

EU-Pacific Climate Change Policy and Engagement: A Social Science and Humanities Review

Dr Tony Crook & Dr Craig Lind

Centre for Pacific Studies, University of St Andrews
European Consortium for Pacific Studies, Work Package 3
ECOPAS Deliverable D3.311, November 19th 2013

*Climate change is not “a problem” waiting for “a solution”.
It is an environmental, cultural and political phenomenon
that is reshaping the way we think about ourselves,
about our societies and about humanity’s place on Earth.
(Hulme, *Why We Disagree About Climate Change*, 2009)*

Abstract

This short report provides an overview and review of EU-Pacific Climate Change Policy and Engagement from a Social Science and Humanities perspective. Alongside an outline of the historical background and contemporary mechanisms that frame EU-Pacific partnership relations in reference to climate change, this report provides an outline of the SSH research literature produced in respect of Pacific peoples responses to climate change, and across the academy more generally. Finally, this report provides a commentary on the characteristics of current discourses carried by policy and engagement, and an analysis of the distinctive features that the SSH perspective reveals and which emerge from a close understanding of Pacific peoples’ own concerns. The review suggests how EU-Pacific engagement might draw upon SSH research evidence and methods to better approach these emerging policy concerns.

Foreword

This report has been prepared during final pre-publication phase of the Pacific Islands Forum review of the Pacific Plan (likely to be renamed ‘New Framework for Pacific Integration’), which can also be expected to build upon the ‘Majuro Declaration for Climate Leadership’ made at the 44th PIF Summit in September 2013. We understand that the PIF review is likely to inform EU planning for the 11th European Development Fund, 2014-2020.

This report has also been prepared during the UNFCCC COP19 climate change conference in Warsaw, at which progress can be expected on the ‘roadmap’ towards a comprehensive international agreement by 2015, that was in part brokered by the EU at COP17 in Durban. This report may benefit from updating in view of decisions taken by PIF and COP19.

Introduction: Climate Change in the Pacific

The Pacific Ocean has been described as the largest continent on earth. Aside from geographical spread, Pacific peoples (including Melanesians, Micronesians and Polynesians) are known for the diversity of their languages and cultures. The Pacific continues to exercise an important and disproportionate influence on the intellectual development of social science disciplines, including social anthropology.

The Pacific was long viewed by Europeans as a remote, isolated region whose small and dispersed populations and paucity of natural resources condemned it to dependency on larger economies. But through the eyes of sea-faring peoples thoroughly at home with the ocean and with maintaining social relations in spite of great distances, the Pacific -- Oceania -- is instead 'our sea of islands' whose seas and lands remain important to the subsistence of a majority of its inhabitants. This sophisticated grasp of social relations, which views spatial separation as promoting proximity, and the ability to transform external interests into home-grown initiatives are perhaps the region's greatest resources.

The peoples of the Pacific Islands have a long and distinguished history of meeting the peoples of other regions of the world in their own social and cultural terms, and of engaging with outsiders through their own economic and political interests. Global anthropogenic and geophysical climate change is increasingly connecting wider circles of interest and is focusing them on the Pacific as the world region least responsible for climate change, but the one first affected by the consequences of environmental and climate crises. These are the fields of research that social science and humanities scholars know best, and their expertise and evidence are vital in meeting the challenges of matching the external aspirations for development assistance to the lived realities of Pacific peoples, who can be relied upon to creatively respond to social and climate change through the cultural resources of their own life worlds.

Changes in the climate and the environment are nothing new for Pacific Islanders. The tropical Pacific has much extreme weather and strong seismic forces. Local communities have always had to deal with earthquakes, volcanic eruptions, tropical storms, tsunamis, droughts and flooding, and are therefore used to adapting to environmental changes. However, issues are becoming global to a greater degree than before, with climate changes becoming more extreme and people more aware of the effects of anthropogenic effects on the climate. For Pacific Islanders climate change is not something that may happen in the near or far future, but an immediate reality that they are trying to respond to. It is important to remember that Pacific peoples have had their own adaptation strategies for thousands of years, including migration.

In diverse ways, the forests and waters of the Pacific are crucial to global biodiversity, climate and weather. Changes to climate and climate variability might initially register in the Pacific, but their effects are felt well beyond the region. The low lying atolls of the Pacific Ocean have also borne the brunt of global warming sea level rises and seen the world's first climate refugees, whilst its geological characteristics make the Pacific one of the most important commercial frontiers for mineral and forest resources. These strategic natural resources combined with well over a dozen votes at the United Nations have drawn the geopolitical concerns and attentions of China and the USA, amongst several others.

EU-Pacific relations

The European Union has dedicated Pacific provisions within the European External Action Service, maintains Delegations across the region (in Fiji, Papua New Guinea, Samoa, Solomon Islands and Vanuatu), and is the second largest donor of development assistance funding to the Pacific region (See Appendix 1). The European Commission has a broad involvement in recognition that climate change is inextricably linked with numerous policy fields, such as trade, energy, security, conflict prevention and migration. The EU is known from international and bilateral climate change meetings as a strong proponent of international environmental action and cooperation. Indeed, the 195 parties to the December 2011 UN climate change convention agreed on a roadmap for drawing up a legal framework on climate action that had been proposed by the EU at COP17.¹ Increasingly, the EU's Pacific partners appreciate the leadership shown in addressing the climate change agenda.

EU-Pacific relations (See Appendix 2) are guided by the 2006 strategy paper, *EU Relations With The Pacific Islands - A Strategy For A Strengthened Partnership*.² The most comprehensive description and detailed analysis of EU-Pacific partnership relations is provided by the *European Community – Pacific Region, Regional Strategy Paper and Regional Indicative Programme 2008-13*.³ Subsequent developments are described in the 2012 statement the *Joint Communication to the European Parliament, The Council, the European Economic and Social Committee and the Committee of the Regions: Towards a Renewed EU-Pacific Development Partnership*.⁴

The EC's 2012 summary *Pacific Islands – EU relations: Focus on Climate change* (MEMO/12/435) provides a helpful overview of the key EU-Pacific relations in respect to climate change:⁵

Pacific Islands – EU cooperation

The Pacific Plan for Strengthening Regional Cooperation and Integration, adopted by Pacific Islands Forum (PIF) leaders in 2005, sets out the region's goals on cooperation and integration from 2006 to 2015 in four areas: economic growth, sustainable development, governance and security.

¹ http://eeas.europa.eu/delegations/fiji/key_eu_policies/climate/index_en.htm

² Communication from the Commission to the Council, the European Parliament and the European Economic and Social Committee of 29 May 2006 - EU relations with the Pacific Islands - A strategy for a strengthened partnership [COM(2006) 248 – Official Journal C 184 of 8 August 2006]. <http://eur-lex.europa.eu/LexUriServ/LexUriServ.do?uri=CELEX:52006DC0248:EN:NOT>

³ European Community - Pacific Region Regional Strategy Paper and Regional Indicative Programme 2008 – 2013. http://ec.europa.eu/development/icenter/repository/scanned_r6_rsp-2007-2013_en.pdf

⁴ Joint Communication To The European Parliament, The Council, The European Economic And Social Committee And The Committee Of The Regions. Towards a renewed EU-Pacific development Partnership /* JOIN/2012/06 final. <http://eur-lex.europa.eu/LexUriServ/LexUriServ.do?uri=CELEX:52012JC0006:EN:HTML>

⁵ Pacific Islands – EU relations: Focus on Climate change, European Commission - MEMO/12/435, 11/06/2012 http://europa.eu/rapid/press-release_MEMO-12-435_en.htm

As a response to the Pacific Plan⁶, in 2006 the European Union adopted the **EU Strategy for a Strengthened Partnership with the Pacific** and in 2012 the **New Commission Communication: Towards a renewed EU-Pacific development Partnership**. The Commission uses a combination of policies and financial resources to put the strategy into effect:

- Increased development assistance to Pacific Countries and the region.
- Enhanced EU-PIF political dialogue, through participation in the Annual Forum Meetings and Ministerial Troika Meetings. The dialogue covers matters of common interest, ranging from regional security and governance to economic stability and growth, international trade, environment, climate change and development cooperation.
- Trilateral Pacific dialogue with Australia and New Zealand at Heads of Mission level, covering: country situations, peace and security in the region, Cairns Compact, climate change, Aid for Trade, energy, budget support and delegated arrangements.

Three primary mechanisms facilitate EU-Pacific partnership relations in respect to climate change:⁷

1. The Cotonou Agreement with the Africa, Caribbean and Pacific (ACP) group of countries.

Cooperation between the European Union (at that time Community) and some countries in sub-Saharan Africa, the Caribbean and the Pacific (not yet ACP Group) started in 1957 with the signature of the Treaty of Rome, which gave life to the European Common Market. In part 4 the Treaty provided for the creation of European Development Funds (EDFs), aimed at giving technical and financial aid to African countries still colonised at the time and with which some States of the Community had historical links.⁸

Cooperation between the EC and Pacific Island countries began in 1975 with Fiji, Tonga and Samoa signing the first Lomé Convention.⁹ Since then the Pacific ACP group has enlarged, either when other countries and territories became independent during the lifetime of the first Convention.

The Cotonou Agreement (2000-2020) between the European Community and the ACP Group was signed in 2000, and has since been reviewed in 2005 and 2010 (following the 2009 Treaty of Lisbon). The current phase is due to run until 2020.

European Development Fund (EDF) is the main instrument for providing EU assistance for development cooperation under the Cotonou Agreement. The EDF is funded by the EU Member State on the basis of specific contribution keys. Each EDF is concluded for a multi-annual period, with the most recent 10th EDF running from 2008-13 (See Appendix 3), and to be followed by the 11th EDF planned for 2014-2020.

⁶ Pacific Plan for Regional Integration and Cooperation ('Pacific Plan': 2006-2015), which includes an Economic Partnership Agreement (EPA) with the EU as one of its economic growth objectives.

⁷ Additional note should be made of the importance of the Melanesian Spearhead Group (MSG), the Micronesian President's Summit (MPS), and the Polynesian Leaders Group (PLG).

⁸ http://ec.europa.eu/europeaid/where/acp/overview/lome-convention/index_en.htm

⁹ The Lomé Convention evolved over a series of three reviews, and eventually saw a US legal challenge to the World Trade Organisation (WTO) disputing preferential trade relations between Europe and ACP nations.

In the 2010 revision, ACP-EU cooperation was adapted to new challenges, such as climate change, food security, regional integration, State fragility and aid effectiveness:

For the first time, the EU and the ACP recognize the global challenge of climate change as a major subject for their partnership. The parties commit to raising the profile of climate change in their development cooperation, and to support ACP efforts in mitigating and adapting to the effects of climate change.¹⁰

Climate change gained added prominence with specific mention made in the Preamble and with the addition of Article 32A devoted to climate change to Section 4 Thematic and Cross-Cutting Issues (The Cotonou Agreement 2012:15, 44-5 and see Appendix 3).¹¹

2. The Pacific Islands Forum.

Fourteen of the ACP States meet once a year with Australia and New Zealand as the Pacific Islands Forum (PIF)¹² which is the EU's principal partner and channel for dialogue with the Pacific -- as a region. The *Pacific Plan 2006-15* continues to provide an important guideline for the EU's development commitments and implementation.

The Pacific Islands Forum was founded in 1971 as the South Pacific Forum, changing its name in 2000: the current format and constitution arises from a 2005 agreement which established the Forum as an inter-governmental organisation at international law,¹³ and which expanded the role for Dialogue Partners. The EU enjoys Dialogue Partner status with the Pacific Islands Forum, with a formal Post Forum Dialogue taking place with fourteen external partners including the EC (and France, Italy and the UK). The Secretary General of the Pacific Islands Forum Secretariat (PIFS) is the Regional Authorising Officer (RAO) for the EC's Regional Indicative Programme (RIP) on behalf of the Pacific ACPs.¹⁴ The PIFS also chairs the Council of Regional Organisations in the Pacific (CROP), comprising ten intergovernmental regional organizations.¹⁵

¹⁰ The Cotonou Agreement. http://ec.europa.eu/europeaid/where/acp/overview/cotonou-agreement/index_en.htm

¹¹ http://ec.europa.eu/europeaid/where/acp/overview/documents/devco-cotonou-consol-europe-aid-2012_en.pdf

¹² Members include Australia, Cook Islands, Federated States of Micronesia, Fiji, Kiribati, Nauru, New Zealand, Niue, Palau, Papua New Guinea, Republic of Marshall Islands, Samoa, Solomon Islands, Tonga, Tuvalu and Vanuatu. <http://www.forumsec.org/pages.cfm/about-us/>

¹³ The Agreement enters into force when it is signed and ratified by all 16 member states. <http://www.forumsec.org/pages.cfm/about-us/major-forum-resolutions/>

¹⁴ European Commission. 2008. European Community - Pacific Region Regional Strategy Paper and Regional Indicative Programme 2008 – 2013. http://ec.europa.eu/development/icenter/repository/scanned_r6_rsp-2007-2013_en.pdf

¹⁵

Pacific Islands Forum Fisheries Agency (PIFFA),
Pacific Islands Development Programm (PIDP),
Secretariat for the Pacific Community (SPC),
Secretariat of the Pacific Regional Environment Programme (SPREP), South Pacific Tourism Organisation (SPTO),
University of the South Pacific (USP),
Pacific Power Association (PPA),
Pacific Aviation Safety Office (PASO) <http://www.forumsec.org/pages.cfm/about-us/crop/>

Several important developments for EU-Pacific relations took place in 2005: a revision to the Cotonou Agreement, a new Pacific Islands Forum agreement, PIF's Pacific Islands Framework for Action on Climate Change (PIFACC),¹⁶ and the EU's *European Consensus on Development*.¹⁷ Accordingly, in 2006 the EU Council enacted a strengthening of the political relationship between the EU and the Pacific ACP countries through enhanced dialogue with PIF. Set out in the 2006 strategy paper, *EU Relations With The Pacific Islands - A Strategy For A Strengthened Partnership*, this initiative was described as 'the first formal strategy in thirty years for EU-Pacific relations [and] reflects the growing environmental, political and economic importance of the Pacific region'.¹⁸

A *Joint EU-PIF Nuku'alofa Declaration* produced by the initial EU-PIF Special Dialogue held in Nuku'alofa in 2007, agreed an enhanced and high-level structure for Political Dialogue at Ministerial level, plans for a Ministerial Troika meeting in Brussels in 2008, and agreed an agenda that included regional issues, including trade and the environment, progress towards a European Partnership Agreement (EPA), and discussed programming for the 10th European Development Fund with particular reference to sustainable development and climate change.¹⁹

Other important PIF developments include the 2005 agreement for the Pacific Islands Framework for Action on Climate Change (PIFACC), and establishing both an important network, the Pacific Climate Change Roundtable (PCCR),²⁰ and an important database, the Pacific Climate Change Portal,²¹ under the guidance of the Secretariat of the Pacific Regional Environment Programme (SPREP). In 2008 the Pacific Islands Forum agreed the *Niue Declaration on Climate Change* commits PIF members to continue to develop Pacific-tailored approaches to combating climate change.²²

Following this, and the EU's launch of the Global Climate Change Alliance (GCCA) in 2007,²³ the 2008 *Declaration By The Pacific Islands Forum States And The European*

¹⁶ PIFACC (2006-2015) was adopted by PIF Leaders in 2005, and establishes an integrated, programmatic approach to addressing the interlinked causes and effects of climate change-related impacts in the region. http://www.sprep.org/climate_change/pycc/documents/PIFACC.pdf

¹⁷ Joint statement by the Council and the representatives of the governments of the Member States meeting within the Council, the European Parliament and the Commission on European Union Development Policy: 'The European Consensus' (2006/C 46/01) <http://ec.europa.eu/europeaid/what/development-policies/european-consensus/>

¹⁸ http://europa.eu/legislation_summaries/development/african_caribbean_pacific_states/r12556_en.htm

¹⁹ <http://www.forumsec.org/pages.cfm/newsroom/press-statements/2007/eupif-joint-declaration.html>

²⁰ <http://www.sprep.org/pacific-climate-change-roundtable/pccrhomepage>

²¹ <http://www.pacificclimatechange.net/>

²² <http://www.forumsec.org/pages.cfm/newsroom/press-statements/2008/final-communique-of-39th-pacific-leaders-forum-matavai-resort-niue.html>

²³ Communication From The Commission To The Council And The European Parliament Building a Global Climate Change Alliance between the European Union and poor developing countries most vulnerable to climate change [Brussels, 18.9.2007 COM(2007) 540 final]. <http://eur-lex.europa.eu/LexUriServ/LexUriServ.do?uri=COM:2007:0540:FIN:EN:PDF>

*Union On Climate Change*²⁴ represented a major 'commitment between the two regions to address the challenges posed by climate change, including their priorities for mitigation and adaptation', and to coordinate actions under the United Nations Framework Convention on Climate Change (UNFCCC). This 2008 PIF-EU Declaration was an important milestone shaping EU-Pacific relations in the context of climate change.²⁵ Of particular interest here, is that the importance of social and cultural well-being is recognized.²⁶

Building on this foundation, in 2010 the EC and PIF agreed a Joint Initiative²⁷ with the objectives to 'facilitate a common understanding and joint responses to climate change challenges in the Pacific, as well as more coordinated positions in view of ongoing and future negotiations under the United Nations Framework Convention on Climate Change (UNFCCC) wherever possible', and to 'facilitate the progress towards the agreed strategic priority of adaptation to climate change and pursue sustainable development strategies using both direct national and regional approaches'.²⁸ The Joint Initiative signalled plans for a Joint Plan to be discussed in 2011.

In this period, and looking ahead to the 2015 target for achieving the Millennium Development Goals (MDG), the EC developed the *Agenda for Change*:²⁹

While the Commission implements 20% of the collective EU aid effort, it also acts as coordinator, convener and policy-maker. The EU is an economic and trading partner, and its political dialogue, security policy and many other policies - from trade, agriculture and fisheries to environment,

²⁴ Declaration By The Pacific Islands Forum States And The European Union On Climate Change http://ec.europa.eu/development/icenter/repository/2008_11_EU-PIF_Joint%20CC_Declaration_final.pdf

²⁵ The Declaration defined both the ends towards and, the means by which, cooperation would be directed: 19. [...] 'while this Declaration has been agreed by all Forum Member States, EU financial assistance will only be granted to Pacific States that are Parties to the Cotonou Agreement. They noted the importance of ensuring that assistance aligns with regional and national priorities and supports regional and national delivery mechanisms (in accordance with the Pacific Aid Effectiveness Principles 2007, and the Paris Declaration on Aid Effectiveness 2005).'

²⁶ For example, Paragraph 12. 'They recognised the urgency and human security dimension of climate change, in particular of the small island developing states with low-lying atolls, and reiterated the Niue Declaration's call for increased technical and financial support for measures to address the challenges presented by climate change, while acknowledging the importance of retaining the Pacific's social and cultural identity, and the desire of Pacific peoples to continue to live in their own countries where possible.'

²⁷ MEMORANDUM of UNDERSTANDING (MoU) between the Pacific Islands Forum Secretariat and the European Commission on a JOINT INITIATIVE to address climate change in the Pacific, <http://www.gcca.eu/sites/default/files/GCCA/protocole-d-entente-signe-a-strasbourg.pdf>

²⁸ 'The Memorandum of Understanding is the first step towards a joint integrated strategy to address climate change in the Pacific. The European Commission and the Forum Secretariat will work together with their respective Member States, institutions, civil society and private sector, on a Joint Plan for Action which will also embrace the Overseas Countries and Territories. This Joint Plan will be submitted to a Regional High Level Climate Change Conference, during Commissioner Piebalgs visit to the Pacific in 2011.' http://europa.eu/rapid/press-release_IP-10-1722_en.htm

²⁹ Communication From The Commission To The European Parliament, The Council, The European Economic And Social Committee And The Committee Of The Regions. Increasing the impact of EU Development Policy: an Agenda for Change, Brussels, 13.10.2011, COM(2011) 637 final http://ec.europa.eu/europeaid/infopoint/publications/europeaid/257a_en.htm

climate, energy and migration - have a strong impact on developing countries. It must **translate this multi-faceted role into different policy mixes adapted to each partner country**. To be fully effective, the EU and its Member States must speak and act as one to achieve better results and to improve EU's visibility.

Progressively, these important developments for the Pacific context, and the increasing prominence of climate change, are set out in the 2012 *Joint Communication to the European Parliament, The Council, the European Economic and Social Committee and the Committee of the Regions: Towards a Renewed EU-Pacific Development Partnership* (See Appendix 4).³⁰

In 2013, PIF has been undertaking a review of the Pacific Plan (likely to be renamed 'New Framework for Pacific Integration'). A pre-publication presentation³¹ signalled that the Pacific region is 'disproportionately vulnerable and disproportionately dependent on others'; that PIF was 'vital'; and that the review's conclusion is 'disarmingly simple' --'a compelling argument for greater regional cooperation and integration across the Pacific'. That the review indicates 'long-term adjustments', 'not just short-term technical fixes', suggests that this PIF review will also provide direction to EU-Pacific relations. The final review document can also be expected to build upon the 'Majuro Declaration for Climate Leadership' made at the 44th PIF Summit in September 2013, which states that: 'Climate change has arrived. It is the greatest threat to the livelihoods, security and well-being of the peoples of the Pacific and one of the greatest challenges for the entire world.'³²

The present ECOPAS review report has been prepared during final pre-publication phase of the PIF review of the Pacific Plan. We understand that the PIF review is likely to inform EU planning for the 11th European Development Fund, 2014-2020.

3. The United Nations Framework Convention for Climate Change (UNFCCC).

In 1988, the United Nations Environment Programme (UNEP) and the World Meteorological Organization (WMO) created the Intergovernmental Panel on Climate Change (IPCC) "as an effort by the United Nations to provide the governments of the world with a clear scientific view of what is happening to the world's climate" (IPCC, 2010). IPCC and its three working groups publish reports in collaboration with member governments that function as a research framework for climate change response strategies and policy making (IPCC, 2010). IPCC has published four reports: First Assessment Report (FAR) in 1990, Second Assessment Report (SAR) in 1995, Third Assessment Report (TAR) in 2001 and the Fourth Assessment Report (AR4) in 2007. Initial components of the Fifth Assessment Report (AR5) were recently published in 2013, with further components due in 2014.

³⁰ Joint Communication To The European Parliament, The Council, The European Economic And Social Committee And The Committee Of The Regions Towards a renewed EU-Pacific development Partnership / * JOIN/2012/06 final.

<http://eur-lex.europa.eu/LexUriServ/LexUriServ.do?uri=CELEX:52012JC0006:EN:HTML>

³¹ Pacific Island Forum Leaders' Meeting, PRESENTATION ON THE PACIFIC PLAN REVIEW, By the Rt. Hon. Sir Mekere Morauta, Review Chair Majuro, 4 September 2013

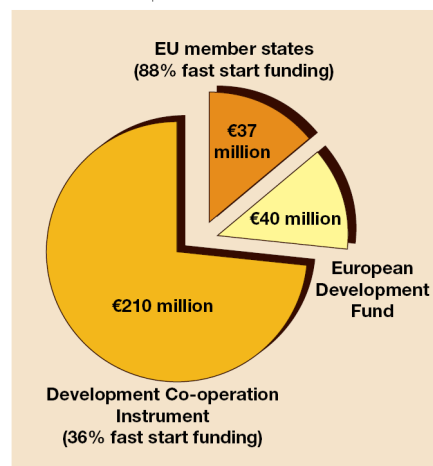
³² http://www.majurodeclaration.org/the_declaration

FAR was for many countries a clear message that something had to be done in regards to climate change, and the report led to the creation of the United Nations Framework Convention on Climate Change (UNFCCC) in 1992, and to the subsequent series of nineteen Conference of the Parties (COP). The UNFCCC’s aim is to prevent “dangerous” human interference with the climate system (UNFCCC, 2011). IPCC reports have been frequently used as the basis for decisions made under the UNFCCC and they played an important role in negotiations leading to the Kyoto Protocol, despite several countries with significant GHG emissions being slow and reluctant to ratify the Protocol (Barker, 2008).

Following the IPCC’s findings and reporting, and in light of the 2006 Stern Review,³³ the EU took a lead in promoting international action, and in 2007 launched the Global Climate Change Alliance (GCCA)³⁴ to fund ‘innovative and effective approaches’ to five goals.³⁵ Fast Start Finance is particularly important:

Fast start finance is funding pledged by the most developed countries in the wake of the UNFCCC 15th Conference of the Parties (CoP), held in Copenhagen in 2009, to support immediate action on climate change in developing countries. The EU is a significant contributor of climate-related fast-start finance to developing countries. For 2010-2012, €7.2 billion was pledged by the EU. This money helps developing countries to strengthen their resilience to climate change and to mitigate their greenhouse gas emissions, including those from deforestation. The majority of EU fast start finance is provided bilaterally by EU Member States.³⁶

Diagram 1-4 Origin of funding committed to the GCCA 2008–2013



Source: GCCA 2008-13

In respect of EU climate change funds in the Pacific:

³³ Stern Review on the Economics of Climate Change. HM Treasury http://webarchive.nationalarchives.gov.uk/+/http://www.hm-treasury.gov.uk/sternreview_index.htm

³⁴ <http://www.gcca.eu/about-the-gcca/why-a-global-climate-change-alliance>

³⁵ 1) mainstreaming climate change into poverty reduction and development programmes; 2) improving adaptation by building on National Adaptation Programmes of Action (NAPAs); 3) reducing emissions from deforestation and forest degradation (REDD), 4) the increase participation in international carbon markets, and, 5) to mitigate against risk of disasters arising from climate change.

³⁶ <http://www.gcca.eu/about-the-gcca/frequently-asked-questions/#startfinance>

The Commission is leading the EU effort on development cooperation to address climate change in the Pacific. Together with Pacific partners, the Commission is already very actively engaged also in financial terms, with €90 million in ongoing and already planned development cooperation projects and programmes at country and regional level for the period 2008-2013.

The Commission has already approved four programmes through the Global Climate Change Alliance (GCCA) for €20.4 million in total. Three of them cover specifically Vanuatu, Samoa and Solomon Islands climate resilience specific needs and the other has a multi country dimension, supporting strategic actions on adaptation in 9 Pacific Small Island states, as well as to prepare those countries to efficiently absorb the expected international climate Fast Start funds.

Another two GCCA actions planned for Papua New Guinea (forests) and Timor Leste (range of support notably to local communities' adaptation to climate change) in 2012 bringing the GCCA allocation to the region to €30.4 million in total.

In addition, under the Intra ACP allocation (€ 8 million) a second regional project on climate change, to be implemented by the University of South Pacific, seeks to strengthen capacity building, community engagement and adaptive actions along with applied research.³⁷

GCCA embraces a wide range of co-financing and implementation partners, including United Nations Development Programme (UNDP), and the United Nations Environment Programme (UNEP).³⁸ Drawing on lessons learned in dialogue and an exchange of experiences between the EU and developing countries, GCCA provides technical and financial support, with a particular focus on mainstreaming policy and budgetary commitments to climate change for Least Developed Countries (LDCs) and Small Island Developing States (SIDS). The GCCA recently held a second global policy event to feed back into the UNFCCC.³⁹

The present ECOPAS review report has also been prepared during the 2013 UNFCCC COP19 climate change conference in Warsaw, at which progress can be expected on the 'roadmap' towards a comprehensive international agreement by 2015, that was in part brokered by the EU at COP17 in Durban.⁴⁰

SSH research literature

Social Anthropology has a long tradition of studying indigenous perceptions of ecological relations in the vernacular terms of traditional cosmologies, but its specific engagement with the issue of climate change can be traced back to a conference organized by Margaret Mead in 1975, 'The Atmosphere: Endangered and Endangering', which raised awareness internationally, and in other disciplines, and set a precedent for subsequent research (Kellog and Mead 1977). In the emergent idea of a shared atmosphere, Mead saw the potential for 'making the world safe for difference', and was quite deliberately searching for a cultural idea - one that 'changed' and demanded a 'response' - for people to share equally and which would serve to dissolve national differences.

The recent proliferation of anthropological literature on climate change looks to indigenous capacities for adaptation as the focus of cultural responses, and as the field

³⁷ Pacific Islands – EU relations: Focus on Climate change, European Commission - MEMO/12/435, 11/06/2012 http://europa.eu/rapid/press-release_MEMO-12-435_en.htm

³⁸ <http://www.gcca.eu/about-the-gcca/partners>

³⁹ <http://climate-l.iisd.org/events/gccas-second-global-policy-event/>

⁴⁰ Durban conference delivers breakthrough for climate European Commission - MEMO/11/895, 11/12/2011. http://europa.eu/rapid/press-release_MEMO-11-895_en.htm

of scholarly responsibility. *Anthropology and Climate Change* (Crate and Nuttall eds. 2009) has a specific focus on responses to ecological vulnerability, the loss of cultural diversity and 'the investigation of local capacities for adaptation and resilience' (Crate and Nuttall 2009:16). Similarly, devoted special editions of the journals *Anthropology News* (Lahsen *et al* 2007), *Current Anthropology* (Crate *et al* 2008) and *TAJA* (Milton *et al* 2008) have recently appeared, as have several dedicated volumes, focusing on weather, culture and climate (Strauss and Orlove eds. 2003), and knowledge and social constructions (Pettenger ed. 2007). With surprisingly few exceptions (e.g. Strathern 1992, Kempton *et al* 1996, Salick and Byg eds. 2007), these literatures have also tended to follow the scientific modelling of causalities and predictions, and to absorb the language of national and international policy agendas for action. Of course, this is to be expected and necessary as a premise for anthropological engagement -- but should we also assume that these international terms also provide the premise for Pacific perceptions and causal connections accounting for the environmental and climate changes they are now seeing?

Pacific peoples are on the frontline of climate change: recognised as among the first affected by the changing nature of local and global weather systems (Farbotko 2010, Lazrus 2012), but it is only during the last decade of the climate change debate that the Pacific Island Countries (PIC) have received increased attention (Elahi 2000). Pacific peoples' receptions of and responses to the physical effects and prophetic narratives of anthropogenic climate change are beginning to shape international priorities, policies and practices (e.g. Kelman 2010). Connell (2003) notes that in the climate change threat some Pacific countries see the potential of domestic political and economic advantage, however with environmental costs. Both the universal character of IPCC guidelines (Barnett 2001), and the importance of understanding the specificity of Pacific contexts through social science case studies was recognized right from the outset (Pernetta 1992), and has received increasing focus during the last decade (e.g. Morteux and Barnett 2008, Jacka 2009; Lazrus 2009, McNamara and Gibson 2009, Barnett and Campbell 2010).

Pacific peoples have been shown to have their own readings, explanations, appropriations and interpretations of the wider changes, including social and climate change, across the contemporary Pacific. The adequacy of information coming into, and coming out of, Pacific governments has been questioned (Bells 2001, Kuruppu and Liverman 2011), and knowledge and awareness has been shown to be uneven (Lawler 2011). This creates spaces in which ideas such as migration lose all proportion and reality (Kempf 2009), and become driven by policy development rather than by material circumstances (Morteux and Barnett 2008), and do not necessarily reflect experiences (Lieber 1977), or local plans and wishes (McNamara and Gibson 2009). Becken (2005) explores adaptation and mitigation strategies employed by the Fijian Government and the local perceptions of these actions -- and highlights that climate change has to be understood in a 'multistress context' of environmental, social, and political changes and pressures.

Pacific peoples are also renowned for creative responses to environmental pressures such as logging, and acting for themselves in the gaps in government provision. Global narratives are entering into local discourse, they are formulated in NGO awareness projects on global warming, and are broadcast by radio stations. Equally, people

increasingly draw on their own cultural resources, such as Marovo elders' knowledge of calming seas (Hviding 1996). For Marshall Islanders, "nature" cannot be linguistically distinguished from "culture", and the term "climate change" therefore becomes so all-encompassing that it becomes vague (Rudiak-Gould, 2011). The entanglement of nature and culture is no surprise to cultures that have never made the distinction, and the ideas that humans can influence the weather and that wrong doings are registered in the environment, are entirely familiar to people for whom 'nature' is encompassed within the social field and is a moral barometer of it (Crook and Rudiak-Gould n.d.). This highlights the limitations of assuming that the cultural concepts at work are the same as those informing the international climate discourses, and the limitations of assuming that the scientific account of global warming is shared as an explanation of the causalities at work.

Pacific peoples then, are also prominent in other ways too: at the frontline of efforts to create new spaces for the 'working together' of different knowledges (Kelman and West 2009, Fazey et al. 2011) through collaborative frameworks for understanding and responding to anthropogenic climate change (Lefale 2010, Raygorodetsky 2011), and creating pathways for including alternative modes of knowing into official assessment and reporting processes. For example, the IPCC's Fourth Assessment Report (AR4) -- which provides an authoritative basis for transnational policy making and implementation (e.g. Magistro & Roncoli 2001, UNESCO 2012) -- notes that 'indigenous knowledge is an invaluable basis for developing adaptation and natural resource management strategies in response to environmental and other forms of change', and aims to incorporate indigenous knowledge into the 2014 Fifth Assessment Report (AR5). In response, UNESCO Paris and the United Nations University produced *Weathering Uncertainty* (2012), a report which draws upon findings from their on-going 'Climate Frontlines' project (which grew out of and includes the Pacific) and upon peer-reviewed research on 'traditional ecological knowledge' (TEK) in order to feed into the coming AR5 IPCC Report.

Advancing the theoretical understanding and practical interaction of different systems of knowledge-practice are critical features of social science contributions in response to climate change -- and provide key pivots for the emerging 'cultural turn' discerned, documented by climate scientists (e.g. Hulme 2009), anthropologists (e.g. Crook and Rudiak-Gould n.d., Rudiak-Gould 2011) and other social scientists (e.g. Urry 2011). Pacific knowledge-practices have been shown to be characterised by the importance of place, person, effect and hierarchy (e.g. Borofsky 1990, Crook 2007, Leach 2012, Lindstrom 1991). But, whilst anthropology has for a long time focused on the place-based ethnography of 'traditional ecological knowledge' (TEK) (e.g. see Crate 2011 for a review), there is growing recognition and interest in the ways in which technocratic and bureaucratic cultures of knowledge and practice often rub up against these local modalities of knowing, and thus define climate change in such contexts as the Pacific as characterized by uncertainty and action in complex and sometimes incommensurable ways (e.g. Crate and Nuttall eds. 2009). Calls for collaboration and knowledge co-production are far from unproblematic (Magistro & Roncoli 2001), however, and recently more ethnographic attention is being paid to the 'communities of climate scientists that shape the form of global political debates' (Lahsen 2007, Peterson and Broad 2009), and to policy-makers (Batterbury 2008, Fiske 2009).

Commentary and analysis

For illustrative purposes, it is instructive to consider the depiction of climate change in the Pacific provided by European Commission's 2012 summary 'Pacific Islands – EU relations: Focus on Climate change' (MEMO/12/435):⁴¹

Does climate change have any visible impact on Pacific Countries now?

Unfortunately, climate change impact is already visible and seriously affects Pacific people.

Pacific islands are inundated by rising sea levels, increasing erosion occurs from intense storms, and saltwater intrudes into freshwater supplies. These changes are affecting livelihood activities such as hunting and fishing and impacting on island infrastructure, access to water resources, food and housing availability.

In Small Island States, which are the majority of the Pacific Islands Countries, soil salinity and sea water intrusion are serious threats to agriculture, as well as increased intensity and decreasing frequency in rainfall. Phenomena such as saltwater flooding and droughts have further reduced freshwater supplies for the growing population.

Moreover, Small Island States are affected by changes in surface and subsurface ocean temperatures, ocean acidification and coral bleaching, pest infestations, the deterioration of reef fisheries and an increase in communicable diseases. In addition, Pacific Small Island States have limited opportunities for private sector led growth, face constraints in structural capacity and are very vulnerable to recurrent natural disasters.

Climate change puts further stress on these already fragile situations, can exacerbate tensions around scarce resources such as land or water, has a serious impact on heavy agriculture and hampers progress towards Millennium Development Goals. Also, the frequency and intensity of cyclones or tropical storms, which recurrently hit Pacific Island Countries, will increase as a result of climate change.

It can be anticipated that living conditions will severely deteriorate across the region. Certain islands and even entire countries (Tuvalu or Kiribati) could even see their own physical existence at risk. Relocation from sinking islands is no longer the worst case scenario but a reality in the making.

Alongside the extensive list of manifestations and impacts, and the compelling case for urgency presented, what is striking here from a SSH research perspective is the exclusive focus on the physical and tangible effects of climate change as registered and visible in the domain of Nature. It is equally striking that, although this quoted section begins with a reference to Pacific peoples, there is a subsequent absence of the intangible and social effects of climate change as registered in the domain of Culture. The motivating paradigm here divides Nature from Culture, and consequently directs analytical and policy attention and directs resources to remedies in a similar register – to tangible and physical responses in a technological register.

Pacific peoples are, of course, present here and in the forefront of policy concerns – but such perspectives are carried by the view that climate change is primarily a mechanism in nature (in terms of causes, effects and remedies). Such perspectives also carry the view that Nature provides the ground and context – the environment – for Culture, and thereby perpetuate a conceptual division that has proven to be both artificial and destructive. Clearly, from a SSH research perspective, and from a Pacific perspective, the continuing force of the conceptual division between Nature and Culture provides an increasingly inadequate description of climate change in the Pacific, and elsewhere.

⁴¹ Pacific Islands – EU relations: Focus on Climate change, European Commission - MEMO/12/435, 11/06/2012 http://europa.eu/rapid/press-release_MEMO-12-435_en.htm

Rather than simply a question of Nature then -- physical and tangible changes to natural systems that require technological and material remedies -- climate change in the Pacific is altogether more complex, and yet altogether more straightforward from a social science perspective. In the Pacific at least, it is equally important to look at where the effects of climate change wash up -- as a cultural idea, an environmental discourse, a global prophecy, a political ideology -- in the social thinking of Pacific peoples and the particular places and communities in which they live. Social scientists have learned that when it comes to climate change it is insufficient to assume and ascribe the scientific account of the causes of global warming - and to then, only after that fact, look to culture as a resource for adaptation or else a basis for vulnerability. Instead, their reflex is to look beyond this convention and to anticipate that Pacific peoples will have shifting and multiple explanations, each of which deriving from and addressing specific aspects, and analysable only in terms of localised cultural concerns that reflect the interconnections between dimensions of the world which all nonetheless fall within a distinctly humanised vision of life.

The Pacific context is particularly instructive, then: not only because of concepts that do not rely on Nature or Culture, or their division, nor only because climate and weather are barometers, so to speak, that register the qualities and changes in social relations and peoples dealings with one another, but because causes and effects can be connected in alternate and unexpected ways. Current policy framings carry a culturally specific and instrumental assumption of the links between climate change problems and solutions that is closely aligned with the scientific method. But some caution is required about ascribing this form of causation which is but one method understood and deployed by Pacific peoples. All too often the natural, physical, tangible, scientific and technocratic unexpectedly appears both distinctly social, quite contrary and opposite to any prevailing assumptions.

Anthropologists have long noted a regional aptitude displayed by people with the facility for a close and sophisticated understanding and analysis of the particular interests that are shown in them - and an equally adept skill in appropriating external interests or discourses or descriptions, and then turning them into home-grown initiatives. Of course, this reversal and projection of perspectives also disrupts any simple picture of internal and external. Equally, this reversal and projection of interests can operate across the range of scale, from turning an external vision of the Pacific as a vast, remote, isolated and ultimately dependent region into an internal vision of 'our sea of islands' in which the ocean becomes a site of sociality rather than its absence. Similarly, Pacific peoples recognise external views of the region and the characteristics of climate change, and yet highlight their own agency, their own accounts and their own remedies. Because of this, expectations can be overturned, and projects and discourses may give over to unexpected forms - making the measurement of impact difficult when the impacts and effects appear in novel and apparently unconnected guises. These responses to interventions are particularly instructive for social scientists, for (in the register of Pacific knowledge-practices) they reveal what something has been taken to be all about. Although it is often the effects that reveal the cause, this is entirely conventional and familiar to social scientists, but often leads to confusion.

A further, a critical, dimension here, is that Pacific peoples can be relied upon to reveal various aspects and connections that an intervention entails for them. The demarcations

anticipated by Euro-American expectations are as often collapsed as they are amplified, with the result that responses to climate change are carried by, and taken to implicate, narratives and causalities far removed, so to speak, from scientific accounts. For example, a local account from the Solomon Islands that the climate is changing partly due to young women now wearing shorts instead of skirts, can be baffling until we appreciate that (in Melanesia at least) every aspect and action in the world is gendered - and so an adjustment to gendering in one dimension can be the cause of effects in a seemingly other dimension. Equally, scientific prophecies are taken and heard within the frame of religious and cosmological inter-connections - and prompt internal reflections and critiques of localised community affairs.

It is particularly important, then, that the 2012 EU 'Towards a renewed EU-Pacific development strategy' explicitly recognises these cultural concerns in terms of the need to appreciate 'Pacific ways of addressing development challenges', and work with 'Pacific friendly delivery methods' (p.6 and p.8). These recognition statements helpfully provide precedents and establish pathways that can be developed: social scientists will recognize these as entry points by which research can inform and support policy-making, across the range of scale from high-level regional and bi-lateral development strategy, to framing the portfolio of climate change policies and initiatives, to providing advice and input to the internal EC mechanisms of action fiches. Social scientists have developed methods with which to handle the integration of scale - from small ethnographic details to global theory - and will readily recognise both the challenges and the paths by which research can be integrated with policy.

New perspectives, and new means of policy and engagement open up, when Pacific peoples are foregrounded so as to 'restore the human' to climate change in the Pacific. This takes us beyond treating climate change as a purely environmental problem requiring technical solutions -- and treating the Pacific as the 'canary in the coal mine' -- and towards appreciating that 'Climate change is not "a problem" waiting for "a solution"'. It is an environmental, cultural and political phenomenon that is reshaping the way we think about ourselves, about our societies and about humanity's place on Earth' (Hulme 2009).

APPENDICES

APPENDIX 1. The EU response – development assistance to the Pacific

Pacific Islands – EU relations: Focus on Climate change, European Commission -
MEMO/12/435, 11/06/2012

http://europa.eu/rapid/press-release_MEMO-12-435_en.htm

The EU response – development assistance to the Pacific

Development assistance to the Pacific has increased between the 9th European Development Fund and the 10th European Development Fund (2008-2013):

- The overall amount available for the period 2008 – 2013 is €750 million; from this amount €677 million is earmarked for Pacific-ACP countries and €73 million for Pacific OCTs;
- The 10th European Development Fund (EDF) Regional and Country Programmes, signed in 2008, mobilised €475.3 million (a 60% increase compared with the 9th EDF); this amount has now reached € 567 million after the Mid-Term Review (MTR) top-ups and other un-programmed allocations.
- The 10th EDF Regional Strategy Paper (RSP) and Regional Indicative Programme (RIP) - €95 million. It is broken down as follows: Regional economic integration - €45 million, Sustainable Management of Natural Resources and the Environment - €40 million, Non state actors, technical cooperation, etc. - €10 million. A major part of the implementation is well under way, with projects to a value of €54 million having been included in the Annual Action Plans for 2009 and 2010; MTR top-up €19 million for climate change
- An additional €27.7 million from the Vulnerability Flex mechanism (2009 and 2010) was mobilised to help the most vulnerable Pacific countries to cope with the Financial Crisis;
- The Commission has approved a contribution of €10 million to the Pacific Regional Infrastructure Fund (PRIF), in addition to a substantial contribution expected from the European Investment Bank;
- The Pacific will also benefit from "all-ACP" programmes, such as the "Disaster Facility", the "Migration Facility" or the "Science & Technology research programme".
- Other intra-ACP allocations for the Pacific include: Water facility, Energy facility and Climate change.

APPENDIX 2. THE FRAMEWORK OF COOPERATION BETWEEN THE EC AND THE PACIFIC REGION

European Community – Pacific Region, Regional Strategy Paper and Regional Indicative Programme 2008-13

http://ec.europa.eu/development/icenter/repository/scanned_r6_rsp-2007-2013_en.pdf

CHAPTER 1: THE FRAMEWORK OF COOPERATION BETWEEN THE EC AND THE PACIFIC REGION

Article 1 of the ACP-EU Partnership Agreement — the so-called “Cotonou Agreement” — puts the main emphasis on the Millennium Development Goals, in particular the eradication of extreme poverty and hunger, and on the development targets and principles agreed in the United Nations Conferences. Cooperation between the EU and the Pacific aims to pursue these objectives, taking into account the fundamental principles laid down in Article 2 of the Agreement and the essential elements defined in Article 9.

Furthermore, in the tripartite Statement on EU Development Policy of 20 December 2005 — the European Consensus on Development — the Council of the European Union, the European Parliament and the European Commission emphasised that poverty eradication is the primary objective of EU development cooperation and that sustainable development includes good governance, human rights and political, economic, social and environmental aspects.

Article 18 of the Cotonou Agreement calls for development strategies and economic and trade cooperation to be mutually reinforcing, interlinked and complementary. The parties shall ensure that the efforts undertaken in both areas are mutually supportive.

Article 28 of the Agreement sets out the general approach to regional cooperation and integration: *“Cooperation shall provide effective assistance to achieve the objectives and priorities, which the ACP countries themselves have set in the context of regional and sub-regional cooperation and integration. In this context cooperation support shall aim (a) to foster the gradual integration of the ACP States into the world economy, (b) to accelerate economic cooperation and development both within and between the regions of the ACP States, (c) to promote the free movement of persons, goods, capital services, labour and technology among ACP countries; (d) to accelerate diversification of the economies of the ACP States; and coordination and harmonisation of regional and sub-regional cooperation policies; and (e) to promote and expand inter and intra-ACP trade and with third countries”.*

Cooperation in the area of regional economic integration and regional cooperation should support the main fields identified in Articles 29 and 30 of the Cotonou Agreement. Furthermore, Article 35 provides that “economic and trade cooperation shall build on regional integration initiatives of ACP States, bearing in mind that regional integration is a key instrument for the integration of ACP countries into the world economy”.

Articles 85 and 90 of the Agreement make specific reference to least developed, landlocked and island ACP states and make provision for them to receive special treatment to help them overcome the serious economic and social problems, natural and geographical obstacles and other challenges holding back their development. The Regional Indicative Programme will reflect these special provisions.

In 2006, the European Council adopted an EU strategy for the Pacific designed to strengthen EU ties with the Pacific ACP. This strategy aims to increase political dialogue on matters of common interest, make development action more focused, with greater emphasis on regional cooperation, and to improve the effectiveness of aid delivery. The above objectives and principles, together with the region’s own policy agenda — the Pacific Plan — and the EU strategy for the Pacific, constitute the starting point for the formulation of the RSP, in accordance with the principle of ownership of development strategies.

APPENDIX 3. Excerpts from the The Cotonou Agreement 2012

http://ec.europa.eu/europeaid/where/acp/overview/documents/devco-cotonou-consol-europe-aid-2012_en.pdf

PREAMBLE

AWARE of the serious global environmental challenge posed by climate change, and deeply concerned that the most vulnerable populations live in developing countries, in particular in Least Developed Countries and Small Island ACP States, where climate-related phenomena such as sea level rise, coastal erosion, flooding, droughts and desertification are threatening their livelihoods and sustainable development;

ARTICLE 32A

Climate change

The Parties acknowledge that climate change is a serious global environmental challenge and a threat to the achievement of the Millennium Development Goals requiring adequate, predictable and timely financial support. For these reasons, and in accordance with the provisions of Article 32, and particularly of point (a) of paragraph 2 thereof, cooperation shall:

(a) recognise the vulnerability of ACP States and in particular of small islands and low-lying ACP States to climate-related phenomena such as coastal erosion, cyclones, flooding and environmentally induced displacements, and in particular of least developed and landlocked ACP States to increasing floods, drought, deforestation and desertification;

(b) strengthen and support policies and programmes to mitigate and adapt to the consequences of, and threat posed by, climate change including through institutional development and capacity building;

(c) enhance the capacity of ACP States in the development of, and the participation in, the global carbon market; and

(d) focus on the following activities:

(i) integrating climate change into development strategies and poverty reduction efforts;

(ii) raising the political profile of climate change in development cooperation, including through appropriate policy dialogue;

(iii) assisting ACP states to adapt to climate change in relevant sectors such as agriculture, water management and infrastructure, including through transfer and adoption of relevant and environmentally sound technologies;

(iv) promoting disaster risk reduction, reflecting that an increasing proportion of disasters are related to climate change;

(v) providing financial and technical support for mitigation action of ACP states in line with their poverty reduction and sustainable development objectives, including reducing emissions from deforestation and forest degradation and reducing emissions in the agricultural sector;

(vi) improving weather and climate information and forecasting and early warning systems; and

(vii) promoting renewable energy sources, and low-carbon technologies that enhance sustainable development.

APPENDIX 4. Excerpts from *Towards a Renewed EU-Pacific Development Partnership*

<http://eur-lex.europa.eu/LexUriServ/LexUriServ.do?uri=CELEX:52012JC0006:EN:HTML>

2.2. Development achievements and climate change impacts

[...]

Climate change has affected the Pacific for decades, with the increased frequency and intensity of natural hazards, such as tropical cyclones and floods. Sea-level rise, sea-water intrusion and coastal erosion reduce the land available for housing, threaten infrastructure, damage aquaculture and affect freshwater supplies and agriculture. Access to clean water and sanitation remains a major challenge for most PICTS, causing serious health hazards, especially for women, children and communities living in outer islands. Rising water temperatures and ocean acidification put the already deteriorated biodiversity and ecosystems under further strain, particularly coral reefs, which results in further vulnerability to climate change. In large islands, climate change affects mainland areas, through more intense droughts, landslides or flooding. Adaptation to climate change, including ecosystem-based approaches, can also contribute to improved service delivery, access to renewable energy and disaster preparedness. As such it can be a key driver of development in all Pacific countries. Disaster risk reduction through ecosystem protection uses nature itself as part of the solution. Moreover, for disasters that are not directly related to climate change, adaptation measures can still contribute to disaster preparedness.

PNG still has substantial primary rain forest resources, but areas are shrinking rapidly due to several factors including what is seen by many as illegal logging. PNG could contribute to global climate change mitigation by moving towards sustainable logging through improved forest governance and land-use legislation.

Climate change sets off a chain of interlinked impacts, including on security and gender. The UN Security Council has pointed out that the loss of territory due to sea-level rise, particularly in small low-lying island States, could have security implications. The EU has underlined that climate change has important security implications since it acts as a "threat multiplier", exacerbating tensions over land, food and energy prices, and creating migratory pressures and desertification. On the other hand, given that the impacts of climate change may affect women and men differently, Pacific Ministers have affirmed the need to take the knowledge, experiences and priorities of women better into account to develop effective climate change strategies. Recognising that gender inequalities and human rights violation hamper the countries' capacity to address the impacts of climate change, Ministers have called on Pacific governments to fulfil their commitments in that regard.

The impact of climate change, which is predicted to intensify, undermines development achievements and equitable sustainable growth, and makes it much more difficult to achieve the MDGs in the Pacific. Entire countries could become uninhabitable or even disappear, resulting in migration and displacement of populations.

BIBLIOGRAPHY

Barker, H.M., 2008. 'Vulnerable island nations at mercy of world's polluters'. *Pacific Islands Report*. Pacific Islands Development Program/East-West Center.
<<http://archives.pireport.org/archive/2008/November/11-05-com.htm>>

Barnett, J., 2001. 'Adapting to Climate Change in Pacific Island Countries: The Problem of Uncertainty'. *World Development*, 29(6), p.977-993.

Barnett, J. & Campbell, J. 2010. *Climate Change and Small Island States: Power, Knowledge and the South Pacific (Earthscan Climate Series)*. Routledge

Batterbury, S., 2008. 'Anthropology and Global Warming: The Need for Environmental Engagement'. *The Australian Journal of Anthropology* 19(1), p.62–68.

Becken, S., 2005. 'Harmonising climate change adaptation and mitigation: The case of tourist resorts in Fiji'. *Global Environmental Change*, 15, p.381–393.

Bells, Y., 2001. *Current and Projected, Impacts of Climate Change*. [pdf] Office of Environmental Response and Coordination. Office of the President of the Republic of Palau. Republic of Palau, September 2001.

Borofsky, R. 1990. *Making History: Pukapukan and Anthropological Constructions of Knowledge*. Cambridge University Press.

Crate, S.A., Nuttall, M., 2009. 'Introduction: Anthropology and Climate Change'. Crate, S.A., Nuttall, M., (eds.), 2009. *Anthropology and Climate Change: From Encounters to Actions*. California: Left Coast Press, p.9-36.

Crook, T. 2007. *Anthropological Knowledge, Secrecy and Bolivip, Papua New Guinea: Exchanging Skin*. Oxford University Press.

Crook, T. & Rudiak-Gould, P. (eds.) nd. *Appropriating Climate Change: The Reception of a Scientific Prophecy*. Versita.

Connell, J., 2003. 'Losing ground? Tuvalu, the greenhouse effect and the garbage can'. *Asia Pacific Viewpoint*, 44(2), p.89– 107.

Elahi, S., 2000. *Climate change in the South Pacific: impacts and responses in Australia, New Zealand and Small Island States*. By Gillespie, A., Burns, W. eds., 396 pp.

Farbotko, C. 2010. 'Wishful Sinking: Disappearing Islands, Climate Refugees and Cosmopolitan Experimentation'. *Asia Pacific Viewpoint*, 51 (1): 47–60.

Fazey, I., Gamarra, J.G.P., Fischer, J., Reed, M.S., Stringer, L.C. and Christie, M., 2010. 'Adaptation strategies for reducing vulnerability to future environmental change'. *Frontiers in Ecology and the Environment* 8, p.414–422.

Fiske, S.J., 2009. 'Global Change Policymaking from inside the Beltway: Engaging Anthropology'. Crate, S.A., Nuttall, M., (eds.), 2009. *Anthropology and Climate Change: From Encounters to Actions*. California: Left Coast Press, p.277-291.

Hviding, E. 1996. 'Nature, Culture, Magic, Science: On Meta-Languages for Comparison in Cultural Ecology', in Descola, P. and & Pálsson, G. (eds.), *Nature and Society: Anthropological Perspectives*. London: Routledge.

- Hulme, M. 2009. *Why We Disagree About Climate Change: Understanding Controversy, Inaction and Opportunity*. Cambridge University Press.
- Jacka, J., 2009. 'Global Averages, local extremes: The subtleties and complexities of Climate Change in Papua New Guinea'. In, Crate, S.A., Nuttall, M., (eds.), 2009. *Anthropology and Climate Change: From Encounters to Actions*. California: Left Coast Press, p.197-208.
- Kellogg W. and Mead M. 1977 *The Atmosphere: Endangered and Endangering, Fogarty International Center Proceedings No. 39*, U.S. Government Printing Office, Washington D.C.
- Kelman, I., West, J., 2009. 'Climate Change and Small Island Developing States: A Critical Review'. *Ecological and Environmental Anthropology* 5(1).
- Kelman, I. 2010. *Hearing Local Voices from Small Island Developing States for Climate Change*. Local
- Kempf, W., 2009. 'A Sea of Environmental Refugees? Oceania in an Age of Climate Change'. In *Form, Macht, Differenz: Motive und Felder ethnologischen Forschens*. By Hermann, E., Klenke, K., and Dickhardt, M. eds., p. 194-206.
- Kempton, W. et al 1995 *Environmental Values in American Culture*. Cambridge, MA: MIT Press.
- Kuruppu, N., Liverman, D., 2011. 'Mental preparation for climate adaptation: The role of cognition and culture in enhancing adaptive capacity of water management in Kiribati'. *Global Environmental Change* 21(2), p.657–669.
- Lahsen, M. 2007. 'Trust Through Participation? Problems of Knowledge in Climate Decision-Making'. In, *The Social Construction of Climate change: Power, Knowledge, Norms, Discourses*, ed. Pettenger, M. Ashgate Publishing Limited.
- Lawler, Jill. 2011. 'Children's Vulnerability to Climate Change and Disaster Impacts in East Asia and the Pacific'. Thailand: UNICEF East Asia and Pacific Regional Office.
<http://reliefweb.int/sites/reliefweb.int/files/resources/Full_Report_2874.pdf>
- Lazrus, H., 2009. 'The Governance of Vulnerability: Climate Change and Agency in Tuvalu, South Pacific'. In Crate, S.A., Nuttall, M., eds., 2009. *Anthropology and Climate Change: From Encounters to Actions*. California: Left Coast Press, p.240-249.
- Lazrus, H., 2012. Sea Change: Island Communities and Climate Change. *Annual Review of Anthropology* 41 (1): 285–301.
- Leach, J. and R. Davis. 2012. Recognising and Translating Knowledge: Navigating the Political, Epistemological, Legal and Ontological. *Anthropological Forum* 22: 209–223
- Lefale, P.F. 2010. 'Ua 'afa le Aso stormy weather today: Traditional ecological knowledge of weather and climate. The Samoa experience'. *Climatic Change* 100(2): 317–335.
- Lieber. M. (ed.), 1977 *Exiles and Migrants in Oceania*. Honolulu: University Press of Hawaii
- Lindstrom, L. 1990. *Knowledge and Power in a South Pacific Society*. Smithsonian Books.
- Magistro, John, and Carla Roncoli. 2001. 'Anthropological Perspectives and Policy Implications of Climate Change Research'. *Climate Research*, 19(2):91–96.
- McNamara, K.E., Gibson, C., 2009. 'We do not want to leave our land': Pacific ambassadors at the United Nations resist the category of 'climate refugees'. *Geoforum* 40(3), p.475-483.
- Milton, K. et al 2008. 'Soapbox Feature', *The Australian Journal of Anthropology*, 19:1.

- Mimura, N., 1999. 'Vulnerability of island countries in the South Pacific to sea level rise and climate change'. *Climate research*, 12, p.137–143.
- Morteux, C., Barnett, J., 2008. 'Climate change, migration and adaptation in Funafuti, Tuvalu'. *Global Environmental Change*, 19(1), P. 105-112.
- Pernetta, J.C., 1992. 'Impacts of climate change and sea-level rise on small island states National and international Responses'. *Global Environmental Change*, 2(1), p.19-31.
- Peterson, N. and K. Broad. 2009. 'Climate and Weather Discourse in Anthropology: From Determinism to Uncertain Futures'. In, *Anthropology and Climate Change: From Encounters to Actions*. Crate, A. and M. Nuttall, ed. 2009. Left Coast Press.
- Pettenger, M. ed. 2007. *The Social Construction of Climate Change*. London: Ashgate Publishing
- Raygorodetsky, G. 2011. In press.
<<http://unu.edu/publications/articles/why-traditionalknowledge-holds-the-key-to-climate-change.html>>
- Rudiak-Gould, P., 2011. Promiscuous corroboration and climate change translation: A case study from the Marshall Islands. *Global Environment Change*
<<http://www.sciencedirect.com/science/article/pii/S0959378011001464>>
- Rudiak-Gould, P. 2011. 'Climate change and anthropology: The importance of reception studies', *Anthropology Today*. 27(2): 9–12
- Salick, J. & Byg, A. 2007. *Indigenous Peoples and Climate Change*. Tyndall Centre for Climate Change Research: Oxford
- Strathern, M. 1992 *After Nature: English kinship in the Late Twentieth Century*. Cambridge: Cambridge University Press.
- Strauss, S. and Orlove, B. eds. 2008. *Weather, Climate, Culture*. Oxford: Berg.
- Urry, J. 2011. *Climate Change and Society*. Polity Press.
- UNESCO 2012. *Weathering Uncertainty: Traditional Knowledge for Climate Change Assessment and Adaptation*.

Official Documents

Conference of the Parties (COP). 1992. United Nations Framework Convention on Climate Change (UNFCCC) <http://unfccc.int/files/essential_background/background_publications_htmlpdf/application/pdf/conveng.pdf>

Conference of the Parties (COP). 2012. *The Doha Amendment to the Kyoto Protocol*. United Nations <http://unfccc.int/files/kyoto_protocol/application/pdf/kp_doha_amendment_english.pdf>

Conference of the Parties (COP). 2008. *Report Of The Conference Of The Parties On Its Thirteenth Session, Held In Bali From 3 To 15 December 2007 Addendum. Part Two: Action Taken By The Conference Of The Parties At Its Thirteenth Session (FCCC/CP/2007/6/Add.1**, 14 March 2008. United Nations) <<http://unfccc.int/resource/docs/2007/cop13/eng/06a01.pdf>>

DEVCO. 2012. *Main Mission of DEVCO Directorates & Units*. European Union <http://ec.europa.eu/europeaid/who/about/documents/devco-mission_statement_en.pdf>

European Commission. 2006. *Communication from the Commission to the Council, the European Parliament and the European Economic and Social Committee of 29 May 2006 - EU relations with the Pacific Islands - A strategy for a strengthened partnership [COM(2006) 248 – Official Journal C 184 of 8 August 2006]* <http://ec.europa.eu/governance/impact/ia_carried_out/docs/ia_2006/sec_2006_0642_en.pdf>

European Commission. 2007. *Communication From The Commission To The Council And The European Parliament Building a Global Climate Change Alliance between the European Union and poor developing countries most vulnerable to climate change [Brussels, 18.9.2007 COM(2007) 540 final]* <<http://eur-lex.europa.eu/LexUriServ/LexUriServ.do?uri=COM:2007:0540:FIN:EN:PDF>>

European Commission. 2007. *The European Union and the Pacific: DE 137*. <http://ec.europa.eu/development/icenter/repository/the_european_union_and_the_pacific.pdf>

European Commission. 2008. *European Community - Pacific Region: Regional Strategy Paper and Regional Indicative Programme 2008 – 2013*. European Commission. <http://ec.europa.eu/development/icenter/repository/scanned_r6_rsp-2007-2013_en.pdf>

European Commission. 2009. *Nature's Role in Climate Change*. European Commission <http://ec.europa.eu/environment/nature/info/pubs/docs/climate_change/en.pdf>

European Commission. 2010. *MEMORANDUM of UNDERSTANDING (MoU) between the Pacific Islands Forum Secretariat and the European Commission on a JOINT INITIATIVE to address climate change in the Pacific*. European Commission <<http://www.gcca.eu/sites/default/files/GCCA/protocole-d-entente-signe-a-strasbourg.pdf>>

European Commission. 2010. *Q&A on the EU - Pacific Island Countries Relations And EU Actions To Address Climate Change In The Region European Commission: MEMO/10/685 15/12/2010*. European Commission <http://europa.eu/rapid/press-release_MEMO-10-685_en.htm>

European Commission. 2010. *Pacific Islands, EU Relations: MEMO/10/360, 03/08/2010*. European Commission <http://europa.eu/rapid/press-release_MEMO-10-360_en.htm>

European Commission. 2011. *Durban conference delivers breakthrough for climate European Commission - MEMO/11/895, 11/12/2011*.

<http://europa.eu/rapid/press-release_MEMO-11-895_en.htm>

European Commission. 2012. *Pacific Islands – EU relations: Focus on Climate change MEMO/12/435 11/06/2012*. European Commission
< http://europa.eu/rapid/press-release_MEMO-12-435_en.htm>

European Commission. 2012. *Towards a renewed EU-Pacific development Partnership*. European Commission
< <http://eur-lex.europa.eu/LexUriServ/LexUriServ.do?uri=JOIN:2012:0006:FIN:EN:PDF>>

European Commission. 2013. *Energy in the Pacific Islands: How the EU is Providing Access for All*. European Commission
<http://ec.europa.eu/europeaid/where/acp/documents/factsheet_energy-in-pacific-islands_2013_en.pdf>

European Union. 2010 [2000]. *The Cotonou Agreement*. European Union
< http://ec.europa.eu/europeaid/where/acp/overview/documents/devco-cotonou-consol-europe-aid-2012_en.pdf>

European Union. 2012. *Supporting a Climate for Change: The EU and developing countries working together*. European Union
<http://ec.europa.eu/europeaid/what/environment/documents/supporting_a_climate_for_change_2012.pdf>

European Union. 2013. *The European Union Launches 20 Million Programme to Help Build a Climate Resilient Pacific: Press-Release*. European Union
<http://eeas.europa.eu/delegations/fiji/press_corner/all_news/news/2013/20130509_01_en.pdf>

Global Climate Change Alliance (GCCA). 2012. *Paving the Way for Climate Compatible Development: Experiences from the Global Climate Change Alliance*. European Union.
<http://www.gcca.eu/sites/default/files/GCCA/gcca_brochure_2012_eng_pdf_lo_0.pdf>

Global Climate Change Alliance. 2011. *Using Innovative and Effective Approaches to Deliver Climate Change Support to Developing Countries*. European Union
<http://www.gcca.eu/sites/default/files/admin/gcca_brochure.pdf>

IPCC, 1990. *First Assessment Report 1990*. FAR
<http://www.ipcc.ch/publications_and_data/publications_and_data_reports.shtml>

IPCC, 2007. *Fourth Assessment Report: Climate Change 2007 (AR4)*. Geneva: IPCC.
<http://www.ipcc.ch/publications_and_data/publications_and_data_reports.shtml>

IPCC, 1995. *Second Assessment Report: Climate Change 1995 (SAR)*.
<http://www.ipcc.ch/publications_and_data/publications_and_data_reports.shtml>

IPCC, 2001. *Third Assessment Report: Climate Change 2001 (TAR)*.
<http://www.grida.no/publications/other/ipcc_tar/>

IPCC, 2010. *Understanding Climate Change: 22 years of IPCC assessment. Intergovernmental Panel on Climate Change*. WMO and UNEP
<http://www.ipcc.ch/pdf/press/ipcc_leaflets_2010/ipcc-brochure_understanding.pdf>

Pacific Islands Forum (PIF). 2008. *Declaration by the Pacific Islands Forum States and the European Union on Climate Change*. European Commission
<http://ec.europa.eu/development/icenter/repository/2008_11_EU-PIF_Joint%20CC_Declaration_final.pdf>

Pacific Islands Forum(PIF), 2009. Pacific Leaders Call to Action on Climate Change. *Annex A to the 2009 Forum Leaders' Communique*. 6 August 2009
<<http://www.forumsec.org/resources/uploads/attachments/documents/Pacific%20Leaders%20Call%20to%20Action%20on%20Climate%20Change%202009.pdf>>

Pacific Islands Forum Secretariat, 2011. *The Pacific Plan*. PIF
<<http://www.forumsec.org/pages.cfm/about-us/the-pacific-plan/>>

Pacific Islands Forum. 2013. *Majuro Declaration for Climate Leadership*
<http://www.majurodeclaration.org/the_declaration>

Secretariat of the Pacific Community (SPC) & Council of Regional Organisations in the Pacific (CROP) [Gerhard Zieroth, consultant]. 2011. *Towards and Energy Secure Pacific: Framework for Action on Energy Security in the Pacific*. SPC
< <http://www.spc.int/edd/en/download/finish/11-reports/360-energy-framework-final>>

Secretariat of the Pacific Community (SPC) & European Union (EU). 2012 'Building Sustainable Livelihoods for Pacific Peoples', *Island Business International*, July 2012.
<http://eeas.europa.eu/delegations/fiji/projects/case_studies/building_sustainable_livelihoods_for_pacific_people_en.pdf>

South Pacific Regional Environment Programme (SPREP). 2013. *Adapting to Climate Change in the Pacific: The PACC programme*
<http://www.sprep.org/attachments/Publications/CC/PACC_Programme.pdf>

Stern Review: On the Economics of Climate Change. HM Treasury, British Government.
<http://webarchive.nationalarchives.gov.uk/20130129110402/http://www.hm-treasury.gov.uk/stern_review_report.htm>

UNEP, 2011. *Climate Change*.
<<http://www.unep.org/climatechange/>>

UNEP, 1991. *UNEP-Sponsored programme for the oceans and coastal areas. UNEP Regional Seas Reports and Studies No. 135*. UNEP.
<<http://iwlearn.net/publications/regional-seas-reports/unep-regional-seas-reports-and-studies-no-135>>

UNFCCC, 2011. *Feeling the Heat: Climate Science and the Basis of the Convention*.
<http://unfccc.int/essential_background/the_science/items/6064.php>

UNFCCC, 2011. *First steps to a safer future: Introducing The United Nations Framework Convention on Climate Change*.
<http://unfccc.int/essential_background/convention/items/6036.php>

UNFCCC, 2011. *Kyoto Protocol*. UNFCCC
<http://unfccc.int/kyoto_protocol/items/2830.php>

UNFCCC, 2007. *Vulnerability and adaptation to climate change in small island developing states. Background paper for the expert meeting on adaptation for small island developing States*. UNFCCC
<http://unfccc.int/files/adaptation/adverse_effects_and_response_measures_art_48/application/pdf/200702_sids_adaptation_bg.pdf>

ADDITIONAL WEBSITES

Alliance of Small Island States (AOSIS)

<http://aosis.info/>

Asia-Pacific Network for Global Change Research (APN)

<http://www.apn-gcr.org/>

Asia-Pacific Network on Climate Change

<http://www.climateanddevelopment.org/ap-net/>

Asia-Pacific Partnership on Clean Development and Climate (APP)

<http://www.asiapacificpartnership.org/english/default.aspx>

Australian Government: Department of Climate Change and Energy Efficiency

<http://www.climatechange.gov.au/en/government/initiatives.aspx?page=2>

International Global Change Institute (IGCI), University of Waikato, NZ

<http://www.waikato.ac.nz/igci/about/>

Global Climate Change Alliance (GCCA)

<http://www.gcca.eu/>

International Institute for Sustainable Development (IISD)

<http://www.iisd.org/>

International Pacific Research Centre (IPRC), University of Hawai'i at Manoa

<http://iprc.soest.hawaii.edu/>

National Adaptation Programme of Action (NAPA)

<http://www.napa-pana.org/>

Pacific Climate Change Blog

<http://climatepasifika.blogspot.com/>

Secretariat of the Pacific Environment Programme (SPREP PROE)

http://www.sprep.org/climate_change/index.asp

The Renewable Energy and Energy Efficient Partnership

<http://www.reeep.org/31/home.htm>

The Commonwealth Scientific and Industrial Research Organisation (CSIRO)

<http://www.csiro.au/>

UNESCO and Global Climate Change

http://ioc3.unesco.org/unesco-climate/task_force/index.php

UNITAR – UN Institute for training and Research

<http://www.unitar.org/>

United Nations Economic and Social Council (ECOSOC)

<http://www.un.org/en/ecosoc/president/index.shtml>

World Health Organisation - Climate Change and Human Health

<http://www.who.int/globalchange/environment/en/>

ACRONYMS

ACP (Africa, Caribbean & Pacific)

COP (Conference of the Parties)

CROP (Council of Regional Organisations in the Pacific)

EDF (European Development Fund)

EPA (Economic Partnership Agreement)

FCchM (Fiji School of Medicine)

GCCA (Global Climate Change Alliance)

KP (Kyoto Protocol)

IPCC (Intergovernmental Panel on Climate Change)

LDCs (Least Developed Countries)

MDGs (Millennium Development Goals)

MSG (Melanesian Spearhead Group)

MPS (Micronesian President's Summit)

PACPs (Pacific ACP countries)

PCCR (Pacific Climate Change Roundtable)

PIDP (Pacific Islands Development Programme)

PIFACC (Pacific Framework for Action on Climate Change)

PIF (Pacific Island Forum)

PIFS (Pacific Islands Forum Secretariat)

PIFACC (Pacific Islands Framework for Action on Climate Change)

PLG (Polynesian Leaders Group)

PPA (Pacific Power Association)

RAO (Regional Authorising Officer)

REDD (Reducing Emissions from Deforestation and Forest Degradation)

RIP (Regional Indicative Programme)

RSP (Regional Strategy Paper)

SIDS (Smaller Island Developing States)

SPC (Secretariat for the Pacific Community)

SPREP (South Pacific Regional Environment Programme)

TEK (Traditional Ecological Knowledge)

UNDP (United Nations Development Programme)

UNEP (United Nations Environment Programme)

UNESCO (United Nations Educational, Scientific and Cultural Organisation)

UNFCCC (United Nations Framework Convention on Climate Change)

USP (University of the South Pacific)

WMO (World Meteorological Organization)

WTO (World Trade Organisation)