decision 29 COM 5B).

The World Heritage SIDS Programme coordinates and develops World Heritage activities on islands of the Caribbean Sea and the Atlantic, Indian and Pacific Oceans. Support services are provided for the preparation of Tentative Lists, new nominations to the World Heritage List as part of the implementation of the 1994 Global Strategy, and assistance is also available after inscription for the conservation and management of sites with a view to sustainable development.

© *Ron van Oers*

Fgure 1. Aerial view of Male' (Maldives).

Small Island Developing States (SIDS) in the World Heritage context

The SIDS are composed of forty[1] self-governing countries in the Africa, Arab, Asia/Pacific, and Caribbean regions in the context of UNESCO. They are underrepresented on the World Heritage List, with thirty-two World Heritage properties located in SIDS States Parties.[2] Whereas SIDS constitute 20 per cent of the total number of States Parties, the inscribed properties represent only 3 per cent of the World Heritage List.

The 1972 World Heritage Convention, a legally binding instrument for heritage conservation, has been ratified almost universally. Currently (as at June 2014) 191 countries have signed the Convention, with only four UNESCO Member States that have not yet ratified it – Nauru, Timor-Leste, Tuvalu and Somalia, the first three of which are SIDS.

Furthermore, based on visitor data from 2007 to 2012, the 2013 Tourism Review[3] revealed that the ten least-visited countries in the world are (in order): Nauru, Somalia, Tuvalu, Kiribati, Marshall Islands, Equatorial Guinea, Turkmenistan, Sao Tome and Principle, Comoros and Afghanistan. Underlying reasons for the lack of visitors can be political instability, bad infrastructure or remoteness. Interestingly, however, six of these ten are SIDS, while the top three least-visited countries are those that have not yet ratified the World Heritage Convention. Tourism is an important source of revenue for many SIDS and by receiving tourists countries and local communities may raise awareness of their heritage, culture and values, which helps to build understanding and support.

Table 1 gives the current list of SIDS and their status in relation to World Heritage in each region. Figures 2–4 give an indication of progress made since the World Heritage Programme for SIDS was adopted in 2005.

1 The United Nations Office of the High Representative for the Least Developed Countries, Landlocked Developing Countries and Small Island Developing States (UN-OHRLLS) divides its SIDS list into two categories: UN Members (thirty-eight states) and Non-UN Members/ Associate Members of the Regional Commissions (nineteen states). http://unohrlls.org/about-sids/country-profiles/

2 See Annex A for list of World Heritage properties located in SIDS and Overseas Territories.

3 Tourism-Review.com http://www.tourism-review.com/the-10-least-visited-destinations--news3660

Table 1. Year of ratification of the World Heritage Convention, number and type of World Heritage properties inscribed, and year the Tentative List was last updated, for SIDS in each region *(as at June 2014)*

		Ratification	Cultural sites	Natural sites	Mixed sites	Year of last Tentative List (TL) submitted
AFRICA (6)	Cabo Verde	1988	1			2004
	Comoros **	2000				2007
	Guinea-Bissau **	2006				2006
	Mauritius	1995	2			2006
	Sao Tome and Principe **	2006				No site on TL
	Seychelles	1980		2		2013
ARAB STATES (1)	Bahrain	1991	2			2008
CARIBBEAN (16)	Antigua and Barbuda	1983				2012
	Bahamas	2014				No site on TL
	Barbados	2002	1			2005
	Belize	1990		1 ***		No site on TL
	Cuba	1981	7	2		2003
	Dominica	1995		1		No site on TL
	Dominican Republic	1985	1			2002
	Grenada	1998				2013
	Guyana	1977				2005
	Haiti **	1980	1			2004
	Jamaica	1983				2009
	Saint Kitts and Nevis	1986	1			1998
	Saint Lucia	1986		1		No site on TL
	Saint Vincent and Grenadines	2003				2012
	Suriname	1997	1	1		1998
	Trinidad and Tobago	2005				2011
PACIFIC (14)	Cook Islands	2009				No site on TL
	Fiji	1990	1			1999
	Kiribati **	2000		1		No site on TL
	Marshall Islands	2002	1			2005
	Micronesia (Federated States of)	2002				2012
	Niue	2001				No site on TL
	Palau	2002			1	2004
	Papua New Guinea	1997	1			2006
	Samoa **	2001				2006
	Solomon Islands **	1992		1 ***		2008
	Tonga	2004				2007
	Vanuatu **	2002	1			2005
	Nauru *					
	Tuvalu* **					
ASIA (3)	Maldives	1986				2013
	Singapore	2012				2012
	Timor-Leste * **					

* Non-States Parties to the World Heritage Convention
** Least-developed countries
*** World Heritage site in Danger

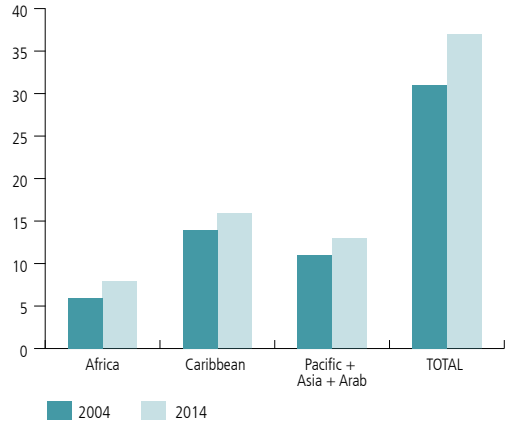


Figure 2. Number of SIDS States Parties to the World Heritage Convention.

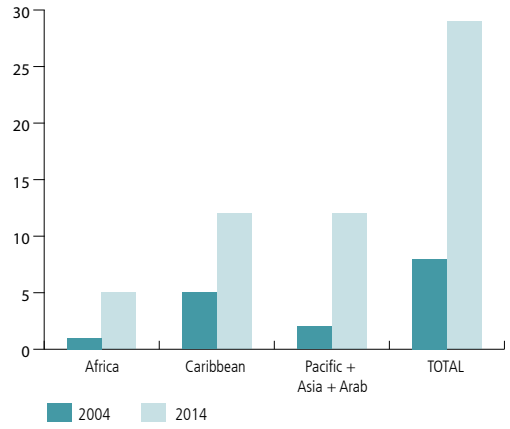


Figure 3. Number of Tentative Lists updated.

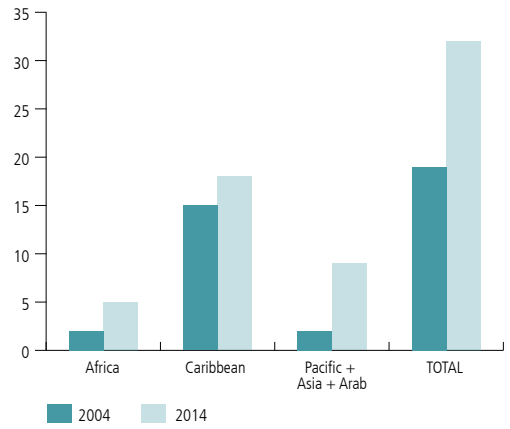


Figure 4. Number of World Heritage properties located in SIDS.

World Heritage activities in SIDS

In principle, the overall approach of the World Heritage SIDS Programme follows the Strategic Objectives (5 Cs) of the World Heritage Committee (adopted in 2002 and 2007). More specifically, the current aim of the World Heritage SIDS Programme follows on the World Heritage Committee's decision (33 COM 5B) to develop and further strengthen regional capacity-building programmes for SIDS, in particular those of the Caribbean and the Pacific.

Regional activities

Region-wide activities have been developed for both Caribbean and Pacific SIDS. The Caribbean Capacity Building Programme (CCBP) was established and endorsed by the World Heritage Committee in 2004 as part of the Caribbean Action Plan for World Heritage, managed by the UNESCO Havana Office. Within the CCBP over twelve expert meetings have been organized, and six training manuals focusing on the various aspects of management (application of the World Heritage Convention, tourism, historic centres, risks, cultural landscapes and natural heritage) have been published.

In the Pacific, the need for capacity-building activities and strengthening the regional network has been discussed at several Pacific World Heritage Workshops, as part of the second Periodic Reporting exercise (2010–2012), as well as in the Pacific Action Plan (2010–2015). The Pacific Heritage Hub (PHH) hosted by the University of South Pacific in Suva (Fiji), was launched in 2013. The PHH has been established as a communication and exchange hub to assist Pacific governments and communities in putting forward nominations to the World Heritage List and improving management practices at existing Pacific heritage sites through capacity-building.

For Atlantic and Indian Ocean SIDS, the situation is more complicated. Due to the limited number of States Parties in the Atlantic (only Cabo Verde, Guinea-Bissau and Sao Tome and Principe) and Indian Oceans (Comoros, Maldives, Mauritius and Seychelles), as well as the different languages spoken (English, French and Portuguese), most activities in these SIDS are integrated into African subregional activities, although support is often provided to individual States Parties for the preparation of Tentative Lists and nominations. This is also the case for SIDS in the Arab States (Bahrain) and Asia (Maldives, Singapore and Timor-Leste).

Thematic activities

The World Heritage SIDS Programme is a coordinating platform for the identification of the needs of SIDS in relation to World Heritage and for the further strengthening of activities undertaken by the regional units as well as under the thematic programmes at the World Heritage Centre. The SIDS Programme also uses thematic approaches to design its activities. Table 2 summarizes activities and initiatives undertaken and/or proposed for each region under the thematic programmes adopted by the World Heritage Committee. These activities have been financed by the governments of Andorra, Australia, Bahrain, Flanders, France, Italy, Japan, the Netherlands, New Zealand and Spain, as well as other public and private parties.

Table 2. Activities implemented in each region under thematic programmes adopted by the World Heritage Committee

	Caribbean	Pacific	Atlantic & Indian Oceans
World Heritage Cities Programme (2001)	Development of CCBP Module 5: Management of Historic Cities (2008) Caribbean Heritage Course CCBP (Modules 1 and 5) organized by the University of the Netherlands Antilles (UNA), Willemstad Curacao (21 March–1 April 2011)	Capacity-building workshop to develop the Conservation Plan for Levuka World Heritage site (2014)	Workshop on Historic Urban Landscape approach for Cidade Velha, Cabo Verde (2014)
World Heritage Forest Programme (2001)	Development of CCBP Module 6: Natural Heritage Management (2011) Workshop on Management of Natural Heritage, Congress on protected areas (July 2011, Havana, Cuba)		
World Heritage Sustainable Tourism Programme (2001)	CCBP Module 2: Tourism Management in Heritage Sites (2008) Role of tourism in the conservation of the Colonial City of Santo Domingo, as part of the application of the World Heritage Convention in the Caribbean (22–25 November 2010, Santo Domingo, Dominican Republic).	Tools for decision-making on sustainable tourism in the Pacific (toolkit expected publication: 2014) Workshop to test the decision-making tool (11–13 March 2014, Palau)	
World Heritage Earthen Architecture Programme (2001)			
World Heritage Marine Programme (2005)		2012/2014 – Regional priority for the Pacific A first meeting with regional stakeholders and existing and potential marine World Heritage site managers scheduled in New Caledonia in December 2014	World Heritage Paper Series, 32: *Assessing Marine World Heritage from an Ecosystem Perspective – The Western Indian Ocean* (2012)
World Heritage Programme on Human Evolution: Adaptations, Dispersals and Social Developments (HEADS) (2008)	World Heritage Paper Series, 24: *Rock Art in the Caribbean* (2008) World Heritage Paper Series, 14: *Caribbean Archaeology and World Heritage Convention* (2005)	ICOMOS Thematic Study: Early Human Expansion and Innovation (2010)	

Thematic activities and initiatives – continued

	Caribbean	Pacific	Atlantic & Indian Oceans
Climate change	Priority of 2013–2015 according to Periodic Reporting of Latin America and the Caribbean (2013)	Recommended action: Regional workshops to strengthen capacity to identify and respond to impacts of climate change (Pacific Action Plan 2010–2015)	
Risk preparedness	CCBP Module 3: Risk Preparedness (2008) 2nd Workshop on Risk preparedness for World Heritage (13–17 May 2013, Havana, Cuba) 1st Workshop on Risk Reduction for Cultural Heritage in the Caribbean (23–27 June 2008, Havana, Cuba)		Workshop on risk preparedness for lusophone World Heritage sites in Africa (2014)
Cultural landscape	CCBP Module 4: Management of Cultural Landscapes (2008) Workshop on Management of Cultural Landscapes, as part of the Regional Meeting on Heritage, Biodiversity and Community (October 2008, Havana, Cuba)	ICOMOS Thematic Study: Cultural Landscapes of the Pacific Islands (2007)	
Sustainable development		Round Table on Culture and Sustainable Development in Small Island Developing States (Nadi, Fiji, 9 July 2013)	
Youth		Asia Pacific World Heritage Project on Marine Biodiversity and Climate Change Awareness among Youth (7–13 April 2014, New Caledonia) *Our Pacific Heritage – The Future in Young Hands* (World Heritage in Young Hands Kit for the Pacific, 2004)	
Assistance in the preparation of nominations (including Tentative Lists)	Caribbean Training Courses in the Preparation of Nomination Dossiers 2012–2013 (5–15 June 2012, Kingston, Jamaica; 24–28 March 2013, Antigua and Barbuda) Meeting on Eastern Caribbean Coastal Fortifications (8–10 March 2014, Sint Maarten)	Pacific Islands World Heritage Workshop to build capacities in developing nominations for inscription of properties on the World Heritage List (2–7 November 2009, Maupiti, French Polynesia) Regional Workshop on Potential Themes for Serial and Transboundary Cultural World Heritage Sites in the Pacific (5–8 September 2005, Port Vila, Vanuatu)	
Site management		World Heritage Workshop on the Development of a Management Plan (7–11 April 2014, Federated States of Micronesia) 1st Regional Training Course on Heritage Management in the Pacific (17–21 February 2014, Fiji) Pacific Islands World Heritage Workshop (13–17 October 2008, Cairns, Australia): hands-on site management training, among many other topics	
Sites of Memory/Slave Route	Focus on Caribbean Training Courses in the Preparation of Nomination Dossiers 2012–2013		

Japanese Funds-in-Trust (JFiT) project on capacity-building for SIDS

Capacity-building for SIDS has been identified by the World Heritage Committee as of the utmost importance. In support of this, the Government of Japan currently finances a project to build national capacities of SIDS in support of World Heritage site conservation as a vehicle for improving the livelihoods of local communities. The project focuses exclusively on SIDS in all regions of the world. It was approved by the Japanese Government in August 2011 for the period 2011–2013 and has a total budget of US$1 million.

The overall objective of the Capacity Building to Support the Conservation of World Heritage Sites and Enhance Sustainable Development of Local Communities in Small Island Developing States project is to develop regional capacity-building programmes for Pacific and African SIDS, and to further strengthen the existing Caribbean Capacity Building Programme. For each of the three regions, i.e. Africa, Caribbean and Pacific, a different strategy is deployed due to the varying levels of implementation of the 1972 World Heritage Convention, development of institutional networks, regional needs assessments and action plans.

For the **Caribbean SIDS**, the overall objective of the activities was to strengthen professional capacities for the effective implementation of the World Heritage Convention and for the preparation and submission of nomination dossiers in order to increase the number and quality of nominations of cultural and natural sites, with a focus on Sites of Memory in the Caribbean. Two training courses were conducted in June 2012 in Jamaica and in March 2013 in Antigua and Barbuda, with a follow-up period of eight months to undertake fieldwork and to start developing nomination dossiers between the two courses with guidance by regional mentors.

For the **Pacific SIDS**, two main activities have been undertaken to build upon the requirements and challenges already identified through the Pacific World Heritage Action Plan 2010–2015, especially the need for supporting successful nominations and increasing in-country capacity at all levels, to ensure effective protection of Pacific heritage sites. Support was provided for Capacity Building for the Safeguarding of Nan Madol, Federated States of Micronesia (FSM) in the process of preparing the Tentative List and a nomination file. Three major consultation meetings took place with all stakeholders, especially local communities, and many related activities were undertaken including a study visit to other World Heritage sites, the preparation of a map, and the development of a management plan.

To increase in-country capacity, three National Capacity Building Workshops for World Heritage were organized in Polynesia. Compared with the other two regions in the Pacific (Melanesia and Micronesia), Polynesia has started the World Heritage process and related activities rather late, so there is no World Heritage site in this region yet. The workshop for Tonga (February 2012) aimed to advance the preparation of a first nomination file. Both Cook Islands and Niue have not yet submitted their Tentative Lists, thus the main aim of the workshops in March 2013 was to develop their Tentative Lists, as well as to build capacity of the authorities and various stakeholders in topics relating to the implementation of the 1972 World Heritage Convention, the 1994 Global Strategy with an emphasis on SIDS, the making of an inventory of cultural and natural heritage sites, and how to develop nominations to the World Heritage List.

The **African SIDS** comprise Cabo Verde, Guinea Bissau and Sao Tome and Principe in the Atlantic Ocean as well as the Comoros, Seychelles and Mauritius in the Indian Ocean. The strategy for them involves the identification of the specific needs of each of the individual States Parties, as well as the requirements and challenges already recognized at international level through the African Periodic Reporting exercise. Overall for the Africa region, stronger cooperation among SIDS and connection to other regions is aimed for.

In May 2012, a subregional capacity-building workshop for **Indian Ocean SIDS** (including the Comoros, Mauritius, Seychelles and Maldives, as well as Madagascar as an associated partner), was organized in Seychelles to enhance their capacities to integrate World Heritage site management within the sustainable development of local communities.

For **Atlantic Ocean SIDS**, two national workshops have been scheduled to discuss the most urgent and relevant issues on World Heritage for Cabo Verde and Sao Tome and Principe. In the case of Cabo Verde, 2012 was the

final year of the current Management Plan (2008–2012) of Cidade Velha, Historic Centre of Ribeira Grande, inscribed on the World Heritage List in 2009 as the State Party's first nomination. The main objective of the workshop, which took place in November 2012, was to develop a 'roadmap' for the new Management Plan of Cidade Velha (2013–2017). The workshop in Sao Tome and Principe (October 2013) aimed to identify potential sites to include on their Tentative List. This workshop was facilitated by experts from Angola and Cabo Verde, which strengthened the cooperation among Portuguese-speaking African countries and SIDS–SIDS in the Atlantic Ocean.

Table 3 gives an overview of activities organized and implemented in the various regions under the JFiT project.

Nine capacity-building workshops (three regional and six national) were organized in 2012 and 2013. Over 350 participants from twenty-two States Parties to the World Heritage Convention and five Overseas Territories attended the workshop. It is worth noting that SIDS–SIDS, South–South cooperation was encouraged and benefited. Special attention was paid to ensure balanced representation of women and men among participants and trainers.

In the Caribbean, two States Parties (Grenada, Saint Vincent and the Grenadines) have updated their Tentative List, and three draft nominations of sites discussed at the training courses were submitted to the World Heritage Centre for voluntary submission in 2013. Although the current phase of the project under the Japanese Funds-in-Trust ended in 2013, the Caribbean States Parties called for continuous capacity-building activities and Sint Maarten generously offered financial support to host a follow-up capacity-building workshop, which took place in May 2014. Eight years of the Caribbean Capacity

Table 3. Activities under the Japanese Funds-in-Trust project

	Activities	Outcomes
Atlantic and Indian Ocean	Capacity Building Workshop on Enhancing the capacities of Indian Ocean SIDS in integrating World Heritage site management with the sustainable development of local communities (30 April–3 May 2012, Victoria, Seychelles)	1st subregional Action Plan for Atlantic and Indian Ocean SIDS established
	Workshop on the Management Plan for Cidade Velha, Cabo Verde (20–21 November 2012, Cidade Velha, Cabo Verde)	'Roadmap' for the new Management Plan of Cidade Velha (2013-2017) prepared
	World Heritage National Capacity Building Workshop for Sao Tome and Principe (8–12 October 2013, Sao Tome)	Tentative List of Sao Tome and Principe in preparation
Caribbean	Caribbean Training Courses in the Preparation of Nomination Dossiers 2012–2013 (5–15 June 2012, Kingston, Jamaica) Follow-up Caribbean Training Courses in the Preparation of Nomination Dossiers 2012-2013 (24–28 March 2013, Antigua and Barbuda)	Two States Parties updated the Tentative Lists, three Draft nominations submitted for review
Pacific	World Heritage National Capacity Building Workshop for Tonga (20–24 February 2012, Nuku'ualofa, Tonga)	Stakeholder workshop to prepare the nomination file is scheduled in 2014, and technical team established
	World Heritage National Capacity Building Workshop for Niue (5–7 March 2013, Alofi, Niue)	Draft Outline for a Strategy in World Heritage for Niue
	World Heritage National Capacity Building Workshop for Cook Islands (11–14 March 2013, Rarotinga, Cook Islands)	Draft Outline of the list of possible sites for Tentative List and its values for Cook Islands
	Capacity Building for the Safeguarding of Nan Madol, Federated States of Micronesia (2011–2014)	Final Draft nomination file of Nan Madol is in preparation

Building Programme was evaluated and the result was published in 2014.[4] The next phase of the strategy for the Caribbean Capacity Building and the Caribbean Action Plan will be discussed in late 2014 as part of the follow-up to the Periodic Reporting exercise for Latin America and the Caribbean.

For the Indian Ocean, the subregional meeting resulted in the first Action Plan for Indian Ocean SIDS, which will serve to mobilize partners and funds, and develop individual programmes for implementation. For the Atlantic Ocean, a new fund is granted to organize a workshop in 2014 to discuss the management of Cidade Velha by using the Historic Urban Landscape approach.

For the Pacific, the Tonga World Heritage Action Plan 2010–2015 was formulated and agreed by participants to advance the inscription of Tonga's first World Heritage property. The main outcomes of the workshop in Niue was that participants agreed on the Cultural Landscape approach for the possible World Heritage nomination and developed a Draft Outline for a Strategy in World Heritage for Niue, to be recommended for integration into the Outline for a Strategy into the National Integrated Plan (2014–2018).

The workshop for Cook Islands outlined the list of possible sites for the Tentative List and its values, and the Action Plan for Cook Islands was developed to facilitate the identification of the necessary actions and to agree its players and timeframe. The workshop received representatives from French Polynesia calling for a possible transnational serial nomination of Marae Taputaputea (sacred meeting place). All agreed that sites strongly connect culture and identity in the Pacific and need further cooperation, not only between French Polynesia and Cook Islands, but also among Pacific Islands.

Various follow-up activities have been initiated based on the JFiT project, such as a new fund to support the preparation of a nomination file for Tonga, while a nomination file for Nan Madol is under finalization. This nomination is long awaited by locals and many professionals, and a growing number of experts have been providing technical

4 *World Heritage in the Caribbean*, 2014, Havana, Cuba, UNESCO Regional Office for Culture in Latin America and the Caribbean. (Culture & Development, No.11),

© UNESCO

Figure 5. Participants at the Caribbean Training Courses in the Preparation of Nomination Dossiers 2012–2013 in Kingston (Jamaica).

© Ziva Domingos

Figure 6. Group work at the World Heritage National Capacity-Building Workshop for Sao Tome and Principe.

© UNESCO/S.Haraguchi

Figure 7. Field visit during the World Heritage National Capacity Building Workshop for Niue.

expertise and supporting the nomination. A regional and international network for collaboration has been established. The Pacific Heritage Hub (PHH) acted on a reference to Pacific activities by the World Heritage Centre, and is following up to further strengthen national and regional capacity-building activities.

The capacity-building activities to support the conservation of World Heritage sites need to be continued, which will contribute to enhancing sustainable development of local communities in Small Island Developing States.

SIDS strategy recommendations

In an interview published in *World Heritage* No. 66 (February 2013), Alissandra Cummins, Chair of UNESCO Executive Board (2011–2013) suggests the following recommendations for a comprehensive SIDS strategy:

> *There is a profound need to reconceive the spatial and linguistic boundaries of colonial and early national histories which have served to circumscribe the values attributed to SIDS in a World Heritage context … Other recommendations for the deepened and improved involvement of SIDS in the future include:*
>
> - *Deeper analysis of these vulnerabilities in order to comprehensively address the needs of SIDS in the context of World Heritage, so as to enable them to fully participate in the Convention.*
> - *In the context of natural/mixed sites – challenging and revisiting the expectation for both site boundaries and buffer zones, which are sometimes prohibitive given the size and scale of sites in SIDS, where in fact the entirety of the landmass might be considered as the site.*
> - *Developing appropriate strategies and methodologies which acknowledge the inextricable linkages between tangible and intangible as a viable basis for Outstanding Universal Value.*
> - *Recognizing the seascape not just as a natural boundary but as having the potential to represent cultural heritage values for SIDS, not just natural values, and articulating this within the existing criteria for inscription on the World Heritage List.*
> - *Acknowledging the importance and value which fugitive/migratory/contingent human experience in SIDS may provide to the World Heritage community.*
> - *Empowering and encouraging intra-regional dialogue and cooperation in the conception of innovative approaches to the World Heritage Convention, rather than accepting interpretations based solely on current geopolitical contexts.*
>
> *These are proposed as a strategic vision and framework for implementation within the Convention on the occasion of the 20th anniversary of the Barbados Plan of Action in 2014.*

As Khalissa Ikhlef explains in 'UNESCO's SIDS agenda: from Barbados via Mauritius to Samoa', the 2014 Samoa meeting will look at and discuss several of the above strategy actions which will be the future reference of the World Heritage strategy for SIDS.

Conclusion

The progress report on the Implementation of the World Heritage Programme for Small Island Developing States[5] concludes that 'SIDS share similar interests and concerns, such as marine and coastal management, impacts of climate change, issues of sustainable development. Sharing information and experiences between the different regions is key to an improved implementation of the Convention. Ways of improving communication with access to information is a key to include all SIDS in the World Heritage network'.

Since its inception and subsequent adoption in 2005, the World Heritage Programme for SIDS has been striving to facilitate communication and information exchange between SIDS across the different regions with the support of various governments, including those of Andorra, Australia, France, Italy, Japan, the Netherlands and New Zealand. In particular the Japanese Funds-in-Trust has been supporting this vision during the past two years, including this publication. With the continued support of UNESCO and its Member States, the World Heritage Programme for SIDS aims to continue initiating and facilitating World

5 Report on the implementation of the World Heritage Programme for SIDS, WHC-09/33.COM/5B. http://whc.unesco.org/document/102017

Heritage-related activities in SIDS and to provide support in the post-2014 Samoa–SIDS agenda.

The following sections of this publication present thematic issues common to all SIDS, with the aim of creating cultural linkages across regions.

SIDS are particularly vulnerable to climate change, climate variability and sea-level rise. As it is a crucial theme for SIDS, climate change and disaster risk management is one of the priority areas for the multi-stakeholder partnership dialogues at the 2014 Samoa meeting. 'From small islands to big oceans – vulnerability and resilience in the face of climate change' by Jennifer T. Rubis and Douglas Nakashima, provides an overview of the climate change agenda for SIDS and UNESCO's work on climate change and indigenous knowledge.

SIDS are exposed to high levels of disaster risks. Rohit Jigyasu looks at the importance of relationships between resilience, vulnerability and adaptation of SIDS in risk management with their special characteristics, challenges and needs in 'Reducing disaster risks and building resilience in Small Island Developing States', which is closely linked to the contribution by Rubis and Nakashima.

The World Heritage Marine Programme is one of the thematic programmes approved by the World Heritage Committee. 'Small Island Developing States, big ocean nations – advantages of being part of the World Heritage network for marine sites' by Sara Willems and Fanny Douvere, introduces stories of marine World Heritage in SIDS to attract important international support, both for financial and technical capacities.

Anita Smith explains in 'Cultural landscapes in the Pacific Islands: the 2007 ICOMOS thematic study' the category and characteristic of cultural landscape in the Pacific Islands. The study has been used for the identification of heritage and the preparation of nomination files in Pacific States Parties, which has resulted in the successful inscription of several World Heritage properties in the region.

Identifying heritage sites related to slave trade and slavery, which is a cross-regional theme, is a means of keeping alive the memory of those dark pages in human history. Alvin O. Thompson reveals in 'Sites of Memory: contributions of enslaved Africans to the built heritage of the Caribbean' the critical role the slave played in the early development of all the Caribbean countries and a rich heritage on the colonial landscape.

'Implementing sustainable tourism in complex situations: case study of Minami-jima in Ogasawara Islands' by Toshinori Tanaka looks at the overlapping institutions, weak authority and lack of resources which are common in SIDS. He shows the example of the management of tourism for the World Heritage site of Ogasawara Islands and how local governments took initiatives to implement a sustainable tourism scheme at the local level.

'World Heritage and Small Island Developing States: land management and community involvement' by Merata Kawharu and Karen L. Nero explains 'Communities', one of the five Strategic Objectives[6] for the implementation of the World Heritage Convention. The authors also contribute to understanding land management in small Pacific Island states with a close look at two World Heritage sites: East Rennell (Solomon Islands) and Rock Islands Southern Lagoon (Palau).

Last but not least, capacity-building activities in SIDS are needed at all levels in all areas. Capacity-building for the conservation of heritage resources refers to the processes of developing and strengthening the skills, attitudes, abilities, processes and resources that organizations need in order to meet the challenges in this field. On the whole, capacity-building can be understood to be more than training and research, although integrating both.

Note on gender

SIDS share common characteristics, such as small populations, remoteness and inaccessibility, and high vulnerability to natural disasters. Gender roles and responsibilities result in differential exposure to disaster and its impact. But gender relations also come into play in the transmission of cultural knowledge and skills, the protection and safeguarding of heritage, and the emergence and strengthening of vibrant cultural and creative sectors. It is important that SIDS are gender-aware, ensuring that women and men have an equal voice in decision-making and equal access to the necessary resources.

6 Adopted at the 26th session of the World Heritage Committee in 2002 for the 4 Cs (Credibility, Conservation, Capacity-Building, Communication) and at the 31st session in 2007 for Communities.

Thematic papers

© UNESCO/S.Haraguchi

Cidade Velha, Historic Centre of Ribeira Grande, Cabo Verde.

From small islands to big oceans – vulnerability and resilience in the face of climate change

Jennifer T. Rubis and Douglas Nakashima
Small Islands and Indigenous Knowledge Section, UNESCO

Introduction

Inundated islands, fragile communities and dwindling resources are common images of the impact of climate change on Small Island Developing States (SIDS). Scientific assessments emphasize, for the most part, the extreme vulnerability of small island communities and nations to the impacts of global climate change. These communities and nations have however long been faced with environmental uncertainty and resource limitations, and are often exposed to severe weather hazards. While not disputing their vulnerability, perspectives of community strength and resilience are also being incorporated into discussions surrounding climate change and SIDS. Indeed the important role of community in climate change response resonates strongly with the World Heritage Committee's recent designation of the '5th C' for 'Communities'. Just as the protection and conservation of heritage without community is 'an invitation to failure' (UNESCO, 2007, p. 2), the exclusion of communities from climate change debates will reduce the effectiveness of efforts to mitigate and adapt. Knowledge of island communities provides valuable insights into how climate change action can be made effective and meaningful for those on the frontlines of change.

Small island vulnerabilities in the face of global climate change

Small island countries share a number of vulnerabilities. Their limited size, in terms of land mass, economy and population, and their geographic remoteness, isolation and narrow resource base, render them vulnerable to external shocks (UN General Assembly, 2010).

These threats are being exacerbated by global climate change. In the Fourth Assessment Report on climate change impacts, adaptation and vulnerability, the Intergovernmental Panel on Climate Change (IPCC) found that small islands were especially vulnerable to rising sea levels and the predicted increase in the frequency and intensity of extreme weather events, such as cyclones. Sea-level rise is expected to be accompanied by increased damage from inundations, storm surges and erosion.

The already limited freshwater supply of small islands is expected to be further compromised by climate change, both from changing rainfall patterns and the salinization of existing water supplies due to saltwater intrusion and wave overwash. For example in Kiribati, a projected 10 per cent decrease in average rainfall by 2050 is expected to lead to a 20 per cent reduction in the size of the freshwater lens on Tarawa Atoll (Parry et al., 2007). In addition to this decrease in freshwater resources with its resultant impact on island agriculture, climate change is also expected to negatively affect the coral reefs and marine resources upon which many island livelihoods depend. Other consequences of climate chance may include increases in invasive alien species, as well as infectious diseases, including dengue fever, malaria and cholera.

Figure 1. Aerial view of Tuvalu.

In 2009 at the Indigenous Peoples' Global Summit on Climate Change, Fiu Elisara from Samoa reported on these and other impacts: 'destruction of coal reefs and sea ecosystems on which the livelihoods of the islanders depend from warming oceans; increased droughts or flooding due to changes in rainfall patterns; increases in dengue fever and diarrhea outbreaks; loss of food sources

(sugarcane, yams, taro, cassava and banana plantations) from extreme temperatures, changes in the seasons and severity of rainfall; and loss of drinkable water through changes in rainfall, sea-level rise and inundation by sea water' (Report of Indigenous Peoples' Global Summit on Climate Change, 2009, p. 28).

The accelerated degradation of coral reef ecosystems from climate change is brought about by multiple factors including changes in mean environmental conditions and an increased frequency of extreme weather events. These changes in turn could impact productivity of reef-fisheries, as well as tourism-dependent livelihoods (Cinner et al., 2013). In 2004, local NGOs concerned by coral bleaching filed a petition asking the World Heritage Committee to add the Belize Barrier Reef to the List of World Heritage in Danger. Impacts of reef degradation on the community include not only reductions in small-scale fisheries, but also reduced coastal protection from sea surges.

In many island communities both men and women fish, however, they do so in different places using different techniques. For example, women in many islands in the Pacific harvest the reefs through gleaning for fish, shellfish and other marine products during the low tide (Vunisea, 2007). Projected negative changes to the reef systems may have greater impacts on women's harvests and sources of income and hamper household food security (FAO, 2008). As it is during these harvesting activities that older women share their traditional knowledge of the reef and its marine inhabitants with young women (Gereva and Vuki, 2010) these impacts can also undermine knowledge transmission and weaken a society's ties to the environment.

Island governments, which are catalogued as among the most vulnerable to the impacts of global climate change, are making efforts to mobilize support. In 1989, the delegations to the Small States Conference on Sea Level Rise adopted the Male' Declaration on Global Warming and Sea Level Rise held in Male' (Maldives) that, among other factors, recognized the threat of sea-level rise to low-lying, small coastal and island states and called for a continuing dialogue between small island states and 'the rest of the world' (Male' Declaration, 1989, p. 2). Since the creation in 1991 of the Alliance of Small Island States (AOSIS), small island nations and low-lying coastal countries have been actively advocating for urgent and decisive action on climate change. In September 2013, the leaders of the 44th Pacific Islands Forum held in Majuro (Marshall Islands) issued the Majuro Declaration for Climate Leadership, calling for the 'urgent reduction and phase down of greenhouse gas pollution' and emphasizing the need to 'prepare for and adapt to the intensifying impacts of climate change, and to further develop and implement policies, strategies and legislative frameworks, with support where necessary, to climate-proof our essential physical infrastructure, adapt our key economic sectors and ensure climate-resilient sustainable development for present and future generations' (Majuro Declaration, 2013, p. 2).

Tuvalu has long championed urgent action on climate change. During the 2009 climate change negotiations, it submitted a protocol that would have imposed deeper, legally binding cuts on developing as well as developed nations. Faced with opposition from larger states, the Tuvaluan negotiator Ian Fry refused to support the final agreement, referring to it as 'thirty pieces of silver to betray our future and our people' (Khor, 2009, p. 3). In 2009, the then President of Maldives, Mohamed Nasheed, held an underwater cabinet meeting to call attention to the dismal future of islands in the face of sea-level rise. He later starred in *The Island President*, a documentary on the same theme. And as the negotiations surrounding the plans for a 2012 climate treaty were about to break down due to lack of consensus, it was a negotiator for Papua New Guinea, Kevin Conrad, who faced up to the United States thus: '… there is an old saying: "If you're not willing to lead, then get out of the way"… I would ask the United States: We ask for your leadership. We seek your leadership. But, if for some reason you're not willing to lead, leave it to the rest of us. Please, get out of the way.' (Kanal von videoarchitekt, 2007). SIDS leaders and governments are speaking out to draw attention to the high risk that many island nations face. They demand global action on climate change.

Changing perspectives and images of island states

At the same time that they acknowledge their vulnerabilities and limitations, island nations are also asserting that they are much more than just small, bounded land masses. In a landmark essay, 'Our sea of islands', writer and anthropologist Epeli Hau'ofa of Tonga and Fiji challenged the image of islands as small, isolated and resource poor. He reconceptualized islands as being connected, rather than separated by the ocean. Furthermore, he argued:

'The idea that the countries of Polynesia and Micronesia are too small, too poor, and too isolated to develop any meaningful degree of autonomy is an economistic and geographic deterministic view of a very narrow kind that overlooks culture, history and the contemporary process of what may be called world enlargement that is carried out by tens of thousands of ordinary Pacific Islanders right across the ocean – from east to west and north to south, under the very noses of academic and consultancy experts, regional and international development agencies, bureaucratic planners and their advisers, and customs and immigration officials – making nonsense of all national and economic boundaries, borders that have been defined only recently, crisscrossing an ocean that had been boundless for ages before Captain Cook's apotheosis' (Hau'ofa 1994, p. 151).

In outlining the theme for the 43rd Pacific Islands Forum, Prime Minister Henry Puna of the Cook Islands challenged fellow states to break free from the stereotype of a small island. The separation of land from ocean, he wrote, 'is not how [our ancestors] perceived their world; it is not how they delimited their domains of influence; it does not portray the marine realm at all or the connection between our peoples and the entirety of the environment' (Puna, 2012, p. 1). Similarly Davidson Hepburn, Bahamas representative and President of UNESCO's 35th General Conference, depicted islands as 'venues for encounters between different cultures. Rather than separating them, the ocean as the medium for voyaging has served to connect islands with each other as well as with the continents' (UNESCO, 2011, p. 4).

These emerging self-images of islands by islanders are crucial to understand and foster appropriate decision-making. Media images of Tuvaluans as climate refugees are not in agreement with the manner in which Tuvaluans themselves view migration – as 'a collectively negotiated means of participation in transnational networks, a way to meet family obligations and desires', while Farbotko and Lazrus (2012) conclude that a more accurately framed debate about sea-level rise and relocation would need to take into account the 'emotions, values, mobilities and spaces' of islanders.

In 2013 at the 37th General Conference of UNESCO, Magele Mauiliu Magele, Minister of Education, Sports and Culture of Samoa, advocated in his plenary statement the use of the acronym BOSS for 'Big Ocean Sustainable States'. Indeed, several island states argue that across the UN system the term 'SIDS' should be replaced by 'BOSS' in order to reverse current stereotypes about island capacities and needs. The ministers of Vanuatu and the Solomon Islands made their position clear: 'we want to be the BOSS of the Pacific – which is after all our Ocean' (quoted in *Samoa Observer*, 2013).

Recognizing endogenous capacities for climate change adaptation

These changing paradigms recognize that island nations are not only vulnerable, but also resilient. They count on external support but also rely on their endogenous capacities. Support for this shift in perspective was also forthcoming from the recently released Fifth Assessment Report (5AR) of the IPCC. The 5AR concludes 'that involvement of local people and their local, traditional, or indigenous forms of knowledge in decision-making is critical for ensuring human security'. Furthermore, it states that 'traditional knowledge contributes to mitigating the impact of natural disasters, … and developing sustainable adaptation and mitigation strategies'. Similarly, in 2013, the UN Framework Convention on Climate Change recognized the importance of 'indigenous and traditional knowledge and practices' and proposed to undertake a stream of work to develop recommendations on the 'use of indigenous and traditional knowledge and practices for adaptation.' In sum, the local and indigenous knowledge possessed by island peoples and communities is increasingly recognized as a valuable source of resilience in the face of global climate change.

Long before the complexities of development goals and the emergence of human-accelerated climate change, island peoples had developed their own modalities to cope with natural hazards and the limitations of their resource base. Resourcefulness and innovation have provided islanders with the means to adapt to the many challenges that surround them. Indigenous observations and interpretations of meteorological phenomena have guided the seasonal and inter-annual activities of local communities for millennia. Today, this indigenous knowledge complements climate science by offering observations and interpretations at a much finer spatial scale and with considerable temporal depth (Nakashima et al., 2012).

Often construed as belonging to the domain of culture – and perhaps for that reason not central to small-island climate change adaptation planning – islander knowledge systems have been marginalized in adaptation decision-making. Commenting on the role of cultural practices and values in determining adaptive responses to environmental change, Kuruppu notes for the Marshall Islands in the central Pacific that 'recent scholarship on climate adaptation has overlooked the influential role of cultural values in structuring people's adaptive capacity' (2009, p. 800). In a review of climate change publications and projects on SIDS, Kelman and West suggest certain characteristics of island communities are particularly useful in coping with climate change including 'tight kinship networks, unique heritage, strong sense of identity and community, creativity for sustainable livelihoods, remittances from islander diasporas supporting life on SIDS, and local knowledge and experience of dealing with environmental and social changes throughout history (Kelman and West, 2009, p. 2).

These emerging observations recognize the key role of culture and of indigenous knowledge in climate policies and programmes. They draw attention to the adaptation capacities that are anchored within island societies and the knowledge, strategies and experience that island peoples themselves bring to the growing challenge of climate change adaptation.

UNESCO's work on climate change and indigenous knowledge

In 2009, amidst growing concern that local and indigenous voices, including those from SIDS, were not being reflected in ongoing climate change negotiations, UNESCO began what would become a multi-scale project

called Climate Frontlines. Together with the secretariats of the UN Permanent Forum on Indigenous Issues, the Convention on Biological Diversity and the Office of the High Commission on Human Rights, and with the support of the Government of Denmark, UNESCO started an online forum called On the Frontlines of Climate Change. To highlight the challenges faced by these communities, the forum reached out to over 60,000 people on topics including Early Impacts on the Frontlines of Climate Change, Forecasting and Coping based on things seen and heard, and REDD+.

To further support community discussions on these issues, Climate Frontlines started a community-based research project facility that provided support for small community activities and discussions. The first call for proposals, which attracted over 3,500 applications, revealed the wide interest of indigenous peoples and local communities in discussing, educating and learning about climate change. Selected projects included fishing communities from Cabo Verde, remote villages in the Solomon Islands, hunters from Greenland, and transhumance pastoralists of the Andes and Nepal. These projects demonstrated, through the knowledge and experiences of local communities, the complex nature of climate change impacts and the subtle interlinkages between the vulnerability of communities and their inherent resilience.

© Lawrence Nodua, courtesy of UNESCO's Climate Frontlines project, 2009

Figure 2. A villager in Tuo (Solomon Islands) points out erosion of the shoreline and its current proximity to the village.

To support the inclusion of indigenous knowledge systems in climate change assessment and policy, Climate Frontlines partners with other UN agencies, scientists, indigenous peoples and local communities to host international and regional transdisciplinary expert meetings and publications. For example, Nakashima et al., (2012), in *Weathering Uncertainty: Traditional Knowledge for Climate Change Assessment and Adaptation*, provide an overview of some key aspects of indigenous knowledge (see Box 1).

Box 1. Weathering uncertainty: key findings in relation to small islands

1. Small island societies have lived for generations with considerable and often sudden environmental change. The traditional knowledge and related practice with which small island societies have adapted to such change are of global relevance.

2. Areas in which small island societies have developed adaptation-relevant traditional knowledge include natural disaster preparedness, risk reduction, food production systems and weather forecasting.

3. In many small island contexts, the transmission and application of traditional knowledge is under threat from changes in consumption and migration patterns, as well as from the lack of recognition of traditional knowledge in the formal education system (Nakashima et al., 2012, p. 88).

Islander knowledge for climate change adaptation

There is increasing international interest in how indigenous knowledge can inform climate change decision-making. As international climate policy underlines the need to accelerate programmes and interventions on climate change adaptation, a dialogue is needed to bridge the gap between national policies based on scientific understanding, and local knowledge and needs. In the small island context, two areas are particularly relevant: the first in relation to food production, and the second in relation to weather/seasonal observations and predictions.

Food production

Understanding local knowledge around food production and sustainable livelihoods is relevant to climate change policy. Policies that take local food production and livelihoods into account can enhance the resilience of local communities, while negative policies run the risk of increasing vulnerability. This is all the more evident in small island systems where the limited availability of natural resources has encouraged the development of customary management regimes to regulate access to agricultural and marine resources, including their harvest, storage and distribution. Embedded in both customary law and society, these regimes are still evident in many island communities. Indeed, they have served as the foundation for a growing network of Locally Managed Marine Areas (LLMAs).

Small-scale tropical fisheries are subject to customary ownership with associated rights that allow for the regulation of entry and resource use by outsiders (Ruddle and Hickey, 2008). Customary marine tenure provides the legal and cultural foundation for many traditional marine management practices, particularly in the Pacific where such systems are well developed (Cinner, 2005). Due to their long history of coastal resource use, tropical nearshore fishers possess a profound local knowledge of their tenured waters, which is put to good use to enhance fishing and manage resources (Johannes, 1981; Ruddle and Hickey, 2008).

In Palau, the no-fishing area or *bul* can be enforced to close an area of reef to harvesting during periods of fish spawning (Vierros et al., 2010), while in Vanuatu these areas can be enforced as part of a range of customary practices that include, depending on the cultural group, the ordination or death of a traditional leader, death of a clan member, grade-taking rituals, or as part of agricultural and ritualized exchange cycles (Hickey, 2006, 2007). The support of such local practices allows fishing communities to establish food reserves and increase resilience in times of environmental uncertainty.

Similarly, island ecologies can be modified by both men and women in a way that enhances food production and resilience, while maintaining ecological equilibrium. Early inhabitants of Yap in the north-western Pacific, for example, have transformed the species composition of various habitats, but maintained their ecological function: 'Agroforests buffer rainfall and stabilize and develop soil as do natural forests, taro patches and swamps function as silt traps, and mangroves provide a source of wood and nearshore areas for fishing and shellfish gathering, while continuing to perform their buffering, filtering and fish nursery functions' (Falanruw, 1989). These sustainable agro-ecosystems included a diversity of crops such as drought-withstanding yams, water-logging resistant taro and the banana that could be quickly replanted. Fragmentation of land holdings was also described as a way to reduce vulnerability (Campbell, 2009).

In response to extreme weather events such as a cyclone, Polynesian island communities may take steps to ensure a continuous food supply – including the use of food preservation (Veitayaki, 2002), planting fast-maturing crops and reliance on inter-island networks and clan members (Rasmussen et al., 2009). In Vanuatu, women can preserve cassava for a week by mixing it with coconut cream and drying it over stones (McNamara and Prasad, 2013).

Seasonal calendars and weather forecasting

Knowledge of weather and climate, including community response to predicted and unpredicted meteorological and climatic events, provides another area where indigenous knowledge is of relevance to discussions around climate change. Traditional cycles of activity based on inter-annual, seasonal and astronomical calendars that take into account observations concerning plants, animals and weather, provide information and tools relevant to climate change issues today.

The combination of these different inputs contribute to a sophisticated set of decision-making tools that help to determine the timing of economic activities such as the planting and harvesting of foods, as well as cultural and other events. These seasonal or traditional calendars provide small island communities with a way to catalogue, interpret and respond to shifts in weather and knowledge with short- and medium-term forecasts and to accordingly organize their activities related to livelihoods and food-production. In this way, they can communicate to decision-makers the key observed indicators of change occurring on a local scale, as well as how this knowledge influences the strategic planning of local communities. Long-term studies of Pacific Islanders' knowledge of the weather, including their ability to predict the onset of extreme weather events, for example, can be useful to advance understanding of weather, climate and climate change in the region (Lefale, 2010).

In Cabo Verde the lunar calendar provides local artisanal fishermen, first, with a way to decide where to fish – for example, during the new moon, they prefer to fish in the northern grounds, during the half moon in the south and back to the north on a full moon. Second, observing the moon allows them to forecast the weather – 'If there is a green circle around moon, weather will be fresh and rainy; if it is white one, it will be windy' (Ilic in IPMPCC, 2011).

Traditional calendars may vary even among closely associated communities. In Tuvalu, whereas many traditional calendars recognize a cyclone and dry season, on the island of Vaitupu in central Tuvalu the year is divided into three seasons: the cyclone season, the drought season and a spring season 'when fish is plentiful and gardens bear fruits' (Resture in IPMPCC, 2011).

A traditional calendar may also span multiple years, as in the Torres Islands where there may be a 'certain synchronization of ENSO-related (7- to 8-year) periods of drought and above-average rainfall which lead to increased food production which itself is connected to ceremonial feasting' (Damon and Mondragon in IPMPCC, 2011).

At a Climate Frontlines 2013 expert meeting, *Te hurihuri o te Ao: cycles of change. Traditional calendars for informing climate change policies*, participants from Pacific Island communities, Maori researchers and climate experts came together to discuss the diverse range of calendars and observations relating to climate change. The regional conference allowed the collective sharing of local experiences, providing the different experts with collective discussions about 'the form and expression of Islander knowledges – a sort of clustering that carries more weight than single case studies … [that] may allow indigenous knowledge to be presented to policy makers and scientists on indigenous peoples' terms' (UNESCO, forthcoming).

While recognition has increased on the role of indigenous knowledge in climate change assessment and adaptation, much work remains on how this can be done in an effective and appropriate way. For example, a community's understanding of a seasonal cycle may span multiple years and months may not correspond to a typical calendar.

'The start of a season may change from month to month in a given year as it may be tied to specific events, for example the flowering of certain trees or other changes in the landscape. Because of the numerous factors that may actually contribute to a community's observation of the seasonal cycle, including spiritual messages, detailing a calendar depends as much upon the community discovering for itself how its own observations come together into understanding a 'forecast' or a shift in the season, as it does on the facilitator's ability to be able to enumerate the types of event that may occur on a repeated or seasonal basis' (UNFCCC, 2013).

Conclusion

The impacts brought about by climate change in SIDS are predicted to be considerable. While SIDS are highly vulnerable, island communities also possess endogenous capacities to respond to these challenges. They have been coping with environmental variability and unpredictability for millennia. Their locally-adapted knowledge can complement science in providing a solid foundation for resilience in the face of change. The work, however, of bringing together indigenous knowledge and science to inform decision-making is still at a nascent stage.

© UNESCO/Hans Thulstrup

Figure 3. Community members preparing to patrol Utwe Biosphere Reserve (predominantly community-managed mangrove forest) by canoe on the island of Kosrae (Federated States of Micronesia).

References

Campbell, J. 2009. Islandness: vulnerability and resilience in Oceania. *Shima: The International Journal of Research into Island Cultures*, No. 3, pp. 85–97.

Cinner, J. 2005. Socioeconomic factors influencing customary marine tenure in the Indo-Pacific. *Ecology and Society*, Vol. 10, No 1, p. 36.

Cinner, J. E., Huchery, C., Darling, E. S., Humphries, A. T., Graham, N. A. J. et al. 2013. *Evaluating Social and Ecological Vulnerability of Coral Reef Fisheries to Climate Change*. PLoS ONE, Vol. 8, No. 9, e74321. doi:10.1371/journal.pone.0074321.

Falanruw, M. C. V. 1989. Nature intensive agriculture: the food production system of the Yap Islands. In R. E. Johannes (ed.), *Traditional Ecological Knowledge: A Collection of Essays*. Gland, Switzerland, International Union for Conservation of Nature, pp. 43–50.

FAO. 2008. *Climate Change and Food Security in Pacific Island Countries*. Rome, Food and Agriculture Organization.

Farbotko, C. and Lazrus, H. 2012. The first climate refugees? Contesting global narratives of climate change in Tuvalu. *Global Environmental Change*, Vol. 22, No. 2, pp. 382–90.

Gereva, S. and Vuki, V. 2010. Women's fishing activities on Aniwa Island, Tafea Province, South Vanuatu. *SPC Women in Fisheries Information Bulletin*, No. 21. Noumea, Secretariat of the Pacific Community, pp. 17–22.

Hau'ofa, E. 1994. Our sea of islands. *The Contemporary Pacific*, Vol. 6, No. 1, pp. 147–61.

Hickey, F. R. 2006. Traditional marine resource management in Vanuatu: acknowledging, supporting and strengthening indigenous management systems. *SPC Traditional Marine Resource Management and Knowledge Information Bulletin*, No. 20, pp. 11–23. www.spc.int/DigitalLibrary/Doc/FAME/InfoBull/TRAD/20/TRAD20.pdf

————— . 2007. Traditional marine resource management in Vanuatu: world views in transformation. In N. Haggan, B. Neis, and I. G. Baird (eds.), *Fishers' Knowledge in Fisheries Science and Management*. Paris, UNESCO Publishing, pp. 147–68. (Coastal Management Sourcebooks, 4)

IPMPCC (Indigenous Peoples, Marginalized Populations and Climate Change). 2011. Workshop report of Indigenous Peoples, Marginalized Populations and Climate Change: Vulnerability, Adaptation and Traditional Knowledge, 19–21 July 2011, Mexico City, Mexico. www.ipmpcc.org/reports/

Johannes, J. E. 1981. *Words of the Lagoon: Fishing and Marine Lore in the Palau District of Micronesia*. Berkeley, Calif., University Of California Press.

Kanal von videoarchitekt. 2007. Moment of the 'Bali break through' [online video]. 15 December. https://www.youtube.com/watch?v=F-G1v--DONM

Kelman, I. and West, J. 2009. Climate change and Small Island Developing States: a critical review. *Ecological and Environmental Anthropology*, Vol. 5, No. 1, pp. 1–16.

Khor, M. 2009. Copenhagen ends by only 'noting' an accord after much wrangling. *TWN Copenhagen News Update*. No. 23. Penang, Malaysia, Third World Network. http://www.twnside.org.sg/title2/climate/news/copenhagen01/TWN.copenhagen.up23.doc

Kuruppu, N. 2009. Adapting water resources to climate change in Kiribati: the importance of cultural values and meanings. *Environmental Science & Policy*, No. 12, pp. 799–809.

Lefale, P. F. 2010. Ua'afa le Aso Stormy weather today: traditional ecological knowledge of weather and climate. The Samoa experience. *Climatic Change*. No. 100, pp. 317-335.

Magele, M. M. 2013. The new BOSS of the Pacific. *Samoa Observer*, 22 November. http://www.samoaobserver.ws/other/environment/8143-the-new-boss-of-the-pacific

Majuro Declaration for Climate Leadership. 2013. Adopted 5 September. http://www.majurodeclaration.org/the_declaration

Male' Declaration on Global Warming and Sea Level Rise. 1989. Adopted 18 November. http://unesdoc.unesco.org/images/0009/000977/097720eb.pdf

Male' Declaration on the Human Dimension of Global Climate Change. 2007. Adopted 14 November. http://www.ciel.org/Publications/Male_Declaration_Nov07.pdf

McNamara, K. E. and Prasad, S. S. 2013. Valuing indigenous knowledge for climate change adaptation planning in Fiji and Vanuatu. *Traditional Knowledge Bulletin*. July. Darwin, Australia, United Nations University – Traditional Knowledge Initiative. (Topical Issues Series)

Nakashima, D. J., Galloway McLean, K., Thulstrup, H. D., Ramos Castillo, A. and Rubis, J. T. 2012. *Weathering Uncertainty: Traditional Knowledge for Climate Change Assessment and Adaptation*. Paris/Darwin, UNESCO/UNU.

Parry, M. L., Canziani, O. F., Palutikof, J. P., van der Linden, P. J. and Hanson, C. E. (eds). 2007. Contribution of Working Group II to the Fourth Assessment Report of the Intergovernmental Panel on Climate Change. Cambridge, UK/New York, Cambridge University Press.

Puna, H. 2012. Large ocean island states – the Pacific challenge. Opening speech of the 43rd Pacific Island Forum by the Prime Minister of the Cook Islands, 12 June.

Rasmussen, W. M., Birk, T., Mataki, M., Mertz, O. and Yee, D. 2009. Climate change on three Polynesian outliers in the Solomon Islands: impacts, vulnerability and adaptation. *Geografisk Tidsskrift–Danish Journal of Geograph*y, Vol. 109, No. 1, pp. 1–13.

Report of the Indigenous Peoples' Global Summit on Climate Change. 2009. 20–24 April 2009, Anchorage, Alaska. http://www.un.org/ga/president/63/letters/globalsummitoncc.pdf

Ruddle, K. and Hickey, F. R. 2008. Accounting for the mismanagement of tropical nearshore fisheries. *Environment, Development and Sustainability*, No. 10, pp. 565–89.

UNESCO. 2007. Proposal for a 'Fifth C' to be added to the Strategic Objectives. WHC-07/31.COM/13B.

————— . 2011. *Islands as Crossroads: Sustaining Cultural Diversity in Small Island Developing States* (ed. T. Curtis). Paris, UNESCO.

————— . Forthcoming. *Te hurihuri o te Ao: cycles of change. Traditional calendars for informing climate change policies.* Workshop report. Paris, UNESCO.

UNFCCC. 2013. Best practices and available tools for the use of indigenous and traditional knowledge and practices for adaptation, and the application of gender-sensitive approaches and tools for understanding and assessing impacts, vulnerability and adaptation to climate change. Technical Paper. FCCC/TP/2013/11. Bonn, United Nations Framework Convention on Climate Change.

UN General Assembly. 2010. Five-year review of the Mauritius Strategy for the Further Implementation of the Programme of Action for the Sustainable Development of Small Island Developing States. Report of the Secretary General. A/65/115. http://www.un.org/en/ga/search/view_doc.asp?symbol=A/65/115

Veitayaki, J. 2002. Taking advantage of indigenous knowledge: the Fiji case. *International Social Science Journal*, Vol. 54, No. 3, pp. 395–402.

Vierros, M., Tawake, A., Hickey, F., Tiraa, A. and Noa, R. 2010. *Traditional Marine Management Areas of the Pacific in the Context of National and International Law and Policy*. Darwin, Australia, United Nations University – Traditional Knowledge Initiative.

Vunisea, A. 2007. Women's changing participation in the fisheries sector in Pacific islands countries. *SPC Women in Fisheries Information Bulletin*, No. 16. Noumea, Secretariat of the Pacific Community, pp. 12–13.

Reducing disaster risks and building resilience in Small Island Developing States

Rohit Jigyasu
UNESCO Chair Professor of the Institute of Disaster Mitigation for Urban Cultural Heritage, Ritsumeikan University, Japan

A unique heritage

The small islands of the Caribbean Sea and Atlantic, Indian and Pacific Oceans, collectively known as Small Island Developing States (SIDS), are rich in natural and cultural heritage that includes a fragile ecology with rich biodiversity, archaeological sites, historic and vernacular settlements, and cultural landscapes. Some of these have been inscribed on the World Heritage List, such as Le Morne Cultural Landscape (Mauritius); Rock Islands Southern Lagoon (Palau); Phoenix Islands Protected Area (Kiribati), the largest marine protected area in the world; the Urban Historic Centre of Camagüey (Cuba), Historic Bridgetown and its Garrison (Barbados), Brimstone Hill Fortress National Park (Saint Kitts and Nevis), and most recently Levuka Historical Port Town (Fiji).[1] The ecology, culture, uniqueness and isolation of islands often generate a significant tourism industry in these small islands (Abrahams and Kelman, 2005, p. 240), while the local infrastructure is not always capable of coping with mass tourism-related activities.

© Department of National Heritage/Steve Reid

Figure 1. Levuka Historical Port Town (Fiji), inscribed 2013.

© Ko Hon Chiu Vincent

Figure 2. Le Morne Cultural Landscape (Mauritius), inscribed 2008.

Hazards and risks to the heritage of SIDS

Various environmental, technological, social and economic hazards are the source of continuing risks to the inhabitants of SIDS and their heritage. While hazard types, frequencies and intensities may vary per season and per country, no island is immune from potential disasters resulting from these hazards.

In simplified geological terms, two types of island groups exist: active ones occurring within and along tectonic plate boundaries, and passive ones located away from tectonic plate boundaries. The volcanic origin of most active islands yields volcanic and seismic activity along with associated hazards such as landslides. Events on islands or offshore can potentially lead to tsunamis. These active small islands are scattered around the Pacific Rim (among which the Philippines), the Eastern Caribbean (such as Saint Vincent and the Grenadines), and the Mediterranean Sea (such as Crete). The middle of the Atlantic Ocean (such as the Azores), the Indian Ocean (such as Reunion) and the eastern Pacific (among which Galápagos Islands) contain some active islands too (Howorth, 2005).

A few active small islands, such as Hawaii, are located within tectonic plates. These islands have therefore experienced many catastrophic events in the past, such as

1 World Heritage SIDS Programme (http://whc.unesco.org/en/sids). See also UNESCO (2009).

one of the most devastating tsunamis of the 20th century that struck Papua New Guinea in 1998, killing more than 2,000 people. The most lethal volcanic eruption of the last century killed approximately 28,000 people on Martinique, when Mount Pelee erupted in 1902 (Kelman et al., 2009).

Weather-related events, which contribute to river and coastal flooding, landslides, drought and fires, are other significant risks for SIDS. Tropical cyclones may cause severe impacts, as seen during the 2004 Caribbean hurricane season. The high topography of mountainous islands produces regular rainfall and an abundance of water along with the threat of flash flooding (Howorth, 2005).

Climate change is increasing the number of disasters and their devastating impacts around the world. From 1988 to 2007, 76 per cent of all disaster events were hydrological, meteorological or climatic in nature. These accounted for 45 per cent of the deaths and 79 per cent of the economic losses caused by natural hazards (UNISDR, 2008). The likelihood of increased weather extremes in the future, therefore, gives great concern that the number and/or scale of weather-related disasters will also increase.

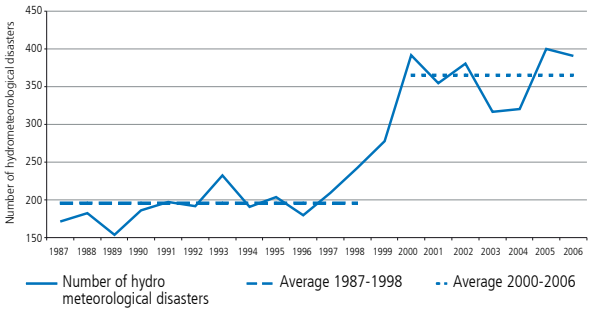


Figure 3. Occurrence of hydro-meteorological hazards, 1987–2006. Source: CRED (2007).

SIDS are particularly vulnerable to climate change. Sea-level rise can cause coastal inundation and severe drought may lead to an increase in forest fires. Drought may also be associated with El Nino, which causes storm surges resulting in inundation. Rising sea levels attributed to global warming and caused by increased global greenhouse gas emissions could make some islands uninhabitable. However, sea-level rise exhibits a non-uniform geographical distribution and some regions appear to show nearly ten times the global average rise, as is the case in some parts of the Indian and Pacific Ocean (Cazenave and Nerem, 2004). In the small likelihood that the West Antarctic Ice Sheet collapses, which will raise the global mean sea level by approximately 5 m (Vaughan and Spouge, 2002), the coastal zones of all SIDS would be completely inundated, covering many SIDS entirely and a significant portion of most of their capital cities and ports. Precipitation changes in SIDS regions are subject to large relative uncertainties and even the direction of the change is not certain. However, it is likely that wet seasons will become wetter, while dry seasons will become drier across SIDS regions (CICERO and UNEP/GRID-Arendal, 2008).

Besides catastrophic events, small islands are also exposed to risks due to relatively slow and progressive natural processes, which dominate these environments, such as wind- and wave-induced erosion damaging coral reefs (Howorth, 2005).

SIDS are also vulnerable to various human-induced hazards. The world's worst peacetime sea disaster to that date occurred in 1987 in the Philippines, when the overloaded ferry *Dona Paz* collided with an oil tanker, killing more than 3,000 people. Terrorist bombs on Bali in 2002 killed 202 people. Technological and pollution risks associated with the extraction and transport of oil and gas reserves also exist, such as in the north-east Atlantic and by the north coast of South America.

Potential impacts on heritage

The socio-economic impact of disasters on SIDS is devastating at both the household and macroeconomic levels. Even within a household, the impact could vary substantially among genders. Women, especially the single and old, are impacted much more severely than others. A single meteorological event such as a hurricane has the potential to cause catastrophic losses in Caribbean countries. For example, Hurricane Ivan had a measurable impact in eight different countries – the Netherlands Antilles, Cuba, Aruba, Jamaica, Grand Cayman, Grenada, Mexico and the United States. The loss to Grenada alone was calculated at US$800 million, around twice the country's GDP, of which government losses accounted for about 30 per cent (World Bank, 2008; UNU-EHS, 2013). This is manifestly more than the loss suffered in Mexico or United States in terms of percentage GDP.

Over the past decade, a number of media outlets and organizations have presented various figures showing that rising sea levels or changing weather conditions will force millions of people in low-lying areas and SIDS to migrate (Reed, 2013). As a result, climate change may also have severe negative impacts on heritage sites located in SIDS. These may be lost due to inundation, lead to forced migration away from or onto sites, and the changing environment may affect natural heritage. On the other hand, shortage of fresh water in some areas may result in conflicts, which would make certain heritage sites vulnerable to exploitation and looting. In some instances, rainfall may be less frequent, but it might be concentrated in heavier downpours thereby causing increased incidents of flooding, which in some heritage sites, especially those located along the mountain slopes, may become increasingly vulnerable to landslides. Heritage sites in extreme dry areas may be at risk from forest fires. Some

of the living sites may be abandoned, thereby affecting intangible heritage in these areas.

Climate change may also have an adverse impact on traditional livelihoods, as natural resource-based livelihoods will need to change with those natural resources. It might become difficult for local knowledge to adjust at the same speed as the changes in the climate, certainly if local knowledge is confined to the older generation.

Underlying reasons for increased vulnerability

Due to their remoteness or relative isolation, islands have developed ecologies and cultures that are usually unique to their location. However, they tend to have fragile environments, fragile economies, and are highly vulnerable to often devastating hydro-meteorological and geological disasters. Some of the underlying causes for an increased vulnerability of SIDS to various disaster risks are growing populations, poorly managed tourism and pollution from toxic biological and chemical wastes and effluents due to mining, forestry and agriculture. Sometimes the construction of seawalls or other structural defences aimed at protecting land from coastal erosion paradoxically makes erosion more severe or causes erosion at other locations.

The small size of SIDS means a limited natural resource base, high competition between different uses of the land, intensity of land use, immediacy of interdependence in human-environment systems and spatial concentration of productive assets. Therefore, small size often equates directly to increased vulnerability. Furthermore, demographic factors affecting the vulnerability of SIDS include a limited human resource base, small population size, with relative swift population changes, often a single urban centre, with a large segment of the population concentrated in coastal zones, and high per capita costs for infrastructure and services. Furthermore, economic factors contributing towards increased vulnerability of SIDS include small economies, dependence on external finance, small internal markets, dependence on natural resources and often highly specialized production.

Last but not least, with limited land area on which to settle, people on small islands are often forced to live in particularly vulnerable locations. Meanwhile, visitors to the island often compete for local resources (food, water, beach access, etc.), while they may not be well prepared to respond to sudden, extreme events. Lethal flash floods on Tenerife in November 2001, and on Viti Levu in Fiji in April 2004, illustrate the issue at hand (Howorth, 2005).

Smaller islands therefore are most at risk from a 'knock-out' by a single event due to proportional impacts. When disaster strikes, the island's insularity tends to preclude a timely response with adequate resources. The consequences are often worse than would occur at another location experiencing a similar situation.

Isolation influences the small island ecology too. Often islands exhibit high levels of biodiversity characterized by many plants or animals indigenous or endemic to only one specific island or island area. But the small size of islands means that each species has a relatively small population imposing a high risk of extinction and a strong need for protection.

Moreover, SIDS often experience longer-term, more chronic vulnerabilities such as maintaining adequate water and energy supplies, preventing emigration which depletes the population and removes a needed skills base ('brain-drain'), maintaining self-sufficient economies, and preserving their culture. SIDS additionally contend with relatively costly public administration and infrastructure, particularly transport and communications, along with limited institutional capacities.

Unfortunately, the vulnerabilities of SIDS have increased over the last decade whereas resilience has not kept pace. Take the case of the Scottish island of Colonsay, which is isolated, reached by public transport only by a 2½-hour ferry journey running three times a week. From a population of over 1,000 in the 1800s, Colonsay has seen a drastic drop to just over 100 today. The reason is simply the difficulty in making a living locally. Farming supports few families while fishing has all but collapsed. Today the main source of income is tourism. Climate change makes this livelihood tenuous. Without the jobs provided by the tourist and heritage service industry, the people of Colonsay would probably have to leave the island altogether. As job opportunities decline, even without climate change, houses are built or sold as retirement homes for immigrants. Few young people settle on Colonsay, while youth from the island are reluctant to stay due to the lack of prospects. This trend seen in Colonsay is representative of what many SIDS around the world are experiencing.

Declining opportunities would lead to abandonment and decay of heritage buildings on these islands. Also concentrated urbanization has put pressure on some heritage sites, exposing them to new risks and preventing easy emergency access. Moreover, local communities are losing control over their own resources as traditional management systems are eroded and increasingly replaced by alien or imported systems, which in many cases prove to be ineffective in reducing risks to local communities inhabiting these areas.

Coping and resilience mechanisms

While it is important to analyse vulnerabilities of SIDS, and their heritage in particular, we should not forget coping capacities and resilient mechanisms that are manifested in the communities of these islands and their heritage. Contrary to more techno-centric approaches of resisting disaster risks, traditions, cultural norms and social structures of SIDS communities have developed resilience-building elements and coping capacity through a 'living with risk' approach. This strength is founded on extended family values and communal mechanisms. Tight kinship and a highly localized economy often lead to subsistence livelihoods devoid of large economic structures. Reliance on each other, community cooperation to ensure that essential systems work, an understanding of their small environment and a tradition of coping with local resources has built up an ethos and psyche of dealing with whatever events occur through community cooperation (Howorth, 2005). In this context, the role of women in building the culture of resilience through their traditional knowledge and skills and social systems cannot be underestimated.

During El Nino events, sea level may rise up to half a metre for several months around some islands. Communities accept this change and adapt their lifestyles, even on atolls where the highest point is only a few metres above mean sea level. Every few years, a storm surge may last for several hours raising sea level by a few metres. Coping mechanisms vary, including temporary evacuation inland before a forecasted surge (Howorth, 2005). For these reasons, protecting heritage and enhancing its resilience contribute towards sustaining SIDS communities with limited resources and opportunities available (Abrahams and Kelman, 2005).

These human and social characteristics of SIDS communities can thus be described as, almost paradoxically, resilient social systems, which nevertheless could succumb to a 'knock-out' event at any time. Despite a strong understanding of the environment, many islanders often have little perception of increased vulnerability, especially related to longer-term, systemic changes. People living on small islands perhaps generally understand their island, its characteristics and how to build resilience, yet do not have the adaptive capability or sufficient alternative options and resources to cope with significant environmental changes.

Heritage, tradition and culture are vulnerable and this vulnerability is having an impact on island society. However, the principal vulnerabilities relating to smallness and isolation can also become a source of resilience by offering opportunities for sustainability if imaginatively considered.

Current challenges and initiatives

In spite of increased vulnerability of heritage located in SIDS, very few of their heritage sites have formulated comprehensive disaster risk management plans that specify mitigation, preparedness, response and recovery measures, before, during and after disaster situations. This would require close institutional coordination between heritage conservation, disaster management and development sectors. Therefore at a more pragmatic level, one of the main challenges is to mainstream heritage in disaster risk management and development sectors for effective mitigation, response and recovery actions before, during and after disasters.

To address these challenges at global level, several international initiatives have been taken up recently by various international organizations, such as UNESCO, the International Centre for the Study of the Preservation and Restoration of Cultural Property (ICCROM), the International Council on Monuments and Sites (ICOMOS) and the United Nations Office for Disaster Risk Reduction (UNISDR). A key initiative recently undertaken by these organizations aims at changing the perspective on cultural heritage from merely a passive victim of disaster to an asset for disaster risk reduction. This is supported

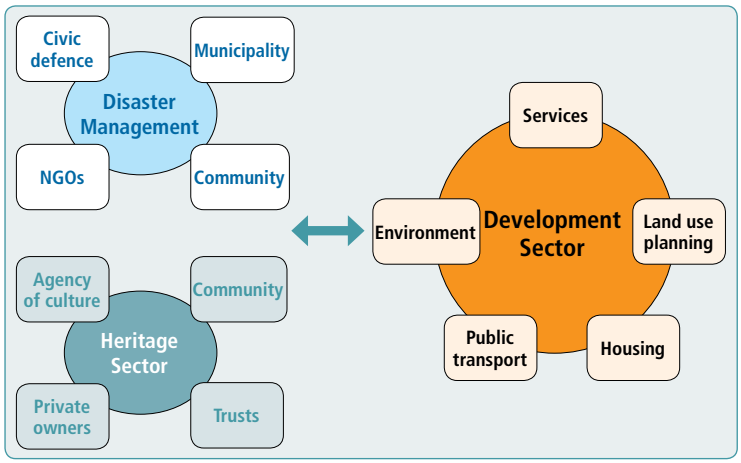


Figure 4. Disaster risk management of cultural heritage in SIDS would require coordination between various stakeholders from disaster management, development and heritage sectors.

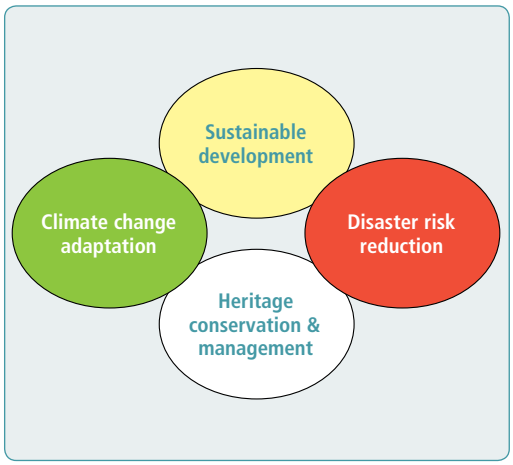


Figure 5. Imminent overlap of agendas for heritage conservation, disaster risk reduction, sustainable development and climate change adaptation.

by many instances where cultural heritage has in the past contributed towards building the resilience of communities, also in response and recovery following disasters. As outlined above, there are many examples that illustrate this in SIDS through local ecology, social mechanisms and indigenous knowledge systems. The cultural dimension in general and heritage in particular play an important role in sustainable recovery and rehabilitation of communities following a disaster. Various examples show that successful reconstruction projects have taken into consideration local building traditions and ways of life through deeper engagement with communities. Encouraged by such examples, the Heritage and Resilience initiative was launched by the ICOMOS International Scientific Committee on Risk Preparedness (ICOMOS-ICORP) in collaboration with UNESCO, ICCROM and UNISDR at the Global Platform on Disaster Risk Reduction held in Geneva in May 2013. A special publication showcasing various case studies highlighting the role of cultural heritage in building the resilience of communities against disasters was also unveiled on this occasion.[2]

A landmark achievement in this direction was the development of the World Heritage Resource Manual on *Managing Disaster Risks for World Heritage* jointly published by UNESCO, ICCROM, ICOMOS and IUCN in 2010.[3] This manual for the first time provides a stepped guidance to site managers to develop disaster risk management plans for their sites as part of the overall site management systems. The manual has since formed the basis of several training programmes supported by international organizations in various countries such as Mexico, Albania, Viet Nam, Indonesia and India.

A pioneering capacity-building initiative has been undertaken by the Institute of Disaster Mitigation for Urban Cultural Heritage at Ritsumeikan University (Rits-DMUCH), Kyoto, which in cooperation with ICCROM, ICOMOS-ICORP and UNESCO has been organizing the international training course on disaster risk management of cultural heritage since 2006. The target groups for this course include government institutions, departments, universities, NGOs and private consultants from cultural heritage, as well as relevant disaster management fields. The training course, now in its ninth year, has gained increasing attention since its inception. This two-week intensive course is conducted by various Japanese and international resource persons through lectures, workshops and site visits. During the course, the participants are advised to develop outlines of disaster risk management plans for case study sites from their home countries. Until 2013, almost 100 participants from more than thirty countries have been trained in this course. Based on the experience of conducting this course, a training guide has recently been published to help other interested organizations conduct such training programmes elsewhere in the world (Jigyasu and Arora, 2013).

Along with such training programmes, it is also crucial to organize emergency response simulations or drills so that site staff and external response agencies are able to develop and regularly practise standard operating procedures. Japan is one country that has taken a lead in this area and holds a National Disaster Reduction Day every 26 January, which marks a fire incident that destroyed historic Horyu-ji temple in 1949.

© *Rohit Jigyasu*

Figure 6. Demonstration of equipment for emergency response during the international training course on disaster risk management of cultural heritage in Kyoto (Japan).

Past experience shows that cultural heritage is often destroyed due to the uninformed actions of national and international rescue and relief agencies, who lack a proper methodology for damage assessment that takes into consideration both safety as well as heritage values. Often standard principles for contemporary 'engineered' buildings are applied on historic and traditional 'non-engineered' buildings with the result that many of them are categorized as unsafe and therefore worthy of demolition. To address this challenge, culture has recently been included as a sector in post-disaster needs assessment to be carried out by international organizations such as the World Bank.[4]

ICOMOS-ICORP[5] has been working extensively towards promoting the protection of cultural heritage places from the effects of disasters and armed conflict. The committee consists of more than fifty professionals from twenty-five countries from various regions of the world with experience in different aspects of disaster mitigation, response and recovery of cultural heritage. ICORP members have been actively involved in preparing guidelines, exhibitions and

2 http://icorp.icomos.org/index.php/news/44-new-icorp-publication-heritage-and-resilience

3 http://whc.unesco.org/uploads/activities/documents/activity-630-1.pdf

4 http://web.worldbank.org/WBSITE/EXTERNAL/TOPICS/EXTURBANDEVELOPMENT/EXTCHD/0,,contentMDK:22852225~pagePK:210058~piPK:210062~theSitePK:430430,00.html

5 http://icorp.icomos.org/

capacity-building programmes. For example, to train Syrian heritage professionals in first aid for heritage during times of conflict, ICOMOS-ICORP in cooperation with ICCROM and the Directorate General of Antiquities and Monuments (DGAM) in Syria organized two e-learning courses in 2013.

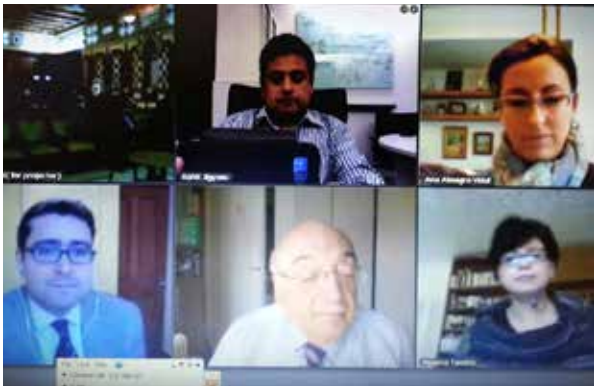


Figure 7. E-Learning Course on First Aid to Cultural Heritage in times of Conflict organized by ICOMOS-ICORP, ICCROM and DGAM.

Priority areas of action

These recent initiatives show that indeed progress is being made in meeting the mammoth challenge posed by increased disaster risks to cultural heritage. However, much more needs to be done to make sufficient progress in this area, especially in the context of SIDS with their special characteristics, challenges and needs, for securing heritage resources for present and future generations. These challenges include:

- Social, cultural, environmental and livelihood aspects of vulnerability (including adaptive capacity) and adaptation should be comprehensively assessed for all SIDS. The comprehensive risk assessment of heritage should take into consideration these vulnerabilities and multiple hazards to which sites are exposed.

- Mainstream cultural heritage in a wider disaster management field by linking culture with various sectors, such as housing, infrastructure, planning and the economy, and plugging it into existing networks and programmes. To effectively reduce disaster risks to cultural heritage, agencies responsible for heritage conservation and management should be able to integrate disaster risk management within their site management procedures and practices. On the other hand, organizations responsible for disaster management should be able to include heritage concerns within mitigation, preparedness, response and recovery strategies.

- Rather than ad hoc activities linked to disaster response following specific events, as is often witnessed, solutions aimed at reducing risks must effectively address the underlying causes of the vulnerabilities leading to disasters. These would help to identify those elements and needs that SIDS communities and governments can tackle themselves. Others can be addressed more effectively at regional level or with wider international interest and support, while recognizing the sensitivity of local traditional and cultural beliefs and practices.

- Reducing underlying vulnerabilities also necessitates mainstreaming disaster risk reduction in sustainable development initiatives for SIDS. An option is to consider using heritage for livelihoods by promoting traditional fishing and agriculture with improved productivity. Moreover, heritage should be put to appropriate use that can sustain the local economy rather than merely preserving it. Efforts should also be made to protect the living heritage of these communities through development assistance that seeks to enhance local skills and capacities for sustainable livelihoods.

- It is important to balance tourism with appropriate use of heritage. Visitor numbers should not exceed the island's ability to provide facilities without suffering damage, including to the island's character. Nonetheless, visitors bring in revenue which is needed to run, maintain and use the heritage site and traditional practices to illustrate a viable island life (Abrahams and Kelman, 2005).

- SIDS are unique and largely self-contained ecosystems. Their existence owes much to their environmental endowment and linkages with other islands and markets. Understanding what sustains islands to maintain their current levels of well-being and how they will be affected by future climate change is an important concern.

- In this context specific gender roles in disaster risk management of SIDS should be recognized and incorporated in regional and local policies and programmes. This would go a long way to support traditional livelihoods, skills and knowledge belonging to men and women who contribute towards building resilience against disasters.

- Disaster risk management plans should be developed and implemented for various types of cultural heritage sites located in SIDS (archaeological sites, historic cities, vernacular buildings and cultural landscapes, as well as museums) catering for various types of natural and human-induced hazards such as earthquakes, floods, fires or armed conflicts. As part of these plans, tools and guidelines should be developed for mitigating disaster risks to various typologies of heritage against various types of natural and human-induced hazards. Innovative low-cost and culturally sensitive technology

should also be developed for mitigating disaster risks to cultural heritage.

- This would necessitate building capacity at various levels and among various organizations, but most importantly to facilitate interaction between decision-makers, professionals and managers from heritage, disaster management and development sectors, helping them to understand the terminologies and hold better dialogue and coordination – crucial to effective disaster risk management.

- Heritage should be placed in the chain of command by ensuring that heritage expertise is present in emergency teams, giving sufficient authority to heritage experts and establishing written protocols defining commitment to respect heritage.

- Recovery and reconstruction from specific disasters, plus development opportunities, pose excessive costs. More proactive and comprehensive disaster reduction and risk management policies and programmes must be considered. In the Caribbean, the Caribbean Disaster Emergency Response Agency (CDERA) was established in 1991 by sixteen states to ensure an effective and coordinated response to disasters. Its functions include securing, collating and channelling information to interested governments and NGOs. Heritage organizations in SIDS should closely link with such agencies to effectively include heritage needs in overall disaster response.

- New information technology should be used to strengthen warning systems and communication between heritage managers and other agencies during emergency situations. This is especially crucial for SIDS, where accessibility is often a challenge. For example, the internet was used by inhabitants of Montserrat to garner support during their volcano crisis in the late 1990s.

- Local populations can hold significant amounts of information and experience of their environment built up over generations. Building upon local knowledge and non-infrastructural or 'soft' approaches is potentially more cost effective and accessible by poor and/or rural communities than measures based on purely external interventions or those highlighting engineering infrastructure. This is especially important for smaller, more isolated communities of SIDS, which might not have the population size or resources to continually build and maintain extensive infrastructure. Healthy ecosystems and their services play a vital role in reducing climate risk and providing opportunities for sustainable development and livelihoods (Mercer et al., 2012).

Building upon local knowledge and practices, and engaging those 'at risk', is a significant component of community-based disaster risk reduction (CBDRR) and its subset of community-based adaptation (CBA). This recognizes that while SIDS communities have suffered loss and hardship, in many instances they have displayed significant coping capacities developed over centuries to deal with societal and environmental change (Mercer *et al.*, 2012). Therefore the solution is to fully involve local communities in analysing their own situations and identifying appropriate solutions to their vulnerabilities, recognizing the need to exchange the latest information and knowledge on the effects of climate change on local communities (CICERO and UNEP/GRID-Arendal, 2008).

In addition, it is important to include methods for integrating and enhancing indigenous, traditional and local knowledge and perspectives into the assessment alongside scientific perspectives on climate change vulnerability and adaptation, as well as disaster risk reduction. Therefore, rather than romanticizing traditional knowledge, an assessment of both local and external knowledge should be undertaken in order to integrate that knowledge, either local or external to a community, which best strengthens community and ecosystem resilience (Mercer et al., 2012). It can be safely concluded that reducing SIDS' disaster risks and protecting their rich heritage for future generations would necessitate looking at the interplay of resilience, vulnerability and adaptation.

References

Abrahams, S. and Kelman, I. 2005. Island heritage, vulnerability and resilience. In: *Know Risk*. Geneva, Tudor Rose/United Nations Secretariat Office for Disaster Risk Reduction.

Cazenave, A. and Nerem R. S. 2004. Present-day sea level change: observations and causes. *Review of Geophysics*, No. 42, RG 3001.

CICERO and UNEP/GRID-Arendal. 2008. *Many Strong Voices: Outline for an Assessment Project Design*. CICERO Report 2008:05. Oslo, Centre for International Climate and Environmental Research. http://www.cicero.uio.no/media/6359.pdf

CRED. 2007. *Annual Disasters Statistical Review 2006*. Brussels, Centre for Research on the Epidemiology of Disasters.

Howorth, R. 2005. Island, isolation and vulnerability. In: *Know Risk*, Geneva, Tudor Rose/United Nations Secretariat Office for Disaster Risk Reduction, pp. 224–26.

Jigyasu, R. an d Arora, V. 2013. *Disaster Risk Management of Cultural Heritage in Urban Areas: A Training Guide.* Kyoto, Ritsumeikan University, Research Center for Disaster Mitigation of Urban Cultural Heritage.

Kelman, I., Mercer, J. and West, J. J. 2009. *Combining Different Knowledges: Community-Based Climate Change Adaptation in Small Island Developing States*. London, International Institute for Environment and Development. (Participatory Learning and Action Notes, PLA 60) http://pubs.iied.org/G02812.html

Mercer, J., Kelman, I., Alfthan, B. and Kurvits, T. 2012. Ecosystem-based adaptation to climate change in Caribbean Small Island Developing States: integrating local and external knowledge. *Sustainability*, Vol. 4, No. 8, pp. 1908–32. http://www.mdpi.com/2071-1050/4/8/1908/pdf

Reed, E. U. 2013. Understanding the islanders: climate migration in context. In: *Human Rights: Climate Change, Indigenous People, Migration, Oceans*. Tokyo, United Nations University. http://ourworld.unu.edu/en/understanding-the-islanders-climate-migration-in-context

UNESCO. 2009. *Report on the World Heritage Programme for Small Island Developing States*. Paris, World Heritage Centre.

UNESCO, ICCROM, ICOMOS and IUCN. 2010. *Managing Disaster Risks for World Heritage*. Paris, World Heritage Centre. (Resource Manual series) whc.unesco.org/document/104522

UNISDR. 2008. Hyogo Framework for Action-Pedia. Geneva, United Nations Secretariat Office for Disaster Risk Reduction. http://www.eird.org/wikien/index.php/climate_change

UNU-EHS. 2013. *Climate Risk Adaptation and Insurance: Reducing Vulnerability and Sustaining the Livelihoods of Low-Income Communities. A Handbook for Policy and Development Practitioners in the Caribbean*. Bonn, United Nations University Institute for Environment and Human Security. (Munich Climate Insurance Initiative, Report No. 13) http://www.ehs.unu.edu/file/get/11549.pdf

Vaughan, D. G. and Spouge J. R. 2002. Risk estimation of collapse of the West Antarctic Ice Sheet. *Climate Change*, No. 52, pp. 65–91.

World Bank. 2008. *Operational Innovations in Latin America and the Caribbean*, Vol. 2, No. 1. Washington DC. http://siteresources.worldbank.org/extlacregtopurbdev/ccrif.pdf

World Heritage SIDS Programme. http://whc.unesco.org/en/sids

Small Island Developing States, big ocean nations – advantages of being part of the World Heritage network for marine sites

Sara Willems and Fanny Douvere
World Heritage Centre, UNESCO

Introduction

In 1992, the United Nations Conference on Environment and Development (UNCED) recognized Small Island Developing States (SIDS) as a distinct group of developing countries facing specific social, economic and environmental vulnerabilities.[1] SIDS, and more generally islands supporting small communities, are a special case both for environment and development because they are ecologically fragile and vulnerable.[2] UNCED emphasized that their small size and geographical dispersion, limited resources and dependence on international trade place them at a disadvantage economically and prevent economies of scale.[3] Not all SIDS are small island states, although the acronym does refer to that. In fact, several of the thirty-eight Member States belonging to the Alliance of Small Island States (AOSIS), which is an ad hoc negotiating body established by SIDS at the United Nations, are coastal states. AOSIS also includes other island entities that are not UN members, or are not independent territories that are members of UN regional commissions. But these SIDS do all have an important commonality: they are big ocean nations.

In response to their socio-economic vulnerability, the United Nations adopted the Programme of Action for the Sustainable Development of Small Island Developing States, finalized at the Global Conference held in Barbados in 1994. In 2005, the Mauritius Strategy for the implementation of that Programme of Action was adopted in view of addressing the specific challenges to SIDS. The UN Office of the High Representative for the Least Developed Countries, Landlocked Developing Countries and the Small Island Developing States takes on the role of mobilizing international support to implement the adopted programmes in the short, medium and long term.[4]

Priorities are diverse and focus on a range of issues, from human resource development to energy resources. Due to this diversity, a wide variety of specialized UN agencies are implicated in the implementation of the Mauritius Strategy.

UNESCO is one of those specialized agencies that plays a crucial role in the implementation of the aforementioned programmes. Its implication is based on the premise that SIDS initiatives should not only target present human needs and aspirations, but should also adhere to their responsibility in ensuring the quality of life of future generations.[5] The cultural and natural sites inscribed on UNESCO's World Heritage List form our legacy and constitute what we pass on to future generations. The 1972 World Heritage Convention is founded on the premise that certain sites on the planet are of Outstanding Universal Value and as such form part of the common heritage of humanity. Places as unique and diverse as the wilds of Virunga National Park in the Democratic Republic of the Congo, the Great Wall in China and the Taj Mahal in India constitute our world's heritage.

Exceptional marine biodiversity in SIDS

In 2005, the World Heritage Committee emphasized the importance of establishing effective conservation in World Heritage sites located in SIDS. During its 29th session in Durban, the Committee adopted the World Heritage Programme for SIDS aiming at a coordination of efforts to exchange information on and implement the Mauritius Strategy within the context of the 1972 World Heritage Convention.[6] At the same time, the World Heritage Committee acknowledged the increasing importance of exceptional ocean areas and adopted the World Heritage Marine Programme. The latter resulted from the recognition that only a few exceptional marine areas were protected under the World Heritage Convention while the oceans itself constitute over 70 per cent of the planet. The

1 http://unohrlls.org/about-sids/
2 *Agenda 21*, United Nations Conference on Environment and Development, 1992, Brazil, Section II, 17, G, para. 17.123. http://sustainabledevelopment.un.org/content/documents/Agenda21.pdf
3 Ibid.
4 Report A/56/645 of the Secretary-General 23 November 2011, para. 17. http://www.unohrlls.org/UserFiles/File/LDC%20Documents/Reports/N0165665_A%2056%20645.pdf
5 Programme of Action for the Sustainable Development of Small Island Developing States, 1994, Barbados, Preamble. http://www.un.org/esa/dsd/dsd_aofw_sids/sids_pdfs/BPOA.pdf
6 World Heritage Committee, 2005, Durban, Decision 29 COM 5B. http://whc.unesco.org/archive/2005/whc05-29com-22e.pdf

programme was established to address this gap and, more specifically, to ensure effective conservation of existing and potential marine areas of Outstanding Universal Value to make sure they will be maintained and thrive for generations to come.

An estimated 50–80 per cent of all life on Earth is found under the ocean surface. It is thus no surprise that a considerable amount of our heritage is located in marine areas. As of May 2014, forty-six sites were inscribed on the World Heritage List specifically in recognition of their exceptional marine values. They received the highest internationally recognized status for conservation, World Heritage Listing, because they represent the most outstanding natural ocean phenomena, geological and ecosystem processes, and/or are top locations for marine biodiversity. In recent years, several SIDS have taken global leadership in designating large ocean areas for conservation. Many of these places stretch far offshore and their remote location often helps them to remain largely pristine. Today, six of these forty-six exceptional marine sites are located in SIDS, some of which host the largest and deepest waters protected under the World Heritage Convention and are true reservoirs for endemic species, unique rates of marine biodiversity and hosts to some of the planet's largest marine mammals and top predators.

The conservation of marine World Heritage in SIDS is a mixed story. For some, the World Heritage designation, and the international recognition linked with it, has considerably elevated their capacity to raise the necessary funds for their management. Well-protected marine World Heritage sites can substantially benefit the socio-economic return to a SIDS gross domestic product through both tourism and as a source for food. For others, the results it could bring have not come to maturity yet. Phoenix Islands Protected Area (PIPA) in Kiribati, for example, hosts the largest World Heritage site to date. The site is over 400,000 km^2 and home to 14 deepwater mountains and some 200 coral species, 500 fish species, 18 marine mammals and 44 bird species, with many others currently still unknown to science. The property encompasses the Phoenix Islands Group, one of three island groups in Kiribati, and is the largest designated Marine Protected Area in the world. PIPA hosts one of the world's largest intact oceanic coral archipelago ecosystems, while its population is estimated at just over 100,000 people inhabiting a total land surface of about 800 km^2. Since World Heritage Listing in 2010, the site has accelerated the attraction of financial resources from international institutions for its trust fund that will help to oversee the monitoring and evaluation of fisheries practices at the site. The World Heritage area is but a fraction of the total Exclusive Economic Zone of Kiribati, but its status and enrolment in the World Heritage state of conservation reviews brings considerable added value in ensuring future generations can continue to enjoy this ocean treasure. Not only does it provide the State Party with a means to draw international attention to its conservation needs, it also gives the international donor and conservation community an extra layer of protection and commitment that endures through government transitions.

© Cat Holloway

Figure 1. Phoenix Islands Protected Area.

Another successful example is Lagoons of New Caledonia: Reef Diversity and Associated Ecosystems, a treasure in the Pacific designated as World Heritage in 2008. The site comprises six marine clusters that together represent the main diversity of coral reefs and associated ecosystems in the French Pacific Ocean archipelago of New Caledonia. One of the three most extensive reef systems in the world, their ecosystem is linked with Australia's Great Barrier Reef through the Coral Sea. The lagoons feature an exceptional diversity of coral and fish species and a continuum of habitats from mangroves to seagrasses, with the world's most diverse concentration of reef structures. The site management is made up of a series of community-based entities spread across the different regions of New Caledonia. World Heritage status has focused conservation actions across the management entities and is a key tool in aligning native people and others working and enjoying the site around common objectives and understandings.

Seychelles and Palau are two other examples of SIDS where World Heritage listing has come to benefit the conservation of marine World Heritage. Aldabra Atoll in Seychelles has been held up as a true conservation success, primarily for its rising giant tortoise population since its inscription in 1982. Prior to that date the giant tortoise was threatened with extinction. Aldabra Atoll, harbouring exceptional marine values in the Indian Ocean, is comprised of four large coral islands that enclose a shallow lagoon. The group of islands is itself surrounded by coral reef systems. While the site does feel the impacts of climate change, its remote location has largely prevented human influence. Still, the site struggled with declining tortoise populations and invasive species. In part due to its World Heritage status, the site could attract important international support, and both financial and technical capacity. Today, it has been largely successful in

eradicating invasive species and the tortoise population is now over 150,000, the world's largest.

Rock Islands Southern Lagoon in Palau was inscribed on the World Heritage List in 2012 and includes 445 uninhabited limestone islands of volcanic origin. Many of them display unique mushroom-like shapes in turquoise lagoons surrounded by coral reefs. The aesthetic beauty of the site is heightened by a complex reef system featuring over 385 coral species and different types of habitat that sustain a large diversity of plants, birds and marine life, including dugong and at least thirteen shark species. Here again, the site benefits from its World Heritage status through which it can call upon the international community to help the country to protect its unique ocean features. As this listing is still fairly recent, the full advantages to SIDS are yet to come to fruition.

© Jerker Tamelander

Figure 2. Rock Islands Southern Lagoon.

Sadly, some other World Heritage marine sites in SIDS have been less well preserved. As of May 2014, two such sites are on the World Heritage List in Danger. Belize Barrier Reef Reserve System has seven components that together illustrate the evolutionary history of reef development and its exceptionally rich habitats for threatened species, including marine turtles, manatees and the famous American marine crocodile. Due to unbridled coastal development the site's Outstanding Universal Value is seriously threatened and it was inscribed on the Danger List in 2009. Various indications show that the site's rich biodiversity has been depleted over the years. A desired state of conservation will be developed with the site in the coming months, and in view of its removal from the Danger List. Especially in SIDS, such efforts cannot be made by the government alone – concerted action by all concerned with the site's conservation is required. In particular the many ocean conservation organizations and institutions have an important role to play in assisting countries that host these exceptional marine places.

In 2013, East Rennell was also added to the Danger List, in particular due to logging operations and the influences of invasive species. The World Heritage site makes up the southern third of Rennell Island, the southernmost island in the Solomon Islands group of the western Pacific. A major feature of the island is Lake Tegano, which was the former lagoon on the atoll. The lake, the largest in the insular Pacific, is brackish and contains many rugged limestone islands and endemic species. Only recently, and with the help of the World Heritage Centre, the site has started an analysis of the state of conservation of its marine component. Pressures by increased human activity and extraction of resources call for immediate action. Cooperation with other World Heritage marine sites, especially those with similar conservation issues, are indispensable for World Heritage marine sites located in less economically vibrant SIDS, such as East Rennell.

Benefits of a World Heritage network of marine site managers

World Heritage marine sites cover a vast range of ecosystem types in both tropical and temperate ocean areas, among which a significant number are located in SIDS. Despite the different socio-economic contexts, the majority of these sites share similar conservation challenges. Almost all are threatened by the effects of climate change, which is rapidly becoming the primary cause of concern for the conservation of these sites' Outstanding Universal Value. Additionally, overfishing, coastal development, and to an increasing degree tourism, also pose important threats. Marine sites on the World Heritage List share a common susceptibility to the migration of their iconic species to warmer or colder waters over the next thirty to fifty years, as a result of climate change and the potential of shifting ecosystem boundaries that will need to be addressed to ensure adequate conservation. This is particularly pertinent in SIDS with smaller World Heritage marine sites and raises the question of more transboundary cooperation and the need to designate ocean spaces for conservation in areas beyond national jurisdiction.

At the same time, World Heritage marine sites hold a wealth of information about good management practices, much of it acquired over twenty to thirty years of field experience. While some sites are well managed and deal with threats adequately, others lack the capacity to do so. SIDS who traditionally have less in-country expertise and scientific support can particularly benefit from sharing such practices with their peers. It is in this context that the World Heritage Marine Programme is building a network of World Heritage marine site managers that actively shares good conservation and management practices across World Heritage sites and that, furthermore, can serve as a driver for change in ocean conservation globally.

In order to achieve these goals, the World Heritage Marine Programme coordinates efforts of marine site managers to learn from each other and to cooperate at a global, regional and local scale. Some conservation issues are very particular to SIDS. First, SIDS are small nations with little resources but host vast ocean areas. In Kiribati,

for example, the cost of an effective monitoring and evaluation system to protect the PIPA World Heritage site from the destructive impacts of fisheries is tremendous. Its remote location and fishing practices by high-powered international fleets are challenging and substantially increase the costs. The effects of El Nino add an element of complexity because the fish resources vary considerably from one year to another and thus bring variable income to communities. The Great Barrier Reef in Australia, however, has established one of the most comprehensive monitoring and evaluation programmes for its coral reef system through which it targets surveillance for maximum efficiency and effectiveness. The system has been built up through over thirty years of experience. By sharing such knowledge on a peer-to-peer basis, SIDS can greatly facilitate the development of such challenging initiatives to avoid reinventing the wheel each time. Second, as SIDS' lead in the conservation of large ocean spaces is fairly new, these sites typically do not have a long tradition of scientific research and other ocean management expertise. Therefore, SIDS in particular should benefit from the best practices and management ideas that result from cooperation between World Heritage marine sites. Third, many SIDS lack the means to participate in large international ocean conferences either because they do not have the financial and human resources or because the site management is not sufficiently large or well equipped to obtain such access. SIDS with marine areas listed as World Heritage, such as PIPA, East Rennell, or Rock Islands Southern Lagoon can particularly benefit from dedicated networks of site managers where they can learn from their colleagues who work in other, often more developed, countries and engage in meaningful exchange of expertise and knowledge.

On a global scale, the World Heritage Marine Programme organized two World Heritage marine site manager conferences in 2010 and 2013, bringing together managers and practitioners from World Heritage marine sites in view of sharing best management practices and success stories. The most recent was organized in Scandola (France) in 2013. One of the key conclusions of the meeting was to develop working sessions concerning more specific ocean conservation topics such as effective fisheries management, a proactive approach toward tourism management, coastal development, and climate change mitigation and adaptation. It was concluded that these management challenges are shared among the majority of the sites, and therefore solutions can be more easily found when they are sought on a collective basis. A dedicated website and bimonthly newsletters through which the site managers can communicate their latest initiatives, publications and achievements are also steps toward building a stronger site manager community. These provide a platform that can help in sharing ideas and solutions, rather than reinventing them. Collectively, site managers also substantially benefit from participation in major marine conservation conferences where they can interact and share experiences with other marine protected area managers from around the world.

© UNESCO/Agne Bartkute

Figure 3. Second World Heritage Marine Site Manager conference in Scandola (France).

Finally, cooperation through specific twinning arrangements on a regional or global scale has also proven beneficial and is likely to become more pertinent once the marine and other features of a SIDS become part of a global system such as World Heritage. For example in September 2009 the two largest World Heritage marine sites, PIPA (Kiribati) and Papahānaumokuākea (United States), announced a historic alliance establishing a 'sister site' cooperation agreement on the management and protection of these two sites.[7] The partnership is designed to enhance management knowledge and practices for these tropical and subtropical marine and terrestrial island ecosystems of which the characteristics, and thus possible management approaches, are very similar, but where one site has far more resources and experience than the other. Areas for cooperation that are included in this twinning arrangement are very diverse and range from research and data sharing on site characterization, connectivity and biogeographical assessments, to the development of a management strategy to mitigate effects from global climate change impacts. The themes of this arrangement illustrate how World Heritage marine sites make a compelling contribution to the multiple targets outlined by *Agenda 21* and the action programmes adopted by the United Nations. The Programme of Action for the Sustainable Development of SIDS emphasizes, for example, the importance of creating or strengthening programmes and projects to monitor and improve predictive capacity for climate change, climate variability and sea level rise. Both these marine sites, removed as they are from most human activity, serve as global examples in providing potential early warning and a comparative baseline for understanding how natural, less-disturbed systems react to changing climate conditions and external influences.

7 *Navigating the Future of Marine World Heritage*, 2011, Paris, UNESCO World Heritage Centre, p. 28. (World Heritage Paper Series, 28.) whc.unesco.org/document/106753

© Destinations Iles Loyaute

Figure 4. Lagoons of New Caledonia: Reef Diversity and Associated Ecosystems.

The World Heritage Convention also stresses the importance of SIDS to international understanding of oceanic history and future development. Although often geographically distant from their respective local population centres, sites in SIDS are usually supported by, and rely on, the involvement of local and indigenous communities to develop successful management regimes. Culture and community is central to the 1972 World Heritage Convention, which is unique in its endeavours to link nature conservation and the preservation of cultural properties. The Convention recognizes the way in which people interact with nature, and the fundamental need to preserve the balance between the two. Considering the dual importance of the ocean for local communities as well as its contribution to the study of global ocean trends, the culture-nature interaction is particularly important in SIDS. As stated in *Agenda 21*, SIDS 'have rich and diverse cultures with special adaptations to island environments and knowledge of the sound management of island resources'.[8]

Both the broader participation of SIDS in the World Heritage marine site managers community, as well as the more tailored 'sister' arrangements through which particular expertise is shared in a functional manner, are building blocks toward a larger capacity-building for conservation of exceptional values in SIDS, which are often just in the starting phases of ocean conservation despite their centuries-old connections and dependence of their people on the sea and its resources.

Conclusion

World Heritage marine sites, scattered across thirty-five countries, cover about 20 per cent of all marine protected areas by surface area. Six of these forty-six exceptional marine sites are located in SIDS, some of which host the largest and deepest waters protected under the World Heritage Convention. Together the site managers of these crown jewels of the ocean possess unmatched skills and experience of coastal and marine management. Considering that conservation of marine areas in SIDS is a mixed story of success and many of the SIDS have just recently embarked on tackling the challenges of good, integrated ocean management, many of them can substantially benefit from pooling and sharing such experiences and know-how. One of the key goals of the World Heritage Marine Programme is to make sure that

8 *Agenda 21*, op cit., para. 17.124.

these success stories and valuable lessons are brought together and shared among SIDS and marine areas around the globe with similar conservation challenges. For some sites, World Heritage designation has considerably elevated their capacity to raise and attract the necessary support for their management. Others lack the capacity to deal with threats due to, for example, insufficient in-country expertise. These sites can benefit from cooperation between World Heritage marine sites at global, regional and local levels and facilitate their own access to other international ocean conservation networks and experts. Through this work, the lessons learned by World Heritage marine sites can be an example of how to replicate management success stories and thereby contribute to the action plans outlined in the Mauritius Strategy and other global conservation targets. An investment in raising the management capacity of SIDS is an investment in big ocean spaces and standards for their sustainable use and future enjoyment.

Cultural landscapes in the Pacific Islands: the 2007 ICOMOS thematic study

Anita Smith
Deakin University, Australia

Introduction

In 2007, at the request of the Pacific Island nations, the International Council on Monuments and Sites (ICOMOS) commissioned a thematic study to explore the diversity and character of their cultural landscapes.[1] The study identified a range of factors – environmental, social, economic and historical – that contribute to the layering of the tangible attributes and intangible associations of cultural landscapes in the Pacific Islands. The aim was to assist the Pacific Island nations in the identification of cultural landscapes of potential Outstanding Universal Value at a time when most of the countries were recent signatories to the World Heritage Convention and considering their Tentative List or first nomination.

The thematic study was an important landmark in the international recognition of cultural heritage places in the Pacific Islands, their regional and international significance and the need for heritage conservation policies and programmes at national and regional levels to protect the values of these places.

In the seven years since the study was completed, eight properties in the Pacific Island states and territories have been inscribed, six of which on cultural criteria. These are Kuk Early Agricultural Site, Papua New Guinea (2008), Chief Roi Mata's Domain, Vanuatu (2008), Bikini Atoll Nuclear Test Site, Marshall Islands (2010), Papahānaumokuākea, Hawaii, United States (2010); Rock Islands Southern

Figure 1. East Rennell (Solomon Islands), inscribed on the World Heritage List in 1998 on the basis of natural criteria, is also a cultural landscape. The East Rennellese live in four villages in the World Heritage property and continue their traditional gardening and fishing practices.

1 A. Smith and K. Jones (eds), 2007, *Cultural Landscapes of the Pacific Islands*, Paris, ICOMOS.

Lagoon, Palau (2012) and Levuka Historical Port Town, Fiji (2013). All are inscribed as cultural or urban landscapes and are discussed here in relation to the characteristics identified in the 2007 study as key factors contributing to the pattern, diversity and similarities of cultural landscapes in the Pacific Islands.

Thematic studies commissioned by the Advisory Bodies at the request of the World Heritage Committee provide context and background for the identification of places of Outstanding Universal Value by exploring how particular themes and values, such as activities, architecture, technologies or cultural practices, are expressed in tangible heritage or intangible associations. Thematic studies are particularly useful for the World Heritage Committee in its decisions on whether to inscribe a property that is not currently well represented on the World Heritage List as regards type, value or region. Such was the situation for the Pacific Island nations. In 2007 the region was represented by only one World Heritage property, East Rennell in the Solomon Islands, inscribed on natural criteria in 1998.

Significance of cultural landscapes for the Pacific Region

Cultural landscapes are an important and relevant type of site when considering the potential Outstanding Universal Value of properties in the Pacific Islands. The strength of traditional knowledge, customary systems of governance, land and sea tenures are expressed in island landscapes and seascapes that reflect the inseparable relationship of Pacific Island peoples and their environment and the characteristic and shared histories of the region. Indigenous communities make up over 80 per cent of the overall population of the Pacific Island states and territories. Most communities continue to rely to some extent on traditional gardening or agricultural practices and/or marine resources. The strength of these relationships between communities, land and sea has been consistently advocated and reinforced by representatives of Pacific Island states and territories at regional meetings under the Pacific 2009 World Heritage Programme, including the 31st session of the World Heritage Committee in Christchurch (Aotearoa/New Zealand) in 2007.[2]

> *Heritage in the Pacific defines our cultural identity and remains inseparable from our social, economic and environmental well-being, now and for future generations;*
>
> *Our heritage is holistic, embracing all life, both tangible and intangible, and is understood through our cultural traditions;*
>
> *There is an inseparable connection between the outstanding seascapes and landscapes in the Pacific Islands region, which are woven together by the rich cultural, historical and genealogical relationships of Pacific Island peoples;*
>
> *The region contains a series of spectacular and highly powerful spiritually-valued natural features and cultural places. These places are related to the origins of peoples, the land and sea, and other sacred stories.*

Cultural landscapes are defined in the *Operational Guidelines* to the World Heritage Convention as the '*combined works of nature and of man*',[3] their Outstanding Universal Value reflecting the *interaction of humans and the environment*. The 1992 decision by the World Heritage Committee to introduce 'cultural landscape' as a new category of World Heritage property was an attempt to reconnect culture and nature within the context of the 1972 World Heritage Convention. The Committee was responding to the near absence of World Heritage properties with Outstanding Universal Value associated with the diverse and complex relationships of people and their environment, and in particular those of traditional and indigenous cultures.[4] The separation of nature and culture in the processes for nomination, evaluation and inscription of properties has been identified as a limiting factor for the recognition of non-Western perceptions of landscape, relationships to animals, plants, landforms and the sea, and the roles of traditional owners and custodians.[5] Cultural landscapes offered the opportunity for the multiple, complex and long-term interactions of people and their environment to be recognized through a variety of tangible and intangible attributes, from large-scale manipulation of the landscape in the past and present, to subtle human influences on and management of the 'natural' environment, to storied or associative landscapes.

Cultural landscapes are highly significant records of human activity, cultural practices and social systems associated with particular environments, ecological zones or land features. Through providing a pathway for the inclusion of a wide range of land-use practices, social systems and religious and philosophical traditions, the cultural landscape category significantly broadened the heritage values of World Heritage properties, contributing to a more representative, culturally diverse and egalitarian World Heritage List. In this way, the cultural landscape category was anticipated to increase the representation of regions such as Africa, the Pacific and Latin America

2 Appeal to the World Heritage Committee from Pacific Island States Parties, 2007, Paris, UNESCO World Heritage Centre, WHC-07/31. COM/11C, Annex 1, paras 8–11.

3 *Operational Guidelines for the Implementation of the World Heritage Convention*, 2013, Paris, UNESCO World Heritage Centre, para. 47.

4 P. J. Fowler, 2003, in *World Heritage Cultural Landscapes 1992–2002*, Paris, UNESCO World Heritage Centre, p. 19. (World Heritage Paper Series, 6.)

5 S. Titchen, 1996, On the construction of 'outstanding universal value': some comments on the implementation of the 1972 UNESCO World Heritage Convention, *Conservation and Management of Archaeological Sites*, Vol. 1, pp. 235–42.

and the Caribbean that were, and continue to be, under-represented on the World Heritage List.

As a starting point for the thematic study, the definition of cultural landscapes in the *Operational Guidelines* was framed as being:

> *… illustrative of the evolution of human society and settlement over time, under the influence of the physical constraints and/or opportunities presented by their natural environment and of successive social, economic and cultural forces, both external and internal.*[6]

Cultural landscapes are layered and patterned by human interaction with the environment over long periods of time and in the context of social and environmental change. To understand this pattern, the various factors that have contributed to it need to be unpacked. These include:

- the environment itself;
- the tangible cultural evidence of the interaction of humans and the environment;
- intangible evidence, or associative values, by which the landscape is understood and interpreted through the cultural lens of those who have and continue to create the cultural landscape.

At regional level, the thematic study aimed to identify the common or major influences shaping cultural landscapes in the Pacific Islands, including environmental influences, and past and present social, cultural and economic influences. Three key regional factors were identified and are discussed below: (i) environmental diversity, traditional or customary patterns of settlement and subsistence from initial colonization to the present; (ii) European contact, the colonial era; and (iii) decolonization.

Influences shaping cultural landscapes in the Pacific

The thematic study was a desktop study using available published information. Over the past century there has been a large amount of archaeological and anthropological research in the Pacific Islands that has documented indigenous social systems, language and oral traditions and land uses in the past and present. This provided a very extensive body of information about particular types of archaeological sites, about kinship and social relationships, cosmologies, food collecting and cultivation. This vast amount of data provides a very strong foundation on which to understand and interpret the tangible evidence that patterns Pacific landscapes, however the knowledge and understanding of Pacific Island communities about their local places and their significance and history are missing. Pacific Island landscapes express the cultural identity of communities and an indigenous voice and critique is an essential lens through which cultural landscapes and seascapes should be understood as living entities that express the values of the communities that have and continue to create them but are indistinguishable from them. As discussed below, for the thematic study the lack of a community involvement and voice was particularly important in relation to looking at the diversity of associative cultural landscapes across the region.

The Pacific region spans a quarter of the globe, around 165 million km^2 and includes more than 20,000 islands, often separated by vast stretches of open ocean. These range from the continental islands of New Zealand and Papua New Guinea to the tiny remote atolls of the central and eastern Pacific Ocean. The oceanic world has given rise to a great diversity of traditional indigenous ways of life expressed in landscapes and seascapes, settlements and monuments, and in the intangible heritage of traditions, knowledge, stories, song, music and dance. This heritage reflects the common origin and interaction of many Pacific Island societies and the distinct customary ways of life that have developed in each archipelago.

The Small Island Developing States (SIDS) of the Pacific include the island nations and territories from the larger islands of Papua New Guinea and the Solomon Islands in the west, to remote Rapa Nui (Easter Island) in the east, and the Hawaiian Islands and the tiny far-flung islands of Micronesia in the north. The region has historically been divided into three main geocultural subregions along linguistic and geographical lines – Melanesia, Polynesia and Micronesia. While these subregions are defined by broad geocultural and linguistic characteristics, this division has only limited value in understanding the diversity of Pacific Island cultural landscapes. Throughout history Pacific Islanders have voyaged and settled and interacted across these subregional boundaries. Within each subregion, but in particular Melanesia, there is great cultural and linguistic and environmental diversity. Specific types of islands and island environments and traditional subsistence practices – terrestrial and marine – are not limited to any one subregion.

From the time of initial settlement, the peoples of the Pacific exploited the opportunities and adapted to the constraints of the oceanic environment. Understanding the environmental diversity and variability of the Pacific is critical to investigating how the interaction of people and their environment is reflected in the land and seascapes of the region. The oceanic world is diverse in its geology, topography, ecology and rainfall, all of which influence the availability of resources on land and sea, and patterns of settlement and subsistence. The continental islands of Melanesia are relatively large and geologically diverse. They include areas of extremely high biodiversity on land and sea. To the east, stages of volcanic activity underpin the three main island types. High islands, the peaks of

6 *Operational Guidelines*, op. cit., para. 47.

volcanoes, have a narrow continuous coastal plain in turn surrounded by a fringing reef enclosing a shallow lagoon behind which steep hillsides rise to the centre of the island, such as Rapa in French Polynesia or the high central spine of the islands such as 'Upolu in Samoa. Atolls are small, low-lying islets that have formed on the fringing reef around the rim of a now submerged former volcano. At the centre is a lagoon, which may be as large as Kwajalein's, with an area of 2,174 km^2, but only 16.4 km^2 of combined landmass.[7] Raised coral limestone islands, such as the World Heritage site of East Rennell and Niue in West Polynesia, are a result of the slow uplifting of a submerged volcano on which coral reef has continued to form, which emerges from the water in a series of uplifted terraces creating steep limestone cliffs around the island that contain many caves.

The differing geologies of the islands produce a range of landforms and soil and vegetation types, each with their own characteristics hindering or encouraging various forms of horticulture and other resource exploitation. Along with natural resources, the availability of freshwater and extent of land suitable for gardens and settlements varies markedly on these different types of island. Atolls have no permanent groundwater, while the valleys of high islands are deeply incised by the flow of freshwater rivers and streams. The different geologies, hydrology and ecosystems of these islands and their location in relation to other islands and their resources have shaped the variety of characteristic subsistence strategies and social systems that continues in various forms today.

Along with these environmental variables, the nature and chronology of initial settlement of the region contributes to the similarity and diversity of Pacific Island landscapes perhaps more than it does in any other region. The initial settlement of the Pacific Islands is an outstanding episode in human history. The pattern of human colonization, settlement and subsequent development of the Pacific Island societies unites many communities and is fundamental to the tangible expressions and intangible associations of their history and culture in land and seascapes of the region and the potential Outstanding Universal Value of representative cultural landscapes. Oceania, beyond the large islands of Melanesia, was the last great region of the world to be settled by humans, which was made possible only by the extraordinary seafaring and navigational skills of the ancestors of Pacific Island peoples. It was sophisticated knowledge of the sea and navigation coupled with a highly adaptable resource strategy that enabled people to successfully explore the vast ocean and establish communities on small islands across the region.

7 D. Spennemann, 2006, Freshwater lens, settlement patterns, resources and connectivity in the Marshall Islands, *Transforming Cultures Journal*, Vol. 1, No. 2, pp. 4–63.

At least 40,000 years ago people had reached New Guinea and Australia,[8] from the archipelago of South-East Asia. Within perhaps only a few thousand years they had systematically colonized almost every type of environment from Southern Australia to the tip of the Solomon Islands, the region known as Near Oceania. A second phase of colonization began around 3,500 years ago. Known as the 'Lapita colonization', after the distinctive decorated ceramics found in archaeological sites associated with this eastward movement, it required a deliberate colonization and settlement strategy, and sophisticated seafaring and navigational knowledge and skills that permitted people to safely sail out of sight of land. They took with them the plants, animals and other resources necessary to survive and established settlements on the islands they discovered to the east as far as Samoa. A very clear archaeological trail marks the route of these settlers in the form of sites containing Lapita pottery. There are more than thirty known Lapita sites in the Kingdom of Tonga alone and these were included on the Tentative List of Tonga in 2007 as a component of a potential transnational serial property with Lapita sites elsewhere in the Pacific. They are illustrative of the story of human colonization of the last major region of the world, and the navigational and seafaring skills this required to successfully reach and settle the islands of remote Oceania.[9]

Figure 2. The sand dunes of Sigatoka Dunes National Heritage Park (Fiji), is a relic cultural landscape containing archaeological evidence spanning the 3,000-year history of human occupation of the Fiji Islands.

The final phase of colonization – that of Eastern Polynesia including Aotearoa/New Zealand and many remote outlying islands in the Pacific – took place very rapidly. Beginning around 1,200 years ago,[10] a major episode of exploration and settlement begun with people reaching all points of the Polynesian triangle – Hawaii, Rapa Nui (Easter Island) and Aotearoa/New Zealand –

8 J. Allen, 1997, The impact of Pleistocene hunter gatherers on the ecosystems of Australia and Melanesia, in P. Kirch and T. Hunt (eds), *Historical Ecology in the Pacific Islands: prehistoric environmental and landscape change*, New Haven, Conn., Yale University Press, pp. 23–50.

9 http://whc.unesco.org/en/tentativelists/5168/

10 A. Anderson and Y. Sinoto, 2002, New radiocarbon ages of colonization sites in East Polynesia, *Asian Perspectives*, Vol. 41, No. 2, pp. 242–57.

within a few hundred years. It is likely that voyaging and interaction between these communities of the ancestors of Polynesian peoples continued over vast distances of ocean until around 600 years ago. The languages, oral traditions and genealogies, traditional knowledge and customs of East Polynesian communities attest to this shared history and transnational regional cultural identity. Papahānaumokuākea in Hawaii was inscribed on the World Heritage List in 2010 as a mixed cultural and natural property. This enormous seascape includes the islands of Nihoa and Makumanamana, relict landscapes that bear exceptional testimony to the navigational skills, cultural connections and shared histories of Hawaii, Tahiti and the Marquesas, which resulted from long periods of migration and voyaging between the islands. The living Polynesian traditions of Native Hawaiians are also recognized in the Outstanding Universal Value of the property.[11]

By around 500 years ago it appears that almost every island in the Pacific Ocean had been explored. In the more than 30,000 years since people first crossed the sea barrier to New Ireland (part of Papua New Guinea) and the 3,000 years since the makers of Lapita ceramics first ventured eastward of the Solomon Islands, people had reached and settled the islands and in many areas continued to voyage and interact with other island communities; populations had increased; tropical horticultural practices had been adapted to all but the most marginal of environments; distinctive and diverse systems of land tenure, settlement patterns and architecture had developed; and in some areas competition for resources had led to war. All but a handful of island landscapes are anthropogenic and have continuing associations for contemporary Pacific communities. Given this, the islands of the Pacific are in World Heritage terms organically evolved cultural landscapes and associative cultural landscapes. Many land and seascapes also have internationally recognized natural values. Lagoons of New Caledonia: Reef Diversity and Associated Ecosystems, France (2008); East Rennell, Solomon Islands (1998) and Phoenix Islands Protected Area, Kiribati (2010) are all inscribed on natural criteria. In each, indigenous traditional owners and customary practices guide or contribute to the management of the property.

For all Pacific Island communities, traditional horticulture was or is the basis of their subsistence economies. Many horticultural practices are unique to the Pacific. Archaeological and genetic evidence indicates that sophisticated horticultural practices enabled the iconic plant staples of the Pacific, including coconut, banana, taro, yam, cassava, pawpaw, breadfruit and sweet potato, to be transported and adapted to newly settled islands along with nut and fruit species, medicinal plants and plants used in building, basketry and for clothing. The extraordinary horticultural knowledge of the region has been recognized in the inscription of Kuk Early Agricultural Site in the highlands of Papua New Guinea (2008), a cultural landscape demonstrating the independent development of agriculture in the highlands around 6,500 years ago and ongoing developments in indigenous agricultural practice into the present.[12]

Along with the introduction and adaptation of cultigens and animals to Pacific island environments, marine resources provide sustainable food supplies. The mixed World Heritage property of Rock Islands Southern Lagoon, Palau (2012) contains the remains of stone villages on small limestone islands. Archaeological research indicates that between 950 and 500 years ago residents survived on marine resources before abandoning the islands. The evidence provides an exceptional illustration of the intersection and consequences of climate change, population growth and subsistence behaviour on a society living in a marginal marine environment.[13]

A characteristic and defining element of the Pacific Island region and its cultural landscapes is the high percentage of land that continues to be held in traditional ownership. Systems of land tenure in the Pacific are often referred to as traditional, but are perhaps better described as customary or indigenous systems of land tenure that inform and are informed by customary systems of governance, are highly complex, and provide access for families or clans to land for gardening and other resources. These systems remain strong and, to varying degrees, now exist alongside non-customary or Western systems of land tenure especially in urban, tourist and commercial farming areas.

The Pacific Island land tenure systems are reflected in the ways in which people organize themselves in their landscape. The readily identifiable components of the organically evolving landscapes of the Pacific Islands, such as gardens and villages, reflect an integrated cultural system. Land tenure systems have created the patterning of features – structures, fences, roadways, gardens, burial places – within the cultural landscape and any interpretation of the organically evolved cultural landscapes of the region will necessarily include consideration of indigenous land tenures and governance systems. For example, in the high islands of East Polynesia a radial pattern of land tenure enables each family or village access to the various resources offered by environmental zones, from the reef to the mountains at the centre of the island. The Tentative List of Samoa includes the Manono, Apolima and Nuulopa Cultural Landscape. The three small islands demonstrate various elements of the historical and contemporary Samoan settlement patterns and social system. They are based on a chieftain or *matai* system of hereditary rank and comprising villages, *nu'u*, of a number of *'aiga*, or extended families, with the *fale* (house) of the

11 http://whc.unesco.org/en/list/1326

12 http://whc.unesco.org/en/list/887

13 http://whc.unesco.org/en/list/1386/

© Anita Smith 2012

Figure 3. The associative and organically evolving cultural landscape of the Sacred Site of Tapuaputatea/Te Po and the Valley of Opoa, Raiatea Island (French Polynesia), included on the Tentative List of France in 2010.

chief *matai* as the centre of the village with the other *fale* arranged around the central lawn or *malae*.[14]

The Pacific region's diversity in heritage

The initial task of the 2007 thematic study was to describe general factors that shaped the interaction of humans and their environment and are likely to influence the patterns of tangible and intangible evidence in the landscapes of the Pacific. This provided a foundation on which the substantial interregional diversity of Pacific landscapes could then be explored and explained.

Widespread social changes across the Pacific Islands over the last 1,000 years gave rise to the characteristic cultures and societies of the Pacific that were encountered by Europeans. In general, increasing populations and decreasing inter-island contact (in some parts of the region) appear to have led to an intensification in agricultural production and increasing social complexity that is associated with the development of hierarchical chiefly societies in Polynesia and Micronesia and parts of Melanesia. In Eastern Polynesia in particular, but also elsewhere, the intensification of horticulture is reflected in relict cultural landscapes that contain large-scale evidence of earthworks and irrigation systems associated with social complexity and surplus production. In East Polynesia, Tonga, Samoa and parts of Micronesia, increasing social complexity also provides an explanation for the appearance of a wide variety of large stone monuments in the landscape, the most famous of which are those of Easter Island (Rapa Nui National Park, Chile), inscribed on the World Heritage List in 1995.

In Micronesia the best-known example is Nan Madol, a large megalithic settlement off the coast of the tiny island of Pohnpei (formerly Ponape). Pohnpeian oral traditions relate that Nan Madol was the residential, religious and administrative centre of a dynasty of rulers known as the Saudeleur. Often described as the 'Venice of the Pacific', Nan Madol is a stone complex of over ninety man-made islets and structures separated by navigable canals, and over 60 ha in surface area. This ceremonial centre was constructed of huge prismatic basalt blocks between 1,000 and 500 years ago. The Federated States of Micronesia is planning to submit a World Heritage nomination for Nan Madol as a serial property with Lelu Ruins, a similar site on the neighbouring island of Kosrae, 550 km north-east of Pohnpei.[15]

14 A. Smith, 2007, Thematic essay: the cultural landscapes of the Pacific Islands, in Smith and Jones (eds), op. cit., pp. 17–60.

15 http://whc.unesco.org/en/tentativelists/5652/

On the Tentative List of France is the Sacred Site of Marae Taputapuatea/Te Po and the Valley of Opoa on Raiatea Island, French Polynesia.[16] Taputapuatea is the largest and most famous of the *mar*ae, the monumental stone platforms that were the ceremonial centres of East Polynesian society and in their form and function express the beliefs, religious practices and organization of traditional community life. Taputapuatea *marae* is one of a complex of *marae*, archery platforms and other stone structures highly significant for Polynesian communities across Polynesia. However, the potential Outstanding Universal Value of the site is fully realized only when the complex is considered as the heart of the cultural landscape of the Opoa Valley. Taputapuatea is located on the coast at the entrance to the Opoa valley, a cultural landscape of about 8 ha, with the valley bounded by the sacred mountains of Teatapu and Orofa'atiu and the sacred pass in the reef opposite the *marae*, Te Ava Mo'a. Opoa valley is the heart of the ancestral homeland of East Polynesians.

According to oral traditions, Ta'aroa, the father of Polynesian gods and creator of all things, first touched the earth in the Ōpoa Valley creating Havai'i, the Polynesian ancestral homeland. The valley was the centre of oceanic voyaging networks that stretched across the Polynesian triangle and bears testimony to the extraordinary tradition of navigation and seafaring in Polynesia. The cultural significance of the valley extends beyond the *marae* complex to the surrounding storied land and seascape and, like Nan Madol, emphasizes the fundamental role of indigenous communities, their histories and knowledge, in understanding the significance of tangible evidence as an expression of their culture.

Conclusion: inscription of Pacific cultural landscapes on the World Heritage List

The 2007 study was limited in scope, particularly in relation to associative cultural landscapes, the significance of which lies in the continuing associations of Pacific communities and their places. The strength of these associations was celebrated in the inscription of the first World Heritage cultural landscape, Tongariro National Park in Aotearoa/New Zealand in 1993. The volcanic landscape of the park, for which it was initially inscribed on natural values in 1990, has immense cultural and religious significance for the Ngati Tuwharetoa, the Maori customary owners of the land.

In 2008 the Outstanding Universal Value of the association of a Pacific landscape with a celebrated ancestor was recognized by the World Heritage Committee through the inscription of Chief Roi Mata's Domain, Vanuatu's first World Heritage property.[17] The property of three sites on the islands of Efate, Lelepa and Artok is associated with the life and death of the last paramount chief, Roi Mata. The landscape bears witness to the persistence of Roi Mata's social reforms and conflict resolution and continues to be a source of power and inspiration for people in Vanuatu. It is an outstanding example of a landscape representative of the chiefly systems of the Pacific.

European contact and the colonial era in the Pacific, like elsewhere in the SIDS regions, took place over a number of centuries, involved various European and American nations each with different agendas and approaches, included military and mercantile efforts, the exploitation of natural resources, the imposition of plantation economies and the movement or relocation – forced and unforced – of people. These historical events and processes are evident in the island landscapes in many different kinds of environmental evidence, settlement patterns and subsistence and large-scale rural economies, and in the cultural diversity of indigenous and non-indigenous Pacific Island communities. The inscription in 2013 of Levuka Historical Port Town, the first capital of Fiji,[18] recognized the Outstanding Universal Value of this historic urban landscape as an intact and representative example of the settlements established through negotiation and interaction between indigenous Pacific Islanders and Europeans in the early phase of European maritime expansion in the 19th century. The combination of colonial settlement typologies with the local building tradition created an identifiably Pacific port town landscape.

© Anita Smith 2010

Figure 4. Levuka Historical Port Town (Fiji), inscribed on the World Heritage List in 2013, is a historic urban landscape reflecting the processes of cultural contact and institutions of 19th-century European colonization in the Pacific.

The impact of Japanese, European and American colonization on traditional social structures, resources and land tenure varied markedly across the region. Across the Pacific Islands, and particularly in the island landscapes of Micronesia and parts of Melanesia, the impact of the

16 http://whc.unesco.org/en/tentativelists/5568/
17 http://whc.unesco.org/en/list/1280
18 http://whc.unesco.org/en/list/1399

Second World War continues to be clearly evident in the physical landscape and the associated memories of island communities. As a legacy of both colonialism and the war, post-war nuclear testing in the Pacific created its own characteristic landscapes in remote atolls of northern Micronesia, Kiribati and East Polynesia. In 2010, Bikini Atoll Nuclear Test Site in the Marshall Islands was listed as a Pacific Island cultural landscape. Bikini Atoll is an outstanding example of a nuclear test site and bears testimony to the birth of the Cold War and the 'nuclear era' that dominated global politics during the second part of the 20th century. The property is also the traditional land of the Bikini Islanders, who were relocated from their atoll to enable the testing to take place. Bikini Islanders continue to have strong associations with the atoll and the landscape attests to their cultural resilience and survival.

Sites of Memory: contributions of enslaved Africans to the built heritage of the Caribbean

Alvin O. Thompson
University of the West Indies, Barbados

Introduction

This paper seeks to highlight some of the most tangible contributions of enslaved Africans to Caribbean life and development. As space does not allow for elaboration of several of the issues mentioned or for consideration of other salient aspects of the region's tangible heritage, the focus is on the people at a time when they functioned under numerous constraints that affected their physical movements, earning capacities, choices and innovative spirits. At the same time they played major roles in the development of the societies in which they lived and left indelible marks on the body politic. It is difficult not to see Africans, as invisible as they might have been in contemporary written records, as actors in almost every aspect of Caribbean life.

Development of plantations

It is a truism to say that without the enslaved Africans the Caribbean heritage would have been quite different from what it is today. Indeed, it is almost certain that without them the plantation system, which constituted the fundamental material, political and social culture of the region, would never have developed. Instead, at best only small-scale farming and cattle-herding, carried out by the 'indigenous peoples' ('Amerindians' or Native Americans, as they are often termed) and a relatively small number of Europeans would have dotted the landscape for the next few centuries after the European advent into the region from the late 15th century.

For example, Cuba, Jamaica, Puerto Rico and Hispaniola (comprising the modern Dominican Republic and Haiti), which constitute the four largest islands in the region and the main ones in which the early Spanish colonizers settled, remained largely undeveloped because of the lack of a large-scale indigenous population accustomed to regimented work. Spanish contacts and relations with these people resulted in a grave demise of them, and for a long time critics of Spanish colonization wrote about this circumstance as the 'Black Legend'.

That legend included the unwitting introduction by the Spanish of a host of diseases to which the local peoples were unaccustomed, wars against them to force them into compliance with Spanish authority over them, killing many of them for sport, forcing them to work in mines for long hours, and herding them into regimented forms of agriculture to which they were totally unaccustomed. These circumstances, plus the fact that from the 1520s the Spanish began to show much more interest in colonizing Mexico and Peru, resulted in their Caribbean settlements being left largely denuded of population and focusing on small-scale yeoman agriculture and cattle-herding.

Apart from maintaining a titular sovereignty over the rest of the Caribbean islands, based on the so-called papal donation of 1493, Spain showed no real interest in them. As a result, over time they became nests for European pirates, freebooters and corsairs who used them as nests to harass the Spanish colonists, and steal their treasures on land and sea.

Eventually, a few European powers, notably England, France and the Netherlands, decided to set up colonies in areas largely peripheral to Spanish control (and later still, in the teeth of a weakened Spanish hegemony). However, these new colonies only became important after they began to cultivate tropical staples, especially sugar cane. In order to do so, they had to import millions of Africans because of the shortage of indigenous peoples to do the job and the failure to attract any significant number of Europeans, either voluntarily or involuntarily, to work the lands. Scholars still debate how many millions of enslaved Africans were introduced into the region. Estimates vary from about 6 million to upwards of 10 million (and much larger numbers for the Americas as a whole). However, all writers agree that these imports transformed both the demographic and agricultural history of the islands and in several instances the adjacent mainland, such as Guyana and Suriname.

The Sugar Revolution

Sugar became the crop of choice for most of the islands, although cotton, coffee, cocoa, indigo and other crops were cultivated. The importance of sugar in the economy at the time was underlined by the fact that contemporary writers often referred to the cluster of islands in the region as the 'Sugar Islands', which included even those islands in which the crop was not grown on a large-scale commercial basis. Many scholars refer to the events that took place in the economic history of the region during the late 17th century as the 'Sugar Revolution'. Professor Barry Higman and others have pointed out that this is the only crop in the world whose impact was such that it has been referred to by the term 'revolution' (Higman, 2002, p. 41).

From the above it should be clear that the African heritage is deeply embedded in the economic history of the Caribbean, even though that heritage has not been acknowledged fully, or even adequately, in textbooks and other literature. Usually, when that history is written or told the focus is largely, and sometimes exclusively, on 'the plantation', by which is meant the planter class (comprising almost exclusively the European overlords), the Great Houses, the particular crops, the economic structure developed with the metropolitan power, and the profits emanating from such enterprise. For most of the historical period scholars paid only marginal attention to the enslaved people as units of production, and considerably greater attention to them as insurgents, rebels, and so on, bent on destroying 'the system'. It is only within the last half-century or so that scholars have begun to focus on them as the main builders of the plantations, attempting to reclaim their rights as human beings through non-violent and violent struggles against the planter class.

In identifying and reconstructing the African heritage in the plantation network that constituted the most important aspect of the region's economy for most of its recorded history, scholars are paying increasing attention to such matters as the places of origin of specific groups of Africans, the technological and other skills that they brought with them, their work regimes, and their material remuneration (or lack thereof) as builders of that economy. Almost all agree that without the enslaved Africans the plantation heritage of the region, which remains its dominant heritage, would have been quite different and almost certainly not be a focus of international tourist attention today.

Before leaving this aspect of African heritage, it is important to point out that in a large number of instances present-day plantation owners are actively striving to wipe out all traces of the slavery past, even as they spend thousands of dollars to attract tourists to their sites. Many internet sites, while providing glimpses of the history of the plantations, make absolutely no mention of their association with slavery. On visiting the plantations it is often difficult, and sometimes impossible, to find any artefact indicative of such a past or even of an association with any of the tropical staples that were so common in slavery days. Such actions constitute conscious attempts to wipe the slavery past out of history, and by extension to wipe the enslaved people out of it. Fortunately, due to the efforts of UNESCO and other organizations and individuals, some plantation owners are beginning to restore artefacts and even to produce memorabilia highlighting their association with slavery and the contributions of Africans to their heritage.

While sugar was by far the main economic activity in which enslaved Africans in the Caribbean engaged, they also cultivated a number of other export crops, destined for Europe. The primary ones were coffee, cocoa, cotton and tobacco, all of which are still being cultivated in commercial quantities in particular Caribbean countries. The cultivation of these crops did not require the same number of Africans per acre of land, but all of them involved developing the infrastructure necessary for cultivation, largely through the use of servile labour.

Salt mining

Salt mining was another activity in which enslaved Africans were employed on a regular scale in several small islands and on a large scale in a few of them. Some islands and other places attest to such activities by the names by which they are known – for example, Salt Island in the British Virgin Islands, Salt Cay in the Turks and Caicos group, Cay Sal Bank off the Florida Coast, and Cay Sal off Venezuela. Many closed salt works are located on several of the islands that form the region's archipelago. We must remember that salt was the ingredient par excellence for preserving meat in the days before refrigeration and canning were developed. From the late 16th century the Dutch herring trade in Europe employed hundreds of vessels and thousands of individuals to facilitate the country's export of that commodity to most of Europe. It is in this context that Caribbean salt became important as the main preservative for the Dutch catch.[1] Toccoa Switzer, writing about the importance of the salt pans in Bonaire, states:

> *Like sugar, salt ranked as one of the world's most precious commodities, its uses ranging from tanning animal hides to preserving meats and fish. But harvesting sea salt proved to be a long and tedious process. Lacking enough manpower, the Dutch imported African slaves, many from the Congo and Angola, to toil the salt pans. The slaves spent their days wading through the slushy brine, sifting salt crystals by hand. Their only tools were simple wooden rakes. At night, they slept in stone huts at the edge of the salt pans.*[2]

1 For a short but interesting discussion on the Dutch salt trade during the colonial period see From Rocks to Riches, The Free Library. http://www.thefreelibrary.com/From+rocks+to+riches.-a08494610

2 T. Switzer, Bonaire, Dutch West Indies: well worth its salt. http://www.gonomad.com/1163-bonaire-dutch-west-indies-well-worth-its-salt#KKrYaA4X7eFxvAjj.99

Before they developed their own salt pans, the Dutch had to depend upon those held by the Spanish in the Iberian Peninsula in Europe, and later in Punta de Araya, off the coast of Venezuela. This brought them into frequent armed conflict with the Spanish, who at one point retaliated by flooding the salt pans in that area and also establishing armed coastguards to keep out the interlopers. Therefore, the salt pans in Bonaire and Sint Maarten, Caribbean islands that the Dutch controlled, served a vital function in the Dutch fish trade with Europe. The trade remained important well into the post-slavery period as the main commercial activity in which the two islands engaged. The physical work involved in actual mining was carried out almost exclusively by enslaved Africans, whose footprints lie today not only in the written historical records but also in several artefacts that have been unearthed from the sites, and monuments commemorating their activities. For present-day salt miners, commonly referred to as 'salt pickers', their African heritage in that industry in the two small islands mentioned above is writ large for all who care to see it.

Architecture

'Slave huts' and/or 'chattel houses'

The contribution and heritage of enslaved Africans is also present in the houses and other buildings that chequered, and in several instances graced, the colonial landscapes. At the vernacular level, arguably the most obvious examples are the houses of the poor people. Principal among these dwellings are the so-called 'slave huts', relics of which can be seen today in many areas, rural Haiti perhaps providing the best examples. During the slavery period most of them were made from wood or other very ephemeral materials. They had to be repaired regularly, and even so did not last very long. They were usually small, ill-ventilated and dank dwellings. In some colonies, such as Guiana and Suriname, they were built on stilts to keep their floors above water during floods. In others, such as Barbados, they were erected on a motley assemblage of stones and bricks, in one of the typical African fashions of the period. Brick dwellings became more common during the 19th century, as the abolitionist efforts to ameliorate the condition of the enslaved people gained greater attention. However, while several drawings of both wooden and brick dwellings exist, only in very few of the countries have such original structures survived.

Barbados, for example, has quite a number of dwellings that are commonly referred to as 'chattel houses' (the local term for 'slave huts'). The original structures were single-room dwellings, roughly 6 m by 4.5 m or smaller. They were usually made from wood or wattle-and-daub. As the period of amelioration and emancipation drew near, some of them became slightly more elaborate and were sometimes constructed in stone. It also became quite fashionable to use gabled roofs and jalousies. So-called chattel houses containing two and occasionally three bedrooms, and painted in a variety of colours, are commonly found today. Jane Shattuck Hoyos writes concerning some of them: 'Lovingly tended houses at Carlton, Saint James; Wildey, Brittons Cross Road, Brittons Hill and Villa Road in Saint Michael; Pilgrim Place, Christ Church and Around The Town, Speightstown – that one almost a century old'.[3] Such buildings are being used not only as dwellings but also for a variety of business purposes.

© UNESCO/S.Haraguchi

Figure 1. Barbadian 'chattel house'.

Bonaire claims to have preserved a dozen 'slave cabins' on the dyke that separates the Salt Lake on which enslaved people worked. It is said that these cabins were once made from mud with thatched roofs, but that they were subsequently erected in stone. The cabins have been 'restored' and 'beautified', presenting a much more attractive appearance than would have been the case when they were first built. Beyond the debate about the origins of these particular houses, their very existence speaks to the consciousness of a tangible heritage in working-class house construction going back to the period of slavery.

© V.C.Vulto/CC BY SA

Figure 2. 'Slave huts' of Bonaire.

3 J. S. Hoyos, 2012, Barbados chattel houses find new life, About Barbados, History, 29 June. http://planetbarbadosblog.com/2012/06/barbados-chattel-house-renaissance/. See also, Slave houses elsewhere in the Caribbean. http://www.liverpoolmuseums.org.uk/ism/slavery/archaeology/caribbean/caribbean6.aspx

Great Houses and other plantation buildings

As regards the Great Houses, visitors to the region often admire the massive size and elegant style that characterize several of them on plantations and in urban environments. They are equally impressed with the cathedrals, churches, forts and many other buildings that grace these islands that were once known for their extravagant display of wealth. Perhaps a few pause to consider who were the actual labourers behind the building of such edifices. The fact is that the enslaved Africans are usually forgotten when discussing this aspect of Caribbean heritage. Existing records generally speak about their original owners and/or sometimes the architects who executed the building plans. Rarely do we find clear references to the many enslaved African artisans and ordinary labourers who often sacrificed their flesh and bone to bring these structures into reality. However, scholars are slowly beginning to look for their presence, however obliquely, in the written and oral records.

The fact is that enslaved African labour and skills are inextricably linked to the architectural heritage of the region. This is evident from the fact that they were the prime workers in stone, wood and other materials during the period under review. The extant literature makes it clear that they were the main builders on the plantations, both in wood and stone. They erected all the buildings that were needed to produce sugar and other staples. Estates usually had a core of artisans who constituted the most valuable body of enslaved persons, and for whom the highest prices were usually paid. They generally worked under the supervision of white 'master' craftsmen.

Some writers go much further: they attribute much of the local or 'vernacular' architecture of the rural and urban environments to local builders, in a continually evolving landscape built on European, African and sometimes Native American traditions. They argue that although many of the structures display stylistic adaptations of European traditions and aesthetics, over time a distinctly vernacular tradition evolved in the region, emanating from the early slavery period. This, for example, is the view of Rory Westmass, former professor of architecture at the University of Guyana. To quote him directly: 'Slave labour, cheap skilled labour, an abundance of good timber, a climate hot and wet but not too enervating, the importation of "foreign" ideas all basically renaissance in building style, fire and many other factors have combined to give us a small bit of architecture distinctly Guyanese' (Westmass, 2010).

Military and naval installations

African labour largely provided most of the manpower and much of the artisan skills needed to build all the forts and other military and naval installations. Forts generally constituted the most massive buildings that were erected in the region, although many of them also became renowned for their architectural beauty. They were usually located on eminences – natural features of the landscape – which gave their occupants a panoramic view of a wide area of the surrounding countryside, and theoretically offered them protection from attacks by enemy forces, although this was often not actually the case. Brimstone Hill Fortress, located in Saint Kitts and sometimes referred to as the Gibraltar of the West Indies, was built on an 250 m elevation, with walls carved out of black volcanic rock. It offers breathtaking views of several Caribbean islands, including Nevis, Montserrat, Saba, Saint Bartholomew and Saint Martin.[4]

Although Citadelle Laferrière (Figure 3) was built in Haiti in the early decades after that country declared its independence from France, it is perhaps appropriate to place it among the forts under discussion here because all European and many New World countries still regarded the country as a colony in revolt from its owners. One writer described the fort thus: 'With an impossible location on a mountain top in Haiti, Citadelle has no rival in terms of the beauty of its setting.'[5] In spite of the massive girth of many of the forts, none of them compared in size to Castillo de San Cristóbal in Puerto Rico, located in San Juan and said to be the largest Spanish fort in the Americas. With a geographical expanse of some 11 ha, it wrapped around San Juan, the island's capital city. However, it was later reduced in size considerably as war among the European powers in the region abated significantly in the 19th century.

Figure 3. Citadelle Laferrière, Haiti.

Professor Jane Landers of Vanderbilt University points out in the context of the Spanish forts – a statement applicable to all other forts in the region – that African masonry and metalworking techniques were used in the Castillo de San Marcos fort in Spanish Florida, as well as forts in Havana, Santo Domingo, San Juan, Cartagena, Portobelo and

4 D. Smith, 2012, Forts of the Caribbean, 21 August. http://blog.cruiseline.co.uk/forts-of-the-caribbean/

5 Most spectacular Caribbean forts, Caribbean Wanderer. http://www.caribbeanwanderer.com/most-spectacular-caribbean-forts/

Acapulco.[6] The historical records in the British National Archives have left at least one detailed statement on their forts – those built in Grenada in the 1780s and 1790s.[7]

Even more precise information exists in surviving records about the major role that enslaved Africans played in building, expanding and rehabilitating Antigua Naval Dockyard, formerly known as Nelson's Dockyard, in English Harbour in the 18th and early 19th centuries (Figure 4). Large numbers of enslaved Africans were drafted from various plantations to build the complex structures. For example, the journal of boatswain Francis Cox, written between 1820 and 1823, indicates that thirty-three enslaved African stonemasons built the stone-wharf waterfront from large blocks, weighing several tonnes, which were quarried from the hillside, and placed about 5 m below the surface of the water in a very precise manner. Africans captured on vessels plying the illegal slave trade after 1808 were forcibly recruited into the British military and naval forces in the region, and assisted in maintaining and manning the dockyard (Nicholson, 2002, passim).

© UNESCO/S.Haraguchi

Figure 4. Antigua Harbour (formerly known as English Harbour) today.

Resistance to enslavement

It was not only as labourers and artisans that enslaved Africans left their mark on the region's landscape and heritage. Their resistance to enslavement must be viewed as an important aspect of their legacy, both in its tangible (material) and intangible (ideological) forms. That resistance is reflected in numerous sites and artefacts preserved on many a landscape in the region. They constitute the most abiding heritage sites that the African freedom fighters left.[8] Today many scholars view them as among the most outstanding features of the dialectical relations between the two parties. At the intangible level, they speak to the desire of the enslaved Africans, as indeed of all peoples, to free themselves of all forms of bondage, especially those imposed by one group of human beings upon another. They demonstrate in physical and often counter-violent forms what the American revolutionaries asserted in their Declaration of Independence on 4 July 1776:

> *We hold these truths to be self-evident: that all men are created equal, that they are endowed by their Creator with certain unalienable Rights, that among these are Life, Liberty and the pursuit of Happiness. But when a long train of abuses and usurpations, pursuing invariably the same object evinces a design to reduce them under absolute Despotism, it is their right, it is their duty, to throw off such Government (Kelly and Harbison, 1970, p. 89).*

Establishment of Maroon settlements

The Africans attempted to throw off the yoke of slavery in several ways, both violent and non-violent, or passive and active, as some scholars view their actions. The two most expressive forms were marronage or flight, and open revolt. Marronage involved small or large groups absconding from the plantations and seeking temporary or permanent refuge in the deep hinterlands of the colonies, usually some distance away from plantation settlements. The most durable Maroon settlements were generally well fortified either by the natural contours of the land or by the diligent and/or clever construction of their dwellers. Hundreds of them existed in the region during the slavery period, although most of the smaller or medium-sized ones were eventually destroyed as a result of expeditions that the enslavers, backed by the colonial state and sometimes imperial detachments, sent against them. Like the proverbial hydra, many of them rose again, often in new locations.

Maroons were the earliest rebels against the slavery system and by far the most dreaded freedom fighters. They opted out of the slavery system completely, although the plantocracy almost invariably referred to them as 'runaway slaves', including those who were born in the Maroon settlements and had never experienced slavery. Perhaps it is important to point out here that although Edouard Glissant has stated that 'The Maroon is the only true popular hero of the Caribbean', the reality is that Maroon struggles and achievements are often hardly known to the general public. Worse still, popular perception of them in many of the 'great Maroon countries' of yesteryear, such as Jamaica and Suriname (also Brazil), is largely negative.

6 Cited in N. J. McGill, 2001, Built on slavery, The Florida Times Union, 9 December. http://jacksonville.com/tu-online/stories/120901/dss_8034581.html

7 J. D. Zimmerman, 1999, Fort Mathew, Grenada – The American Connection, Portcullis Ltd. http://www.forts.org/FtMathew.htm

8 For the most wide-ranging study on this subject see Thompson (2006).

The Maroons often developed independent modes of living based on their African knowledge and heritage, as well as adaptation to their particular environments. The most lethal Maroon settlements in the region were the Leeward and Windward groups in Jamaica; the Saramaka, Ndjuka, Matawais, and Boni in Suriname; and Le Maniel on the border between Haiti and the Dominican Republic. These communities embraced hundreds of inhabitants at various points in their existence, but they were very small in comparison to the Maroon confederation in Brazil which in the late 17th century embraced between 20,000 and 30,000 inhabitants. So lethal were these communities in several instances that the European colonial state was often forced to make peace treaties with them, acknowledging their right to exist as free and independent or at least autonomous entities, and also providing gifts to them annually to maintain the peace.

The tangible heritage of marronage exists today in many parts of the Caribbean, sometimes in actual Maroon settlements, and more often in place names associated with them historically. Perhaps the best-known is Nanny Town in Jamaica to which the Leeward Maroons migrated in 1739, as a result of a treaty signed between them and the colonial government in that year. Other Maroon settlements in that country include Accompong Town, Guy's Town and Molly Town. The treaties signed with the Jamaican Maroons recognized them as self-governing groups with permanent rights to their lands. The colonial government also signed treaties with the Maroons in Suriname along lines similar to those signed with their counterparts in Jamaica. Although Le Maniel never signed a treaty with the colonial government, in 1785 it arrived at an understanding with that government that the two parties would keep the peace. Maroon treaties, as they are often called, constituted an important aspect of the history and heritage of the Caribbean region, as also several parts of Latin America where slavery was large-scale.

As noted above, today actual Maroon settlements exist in various parts of the Caribbean. In other areas the tangible Maroon heritage survives in place names, for example, Runaway Creek in Belize; Hato Caves in Curaçao (Figure 5); Piton des Nègres, Piton des Ténèbres, Crête à Congo, Pic des Platons and Cavernes de Cavaillon in Haiti; Morne Nègre Marron (Morne Laurent) in Dominica; Todos Tenemos Stream, Guardamujeres Stream, Guardamujeres Mountain, Ajengiblar Stream, Calunga Stream and Calunga Mountain in Cuba. Even the relatively small island of Antigua retains a vestige of Maroon heritage in Runaway Bay, and the tiny islands of Bermuda (with an estimated total size of only 55 km^2) have Jeffrey's Cave in memory of a runaway who hid there for some weeks. In other places, small towns, villages and other communities clearly reflect both Maroon and wider African heritage, such as Todos Tenemos ('We All Have') and Guardamujeres ('Protect Women') in Cuba.

Figure 5. Hato Caves, once the retreat of Maroons, are now a major attraction in Curaçao.

Archaeological work and field expeditions by scholars in Cuba, Haiti, the Dominican Republic, Suriname, Jamaica and elsewhere are adding to our knowledge of the exact sites of many of the settlements and the material and social culture of their inhabitants. In the case of Jamaica, such work, aided by historical maps, other contemporary records and oral traditions, has allowed Kofi Agorsah and others to locate more precisely a variety of Maroon sites, including Gun Hill, Watch Hill, Lookout Point (Parade), Kindah, Bathing Place, Petty River Bottom, Gun Barrel, Killdead, Ambush and Peace Cave. They have also uncovered British stone fortifications dating back to the brief period of British military occupation of Nanny Town in 1734–1735 (Agorsah, 1994, pp. 170-74, 182). Gabino La Rosa Corzo, employing similar techniques, has located many settlements in Cuba, including Todos Tenemos and Calunga in El Frijol Mountains (La Rosa Corzo, 2003, pp. 231–43 passim).

Figure 6. Artistic impression of Nanny of the Maroons (Grandy Nanny) represented on Jamaican currency.

Scholars are also attempting to give greater visibility to African anti-slavery leaders through identifying them by name, producing short biographies of them wherever possible, and assessing their contribution to the struggle for freedom and justice. The iconography of such great leaders includes François Makandal (Macandal), Jérôme Poteau, Polydor, Romaine la Prophetesse, Padre Jean and Boukman Dutty in Haiti; Françisque Fabulé, Grand-Papa and Nocachy in Guadeloupe; Pompée in French Guiana; Juan de Serras, Cudjoe (Kojo), Grandy Nanny (Figure 6),

Three-Fingered Jack and Leonard Parkinson in Jamaica; Diego Guzman, Juan Vaquero, Diego de Ocampo and Sebastián Lemba in the Dominican Republic; Marcos Xiorro in Puerto Rico; and Boni, Jolicoeur and Baron in Suriname.

Monuments and memorials to African resistance leaders and movements

The most visible, if not the most tangible, way in which the contribution of enslaved Africans to freedom is being expressed in the region is through the erection of monuments in various countries, some of them larger than life. Barbara Chase-Riboud sees the 'visualization of history as narrative sculpture', and explains that 'Monuments are nations' exclamations, [sic] marks, their anchors, their seawalls, and their time-markers'.[9] A monument has the capacity, more than most other objects on the landscape, of causing people to stop for a minute to find out what it represents. It is also often the focus of debate, sometimes intensely so, of its relevance or appropriateness in a particular place or to a particular cause. UNESCO's programme of increasing universal awareness of the contribution of Africans to world civilization and culture includes the erection of monuments in a wide variety of places accessible to the public. The United Nations – the parent body of UNESCO – also agreed in 2007 to erect a monument at its Headquarters in New York, officially referred to as The Permanent Memorial at the United Nations in Honor of the Victims of Slavery and the Transatlantic Slave Trade. Solicitation of funds for that project is ongoing.[10]

Within the Caribbean several monuments to individuals and groups who have been involved in resisting and destroying the slavery system have dotted the landscape, especially within the last half century or so. Here we simply identify most of the individuals, groups or events that they commemorate and deal very briefly with a few. In no particular order the list includes Grandy Nanny, Cudjoe and Sam Sharpe of Jamaica; Sebastián Lemba of the Dominican Republic, Toussaint L'Ouverture, Jean-Jacques Dessalines and Henry Christophe of Haiti; Cuffy, Quamina and Damon of Guyana; Prince Klass of Antigua; Bussa and Quaw of Barbados; La Mulâtresse Solitude, Joseph Ignace and Louis Delgrès of Guadeloupe; One-Tété Lohkay of Sint Maarten; Pompey of the Bahamas; Sally Bassett of Bermuda; Alida of Suriname; Tula of Curaçao; and Carlota of Cuba.[11]

Monuments and memorials erected to groups or particular events include the Lady Liberty Monument in Sint Maarten; Emancipation Monument in Jamaica; El Cobre Monument in Cuba (sponsored by UNESCO); 1963 Monument (popularly called the Kwaku Monument) in Suriname, erected to commemorate abolition a century earlier; Membre Boekoe (Remember Boekoe) Monument also in Suriname to Boni; statue and obelisk in Emancipation Park in Puerto Rico, in honour of the country's enslaved victims; Nègre Marron (the 'Black Maroon' Neg Mawon) in Haiti; Monument to Emancipation in Sint Maarten; Monument Commemorating Slavery in French Guiana; Monument to Louis Delgrès and his companions in Guadeloupe; Monument to the 1795 revolt in Curaçao; Monument to the 1763 Revolt in Saint John, United States Virgin Islands; First Free Village Monument in Barbados; and Anse Caffard Memorial in Martinique to enslaved persons on board a slave ship, who had drowned just off the shores of that island. The list above does not mention all the monuments and memorials that have been erected to formerly enslaved Africans, but it gives a good idea of what has been happening in recent times.

The monuments in Haiti should be singled out for special attention, because it was only in that country that mainly enslaved Africans, fighting alongside a small number of free-Colored local peoples, succeeded in destroying both the slavery system and colonialism. They became the only group in history to eliminate slavery in any country, almost exclusively through their own militant efforts. Toussaint L'Ouverture was the principal figure behind this effort, until he was treacherously tricked into boarding a vessel at the invitation of the French, ostensibly to negotiate peace between the two groups of belligerents. Sadly, the French shipped him off to France where he died in prison. However, Dessalines took over leadership of the struggle and led the country to independence from France in 1804.

Henry Christophe succeeded Dessalines and led the country, although a much divided one politically, ethnically and otherwise, from 1806 to 1821. He built the massive Citadel to maintain the country's independence from France, and also Sans Souci, a large palace, for himself and his family. Some writers have referred to Sans Souci as the Haitian equivalent of Louis XIV of France's Versailles Palace. During most of the post-slavery period a number of circumstances, including those mentioned above, conspired to make Haiti the poorest country in the region. In spite of this, the Haitian achievement in overthrowing colonialism and slavery is still writ large in the annals of African achievement in the region. The statute of the Black Maroon (Neg Mawon), which sits in the Square of the Heroes of Independence, is undoubtedly the most iconic symbol of the struggle for freedom of enslaved peoples in the New World.

9 B. Chase-Riboud, 2006, Sally Hemings and the One Drop Rule of Public History. http://www.yale.edu/glc/publichistory/chaseriboud.pdf

10 See Permanent Memorial website at http://www.unslavery memorial.org/donate.html

11 For a more comprehensive list of monuments commemorating slavery and abolition see Thompson (2010).

Cuffy, leader of the 1763 uprising in Guyana

The discussion below concerning the monument to Cuffy, leader of the 1763 uprising in Guyana, is inserted here because at one point Forbes Burnham, prime minister and later president of that country, sought to make political capital of that event, in a manner quite unique to the region. In 1970 he gave precedence to 23 February 1763, the date on which the uprising commenced, rather than 26 May 1966, that on which the country achieved its independence from Britain, as the seminal date that the country should observe in its celebrations. He and his cohorts who supported this move sought to invest the uprising with specific ideological significance, viewing it as a revolution in the making and the forerunner to the Cooperative Republic of Guyana which was being initiated in 1970. For example, P. H. Daly, a well-known nationalist historian, wrote in his book, titled *Revolution to Republic*, that 'The co-operative revolution is the inevitable extension of the February Revolution to the economic level'; and again, 'The Co-operative Revolution is the real challenge handed down to the independent nation of Guyana by the leaders of the February Revolution.' (Daly, 1970, p. 86). In keeping with this objective, the citation regarding Cuffy in the Guyana Bank of Trade and Industry's mural, included (and still includes) the statement:

> *Sensitive and imaginative, blessed with a diplomat's shrewdness and a statesman's vision, he planned to set up an independent state in Upper Berbice, conceived in protest and dedicated to the proposition that all men were created free. Frustrated in 1763, his dream was fulfilled in 1966 when Guyana became independent and thus completed the job he began. In 1970 he was declared Guyana's first national hero and the honour denied him in life was paid to him two centuries after his death.*[12]

Burnham never managed to persuade any significant number of Guyanese that Cuffy – who fell out with his colleagues during the uprising and committed suicide after allegedly burying the little gunpowder that they possessed – should hold pride of place in the national pantheon. However, he clearly succeeded in making that African freedom fighter by far the most iconic figure in the country.

Conclusion

In closing, it is important to reiterate that enslaved Africans played critical roles in the early development of all the Caribbean countries, and left a rich heritage on the colonial landscape. Their achievements were deeply constrained by the many legal and extra-legal burdens under which they lived, worked and often died. However, throughout the period of slavery they were actors on the scene, helping to shape the communities in which they resided in ways that were more acceptable and accommodating to them. They often displayed a sense of independence and took matters into their own hands, challenging the imperatives of the enslavers and creating alternative communities and modes of life based on higher concepts of human dignity. They left a varied heritage in almost every major aspect of Caribbean life, although here we have only focused on a small part of their contribution. They helped to shape not only the economic and 'political' aspects of their societies, but also the cultural ones (outside the scope of this paper). They left their mark on the region's body politic – one that is clear to anyone who cares to see.

12 GBTI. http://www.gbtibank.com/art_dome_murals.html. The view of Cuffy as a 'warrior-statesman' and a 'psychological strategist' had been promoted a few years earlier in Daly (1970, pp. 20, 26, 61–64).

References

Agorsah, K. E. 1994. Archaeology of maroon settlements in Jamaica. In K. E. Agorsah (ed.), *Maroon Heritage: Archaeological Ethnographic and Historical Perspectives*, pp. 163–87. Kingston, Canoe Press.

Daly, P. H. 1970. *Revolution to Republic*. Georgetown Daily Chronicle.

Higman, B. W. 2002. The making of the Sugar Revolution. In A. O. Thompson (ed.), *In the Shadow of the Plantation: Caribbean History and Legacy*, pp. 40–71. Kingston, Ian Randle Publishers.

Kelly, A. H. and Harbison, W. A. 1970. *The American Constitution: Its Origins and Development*. 4th ed. New York, W.W. Norton.

La Rosa Corzo, G. 2003. *Runaway Slave Settlements in Cuba: Resistance and Repression.* Trans. Mary Todd. Chapel Hill, University of North Carolina Press.

Nicholson, D. V. 2002. *The King's Negroes: The Journal of Boatswain Fox, Antigua Navy Yard, 1820-1823.* English Harbour, Antigua, The Dockyard Museum.

Thompson, A. O. 2006. *Flight to Freedom: African Runaways and Maroons in the Americas.* Kingston, University of the West Indies Press.

_____. 2010. *Confronting Slavery: Breaking through the Corridors of Silence.* Bridgetown, Thompson Business Services.

Westmass, R. 2010. Architecture ... Building under our sun, Part I. *Stabroek News* (Guyanese newspaper), 29 April.

Implementing sustainable tourism in complex situations: case study of Minami-jima in Ogasawara Islands

Toshinori Tanaka
University of Tokyo, Japan

Introduction

The issue of sustainable tourism in World Heritage sites has been discussed in many conferences, reports and theses (e.g. ICOMOS, 1999; Pedersen, 2002; Eagles et al., 2002, Borges et al., 2011) focusing on cultural and natural heritage at local and national levels, and from theoretical and practical perspectives. Sustainable tourism is defined in various ways, but the commonality in the discussions is about 'balance' (Bramwell and Lane, 2012). As Tourtellot describes tourism as 'part threat, part hope' (Tourtellot, 2010), its unanticipated growth confronts these sites with both opportunities and stresses. Many Charters or Declarations concerning natural and cultural conservation clearly state the need to establish 'a balance between tourism and conservation' (e.g. The Seoul Declaration on Tourism in Asia's Historic Towns and Areas 2005).

Unfortunately, however, tourism management in World Heritage sites in Japan is in limbo. Two of the most famous sites in Japan, Yakushima (inscribed in 1993) and Fujisan, sacred place and source of artistic inspiration (inscribed in 2013), are suffering from ballooning visitor numbers and consequently from overuse. Responsible agencies and stakeholders are struggling to set effective rules in complex situations with heavily overlapping laws, institutions and organizations (Tanaka, 2011).

With this situation in mind, this paper explores the efforts and challenges to implement Japan's first sustainable tourism scheme in Minami-jima, the most famous natural tourism resource in Ogasawara Islands, which were inscribed on the World Heritage List in 2011 as a natural site.

Minami-jima, Japanese for 'South-Island', is an uninhabited island famous for its scenic beauty formed by the submerged karst (Figures 1 and 2). Seeking this beautiful scenery, many tourists visit by small boats from Chichi-jima ('Father-Island'), the main island of Ogasawara. According to a 1997 report of the Nature Conservation Society of Japan, the island's vegetation and the gannetries (gannet breeding grounds) were heavily damaged by unregulated tourism. The consequent runoff of the red soil also damaged the coral reef in the area (Nature Conservation Society of Japan, 1997).

Initiated by Tokyo Metropolitan Government, stakeholders started to implement a sustainable tourism scheme in Minami-jima from 2000 onwards. Before discussing sustainable tourism in Minami-jima, I will fill in some background on Ogasawara Islands.

©Tanaka

Figure 1. View of Minami-jima.

©Tanaka

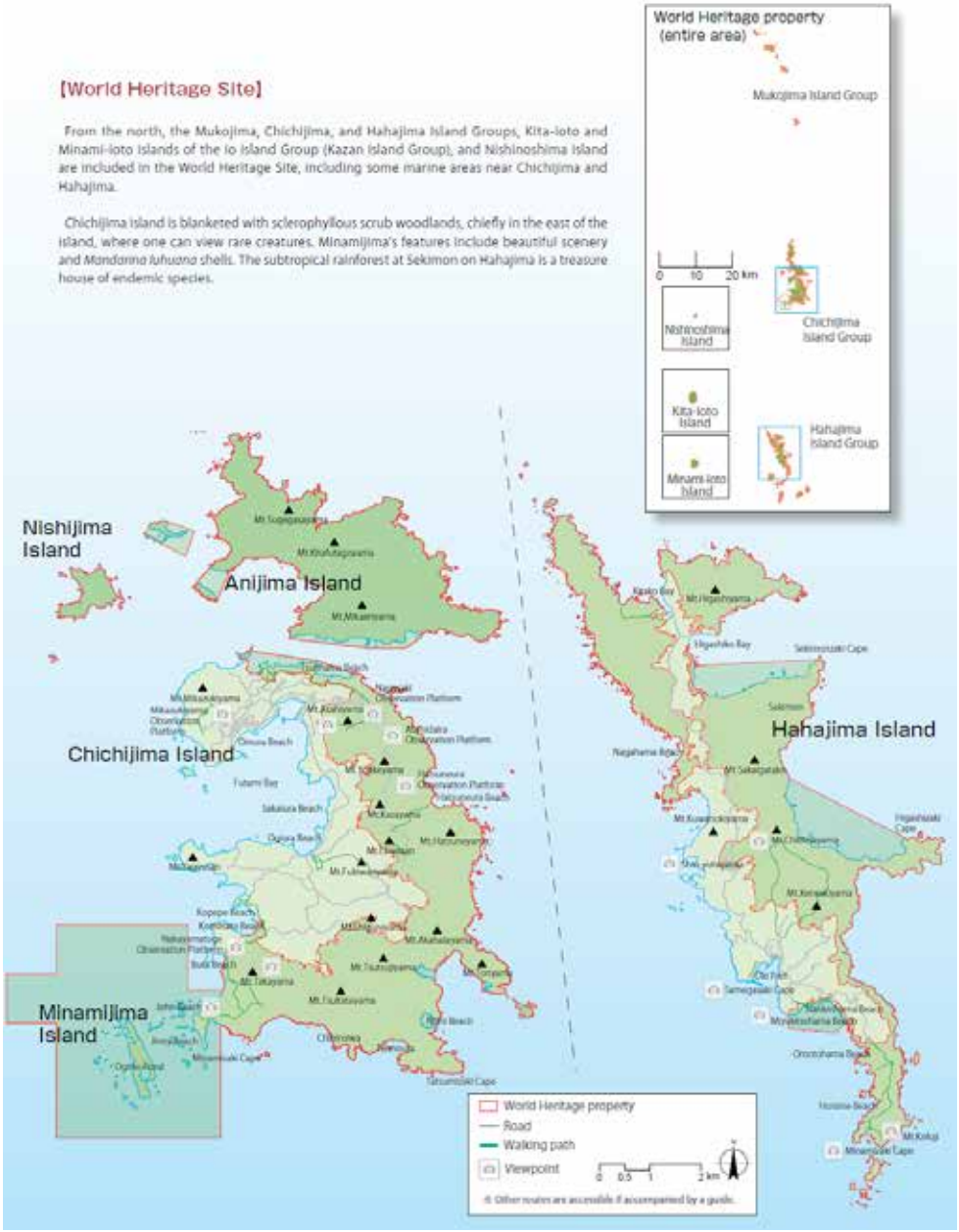
Figure 2. Minami-jima from main island's hilltop.

Ogasawara Islands

'Ogasawara Islands' collectively refers to groups of islands located 1,000 km south of Tokyo. This group comprises more than thirty islands extending about 400 km from north to south, clustered within three island groups of the Ogasawara Archipelago and several individual islands lying along the Izu-Ogasawara Arc Trench System (Government of Japan, 2010). Like the Galápagos Islands or the Hawaiian Islands, the Ogasawara Islands are oceanic islands formed by submarine volcanic activity around 48 million years ago (Guo and McCormack, 2005; Government of Japan, 2010). Their ecosystem includes 195 endangered bird species, 440 native vascular plants and more than 100 recorded native land snails, which are evidence of evolutionary processes through significant ongoing ecological processes of adaptive radiation[1] in the evolution of the land snail fauna, as well as in endemic plant species (IUCN, 2011).

The whole island group belongs to Ogasawara Village, under the administration of Tokyo Metropolitan Government, with approximately 2,500 inhabitants in two islands, as of August 2013: Chichi-jima (population 2,073) and Haha-jima (population 478). The climate in the main island is classified as subtropical, with an average temperature of 23 °C, and the main industry in the village is tourism.

1 Adaptive radiation is a term used in evolutionary biology meaning the evolution of diversity within a rapidly multiplying lineage. It can cause a single ancestral species to differentiate into an impressively vast array of species inhabiting a variety of environments. See Schluter (2000).



© *Ogasawara Village*

Figure 3. Map of Ogasawara Islands World Heritage site.

The only public transport to the main island is the ferry from Tokyo, which takes about 25½ hours each way and operates every three to four days. This means that visitors need to spend at least three to four nights on the island and two nights on the ferry (as of August 2013, which is peak season).

Human occupation of the islands is relatively recent, with a small group of Westerners and Pacific Islanders settling on Chichi-jima in 1830. The islands were occupied by the US forces after the Second World War and retroceded to Japan in 1968. After the retrocession, the development of the islands was strongly supported by the Japanese Government and the Tokyo Metropolitan Government (TMG) through its Ogasawara Islands branch office, based on the Act on Special Measures concerning the Development of Ogasawara Islands (Guo and McCormack, 2005; IUCN, 2011).

Nature conservation measures in Ogasawara Islands

The first conservation measure taken in Ogasawara Islands was the designation of Ogasawara National Park in 1972, based on the Natural Parks Law (presiding ministry is the Ministry of the Environment, MoE). In 1980 a vast amount of the National Park area was also designated as the Ogasawara Archipelago National Wildlife Protection Area, based on the Wildlife Protection and Appropriate Hunting Law (MoE), and as the Ogasawara Islands Forest Ecosystem Reserve in 2006 (extended in 2009), based on the National Forest Administration and Management Bylaw (Forestry Agency, FA). Adding to these three laws, Minami-jima is also designated as a National Natural Monument based on the Law for the Protection of Cultural Property (Agency for Cultural Affairs). In 2011, the areas shown in Figure 3 were inscribed on the World Heritage List as a natural site under criterion (ix).[2]

There are seven different protected areas based on five different types of legal status that make up Ogasawara Islands site, mainly based on the zoning and regulation of Ogasawara National Park. As for the management of Ogasawara National Park, Tokyo Metropolitan Government had taken the main role until 2006, as MoE had no management offices or staff for over thirty years after the designation as a National Park. After a ranger office was set up by MoE in 2006, the ministry is collaborating with TMG in the management of Ogasawara National Park.

Japan's national park system: weak authority and lack of resources

Japan's national park system adopts the so called Chiiki-sei, often translated as multiple-use parks or park management by zoning and regulation (Hiwasaki, 2005). National park properties in the United States, Canada, Australia and many other countries are basically owned by the state authorities, such as the National Parks Service in the United States, or Parks Canada. However, in countries such as Japan, the United Kingdom or the Republic of Korea, national parks often include vast amounts of properties owned by private parties or other departments or agencies. In Japan, for example, national park properties belong to the FA (62 per cent), private parties (26 per cent), and local governments (12 per cent), while the key authority (MoE) owns only 0.3 per cent. There are more than 650,000 inhabitants within the boundaries of national parks in Japan and there are many purposes for land use within the national parks, besides nature conservation (Tanaka, 2012*a*).

Naturally, many laws, institutions and organizations are involved in the national park system's management. Elsewhere I have argued that these overlapping laws, institutions and organizations are causing fragmentation in the decision-making processes of national park management in Japan (Tanaka, 2012*a*).

In addition, MoE is suffering from a lack of resources and weak authority. Short-staffed and insufficient budget is apparent, as shown in Table 1, even when compared with the United Kingdom or the Republic of Korea, which adopt the same type of land ownership. There are also inter-agency struggles with the landowners, the FA and local governments. Hatakeyama, a Japanese jurist, makes the criticism that Article 4 of the Natural Parks Law is a 'pro-development' clause, as it requires the authority to reconcile with public interests, such as property rights, mining rights and national land development, when implementing the Natural Parks Law (Hatakeyama, 2008).

Furthermore, staff numbers allocated to each national park are far less than in other countries. This is due to the de facto standard of national park management in Japan. The Organisation for Economic Co-operation and Development states that the number of staff working in Japan's national parks is only eighty-six (OECD, 2010). This is because almost 200 staff are working in the headquarters in Tokyo, regional offices in major cities and three national gardens, where MoE owns the whole property. The number in Table 1 also includes eighty-five part-time rangers in the national parks (out of 346). This lack of human resources was one of the main reasons why there were no operational offices or staff in Ogasawara National Park until 2006. In Ogasawara National Park, there are four rangers including two part-time as of August 2013. UNESCO stated the staffing in Yakushima World Heritage site as 'inadequate' in their State of

2 '… outstanding examples representing significant on-going ecological and biological processes in the evolution and development of terrestrial, fresh water, coastal and marine ecosystems and communities of plants and animals'

Conservation report of 2003 and this situation is quite the same, or even worse, in most of Japan's national parks.

Concerning visitor control, an amendment to the Natural Parks Law in 2002 allows for a 'utilization regulated zone' to be set to limit the number of visitors for the sake of nature conservation and enhancing their experience. Unfortunately, however, the control system based on this law is implemented in only two national parks, one of which is Shiretoko World Heritage site (inscribed 2005). This under-utilization is also due to the lack of human resources and inter-agency struggles with the biggest landowner, the Forestry Agency (Yamanaka, 2007; Tanaka, 2012*a*).

Scholars agree that the national park system is the key conservation measure in Japan, however, there are issues of weak authority and lack of budget and human resources. This situation has in a way led to the development of several frameworks for collaboration with stakeholders, such as non-profit organizations and private landowners, in national park management; however, there remains a fundamental weakness in Japan's system (Hiwasaki, 2005; Tanaka, 2012*a*).

Table 1. Comparison of resources of national park authorities in four countries

	Japan	UK	Rep. Korea	USA
Total staff	346	1,400	1,158	19,832
Total national parks	30	15	20	58
Typical staffing*	9	200	165	800
Budget (US$ millions)	0.98	1.15	1.57	28.4

Each number may refer to a different fiscal year. See Tanaka (2012a) for details.

*Representative national park in each country: Shiretoko (Japan), Lake District (UK), Jirisan (Rep. Korea), Yosemite (USA).

Sustainable tourism scheme in Minami-jima

Minami-jima is a small island located 900 m south-west of the main island, as shown in Figure 3. When the island was retroceded to Japan in 1968 it was inhabited by feral goats, an alien species that had affected the vegetation of the island. The goats were eradicated from Minami-jima in 1971, however, unregulated recreation and tourism prevented the recovery of vegetation and further contributed to soil erosion (Nature Conservation Society of Japan, 1997). The momentum for sustainable tourism was created in 2000 when Mr Ishihara, governor of Tokyo Metropolitan Government at the time and Minister of the Environment 1976–77, visited Minami-jima and criticized the devastating situation of the island, mentioning irresponsible management on the part of the state, i.e. MoE and FA, and the possibility of excluding all visitors from the island (Ishihara, 2003; Ishihara et al., 2010).

Following this criticism by the governor, the Ogasawara Village Tourism Association (OTA) set the rules for self-regulation in 2000 by designating trekking routes for visitors and recommending that they should be accompanied by a tour guide when landing on Minami-jima. Ogasawara Village also supported this initiative and strengthened self-regulation by adding four important rules in 2001:

- limiting the number of visitors to the island to a maximum of 100 per day;
- limiting the number of visitors to a maximum of fifteen per guide;
- limiting the sojourn time to a maximum of two hours on the island;
- establishing a no-entry season for three months from November to early February (except for New Year's holiday season) to allow regrowth of vegetation.

This self-regulation was an ambitious action taken by the local government at a time when even the Natural Parks Law had no effective scheme for implementing sustainable tourism. According to Ishihara (2003) and Ichiki and Shumiya (2007), however, the self-regulation was not fully implemented and there were several violators. In view of the limitation of self-regulation, the TMG and Ogasawara Village concluded an Agreement for the Appropriate Use of the Nature Conservation Promotion Areas in the Ogasawara Islands in 2002.

This agreement aims to strengthen the self-regulation implemented by Ogasawara Village by requesting visitors to be accompanied by an ecotour guide certified by TMG in the Nature Conservation Promotion Areas (NCPA). These areas are designated by the TMG governor based on agreement with the local government but are not legally binding. As of May 2014, there were three NCPAs in Tokyo; Minami-jima and Sekimon-ittai in Ogasawara Village; and Mikura-jima in Mikura-jima Village.

In an NCPA, visitors need to be accompanied by an ecotour guide certified by TMG, and the local governments need to set rules on the use of the area, such as sojourn time, the number of visitors per day, and the number of visitors per guide. The government promoted this method by naming it TMG Eco-tourism Scheme (TES). TES was fully implemented from 2003 onwards after the first certification of ecotour guides by TMG, and the certified guides are called TMG Nature Guides (Figure 4). To be a TMG Nature Guide in Minami-jima, you need to be more than 18 years old and living in the municipality concerned, i.e. Ogasawara Village, for over a year as at 1 April. Applicants need to take the courses provided by TMG, paying 3,000 yen for the certification and renewing

their status every two years after a refresher course and payment of 1,000 yen. As of 2012, there were 237 certified guides for Minami-jima NCPA (interview with person in charge at TMG, 6 August 2013).

©Tanaka

Figure 4. TMG Nature Guide licence.

Implementation of the scheme

As Ishihara et al. (2010) argue, some people opposed TES, which imposes the cost and burden of certification and regulation on individuals or tourism companies. According to the interviews that the present author conducted in 2010 with the director of OTA and the director of the Ogasawara Whale-Watching Association (OWA), which is also a key non-profit organization in Ogasawara Islands, there were some opponents to TES at the time of introduction, but they gradually adjusted to the new scheme and many people now support the system. According to Dr Ichiki, a member of Ogasawara Village Assembly who is familiar with the introduction of TES, acceptance by the stakeholders is mainly because of the efforts by Mr Kato, the chief of TMG's Ogasawara Islands branch office at that time, who assiduously visited everyone's homes to explain TES and obtain their understanding and approval for the new scheme. The branch office also holds periodic meetings with the tourism sector and villagers every year (interview with Dr Ichiki, 1 October 2013), offering opportunities to develop dialogue and build confidence among stakeholders.

Concerning resource management, another important point is monitoring violators, or free-riders, to establish fair competition among stakeholders (Ostrom, 1990). As mentioned, however, the self-regulation implemented by Ogasawara Village in 2001 partly failed because the monitoring was inadequate. No matter how good a policy or plan made by the authority, its effectiveness will be diminished without monitoring. TMG employs four rangers on its own budget for conservation of the islands and they cooperate with Ogasawara Islands branch office for monitoring Minami-jima (Ishihara et al., 2010; interview with TMG, 6 August 2013).

Last but not least, the report published by TMG's Ogasawara Islands branch office in 2013 clearly shows the success of re-vegetation in Minami-jima, which is the main purpose for the implementation of TES (Figure 5). In this sense, it is fair to say that the primary objective of TES has been achieved. However, there are still further challenges to deal with.

© TMG

© TMG

Figure 5. The state of restored vegetation: above in 2001; below around 2009.

Further challenges

Ogasawara's sustainable tourism scheme was progressive for its time in Japan, but it is still facing several challenges.

First of all, visitors to Minami-jima are limited to a maximum of 100 per day, but the scheme is based on 'first come, first served' and naturally there is congestion in the morning hours, especially in the peak season, so this creates tensions (Ichiki, 2011; interview with OTA director, 24 November 2010). The reservation or quota system is complex and expensive for the management, and it seems that TMG still prefers first come first served,

as they have introduced a simpler scheme, on a trial basis since 2012, which regulates the visitors to the island to a maximum of sixty at a time. This means that the next boat has to wait until any group leaves when there are more than sixty visitors on the island. Monitoring staff indicate the situation by signalling with coloured flags (Figure 6); blue means 'OK' whereas red means 'Do not enter'.

Ishihara et al. (2010) and Ichiki (2011) argue that the '100 per day rule' has no scientific basis and OTA is asking for 'flexible management', or relaxing the regulations. Ichiki supports the need to reconsider the limit since trekking routes were greatly improved (Figure 7). To that end, since 2012 TMG has increased the visitor limit to a maximum of 140 per day in the peak season on a trial basis. This experiment is expected to contribute to reducing congestion and fulfilling demand from the tourism sector.

Second, because TES is not a legally binding norm, it is not possible to punish violators. TES has significantly improved self-regulation by authorization of TMG Nature Guides and by monitoring, but there are still a few violators every year (Ichiki and Shumiya, 2007; Ishihara et al., 2010). Instead of legislation, TMG started a 'certification system' in collaboration with Ogasawara Village and OTA, which aims to recognize the company or operator that complies with TES. Although the system is based on self-declaration by the operator and the reward is only a certificate seal that you can attach to the boat (Figure 8), it is expected to be another incentive for the ecotour companies to comply with TES. This scheme is noteworthy as legislation and punishment is not very appropriate in a small island where everybody knows each other (interview with OWA director, 2 December 2010) and the system is expected to be more cost-effective than legislation and punishment.

World Heritage as a dream

Elsewhere I have argued why TES succeeded comparatively well in spite of its top-down approach (Tanaka, 2011). Three factors are important for this.

First of all, historically speaking, Ogasawara Village is heavily dependent on TMG for the development of the islands after the retrocession in 1968, including employment and infrastructure construction. As the director of the OTA describes the characteristic of Ogasawara Village as 'very dependent on TMG for good or ill', TMG's Ogasawara branch office has a close relationship with the village, and hence its decision is almost equal to the village's decision. In this respect, it is fair to say that the TMG has a strong influence on Ogasawara's policy-making.

Second, although TES was a rather top-down approach, the implementation was stepped. As mentioned, OTA set their own self-regulation in 2000 and the village strengthened the self-regulation in 2001, while TMG

© TMG

Figure 6. The blue flag shows 'GO' whereas the red flag means 'NO'. Courtesy of TMG.

©Tanaka

Figure 7. Improved trekking routes in Minami-jima.

© Ogasawara Village

Figure 8. Certificate of operator complying with TES. H.25 in the Japanese Heisei era, which began in 1989 after the demise of Emperor Hirohito (Showa era), is equivalent to 2013.

and the village made an agreement in 2002 and fully implemented the TES from 2003 onwards. TES is not a legally binding norm, but rather an incentive for the tour guides in a longer perspective through authorization and monitoring of the tourism resource, Minami-jima.

Third, there was a common dream for all the stakeholders in Ogasawara in the 2000s: inscription on the World Heritage List. Since its selection as one of the potential sites for nomination in 2003, MoE, FA, TMG and Ogasawara Village have collaborated in various projects to this end. Figure 9 shows a banner at one of the sightseeing spots in Ogasawara in 2009, which reads 'Let's inscribe Ogasawara Islands on the World Heritage List!', prepared by MoE, FA, TMG and Ogasawara Village. From 2003 to 2011, there was huge momentum for conservation in step with the inscription movement. Projects included eliminating invasive alien species and promoting ecotourism (Nakayama, 2009; Tanaka, 2012*b*).

©*Tanaka*

Figure 9. The banner at one of the sightseeing spots reads 'Let's inscribe Ogasawara Islands on the World Heritage List!'.

Conclusion and lessons from Minami-jima

Minami-jima's sustainable tourism scheme is based on a non-binding legal agreement between two local governments, the Tokyo Metropolitan Government and Ogasawara Village. The two main characteristics are the authorization of ecotour guides by the TMG and strengthened self-regulation through monitoring and awareness-building. This set of actions complemented MoE's lack of resources and weak authority and contributed to the restoration of vegetation and enhancement of the visitor experience. Although there remained several issues in the scheme to be dealt with, such as congestion caused by the first come, first served system and a few violators, TMG set the rule to limit the visitors to a maximum of sixty to avoid congestion on an experimental basis and it introduced a 'certification system', which aims to incentivize the complying companies or operators, not to punish the violators.

These serial efforts deserve attention because many developing countries suffer from a lack of resources and weak authority in heritage management in general. In this regard, TES is a flexible, less costly and non-exclusive scheme for sustainable tourism. Unlike national parks in the United States or Australia, Japan's conservation challenge shows some useful and practical approaches for sustainable tourism in Small Island Developing States, that is, a flexible, less costly and non-exclusive approach.

Finally, Ogasawara's efforts to implement a sustainable tourism scheme moved the Ministry of the Environment to amend the Natural Parks Law in 2002 (Ishihara, 2003).[3] While admitting that TES still has some difficulties to overcome, we can learn from the efforts and challenges in Minami-jima to manage the natural tourism resources in collaboration with various stakeholders.

©*Tanaka*

Figure 10. View of main island from Minami-jima. The beautiful colour of the sea is often referred to as 'Bonin Blue'.

Acknowledgements

I would like to express my sincere gratitude to those who kindly responded to my interview surveys: Mr Ikuo Ishikawa (Tokyo Metropolitan Government), Ms Mayumi Hanazato (Ogasawara Village Tourism Association), Mr Noboru Chikira (Ogasawara Whale-Watching Association), Dr Shigeo Ichiki (Member of Ogasawara Village Assembly), Mr Kenichi Mochida (Ogasawara Village office) and many others who supported this research. This paper is partly based on my Ph.D. thesis Chapter 4-4, which was funded by the Mitsubishi Foundation from 2009 to 2011. Additional research was supported by JSPS KAKENHI Grant Number 24710041.

3 This is Mr Ishihara's opinion and not necessarily the MoE official position.

References

Borges, M. A., Carbone, G., Bushell, R. and Jaeger, T. 2011. *Sustainable Tourism and Natural World Heritage – Priorities for Action*. Gland, Switzerland, International Union for Conservation of Nature.

Bramwell, B. and Lane, B. 2012. Critical research on the governance of tourism and sustainability. In B. Bramwell, B. and Lane, B. (eds), *Tourism Governance: Critical Perspectives on Governance and Sustainability.* London, Routledge.

Eagles, P. F. J., McCool, S. F., Haynes, C. D. and Phillips, A. 2002. *Sustainable Tourism in Protected Areas: Guidelines for Planning and Management.* Gland, Switzerland, International Union for Conservation of Nature.

Government of Japan. 2010. *Nomination File of the Ogasawara Islands for Inscription on the World Heritage List.* http://whc.unesco.org/uploads/nominations/1362.pdf

Guo, N. and McCormack, G. (eds). 2005. *Ogasawara Islands: Environmental Culture from Asia-Pacific*. Heibonsha, Tokyo. (In Japanese)

Hatakeyama, T. 2008. *Shizenhogoho kougi* [Lectures on Nature Conservation Laws], 2nd ed. Sapporo, Hokkaido University Press. (In Japanese)

Hiwasaki, L. 2005. Toward sustainable management of national parks in Japan: securing local community and stakeholder participation. *Environmental Management,* Vol. 35, No. 6, pp. 753–64.

Ichiki, S. 2011. Kankyou-hozen ni tsuite [Concerning the conservation of the environment]. *Coralline,* No. 14, pp. 2–3. (In Japanese)

Ichiki, S. and Shumiya, M. 2007. Ogasawara Shotou Minami-jima ni okeru kankou-riyou joukyou oyobi kankou-riyou rule no kouka ni kansuru kenkyu [Research on the status of the tourism and its rule in Minami-jima, Ogasawara Islands], *The Annual Report of Ogasawara Studies,* No. 30, pp. 75–87. (In Japanese)

ICOMOS. 1999. *International Cultural Tourism Charter: Managing Tourism at Places of Heritage Significance.* Paris, International Council on Monuments and Sites. http://www.international.icomos.org/charters/tourism_e.pdf

Ishihara, S. 2003. Ishihara Shintaro's official website 'Sensen-Hukoku'. http://210.136.153.187/policy/koen/index.html

Ishihara, S., Kosaka, W., Morimoto, K. and Ishigaki. A. 2010. Ogasawara Shotou no eco-tourism wo meguru chiiki shakai no shiko sakugo [Trial and errors of the local community over the ecotourism in Ogasawara Islands]. *The Annual Report of Ogasawara Studies,* No. 33, pp. 7–25. (In Japanese)

IUCN. 2011. *Advisory Body Evaluation – Ogasawara.* Gland, Switzerland, International Union for Conservation of Nature. http://whc.unesco.org/archive/advisory_body_evaluation/1362.pdf

Nakayama, R. 2009. Collaboration of government, local residents and scientists against invasive alien species in Ogasawara. *Global Environmental Research,* Vol. 14, No. 1, pp. 107–14. (In Japanese)

Nature Conservation Society of Japan. 1997. *Ogasawara-mura itaku heisei-8 nendo Minami-jima kankou-riyou taisaku houkokusyo* [Research report on the tourism control in Minami-jima commissioned by Ogasawara Village 1996]. (In Japanese)

OECD. 2010. *OECD Environmental Performance Reviews: Japan 2010*. Paris, Organisation for Economic Co-operation and Development.

Ostrom, E. 1990. *Governing the Commons: the evolution of institutions for collective actions.* Cambridge, UK, Cambridge University Press.

Pedersen, A. 2002. *Managing Tourism at World Heritage Sites: a Practical Manual for World Heritage Site Managers.* Paris, UNESCO World Heritage Centre.

Schluter, D. 2000. *The Ecology of Adaptive Radiation.* Oxford, UK, Oxford University Press.

Tanaka, T. 2011. Nature conservation governance in Japan's national parks: government's role in the management of the natural tourism resources. Ph.D. dissertation, Graduate School of Global Environmental Studies, Kyoto University. (In Japanese)

_____. 2012*a*. Japan's national park management without sufficient authority and resources. *Hokkaido Journal of New Global Law and Policy,* No. 17, pp. 369–402. (In Japanese)

_____. 2012*b*. Japan's implementation of the World Heritage Convention. *Hokkaido Journal of New Global Law and Policy,* No. 18, pp. 45–78. (In Japanese)

TMG Ogasawara Islands branch office. 2013. *Minami-jima shizen kankyou monitoring tyousa: kanendo jisshi kekka torimatome houkokusyo* [Reports on the monitoring survey of natural environment in Minami-jima]. Tokyo Metropolitan Government. (In Japanese)

Tourtellot, J. B. 2010. Part threat, part hope: the challenge of tourism. *World Heritage,* No. 58, Paris, World Heritage Centre, pp. 6–17.

UNESCO. 2003. *State of Conservation – Yakushima.* Paris, World Heritage Centre. http://whc.unesco.org/archive/periodicreporting/APA/cycle01/section2/662-summary.pdf

Yamanaka, M. 2007. Management issues on Japanese national parks: problems and prospects revealed after the designation of Shiretoko World Natural Heritage Site. *Forestry Economy,* Vol. 59, No. 12, pp. 15–18. (In Japanese)

World Heritage and Small Island Developing States: land management and community involvement

Merata Kawharu, Director of Research, James Henare Māori Research Centre, at the University of Auckland, New Zealand, and
Karen L. Nero (rtd), University of Otago, New Zealand

Introduction

Seven years have passed since 'community' was incorporated as one of the five Strategic Objectives of the World Heritage Committee into the *Operational Guidelines for the Implementation of the World Heritage Convention.*[1] Pacific landscapes – perhaps more specifically 'islandscapes', that is, landscapes that are shaped through water, including the great expanse of the Pacific Ocean – have gradually been added to the World Heritage List, especially since the 2000s. Others, such as Taputapuatea and the wider ancestral ('cultural') landscape at Raiatea in the Society Islands (French Polynesia), which is important to the people of Tahiti, Rarotonga, Hawaii, Rapa Nui (Easter Island) and Aotearoa (New Zealand), are being prepared for World Heritage listing. Communities within the Pacific are, therefore, engaging within the World Heritage system. The national listings and the preparations for World Heritage status require new levels of commitment by governments and the communities themselves. For communities in this vast region though, this idea of engagement means a careful, and possibly difficult, process of balancing World Heritage requirements, such as (is) land management, with addressing the need for socio-economic well-being, especially when these communities are very remote or have only basic facilities and support systems. In addition they are vulnerable to climatic events, such as cyclones, and their devastating effects. The key is to integrate World Heritage and community livelihoods, through employment within the World Heritage landscape for example. Related to this is the importance of recognizing customary land management that emerges out of an ancestrally defined value system, as well as recognizing non-customary land-management systems, and merging the two within a World Heritage framework. This paper aims to contribute to understanding land management in Pacific SIDS by firstly looking at broader socio-economic factors that directly affect what happens on the ground in terms of land management throughout the Pacific. We then consider another broad context, the United Nations Declaration on the Rights of Indigenous Peoples,[2] and how it can provide some guidance for World Heritage matters. With this contextual background we look at what the '5th C' for 'Communities' means in relation to land management in two cases in the Pacific, East Rennell and Palau.[3]

Pacific SIDS: a broad socio-economic context

While this publication is specifically focused on World Heritage and Small Island Developing States (SIDS), there is a broader context from a community perspective that needs to be considered when addressing 'community' and World Heritage issues. World Heritage is one element of a community reality, but one that is intimately tied to questions of basic economic and social sustainability.[4] SIDS are subject to vulnerabilities and inequalities due to their geographical isolation, limited human resources, exposure to climatic events, among other factors.[5] Slow or stagnant economic growth is common and external or foreign aid dependency is high. Facilities, products and services, including food and fuel provisions, are often very basic. Incomes are comparatively low. One indicator of economic wealth shows that the regional 'average' of GNI (gross national income per capita) for Pacific SIDS was US$3,139 in 2012 (World Bank *a*).[6] Another regional demographic picture states that over 20 per cent of Pacific Island

1 The fifth Strategic Objective, also referred to as the '5th C', reads: 'Enhance the role of Communities in the implementation of the World Heritage Convention' (Decision 31 COM 13B).

2 See http://www.un.org/esa/socdev/unpfii/documents/DRIPS_en.pdf

3 Karen Nero contributed towards this discussion and wrote on the Palau case.

4 See also Smith (2012, p. 5) for discussion on social and economic circumstances in the Pacific.

5 Pacific Islands Forum Secretariat and the Secretariat of the Pacific Community (2012); see the report on climate change and Pacific islands at http://www.un.org/esa/dsd/resources/res_pdfs/ga-64/cc-inputs/PSIDS_CCIS.pdf; Russell (2009).

6 For comparison, in 2012, Australia GNI per capital was US$59,260 and New Zealand was US$36,900 (World Bank *b*).

people are living in poverty and hardship, unable to meet their basic needs, with difficulties being compounded by limited access to services that could otherwise alleviate hardship (World Bank *c*). When considering health and well-being, for some communities diseases such as malaria and diarrhea, gastro-enteritis and skin infections, among others, are problems and possibly on the rise (PSIDS, 2012). Communities may also be part of broader regional environments where civil conflict has plagued community stability. The Solomon Islands faced civil unrest at the beginning of 1998 (the year that East Rennell was inscribed on the World Heritage List) and suffered from the effects for some time after. Another reality across the wider region is growing urbanization, with people moving from customary community areas to urban centres, often far away. The lure of urban life has the negative effect of not only draining local knowledge and capacity within communities, but also reducing leadership succession and community ability to deal with local issues, including World Heritage. And in addition to social and economic challenges to well-being, there are climate-related challenges characteristic of the Pacific region, not least the annual tropical cyclone season, which frequently damages infrastructure and homes, bringing grief to families.

Community engagement in World Heritage management is in some way affected by these socio-economic and environmental challenges, each impacting on the ability or capacity of communities to engage, while also impacting on the World Heritage properties themselves.

UNDRIP and Community as the fifth Strategic Objective

It was seven years ago when Sir Tumu te Heuheu, as Chair of the World Heritage Committee at its 31st session in Christchurch (New Zealand, June/July 2007), introduced 'Community' as the fifth Strategic Objective of the World Heritage Committee. This was a watershed opportunity for communities, particularly indigenous communities, to have their specific interests and values more strongly recognized in World Heritage (Kawharu et al., 2012).

Indigenous issues had been at the forefront of international movements and policy development worldwide and just a few weeks after the World Heritage Committee meeting, in September 2007, the United Nations adopted the Declaration on the Rights of Indigenous Peoples (UNDRIP).[7] Teaiwa points out that several Pacific Island countries did not in fact support, or were ambivalent towards, the UNDRIP because 'the category of "indigenous" does not have the same salience for citizens of independent nation-states in the Pacific as it does for those for whom decolonization is still an incomplete project' (Teaiwa, 2011). In other words, 'indigenous' may be problematic due to political and historical connotations or labelling implied by the term. Indigenous may be interpreted to mean a minority group, whose history is defined in relation to a colonizing nation. Another way of looking at the term indigenous would be to argue that it refers to peoples who have occupied lands before colonization and who continue to have association with those lands and whose populations may actually be a majority of a wider population.

While it is beyond our scope here to examine the complexities of the term indigenous within the context of Pacific SIDS, it is argued that the UNDRIP is an instrument that provides guidance for Pacific SIDS, the '5th C' and World Heritage site management.[8] The UNDRIP elevates the importance of community rights, interests and values, including communities of Pacific SIDS, to an international level. It provides thereby an overarching set of guidelines for community. Three principles of the UNDRIP may apply to Pacific island communities and World Heritage site management. If we substitute the term 'indigenous people' for 'community', the following principles have relevance:

1 to 'respect and promote the inherent rights of [communities] which derive from their political, economic and social structures and from their cultures, spiritual traditions, histories and philosophies, especially their rights to their lands, territories and resources';

2 to recognize that 'control by [communities] over developments affecting them and their lands, territories and resources will enable them to maintain and strengthen their institutions, cultures and traditions, and to promote their development in accordance with their aspirations and needs'; and

3 that 'respect for [community] knowledge, cultures and traditional practices contributes to sustainable and equitable development and proper management of the environment'.[9] Taken alongside the *Operational Guidelines*, the UNDRIP provides communities with a strong international instrument to guide practice and support their endeavours, especially by emphasizing the importance of cultural values and practices for sustainability.

7 It took three more years before New Zealand, Australia, Canada and the United States adopted the UNDRIP. But, now that they have, and given their roles in World Heritage, there is additional reason for them to support the '5th C' to be recognized and incorporated into World Heritage policy development for indigenous peoples.

8 See UNPFII*a*, (http://www.un.org/esa/socdev/unpfii/documents/5session_factsheet1.pdf) for further discussion on interpretations of 'indigenous'.

9 UNPFII*b*, (http://www.un.org/esa/socdev/unpfii/documents/DRIPS_en.pdf). Several articles of the UNDRIPS are also relevant for World Heritage including (but not limited to) 11,12,13, 18, 25, 26, 26, 29, 31 and 32. Any policy development concerning World Heritage and Pacific Island communities should look at these articles as bases for shaping (policy) guidelines and practices.

Key challenges, acknowledging that these vary between communities, concern questions of balance between recognizing and providing for community-held rights, values and processes, and applying national frameworks, as guided by the World Heritage Convention.

Before looking at what is happening on the ground within Pacific SIDS, it might be useful to delve a bit deeper into what the 5th C means. At its broadest level, two key principles underpin it: effective and meaningful participation of traditional, local and indigenous communities in World Heritage site management; and professional interpretation of cultural/indigenous values. At a 2012 workshop of 'indigenous' Pacific, Australian and New Zealand leaders and experts involved in World Heritage, these two principles were seen to be particularly important for interpreting the 5th C. The workshop produced a statement on indigeneity and its applicability in World Heritage, the import of which was to give further thinking on what indigeneity and the 5th C should look like within a World Heritage community context.[10] The two principles referred to above may be expressed in four interrelated strategic functionality areas: accountability, active protection, partnership, redress. Within each, the following questions relating to World Heritage site management may be asked:

1. **Accountability:** What are the mechanisms for community representatives engaged in World Heritage site management to be accountable to their communities? How do communities provide leadership and advice on their cultural heritage and values, and how are these accounted for in land management policies and practices? How are cultural values and processes measured and reported on concerning World Heritage site management? How are States Parties and local communities accountable to each other?

2. **Active protection:** How are the protocols, values, trusteeship obligations, customary knowledge and rights of local communities protected? How do States Parties recognize and provide for reasonable community expectations and values in local World Heritage site management policies and procedures?

3. **Partnership:** What processes are in place to ensure appropriate community engagement at the right levels concerning World Heritage site management? How will local communities and States Parties act reasonably and with good faith? How will they encourage a spirit of partnership and goodwill, as expected by each party?

4. **Redress:** What processes for redress exist concerning misunderstandings between local communities and other parties involved in World Heritage-related processes?

These ideas and questions would need to be tested within local communities in order to gauge which are particularly relevant or have meaning. In general, however, they may help to identify what kind of relationships are important and identify common goals and priorities for World Heritage site management.[11]

The discussion so far may serve as background for the next section, which looks at what is happening within two communities regarding their World Heritage areas.

Land management and World Heritage in Pacific SIDS: case studies

Cultural landscapes within the Pacific are, from a community perspective, ancestral landscapes. Those within the Pacific and inscribed onto the World Heritage List include East Rennell (Solomon Islands, 1998), Chief Roi Mata's Domain (Vanuatu, 2009); Kuk Early Agricultural Site (Papua New Guinea, 2009); Bikini Atoll Nuclear Test Site (Marshall Islands, 2010); and Phoenix Islands Protected Area (Kiribati, 2010) (Smith, 2012, p. 5). There are others more broadly 'networked' by ancestral connections to, and within, the Pacific, which have been inscribed also, such as Tongariro (New Zealand, 1993, a mixed World Heritage site), Palau (2012, a mixed World Heritage site), Rapa Nui (through Chile in 1995), Hawaii Island Volcanoes National Park (1987) and Papahānaumokuākea Marine National Monument, in the north-western Hawaiian Islands (2010, also a mixed World Heritage site, bringing the total 'mixed' sites in the broader Pacific to three).

East Rennell[12]

East Rennell in the Solomon Islands was inscribed on the List of World Heritage in Danger in June 2013.[13] Illegal logging and the introduction of invasive species such as the black ship's rat (*Rattus rattus)* are major threats to East Rennell, its land, surrounding sea and reef, forests and Lake Tegano.

Four villages are located by the lake. These communities are the descendants of the first guardians of the area and continue to have customary title (Devi and Wingham, n.d., p. 1). East Rennell was the first land managed according to customary tenure to achieve World Heritage

10 The three-day workshop, held under the auspices of the James Henare Māori Research Centre at the University of Auckland in March 2012, brought together representatives from Australia, Tahiti, Rarotonga, Hawaii and New Zealand to discuss the meaning of the 5th C and indigeneity in World Heritage.

11 The IUCN is also concerned to develop policies regarding indigenous peoples' interests in World Heritage. See, for example, Larsen (2012, pp. 8–9).

12 Merata is very grateful for the support and references from Meretui Ratunabuabua and Selai Yabaki for this section.

13 https://www.iucn.org/?13166/East-Rennell-declared-World-Heritage-in-danger

status. Community organizations and individuals are actively engaged in 'site' management and have formed groups for that purpose, such as the Lake Tegano World Heritage Site Association.[14] However, while there is a management plan, it is yet to properly account for community values in site management. Local people acknowledge the legitimacy of national and provincial laws and World Heritage guidelines, but also argue for the primacy, or better recognition, of customary lore/law in land management, including in defining the mechanisms for controlling resource use (Devi and Wingham, n.d., p. 2). This is important in, for example, managing sustainable fish stocks and controlling over-exploitation (which has been a problem), controlling birding due to the increased use of firearms and the increased catches, and ensuring that local leadership structures, such as the council of chiefs, are maintained to ensure locally appropriate systems of control, sanction and protection. Kin-accountable leadership systems are vital mechanisms to ensure appropriate land management. Other issues such as ensuring communication between World Heritage staff and local communities are important. Local control extends into measuring the effectiveness of management techniques, but this necessarily requires baseline information (p. 2). Locally appropriate communication is also a necessary part of the mix for success. Devi and Wingham (p. 4) reported:

> *For the people of the Solomon Islands, written agreements or contracts are not part of the culture. For long term commitment to a programme, it would be more effective to arrange an annual meeting for the stakeholder groups to reaffirm their support. At the meeting the goals of the programme could be restated, progress reports given from the various committees and a request made that their support continues.*

While these are important principles, it is equally important to know how practice measures against them. For example, if the principle of face-to-face communication is important in East Rennell, how is it actually happening? Are there a sufficient number of meetings; do community representatives have the opportunity for their views to be properly heard? These and other questions may need to be asked to measure actual practice against principles.

In broad terms, community challenges centre on what may be considered as basic, or fundamental to their lives. These challenges are about securing East Rennell community livelihoods, better incorporating their values in land management plans and processes, and protecting vulnerable ecosystems, especially now given logging activities, introduced pests and other problems. While East Rennell was inscribed in 1998, there is still some way to go to imbed cultural values into land management. Seen in a broader context, the following are key issues for East Rennell (Yabaki, 2013, p. 9):

1. Food security, rehabilitation of soil and water and [developing improved] sanitation;

2. [Developing] civic education and awareness of good governance and accountability, climate change and environmental issues, [as well as] the protecting and promoting of traditional knowledge and values.

Communities rely on local resources for their livelihoods. Climate change is already affecting these resources through, for example, raised lake levels, which impacts on growing swamp taro and all root crops as well as coconut plantations. Climate change is also resulting in increases in pests and diseases. Tilapia, eel fish and coconut crab population declines are occurring due to the twin challenges of climate change and over-harvesting. Climatic and environmental changes, along with human activities such as logging, all directly affect the integrated lives of people and ecosystems in East Rennell.[15]

If solutions are sought that restore fragile cultural and environmental ecosystems, it is crucial that there is proper inclusion of ancestrally defined and time-tested local systems of environmental management in World Heritage site management processes. Important ways of achieving this are by ensuring community-based decision-making and monitoring, according to local tenure and values. These are still to be developed in ways that are satisfactory to community expectations and to World Heritage processes. It is a particular outcome of a proposed World Heritage Leadership exchange programme involving East Rennell and other indigenous-managed World Heritage areas. Whereas systems need to be developed, appropriate support for those systems is also necessary.

Palau's Rock Islands Southern Lagoon

In July 2012 Rock Islands Southern Lagoon[16] was inscribed on the World Heritage List as a mixed cultural and natural property, recognizing that Palau is vulnerable to extreme climate events and climate variability. Palauans are serious about climate change. Geoff Clark of the Australian National University is leading a multidisciplinary project providing fine-resolution data to better understand

14 Yabaki (2013, p. 8). The word 'site', while being a World Heritage term, also needs to be considered against a community view, which usually sees land from a holistic, broad perspective. Site or sites may be specific places, or they may be wider ancestral landscapes that are not bounded by legal or Western definitions or survey lines. Land may also include land under water. 'Is(land)' refers to this holistic way of conceptualizing landscape.

15 See also Smith (2011) for a more comprehensive discussion on community and World Heritage for East Rennell.

16 I use the term Southern Lagoon to refer to the World Heritage site inscribed in 2012, and Rock Islands to refer to the larger central lagoon throughout its long history of intermittent, village settlements, and continuing customary resource management of the uninhabited islands prior to World Heritage status.

climate changes in Palau in the period AD 1350 to 1500. Recorded oral histories (Nero, 1987) recount the loss of part of the eastern barrier reef due to storms, and the relocation of villagers mainly to Koror, a small island group covering only 12 km^2. Land and marine environments are intricately linked and the loss of barrier reefs threatens the lagoon and its associated islands. The Southern Lagoon World Heritage site has an area of 1,002 km^2. The large and small 445 karstic limestone islands account for only 4 per cent of the site's area,[17] but are 'sensitive barometers of human-climate interaction as terrestrial resources are submitted to droughts' that affect crops and tidal changes and sea temperature affects marine food access (Clark and Reepmeyer, 2012, p. 30). Today Palau is affected by increasingly destructive typhoons and storms.

© *Christian Reepmeyer, ANU*

Figure 1. Metukerikull wall/platform living area on top of the ridge.

Palau is both typical and atypical of SIDS. There is the usual urban bias: in 2005 roughly two-thirds of resident Palauans lived in the densely populated urban centre of Koror, which has 3 per cent of the nation's landmass. Palau has not recovered from its serious depopulation after European contact in 1783. In the following century it lost between 82 per cent and 93 per cent of its people, according to the most conservative (20,000) or common (40,000–50,000) population estimates.[18] Today the total Palauan population is just below 20,000, including the 28 per cent of Palauans living predominantly in the United States and other parts of Micronesia. Total resident population is also just under 20,000 as 28 per cent are foreign workers, primarily in the private sector. Since independence (in 1994) nearly all public sector jobs are held by Palauans. Palau has a higher GNI than those of neighbouring Pacific nations, partly due to the well-established tourism industry centred on diving and recreation in the Rock Islands. Since the 1960s many Palauans have taken advantage of advanced education and employment opportunities in the United States (including US military service) and Micronesia. Palauans have proportionately more lawyers and professionals, some holding positions in international and regional agencies, including a Palauan woman leading international climate change negotiations for the Alliance of Small Island States.

Palau's marine science professionals enjoy a long history of collaborations with international scholars, who have recognized the deep knowledge of Palauan expert historians, fishers and agriculturalists concerning the lands and seas they inhabit. Johannes' (1981) early research with Palau's traditional leaders was foundational to indigenous knowledge studies (see also Johannes, 2002). Palauan conservationists carry on this work. Chief of Palau's Marine Resources Division Noah Idechong, who is an expert in contemporary coral reef management and conservation, resigned in 1994 to become the founding director of the Palau Conservation Society and was awarded the 1995 Goldman Environmental Prize. He later resigned and was elected to the National Congress where he has contributed to conservation-related legislation.[19] Palauans support local conservation NGOs and a network of more than forty protected areas nationwide.

© *Karen Nero*

Figure 2. Southern islands of Ngemelis, viewed from Uchularois, July 2009.

Rock Islands Southern Lagoon Zones

The Southern Lagoon contributes considerably to the national GDP through tourism, subsistence and commercial harvesting, and nearly all Palauans visit and use its resources, hence it is of national and local importance.

The state's resource management plans detail practices set in place over the last six decades. The Southern Lagoon Zones multi-use conservation area map (Figure 3) demonstrates the conservation and tourism access areas, and watercraft areas. The current issues that the Koror State Government is confronting in managing Rock Islands Southern Lagoon as a multi-use conservation area include:

17 The land areas of the inhabited Koror island group at 11.64 km^2 and uninhabited Rock Islands at 38.02 km^2, were derived from Snyder et al., 2011, p. 5, Table 1).

18 See Gorenflo (1996, pp. 42–43) for a careful analysis of all available data.

19 Palau's relevant state legislation is available at http://www.palauconservation.org/cms/images/stories/resources/pdfs/fsKoror.pdf

- conflicts in leadership responsibilities and interpretation of local laws;
- conflicts between national and state statutory laws, and issues of village/state and state-state traditional law;
- managing the considerable task of holding meaningful consultation on the detailed Koror State Resource Management Plan, one of many consultations;
- changes in customary and contemporary economic values and practices;
- proactively planning against increasing occurrence of storms and events associated with climate change, and mediating damages to the Southern Lagoon.

Each issue is briefly explained below.

Leadership

Palau has a strong customary law that defines the relationships between its people with their land and natural resources. Traditionally this chiefly society governed through a series of balances: villages were led by both male and female titleholders representing their matrilineal clans. Their rich land and marine resources were best accessed through strong gender roles and responsibilities still important today. The women are in charge of the 'female' starch foods that are balanced by the 'male' protein foods provided by men. As village alliances grew, both male and female chiefly councils were formed; male and female clubs carried out the work, often organized through competition between opposing village sides. Koror's constitution (1983) provided for the Koror House of Traditional Leaders (HOTL), supported by the House of the Kerengab, to exercise executive powers working with an elected legislature. Since the inception of the Koror Constitution (1984) there have been differences between traditional village/state titleholders and elected officials of national and state constitutions. An elected governor was established by state referendum, in 1998, requiring new forms of governance processes over the last decade.

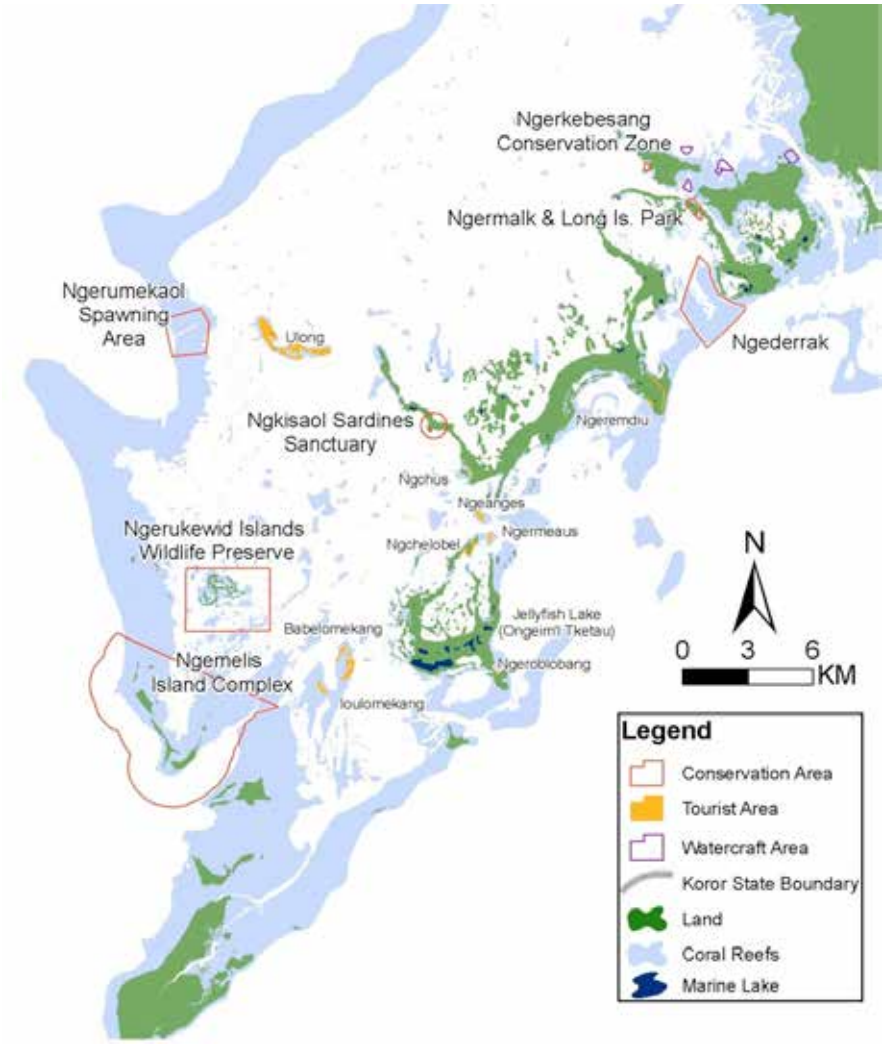


Figure 3. Rock Islands Southern Lagoon Zones (Koror State Government, 2012).

Figure 4. Members of Koror House of Traditional Leaders, accompanied by the author, at Ulong 2013.

Statutory and traditional laws

According to the Palau Constitution, Article 5, section 2, both statutes and traditional law are equally authoritative, with the 'underlying principles of traditional law' to be recognized in case of conflict. Since the state and national constitutions went into effect the use of statutory law has increased: at times conflicts arise between national and state laws interpretation of jurisdiction, and principles and protocols of customary practices and statutory law (lore vs law). In State of Koror vs Blanco 4 ROP Interim, 208 (1994), the court decided that constitutionally a state government could not prosecute alleged violations of their laws. The Appellate Division later reversed this decision, finding for Koror state. The case concerned an ongoing dispute between Koror and Peleliu over boundaries set in the traditional law and state constitutions. This case also demonstrated tensions between national and state powers. Since then the two governors reached an agreement to work together to a common goal in monitoring the resources of the disputed area.

Consultation

Koror's customary and elected members consult on the management of the state's resources. The Koror State Management Plans for the Rock Islands began under customary leadership, and continued under elected leadership. The Koror State Government (KSG) elected officials and staff also have strong ties to the titles, clans and resources of the Southern Lagoon. They may become titleholders, but according to Palauan custom it is the current titleholder leaders of HOTL who hold and have the right to speak for the knowledge of the Rock Island histories. In the past they controlled the management. Consultation between the KSG and the HOTL is of primary importance for the KSG to best fulfill its responsibility to plan and carry out the management of the Southern Lagoon, with the advice of the HOTL. Consultation during the last management plan process was difficult, and further relationship building is in progress. The HOTL designates at least two members to liaise with the KSG representatives, which has been somewhat successful in improving communication.

Changes in customary and contemporary economic values and practices

Management of the World Heritage site appears to mirror the relationship between the HOTL and the traditional male and female clubs, which in the past did most of the work required (voluntarily according to Palauan socio-economic values of service and a robust customary exchange system, that coincides with, but at times sits uncomfortably alongside, today's global monetary practices and values). The KSG and its staff care for and manage the Southern Lagoon. In particular the Koror Rangers monitor the area, made possible by KSG user fees from visitors. To a certain extent there is a dissonance between the voluntary work of the clubs and the paid work of the state employees. The Koror women's club continues to care for Rock Island taro patches, and the men's club has cleaned village areas for special occasions. Many people and businesses have joined the Koror State Rangers in disaster clean-ups.

© King Sam

Figure 5. Rock Islands Southern Lagoon Management Plan 2012–2016, Koror State Rangers checking tourist permits.

© Karen Nero

Figure 6. Giant taro, interior of Dmasech Island in Ngemelis, July 2009.

Proactive planning in the context of climate change

The Rock Islands Southern Lagoon Management Plan 2012–2016 is a comprehensive 83-page document carefully setting out goals, priorities and specifically timed actions to manage this large and important resource. The islands are one of the most popular local, diving, and tourist sites and thus for some time have been carefully managed to minimize or avoid damage (such as the 1998 coral bleaching of Palau's reefs). State marine legislation is quite well established, with close working relationships between local conservation NGOs and relevant professionals. The KSG consulted widely in developing the plan. Actions on the plan's key goals are timed over the period, allowing an initial start-up to set in place further research and consultation to achieve goals from 2014. Unfortunately, in late 2012 Super Typhoon Bopha damaged Palauan land and marine resources, demonstrating the difficulties of disaster risk prevention and planning, and the need for mediation of changing circumstances as a result of natural hazards and catastrophes exacerbated by climate change. Among the sites affected was Ngemelis, one of the key traditional stone village complexes of the Rock Islands. The typhoon had a major impact on the Southern Lagoon reefs and corals and some of its ancient villages.

© Christian Reepmeyer

Figure 7. Ngemelis traditional village platform damage from Typhoon Bopha. Archaeologist Geoff Clark in the foreground demonstrates the scale of the disruption. Lower right, the trunk of the large tree that was growing over the coral platform pieces suspended in the greenery.

There are a number of constraints in preparing for extreme climatic events and variability. The problem of overgrowth of trees on traditional village sites had been identified. However, the consultation process to develop such climate proof plans and funding to clear the key traditional villages with full community support has yet to be completed. Many Koror residents pitch in to clear disaster damage, including many who due to demographic imbalance are not traditionally 'people of Koror' and who also have loyalties and responsibilities elsewhere. It will take careful consultation and long-term support to develop a viable community village management plan. Unfortunately, destruction of important historic sites on Ngemelis and other traditional Rock Islands has preceded this work. Since Bopha, Typhoon Haiyan hit the north of Palau in 2013. Unfortunately, after these two typhoons it has not yet been possible to conduct a comprehensive survey of the damage to the Southern Lagoon and provide for a longtime strategy. A storm in April 2014 also required a one-day closure of all uses in the Southern Lagoon.

Discussions surrounding the World Heritage site

It is too early to identify the financial impact of World Heritage designation of Rock Islands Southern Lagoon based on visitor numbers, as the area has long been a prime tourist site.

It is hoped that the increased visibility of Rock Islands Southern Lagoon as a World Heritage site will aid in the identification of ways to protect and preserve the cultural and historical features and sites, as well as protect the interrelated marine environments. The discussion so far has indicated that there are many complex land management as well as coordination issues. All need to be understood in order for meaningful action to take place, and relevant land management plans developed and implemented.

Conclusion

Questions of land management in World Heritage-listed areas in Pacific SIDS are as complex and varied as the number of communities that reside within, or are directly concerned with, these areas. This study began by discussing the broader issues affecting World Heritage site management and community engagement. Local planning and management must be seen within these broader socio-economic, political and policy contexts because they directly affect what happens 'on the ground'. Communities in Pacific SIDS are critically concerned with protecting the socio-economic and cultural well-being of their people, their elders and their descendants. If lands and estates feed their well-being and identity, it goes without saying that those lands and estates must be protected and nurtured. But proper management also provides the best opportunities for lands and ecosystems, especially those that are endangered, to become healthy and to be sustained.

So what is 'proper management'? A starting point is that if land management is to be fit for purpose and durable, local and meaningful, community engagement is essential. The 5th C of the World Heritage Committee's Strategic Objectives ushered in a new level of appreciation and recognition of this principle. Sir Tumu te Heuheu

reminded us of its significance, but also warned us that, 'Heritage protection without community involvement and commitment is an invitation to failure' (Te Heuheu, 2007). Community involvement and commitment must be recognized as core to all World Heritage site management in Pacific SIDS and elsewhere. 'Outstanding Universal Value' is the core tenet of World Heritage, but community engagement and values must also be outstanding if lands and people are to thrive.

We can diverge for a moment and reflect on what 'outstanding' can mean in respect of community engagement. In New Zealand, the principle of 'consultation' with Māori continues to be important. But with some twenty-plus years of being imbedded in resource management policy and practice, New Zealand is maturing and further advancing on it. Rather than Māori simply, or only, being a consulted group, or one of a number of stakeholders whose prior and ancestral associations with landscapes are calibrated alongside other values, best local outcomes arise when appropriately skilled Māori lead and determine outcomes. Not just any 'Māori', but those accountable to kin communities. They may or may not have the necessary skills, but where governance and operational structures that are accountable to communities are able to lead, they can then acquire the necessary skills and co-opt them from outside the community where relevant. This 'leading' can be compared to a consultative process where they would only provide ideas or advice as a consulted party, and which may or may not result in those views being accounted for (in policies and practices). For government agencies and others to provide the space for this kind of process to emerge, it requires perhaps faith, and certainly a surrendering of control. But 'outstanding' outcomes may well arise in terms of what we would call the integrated health of the people, their land and ecosystems. A further point is that local initiative and control means that the right kind of management system can be developed, balancing *matauranga*-based (i.e. customary knowledge) systems with Western systems. In other cases, control is already with local communities through, for example, *iwi* (tribal) community management plans, or IMPs. IMPs are still, however, varied in their scope and operation due to the availability (or lack of) relevant skills, resourcing, governance and community support.

In the Pacific, with lands that are inscribed on the World Heritage List and owned by local communities under customary ownership systems, the same arguments for communities to exercise their own right to determine their land management processes apply. Consultation is important, but directing or leading locally appropriate management systems will probably have 'better fit' outcomes. Smith (2013, p. 32) elaborates on the importance of locally-defined systems in this regard. 'Outstanding' land management in World Heritage areas will also require faith in local systems and appropriate support such as training, skills development, resourcing, communication, networking with others engaged in World Heritage, among other factors, all of which can be considered in terms of the four principles discussed above: accountability, active protection, partnership and redress. Again, principles are simply said, but not simply addressed, especially when islandscapes are remote and communication is limited. However, there are now an emerging number of communities involved in World Heritage throughout the Pacific. They each provide important cues for what works and what needs to be worked on.

References

Clark, G. and Reepmeyer, C. 2012. Last millennium climate change in the occupation and abandonment of Palau's Rock Islands. *Archaeology in Oceania,* No. 47, pp. 29–38.

Devi, B. and Wingham, E. J. n.d. *Involvement of local people in management of a proposed World Heritage Site at East Rennell, Solomon Islands.* www.ramsar.org/pdf/lib/hbk4-07cs13.pdf

Gorenflo, L. J. 1996. Demographic Change in the Republic of Palau. *Pacific Studies,* Vol. 19, No. 3, pp. 37–106.

Johannes, R. E. 1981. *Words of the Lagoon: Fishing and Marine Lore in the Palau District of Micronesia*. Berkeley, Calif., University of California Press.

_____. 2002. The renaissance of community-based marine resource management in Oceania. *Annual Review of Ecology and Systematics*, No. 33, pp. 317–40.

Koror State Government. 2012. *Rock Islands Southern Lagoon Management Plan 2012–2016.* Koror, Palau, Koror State Government, p. 83.

Larsen, P. 2012. *World Heritage and evaluation processes related to communities and rights.* An independent review by Peter Billie Larsen. Prepared for the IUCN World Heritage Programme.

Nero, K. L. 1987. A cherechar a lokelii: Beads of history of Koror, Palau, *1783-1983.* Dissertation, University of California, Berkeley.

Office of Planning and Statistics, Palau. 2005. 2005 Census of Population and Housing of the Republic of Palau, Vol. 1, p. 255.

PSIDS. 2012. *Views on the possible Security Implications of Climate Change to be included in the Report of the Secretary-General to the 64th Session of the United Nations General Assembly*. New York, Permanent Mission of the Republic of Nauru to the United Nations, Pacific Small Island Developing States. http://www.un.org/esa/dsd/resources/res_pdfs/ga-64/cc-inputs/PSIDS_CCIS.pdf

Richmond, R. H., Kelty, R., Craig, P., Emaurois, C., Green, A., Birkeland, C. and Vander Velde, N. 2002. US affiliated and freely associated islands in the Pacific. In: C. Wilkinson (ed.), *Status of Coral Reefs of the World.* Townsville, Queensland, Australian Institute of Marine Science, pp. 217–36.

Richmond, R. H., Rongo, T., Golbuu, Y., Steven, V., Idechong, N., Davis, G. and Wolanski, E. 2007. Watersheds and coral reefs: conservation science, policy, and implementation. *BioScience*, Vol. 57, No. 7, pp. 598–607.

Russell, L. 2009. *Poverty, Climate Change and Health in Pacific Island Countries. Issues to Consider in Discussion, Debate and Policy Development*. http://ussc.edu.au/s/media/docs/publications/0904_pacificislandspaper_russell.pdf.

Smith, A. 2011. East Rennell World Heritage Site: misunderstandings, inconsistencies and opportunities in the implementation of the World Heritage Convention in the Pacific Islands. *International Journal of Heritage Studies,* Vol. 17, No. 6, pp. 592–607.

_____. 2012. The World Heritage Pacific 2009 Programme. In *World Heritage in a Sea of Islands*. Paris, UNESCO World Heritage Centre, pp. 2–11.

_____. 2013. Customary systems of management and World Heritage in the Pacific Islands. *Transcending the Culture-Nature Divide in Cultural Heritage (Terra Australis 36): Views from the Asia-Pacific region*, Vol. 36, No. 23, pp. 23–34.

Snyder, D. M., Masse, W. B. and Carucci, J. 2011. Dynamic settlement, landscape modification, resource utilisation and the value of oral traditions in Palauan archaeology. In: J. Liston, G. Clark and D. Alexander (eds), *Pacific Heritage: Archaeology, Identity & Community*, Canberra, Australian National University E-Press, pp. 155–111).

Teaiwa, T. 2011. *NZ, UNDRIP, and the Pacific: Counter-intuitive Speculations*'. http://posttreatysettlements.org.nz/nz-undrip-and-the-pacific-counter-intuitive-speculations/

Te Heuheu, T. 2007. Interview. *World Heritage*, No. 46. Paris, UNESCO World Heritage Centre, p. 35.

Te Heuheu, T., Kawharu, M. and Ariihau Tuheiava, R. 2012. World Heritage and indigeneity. *World Heritage*, No. 62. Paris, UNESCO World Heritage Centre, pp. 6–17.

UNPFII*a*. Fact Sheet: *Who are indigenous peoples?* New York, United Nations Permanent Forum on Indigenous Issues. http://www.un.org/esa/socdev/unpfii/documents/5session_factsheet1.pdf

UNPFII*b*. United Nations Declaration on the Rights of Indigenous Peoples. http://www.un.org/esa/socdev/unpfii/documents/DRIPS_en.pdf

World Bank*a*. Data. *Pacific island small states*. Washington DC.
http://data.worldbank.org/region/PSS

_____*b*. Data. *GNI per capita, Atlas method (Current US$)*. http://data.worldbank.org/indicator/NY.GNP.PCAP.CD

_____*c*. *Praxis Discussion Series*. https://www.youtube.com/watch?v=gmNLN4_Is1Y&list=PL6FE8A490B08CB2DB&index=2

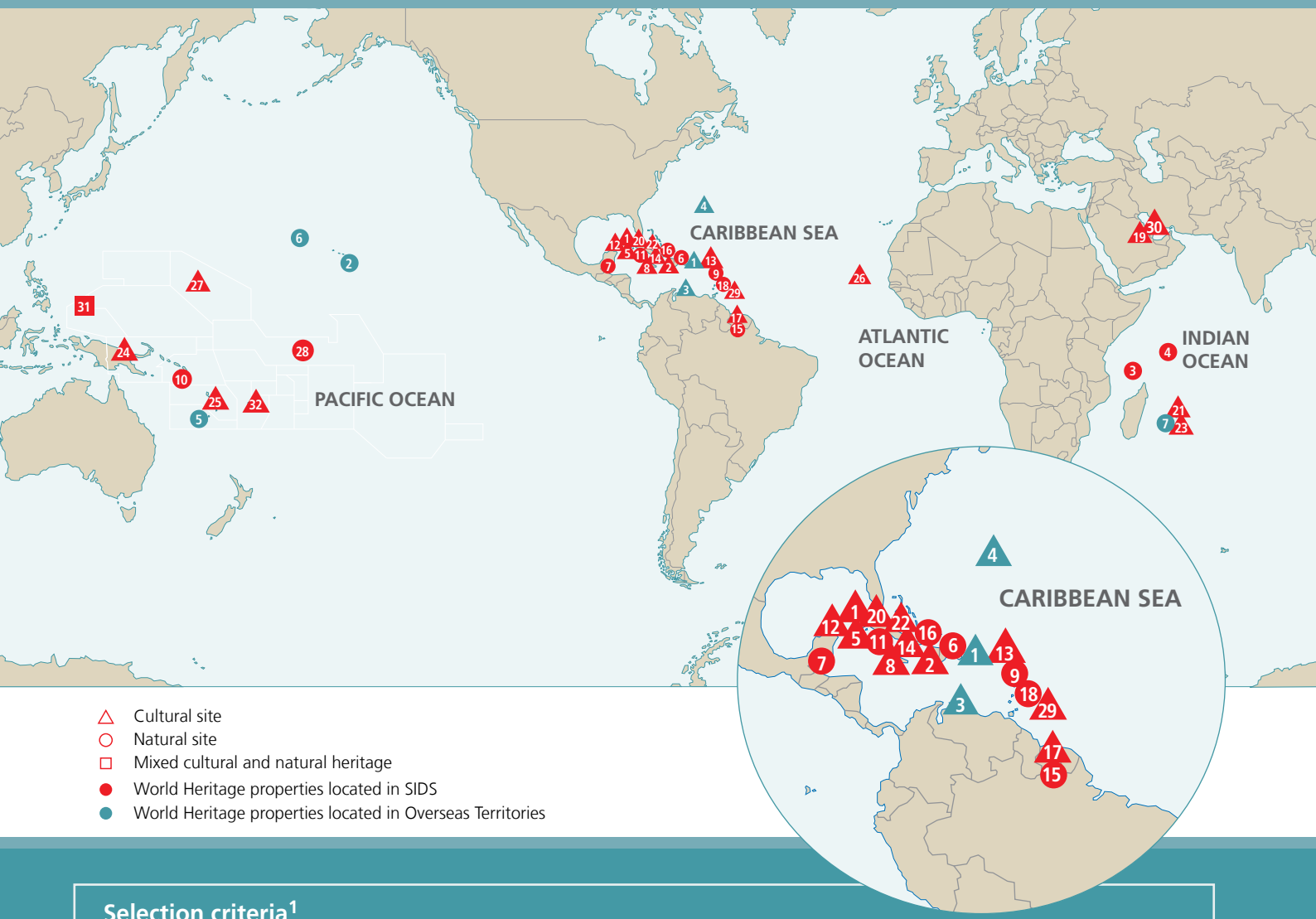
Yabaki, S. 2013. World Heritage Community Leadership Exchange between Indigenous-Managed Sites Project Proposal. Suva, Fiji, Pacific Heritage Hub, University of the South Pacific.

Annexes

© *Vanuatu National Cultural Council*

Chief Roi Mata's Domain, Vanuatu.

World Heritage properties located in SIDS and Overseas Territories *(as at June 2014)*



- Cultural site
- Natural site
- Mixed cultural and natural heritage
- World Heritage properties located in SIDS
- World Heritage properties located in Overseas Territories

Selection criteria[1]

To be included on the World Heritage List, sites must be of Outstanding Universal Value and meet at least one out of ten selection criteria.

(i) represent a masterpiece of human creative genius;

(ii) exhibit an important interchange of human values, over a span of time or within a cultural area of the world, on developments in architecture or technology, monumental arts, town-planning or landscape design;

(iii) bear a unique or at least exceptional testimony to a cultural tradition or to a civilization which is living or which has disappeared;

(iv) be an outstanding example of a type of building, architectural or technological ensemble or landscape which illustrates (a) significant stage(s) in human history;

(v) be an outstanding example of a traditional human settlement, land-use, or sea-use which is representative of a culture (or cultures), or human interaction with the environment especially when it has become vulnerable under the impact of irreversible change;

(vi) be directly or tangibly associated with events or living traditions, with ideas, or with beliefs, with artistic and literary works of outstanding universal significance. (The Committee considers that this criterion should preferably be used in conjunction with other criteria);

(vii) contain superlative natural phenomena or areas of exceptional natural beauty and aesthetic importance;

(viii) be outstanding examples representing major stages of earth's history, including the record of life, significant on-going geological processes in the development of landforms, or significant geomorphic or physiographic features;

(ix) be outstanding examples representing significant on-going ecological and biological processes in the evolution and development of terrestrial, fresh water, coastal and marine ecosystems and communities of plants and animals;

(x) contain the most important and significant natural habitats for in-situ conservation of biological diversity, including those containing threatened species of Outstanding Universal Value from the point of view of science or conservation.

1 *Operational Guidelines for the Implementation of the World Heritage Convention*, July 2013

World Heritage properties located in SIDS *(as at June 2014)*

1 **Old Havana and its Fortifications**
Cuba 1982 (iv)(v)

Havana was founded in 1519 by the Spanish. By the 17th century, it had become one of the Caribbean's main centres for ship-building. Although it is today a sprawling metropolis of 2 million inhabitants, its old centre retains an interesting mix of Baroque and neoclassical monuments, and a homogeneous ensemble of private houses with arcades, balconies, wrought-iron gates and internal courtyards.

© UNESCO/Ron Van Oers

2 **National History Park – Citadel, Sans Souci, Ramiers**
Haiti 1982 (iv)(vi)

These Haitian monuments date from the beginning of the 19th century, when Haiti proclaimed its independence. The Palace of Sans Souci, the buildings at Ramiers and, in particular, the Citadel serve as universal symbols of liberty, being the first monuments to be constructed by black slaves who had gained their freedom.

© Rémi Kaupp/CC BY SA

3 **Aldabra Atoll**
Seychelles 1982 (vii)(ix)(x)

The atoll is comprised of four large coral islands which enclose a shallow lagoon; the group of islands is itself surrounded by a coral reef. Due to difficulties of access and the atoll's isolation, Aldabra has been protected from human influence and thus retains some 152,000 giant tortoises, the world's largest population of this reptile.

© UNESCO/Ron Van Oers

4 **Vallée de Mai Nature Reserve**
Seychelles 1983 (vii)(viii)(ix)(x)

In the heart of the small island of Praslin, the reserve has the vestiges of a natural palm forest preserved in almost its original state. The famous coco de mer, from a palm-tree once believed to grow in the depths of the sea, is the largest seed in the plant kingdom.

© UNESCO/Mark Patry

5 **Trinidad and the Valley de los Ingenios**
Cuba 1988 (iv)(v)

Founded in the early 16th century in honour of the Holy Trinity, the city was a bridgehead for the conquest of the American continent. Its 18th- and 19th-century buildings, such as Palacio Brunet and Palacio Cantero, were built in its days of prosperity from the sugar trade.

© Silvan Rehfeld

6 **Colonial City of Santo Domingo**
Dominican Republic 1990 (ii)(iv)(vi)

After the arrival of Christopher Columbus on the island in 1492, Santo Domingo became the site of the first cathedral, hospital, customs house and university in the Americas. This colonial town, founded in 1498, was laid out on a grid pattern that became the model for almost all town planners in the New World.

© Ko Hon Chiu Vincent

7 **Belize Barrier Reef Reserve System**
Belize 1996 (vii)(ix)(x)

The coastal area of Belize is an outstanding natural system consisting of the largest barrier reef in the Northern Hemisphere, offshore atolls, several hundred sand cays, mangrove forests, coastal lagoons and estuaries. The system's seven sites illustrate the evolutionary history of reef development and are a significant habitat for threatened species, including marine turtles, manatees and the American marine crocodile.

© Evergreen

8 **San Pedro de la Roca Castle, Santiago de Cuba**
Cuba 1997 (iv)(v)

Commercial and political rivalries in the Caribbean region in the 17th century resulted in the construction of this massive series of fortifications on a rocky promontory, built to protect the important port of Santiago. This intricate complex of forts, magazines, bastions and batteries is the most complete, best-preserved example of Spanish-American military architecture, based on Italian and Renaissance design principles.

© Silvan Rehfeld

9 **Morne Trois Pitons National Park**
Dominica 1997 (viii)(x)

Luxuriant natural tropical forest blends with scenic volcanic features of great scientific interest in this national park centred on the 1,342 m high volcano known as Morne Trois Pitons. With its precipitous slopes and deeply incised valleys, fifty fumaroles, hot springs, three freshwater lakes, a 'boiling lake' and five volcanoes, located on the park's almost 7,000 ha, together with the richest biodiversity in the Lesser Antilles, Morne Trois Pitons National Park presents a rare combination of natural features of World Heritage value.

© Evergreen

10 **East Rennell**
Solomon Islands 1998 (ix)

East Rennell makes up the southern third of Rennell Island. Rennell, 86 km long by 15 km wide, is the largest raised coral atoll in the world. The site includes approximately 37,000 ha and a marine area extending 3 nautical miles out to sea. A major feature of the island is Lake Tegano, which was the former lagoon on the atoll. The lake, the largest in the insular Pacific (15,500 ha), is brackish and contains many rugged limestone islands and endemic species. Rennell is mainly covered with dense forest, with a canopy averaging 20 m in height. Combined with the strong climatic effects of frequent cyclones, the site is a true natural laboratory for scientific study. It is under customary land ownership and management.

© Our Place

11 **Desembarco del Granma National Park**
Cuba 1999 (vii)(viii)

Desembarco del Granma National Park, with its uplifted marine terraces and associated ongoing development of karst topography and features, represents a globally significant example of geomorphologic and physiographic features and ongoing geological processes. The park, located in and around Cabo Cruz in south-east Cuba, includes spectacular terraces and cliffs, as well as some of the most pristine and impressive coastal cliffs bordering the western Atlantic.

© Ko Hon Chiu Vincent

12 **Viñales Valley**
Cuba 1999 (iv)

Viñales Valley is encircled by mountains and its landscape is interspersed with dramatic rocky outcrops. Traditional techniques are still in use for agricultural production, particularly of tobacco. The quality of this cultural landscape is enhanced by the vernacular architecture of its farms and villages, where a rich multi-ethnic society survives, illustrating the cultural development of the islands of the Caribbean and of Cuba.

© UNESCO/Ron Van Oers

13 Brimstone Hill Fortress National Park
Saint Kitts and Nevis 1999 (iii)(iv)

Brimstone Hill Fortress National Park is an outstanding, well-preserved example of 17th- and 18th-century military architecture in a Caribbean context. Designed by the British and built by African slave labour, the fortress is testimony to European colonial expansion, the African slave trade and the emergence of new societies in the Caribbean.

© Ko Hon Chiu Vincent

14 Archaeological Landscape of the First Coffee Plantations in the South-East of Cuba
Cuba 2000 (iii)(iv)

The remains of the 19th-century coffee plantations in the foothills of the Sierra Maestra are unique evidence of a pioneer form of agriculture in a difficult terrain. They throw considerable light on the economic, social and technological history of the Caribbean and Latin American region.

© Ko Hon Chiu Vincent

15 Central Suriname Nature Reserve
Suriname 2000 (ix)(x)

The Central Suriname Nature Reserve comprises 1.6 million ha of primary tropical forest in west-central Suriname. It protects the upper watershed of the Coppename river and the headwaters of the Lucie, Oost, Zuid, Saramaccz and Gran Rio rivers and covers a range of topography and ecosystems of notable conservation value due to its pristine state. Its montane and lowland forests contain a high diversity of plant life with more than 5,000 vascular plant species collected to date. The Reserve's animals are typical of the region and include the jaguar, giant armadillo, giant river otter, tapir, sloths, eight species of primate and 400 bird species such as the harpy eagle, Guiana cock-of-the-rock and scarlet macaw.

© David Evers

16 Alejandro de Humboldt National Park
Cuba 2001 (ix)(x)

Complex geology and varied topography have given rise to a diversity of ecosystems and species unmatched in the insular Caribbean and created one of the most biologically diverse tropical island sites on Earth. Many of the underlying rocks are toxic to plants so species have had to adapt to survive in these hostile conditions. This unique process of evolution has resulted in the development of many new species and the park is one of the most important sites in the Western Hemisphere for the conservation of endemic flora. Endemism of vertebrates and invertebrates is also very high.

© Evergreen

17 **Historic Inner City of Paramaribo**
Suriname 2002 (ii)(iv)

Paramaribo is a former Dutch colonial town from the 17th and 18th centuries situated on the northern coast of tropical South America. The original and highly characteristic street plan of the historic centre remains intact. Its buildings illustrate the gradual fusion of Dutch architectural influence with traditional local techniques and materials.

© UNESCO/Ron Van Oers

18 **Pitons Management Area**
Saint Lucia 2004 (vii)(viii)

The 2,909 ha site near the town of Soufriere includes the Pitons, two volcanic spires rising side by side from the sea (770 m and 743 m high respectively). The volcanic complex includes a geothermal field with sulphurous fumeroles and hot springs. Coral reefs cover almost 60 per cent of the site's marine area. The dominant terrestrial vegetation is tropical moist forest grading to subtropical wet forest, with small areas of dry forest and wet elfin woodland on the summits. At least 148 plant species have been recorded on Gros Piton, ninety-seven on Petit Piton and the intervening ridge, among them eight rare tree species. The Gros Piton is home to some twenty-seven bird species (five of them endemic), three indigenous rodents, one opossum, three bats, eight reptiles and three amphibians.

© UNESCO/Mark Patry

19 **Qal'at al-Bahrain – Ancient Harbour**
and Capital of Dilmun
Bahrain 2005 (ii)(iii)(iv)

Qal'at al-Bahrain is an artificial mound created by many successive layers of human occupation. The strata of the 300 × 600 m tell testify to continuous human presence from about 2300 BC to the 16th century AD. About 25 per cent of the site has been excavated, revealing structures of different types: residential, public, commercial, religious and military. On the top of the 12 m mound there is the impressive Portuguese fort, which gave the whole site its name, *qal'a* (fort). The site was the capital of the Dilmun, one of the most important ancient civilizations of the region.

© Editions Gelbart

20 **Urban Historic Centre of Cienfuegos**
Cuba 2005 (ii)(v)

The colonial town of Cienfuegos was founded in 1819 in the Spanish territory but was initially settled by immigrants of French origin. Situated on the Caribbean coast of southern-central Cuba, the town first developed in the neoclassical style. It later became more eclectic but retained a harmonious overall townscape. Among buildings of particular interest are the Government Palace (City Hall), San Lorenzo School, Bishopric, Ferrer Palace, former lyceum and some residential houses. Cienfuegos is the first, and an outstanding example of, architectural ensemble representing the new ideas of modernity, hygiene and order in urban planning as developed in Latin America from the 19th century.

© M & G Therin-Weise

21 Aapravasi Ghat
Mauritius 2006 (vi)

In the district of Port Louis lies the 1,640 m^2 site where the modern indentured labour diaspora began. In 1834, the British Government selected the island of Mauritius to be the first site for what it called 'the great experiment' in the use of 'free' labour to replace slaves. Between 1834 and 1920, almost half a million indentured labourers arrived from India at Aapravasi Ghat to work in the sugar plantations of Mauritius, or to be transferred to Reunion Island, Australia, southern and eastern Africa or the Caribbean. The buildings of Aapravasi Ghat are among the earliest explicit manifestations of what was to become a global economic system and one of the greatest migrations in history.

© UNESCO/Barbara Blanchard

22 Historic Centre of Camagüey
Cuba 2008 (iv)(v)

Settled in its current location in 1528, the town developed on the basis of an irregular urban pattern that contains a system of large and minor squares, serpentine streets, alleys and irregular urban blocks, highly exceptional for Latin American colonial towns located in plain territories. The 54 ha Historic Centre of Camagüey constitutes an exceptional example of a traditional urban settlement relatively isolated from main trade routes. The Spanish colonizers followed medieval European influences in terms of urban layout and traditional construction techniques brought to the Americas by their masons and construction masters. The property reflects the influence of numerous styles through the ages: neoclassical, eclectic, Art Deco, neocolonial, as well as some Art Nouveau and rationalism.

© Ko Hon Chiu Vincent

23 Le Morne Cultural Landscape
Mauritius 2008 (i)(vi)

Le Morne Cultural Landscape, a rugged mountain that juts into the Indian Ocean in south-west Mauritius was used as a shelter by runaway slaves (maroons) through the 18th and early years of the 19th centuries. Protected by the mountain's isolated, wooded and almost inaccessible cliffs, the escaped slaves formed small settlements in the caves and on the summit of Le Morne. The oral traditions associated with the maroons have made Le Morne a symbol of the slaves' fight for freedom, their suffering, and their sacrifice, all of which have relevance to the countries from which they came – the African mainland, Madagascar, India and South-East Asia.

© Ko Hon Chiu Vincent

24 Kuk Early Agricultural Site
Papua New Guinea 2008 (iii)(iv)(v)

Kuk Early Agricultural Site consists of 116 ha of swamps in the western highlands of New Guinea 1,500 m above sea-level. Archaeological excavation has revealed the landscape to be one of wetland reclamation worked almost continuously for 7,000, and possibly for 10,000, years. It contains well-preserved archaeological remains demonstrating the technological leap which transformed plant exploitation to agriculture around 6,500 years ago. It is an excellent example of transformation of agricultural practices over time. Kuk is one of the few places in the world where archaeological evidence suggests independent agricultural development and changes in agricultural practice over such a long period of time.

© OUR PLACE The World Heritage Collection

25 Chief Roi Mata's Domain
Vanuatu 2008 (iii)(iv)(vi)

Chief Roi Mata's Domain is the first site to be inscribed in Vanuatu. It consists of three early 17th century AD sites on the islands of Efate, Lelepa and Artok associated with the life and death of the last paramount chief, or Roi Mata, of what is now Central Vanuatu. The property includes Roi Mata's residence, the site of his death and Roi Mata's mass burial site. It is closely associated with the oral traditions surrounding the chief and the moral values he espoused. The site reflects the convergence between oral tradition and archaeology and bears witness to the persistence of Roi Mata's social reforms and conflict resolution, still relevant to the people of the region.

© Vanuatu National Cultural Council/Chris Ballard

26 Cidade Velha, Historic Centre of Ribeira Grande
Cabo Verde 2009 (ii)(iii)(vi)

The town of Ribeira Grande, renamed Cidade Velha in the late 18th century, was the first European colonial outpost in the tropics. Located in the south of the island of Santiago, the town features some of the original street layout and impressive remains including two churches, a royal fortress and Pillory Square with its ornate 16th-century marble pillar.

© CRATerre-ENSAG/Sébastien Moriset

27 Bikini Atoll Nuclear Test Site
Marshall Islands 2010 (iv)(vi)

In the wake of the Second World War, in a move closely related to the beginnings of the Cold War, the United States decided to resume nuclear testing in the Pacific Ocean, on Bikini Atoll in the Marshall archipelago. After the displacement of the local inhabitants, sixty-seven nuclear tests were carried out from 1946 to 1958. Bikini Atoll has conserved direct tangible evidence that is highly significant in conveying the power of the nuclear tests. Equivalent to 7,000 times the force of the Hiroshima bomb, the tests had major consequences on the geology and natural environment of Bikini Atoll and on the health of those who were exposed to radiation. Through its history, the atoll symbolizes the dawn of the nuclear age, despite its paradoxical image of peace and earthly paradise.

© UNESCO/Ron Van Oers

28 Phoenix Islands Protected Area
Kiribati 2010 (vii)(ix)

Phoenix Islands Protected Area (PIPA) is a 408,250 km^2 expanse of marine and terrestrial habitats in the Southern Pacific Ocean. The property encompasses the Phoenix Island Group, one of three island groups in Kiribati, and is the largest designated Marine Protected Area in the world. PIPA conserves one of the world's largest intact oceanic coral archipelago ecosystems, together with fourteen known underwater sea mounts (presumed to be extinct volcanoes) and other deep-sea habitats. The area contains approximately 800 known species of fauna, including about 200 coral species, 500 fish species, 18 marine mammals and 44 bird species. The structure and functioning of PIPA's ecosystems illustrate its pristine nature and importance as a migration route and reservoir.

© UNESCO/Ron Van Oers

29 Historic Bridgetown and its Garrison
Barbados 2011 (ii)(iii)(iv)

Historic Bridgetown and its Garrison, an outstanding example of British colonial architecture consisting of a well-preserved old town built in the 17th, 18th and 19th centuries, testifies to the spread of Great Britain's Atlantic colonial empire. The property also includes a nearby military garrison with numerous historic buildings. With its serpentine urban layout the property exemplifies a different approach to colonial town-planning compared with the Spanish and Dutch colonial cities of the region, which were built along a grid plan.

© Ko Hon Chiu Vincent

30 Pearling, testimony of an island economy
Bahrain 2012 (iii)

The site consists of seventeen buildings in Muharraq City, three offshore oyster beds, part of the seashore and the Qal'at Bu Mahir fortress on the southern tip of Muharraq Island. The listed buildings include residences of wealthy merchants, shops, storehouses and a mosque. The site is the last remaining complete example of the cultural tradition of pearling and the wealth it generated at a time when the trade dominated the Gulf economy (2nd century to 1930s). It also constitutes an outstanding example of traditional utilization of the sea's resources and human interaction with the environment, which shaped both the economy and the cultural identity of the island's society.

© Herb Stovel

31 Rock Islands Southern Lagoon
Palau 2012 (iii)(v)(vii)(ix)(x)

Rock Islands Southern Lagoon covers 100,200 ha and includes 445 uninhabited limestone islands of volcanic origin. Many of them display unique mushroom-like shapes in turquoise lagoons surrounded by coral reefs. The aesthetic beauty of the site is heightened by a complex reef system. The islands sustain a large diversity of plants, birds and marine life within the highest concentration of marine lakes in the world – isolated bodies of seawater separated from the ocean by land barriers. The remains of stonework villages, as well as burial sites and rock art, bear testimony to the organization of small island communities over some three millennia. The abandonment of the villages in the 17th and 18th centuries illustrates the consequences of climate change, population growth and subsistence behaviour on a society living in a marginal marine environment.

© Patrick Colin

32 Levuka Historical Port Town
Fiji 2013 (ii)(iv)

The town and its low line of buildings set among coconut and mango trees along the beach front was the first colonial capital of Fiji, ceded to the British in 1874. It developed from the early 19th century as a centre of commercial activity by Americans and Europeans who built warehouses, stores, port facilities, residences, and religious, educational and social institutions around the villages of the South Pacific island's indigenous population. It is a rare example of a late colonial port town that was influenced in its development by the indigenous community which continued to outnumber the European settlers. Thus the town, an outstanding example of late 19th-century Pacific port settlements, reflects the integration of local building traditions by a supreme naval power, leading to the emergence of a unique landscape.

© Department of National Heritage/Steve Reid

World Heritage properties located in Overseas Territories

(as at June 2014)

1 **La Fortaleza and San Juan National Historic Site in Puerto Rico**
United States 1983 (vi)

Between the 15th and 19th centuries, a series of defensive structures was built at this strategic point in the Caribbean Sea to protect the city and the Bay of San Juan. They represent a fine display of European military architecture adapted to harbour sites on the American continent.

© Ulises Jorge

2 **Hawaii Volcanoes National Park**
United States 1987 (viii)

This site contains two of the most active volcanoes in the world, Mauna Loa (4,170 m high) and Kilauea (1,250 m high), both of which tower over the Pacific Ocean. Volcanic eruptions have created a constantly changing landscape, and the lava flows reveal surprising geological formations. Rare birds and endemic species can be found here, as well as forests of giant ferns.

© OUR PLACE/David Muench

3 **Historic Area of Willemstad, Inner City and Harbour, Curaçao**
Netherlands 1997 (ii)(iv)(v)

The people of the Netherlands established a trading settlement at a fine natural harbour on the Caribbean island of Curaçao in 1634. The town developed continuously over the following centuries. The modern town consists of several distinct historic districts whose architecture reflects not only European urban-planning concepts but also styles from the Netherlands and from the Spanish and Portuguese colonial towns with which Willemstad engaged in trade.

© Rodry 1/CC BY SA

4 **Historic Town of St George and Related Fortifications, Bermuda**
United Kingdom 2000 (iv)

The town of St George, founded in 1612, is an outstanding example of the earliest English urban settlement in the New World. Its associated fortifications graphically illustrate the development of English military engineering from the 17th to the 20th centuries, being adapted to take account of the development of artillery over this period.

© dBking

5 **Lagoons of New Caledonia: Reef Diversity and Associated Ecosystems France 2008 (vii)(ix)(x)**

This serial site comprises six marine clusters that represent the main diversity of coral reefs and associated ecosystems in the French Pacific Ocean archipelago of New Caledonia and one of the three most extensive reef systems in the world. These lagoons are of exceptional natural beauty. They feature a diversity of coral and fish species and a continuum of habitats from mangroves to seagrasses with the world's most diverse concentration of reef structures. The Lagoons of New Caledonia display intact ecosystems, with healthy populations of large predators, and a great number and diversity of large fish. They provide habitat to a number of emblematic or threatened marine species such as turtles, whales or dugongs whose population here is the third largest in the world.

© Emmanuel Legros

6 **Papahānaumokuākea United States 2010 (iii)(vi)(viii)(ix)(x)**

Papahānaumokuākea is a vast and isolated linear cluster of small, low-lying islands and atolls, with their surrounding ocean, roughly 250 km north-west of the main Hawaiian Archipelago and extending over 1,931 km. The area has deep cosmological and traditional significance for living Native Hawaiian culture, as an ancestral environment, as an embodiment of the Hawaiian concept of kinship between people and the natural world, and as the place where it is believed that life originates and to where the spirits return after death. On two of the islands, Nihoa and Makumanamana, there are archaeological remains relating to pre-European settlement and use. Much of the monument is made up of pelagic and deep-water habitats, with notable features such as seamounts and submerged banks, extensive coral reefs and lagoons. It is one of the largest marine protected areas in the world.

© Louiz Rocha

7 **Pitons, cirques and remparts of Reunion Island France 2010 (vii)(x)**

The property covers more than 100,000 ha or 40 per cent of La Réunion, an island comprising two adjoining volcanic massifs located in the south-west of the Indian Ocean. Dominated by two towering volcanic peaks, massive walls and three cliff-rimmed cirques, the property includes a great variety of rugged terrain and impressive escarpments, forested gorges and basins creating a visually striking landscape. It is the natural habitat for a wide diversity of plants, presenting a high level of endemism. There are subtropical rainforests, cloud forests and heaths creating a remarkable and visually appealing mosaic of ecosystems and landscape features.Officitatus endae assi id quam que pos dolupta quisci dolupta aut eum simi, sequo magnien destibusa eum repedicium eos eos rem fuga. Et lat.

© Hervé Douris

Mauritius Declaration (2005)[1]

We, the representatives of the people of the world participating in the International Meeting to Review the Implementation of the Programme of Action for the Sustainable Development of Small Island Developing States, held in Port Louis from 10 to 14 January 2005,

1. *Reaffirm* the continued validity of the Programme of Action for the Sustainable Development of Small Island Developing States[2] as the blueprint providing the fundamental framework for the sustainable development of small island developing States;

2. *Also reaffirm* our commitment to the principles of the Rio Declaration on Environment and Development,[3] and underscore that the full implementation of *Agenda 21*,[4] the Plan of Implementation of the World Summit on Sustainable Development[5] and the outcomes of other relevant major United Nations conferences and summits will contribute to the sustainable development of small island developing States;

3. *Reiterate* that the acknowledged vulnerability of small island developing States continues to be of major concern and that this vulnerability will grow unless urgent steps are taken;

4. *Reaffirm* our commitment to support the efforts of small island developing States for their sustainable development through the further full and effective implementation of the Programme of Action, including through the achievement of the internationally agreed development goals, including those contained in the United Nations Millennium Declaration;[6]

5. *Also reaffirm* that small island developing States continue to be a special case for sustainable development;

6. *Recognize* that the tragic impacts of the Indian Ocean earthquake and tsunami that occurred on 26 December 2004 and the recent hurricane season in the Caribbean and Pacific highlight the need to develop and strengthen effective disaster risk reduction, early warning systems, emergency relief, and rehabilitation and reconstruction capacities;

7. *Welcome* the declaration of the special Association of South-East Asian Nations leaders meeting held in the aftermath of the recent disaster in countries in and around the Indian Ocean, the proposed establishment of a regional natural disaster early warning system for the Indian Ocean and the South-East Asia region, and enhanced international cooperation and partnerships to build and manage effective regional early warning systems, public education and awareness, and disaster management;

8. *Commit* ourselves to fully implementing the United Nations Framework Convention on Climate Change[7] and to further promoting international cooperation on climate change;

9. *Reiterate* that an effective multilateral system based on international law, supported by strong international institutions with the United Nations at the centre, is fundamental for achieving international peace and security and sustainable development;

10. *Acknowledge* efforts at the regional level which address the sustainable development of small island developing States and, in this regard, pledge our support to enhance subregional, regional and interregional cooperation;

11. *Reaffirm* our commitment to support the sustainable development strategies of small island developing States through technical and financial cooperation, regional and interregional institutional assistance and an improved international enabling environment;

12. *Recognize* that good governance within each country and at the international level is essential for sustainable development;

13. *Also recognize* that particular attention should be given to building resilience in small island developing States, including through technology transfer and development, capacity-building and human resource development;

14. *Further recognize* that international trade is important for building resilience and the sustainable development of small island developing States, and therefore call upon international institutions, including financial institutions, to pay appropriate attention to the structural disadvantages and vulnerabilities of small island developing States;

15. *Underscore* that attention should be focused on the specific trade-related and development-related needs and concerns of small island developing States to enable them to integrate fully into the multilateral trading system, in accordance with the Doha mandate on small economies;

16. *Reaffirm* our commitment to conservation and the sustainable use of island and marine biodiversity as fundamental to the sustainable development of small island developing States;

17. *Recognize* that women and youth, as well as civil society, are playing an important role in promoting sustainable development activities in small island developing States, and encourage them in their efforts;

18. *Reaffirm* our commitment to create a world fit for children as called for in the outcome document adopted by the General Assembly at its twenty-seventh special session[8] and, in this regard, undertake to give all assistance to protect children and minimize the impacts of natural disasters and environmental degradation on them;

19. *Recognize* the importance of cultural identity of people and its importance in advancing sustainable development in small island developing States;

20. *Recognize* the increasing incidence of health issues, particularly HIV/AIDS, which impact disproportionately on women and youth in small island developing States, and commit ourselves to ensuring that the health needs of small island developing States are comprehensively addressed in all regional and global programmes;

21. *Have adopted* the Mauritius Strategy for the Further Implementation of the Programme of Action for the Sustainable Development of Small Island ourselves to the timely implementation of the Strategy;

22. *Express appreciation* for the efforts of the United Nations and its specialized agencies in helping to advance the sustainable development of small island developing States, and invite them to strengthen their support for the Strategy through enhanced coherence, coordination and appropriate monitoring;

23. *Express particular gratitude and appreciation* to the Government and people of Mauritius for hosting the International Meeting and for the facilities made available to ensure its overwhelming success.

Culture: Extract from Report of the International Meeting to Review the Implementation of the Programme of Action for the Sustainable Development of Small Island Developing States. Chapter XIX, Para. 82 (A/CONF.207/11)

82. Small island developing States recognize the importance of the cultural identity of people and its importance in advancing sustainable development, and also recognize the need to develop cultural industries and initiatives, which present significant economic opportunities for national and regional development. Cultural industries and initiatives are viewed as an area in which small island developing States have comparative advantage, which have the potential to diversify small island developing States economies and build their resilience while they adjust to changes in the global economy. Small island developing States are committed, with the necessary support of the international community, to:

    (a) Develop and implement national cultural policies and legislative frameworks to support the development of cultural industries and initiatives in such areas as music, art, the literary and culinary arts, fashion, festivals, theatre and film, sports and cultural tourism;

    (b) Develop measures to protect the natural, tangible and intangible cultural heritage and increase resources for the development and strengthening of national and regional cultural initiatives;

    (c) Improve institutional capacity for advocacy and marketing of cultural products and the protection of intellectual property;

    (d) Seek venture capital and access to credit to small and medium-sized cultural enterprises and initiatives, including through the establishment of culture support funds in small island developing States regions.

1 *Report of the International Meeting to Review the Implementation of the Programme of Action for the Sustainable Development of Small Island Developing States. Adoption of the final outcome of the International Meeting, Port Louis, Mauritius, 10–14 January 2005.* (A/CONF.207/11.) http://daccess-dds-ny.un.org/doc/UNDOC/GEN/N05/237/16/PDF/N0523716.pdf?OpenElement

2 *Report of the Global Conference on the Sustainable Development of Small Island Developing States, Bridgetown, Barbados, 25 April–6 May 1994*, Chap. I, Resolution 1, Annex II (United Nations publication, Sales No. E.94.I.18 and corrigenda.)

3 *Report of the United Nations Conference on Environment and Development, Rio de Janeiro, 3–14 June 1992,* Vol. I, *Resolutions Adopted by the Conference,* Resolution 1, Annex I. (United Nations publication, Sales No. E.93.I.8 and corrigendum.)

4 Ibid., Annex II.

5 *Report of the World Summit on Sustainable Development, Johannesburg, South Africa, 26 August-4 September 2002*, Chap. I, Resolution 2, Annex. (United Nations publication, Sales No. E.03.II.A.1 and corrigendum.)

6 United Nations General Assembly Resolution 55/2.

7 A/AC.237/18 (Part II)/Add.1 and Corr.1, Annex I.

8 United Nations General Assembly Resolution S-27/2, Annex.

Published within the World Heritage Series

World Heritage manuals 1

Managing Tourism at World Heritage Sites: a Practical Manual for World Heritage Site Managers

Gestión del turismo en sitios del Patrimonio Mundial: Manual práctico para administradores de sitios del Patrimonio Mundial

(In English) November 2002; (In Spanish) May 2005

World Heritage papers 2

Investing in World Heritage: Past Achievements, Future Ambitions

(In English) December 2002

World Heritage reports 3

Periodic Report Africa

Rapport périodique pour l'Afrique

(In English and French) April 2003

World Heritage papers 4

Proceedings of the World Heritage Marine Biodiversity Workshop, Hanoi, Viet Nam February 25–March 1, 2002

(In English) May 2003

World Heritage papers 5

Identification and Documentation of Modern Heritage

(In English with two papers in French) June 2003

World Heritage papers 6

World Heritage Cultural Landscapes 1992-2002

(In English) July 2004

World Heritage papers 7

Cultural Landscapes: the Challenges of Conservation
Proceedings from the Ferrara workshop, November 2002

(In English with conclusions and recommendations in French) August 2004

World Heritage papers 8

Mobilizing Young People for World Heritage
Proceedings from the Treviso workshop, November 2002

Mobiliser les jeunes pour le patrimoine mondial
Rapport de l'atelier de Trévise, novembre 2002

(In English and French) September 2003

World Heritage papers 9

Partnerships for World Heritage Cities – Culture as a Vector for Sustainable Urban Development
Proceedings from the Urbino workshop, November 2002

(In English and French) August 2004

World Heritage papers 10

Monitoring World Heritage
Proceedings from the Vicenza workshop, November 2002

(In English) September 2004

World Heritage reports 11

Periodic Report and Regional Programme – Arab States 2000-2003

Rapports périodiques et programme régional – Etats Arabes 2000-2003

(In English and French) June 2004

World Heritage reports 12

The State of World Heritage in the Asia-Pacific Region 2003

L'état du patrimoine mondial dans la région Asie-Pacifique 2003

(In English) October 2004; (In French) July 2005

World Heritage papers 13

Linking Universal and Local Values: Managing a Sustainable Future for World Heritage

L'union des valeurs universelles et locales : La gestion d'un avenir durable pour le patrimoine mondial

(In English with the introduction, four papers and the conclusions and recommendations in French)

October 2004

World Heritage papers 14

Archéologie de la Caraïbe et Convention du patrimoine mondial

Caribbean Archaeology and World Heritage Convention

Arqueología del Caribe y Convención del Patrimonio Mundial

(In French, English and Spanish) July 2005

World Heritage papers 15

Caribbean Wooden Treasures

Proceedings of the Thematic Expert Meeting on Wooden Urban Heritage in the Caribbean Region
4–7 February 2003, Georgetown – Guyana

(In English) October 2005

World Heritage reports 16

World Heritage at the Vth IUCN World Parks Congress

Durban (South Africa), 8–17 September 2003

(In English) December 2005

World Heritage papers 17

Promouvoir et préserver le patrimoine congolais

Lier diversité biologique et culturelle

Promoting and Preserving Congolese Heritage

Linking biological and cultural diversity

(In French and English) December 2005

World Heritage papers 18

Periodic Report 2004 – Latin America and the Caribbean

Rapport périodique 2004 – Amérique Latine et les Caraïbes

Informe Periodico 2004 – América Latina y el Caribe

(In English, French and Spanish) March 2006

World Heritage papers 19

Fortificaciones Americanas y la Convención del Patrimonio Mundial

American Fortifications and the World Heritage Convention

(In Spanish with the foreword, editorial, programme, opening ceremony and seven papers in English)

December 2006

World Heritage reports 20

Periodic Report and Action Plan – Europe 2005-2006

Rapport périodique et plan d'action – Europe 2005-2006

(In English and French) January 2007

World Heritage reports 21

World Heritage Forests

Leveraging Conservation at the Landscape Level

(In English) May 2007

World Heritage reports 22

Climate Change and World Heritage

Report on predicting and managing the impacts of climate change on World Heritage and
Strategy to assist States Parties to implement appropriate management responses

Changement climatique et patrimoine mondial

Rapport sur la prévision et la gestion des effets du changement climatique sur le patrimoine mondial
et Stratégie pour aider les États parties à mettre en œuvre des réactions de gestion adaptées

(In English and French) May 2007

World Heritage papers 23

Enhancing our Heritage Toolkit, Assessing management effectiveness of natural World Heritage Sites

Trousse à outils : Amélioration de notre patrimoine, Evaluer l'efficacité de la gestion des sites naturels du patrimoine mondial

Caja de herramientas de Mejorando nuestra Herencia, Evaluación de la efectividad del manejo de sitios naturales de Patrimonio Mundial

(In English) May 2008; (In French) November 2008; (In Spanish) October 2009

World Heritage papers 24

L'art rupestre dans les Caraïbes
Vers une inscription transnationale en série sur la Liste du patrimoine mondial de l'UNESCO

Rock Art in the Caribbean
Towards a serial transnational nomination to the UNESCO World Heritage List

Arte Rupestre en el Caribe
Hacia una nominación transnacional seriada a la Lista del Patrimonio Mundial de la UNESCO

(In English, French and Spanish) June 2008

World Heritage papers 25

World Heritage and buffer Zones

Patrimoine mondial et zones tampons

(In English and French) April 2009

World Heritage papers 26

World Heritage Cultural Landscapes
A Handbook for Conservation and Management

(In English) December 2009

World Heritage papers 27

Managing Historic Cities

Gérer les villes historiques

(In English and French) September 2010

World Heritage papers 28

Navigating the Future of Marine World Heritage
Results from the first World Heritage Marine Site Managers Meeting Honolulu, Hawaii, 1–3 December 2010

Navegando el Futuro del Patrimonio Mundial Marino
Resultados de la primera reunión de administradores de sitios marinos del Patrimonio Mundial, Honolulu (Hawai), 1–3 de diciembre de 2010

Cap sur le futur du patrimoine mondial marin
Résultats de la première réunion des gestionnaires des sites marins du patrimoine mondial, Honolulu (Hawaii), 1er–3 décembre 2010

(In English) May 2011; (In Spanish) December 2011; (In French) March 2012

World Heritage papers 29

Human Evolution: Adaptations, Dispersals and Social Developments (HEADS)
World Heritage Thematic Programme

Evolución Humana: Adaptaciones, Migraciones y Desarrollos Sociales
Programa Temático de Patrimonio Mundial

(In English and Spanish) June 2011

World Heritage papers 30

Adapting to Change
The State of Conservation of World Heritage Forests in 2011

(In English) October 2011

World Heritage papers 31

Community development through World Heritage

(In English) May 2012

World Heritage papers 32

Assessing Marine World Heritage from an Ecosystem Perspective:
the Western Indian Ocean

(In English) June 2012

World Heritage papers 33

Human Origin Sites and the World Heritage Convention in Africa

(In English) December 2012

World Heritage papers 34

World Heritage in a Sea of Islands Pacific 2009 Programme

(In English) January 2013

World Heritage papers 35

Understanding World Heritage in Asia and the Pacific
The Second Cycle of Periodic Reporting 2010-2012

Понимание всемирного наследия в Азиатско-Тихоокеанском регионе
Второй цикл периодической отчетности 2010-2012 гг.

(In English) November 2012; (In Russian) June 2013

World Heritage papers 36

Earthen architecture in today's world
Proceedings of the UNESCO International Colloquium on the Conservation of World Heritage Earthen Architecture/17–18 December 2012

L'architecture de terre dans le monde d'aujourd'hui
Actes du Colloque international de l'UNESCO sur la conservation de l'architecture de terre du patrimoine mondial, 17–18 décembre 2012

(In English and French) December 2013

World Heritage papers 37

Climate Change Adaptation for Natural World Heritage Sites
A Practical Guide

(In English) May 2014

World Heritage papers

9 789231 000416

United Nations
Educational, Scientific and
Cultural Organization

World Heritage
Convention

For more information contact:
UNESCO World Heritage Centre

7, place Fontenoy
75352 Paris 07 SP France
Tel: 33 (0)1 45 68 18 76
Fax: 33 (0)1 45 68 55 70
E-mail: wh-info@unesc.org
http://whc.unesco.org