# Marine Resource Governance in the Eastern Caribbean (MarGov Project)

# CERMES MarGov Project Document 28



# Final Technical Report 1 March 2007– 29 February 2012

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#### <u>Notes</u>

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# **Acronyms**

ACM Adaptive co-management

BARNUFO Barbados National Union of Fisherfolk Organisations

CANARI Caribbean Natural Resources Institute

CARICOM Caribbean Community

CEP Caribbean Environment Programme

CERMES Centre for Resource Management and Environmental Studies

CFP Common Fisheries Policy

CLME Caribbean Large Marine Ecosystem

CNFO Caribbean Network of Fisherfolk Organisations
CRFM Caribbean Regional Fisheries Mechanism

EBM Ecosystem-based management

ESDU Environment and Sustainable Development Unit

FAO Food and Agricultural Organisation of the United Nations

GCFI Gulf and Caribbean Fisheries Institute
IDRC International Development Research Centre
IISD International Institute for Sustainable Development

IOI International Ocean Institute

IUCN International Union for Conservation of Nature (World Conservation Union)

LAMP Local Area Management Project

MAP Marine Affairs Program

MarGov Marine Resource Governance in the Eastern Caribbean

MELI Marine and Environmental Law Institute

NGO Non-Governmental Organization

OECS Organization of Eastern Caribbean States

PROGOVNET Strengthening Principled Ocean Governance Networks

SARM Sustainable Aquatic Resource Management

TNC The Nature Conservancy

UNEP United Nations Environment Programme

USAID United States Agency for International Development

UWI University of the West Indies

WECAFC Western Central Atlantic Fishery Commission

# 1. Synthesis

Using a conceptual framework derived from complex adaptive system and social-ecological system perspectives, the research focuses on understanding governance related to small-scale fisheries and coastal management in the eastern Caribbean. The development problem is that, for coastal resources in the eastern Caribbean as the social-ecological system under study, there is an urgent need to build the capacity and network connections for adaptation and resilience into present and planned marine resource governance. An examination will be made of how present and planned marine and coastal resource governance initiatives can become more adaptive and resilient to the benefit of diverse stakeholders at various scales in the eastern Caribbean. This has potential lessons for the wider Caribbean and beyond.

This project is part of the CERMES research programme on coastal and marine resource governance in the Caribbean that contributes towards sustainable development. Project objectives are: (1) Construct a conceptual framework for applied research on marine resource governance; (2) Investigate small-scale fisheries governance in the eastern Caribbean using cross-scale network analyses; (3) Increase the capacities of research partners to undertake and use their own research; (4) Facilitate the incorporation of the research results into initiatives related to marine resource governance for fisheries; (5) Establish applied research into marine resource governance as a new demand-driven programme

# 2. Research problem

#### 2.1 Problem

The research problem summarised in the abstract guided the project and its objectives. Understanding of the problem, and particularly its complexity, continued to evolve. Scholarly work on marine resource governance and social networks is increasing, but MarGov went further and used empirical evidence to test, critique and add value to conceptual frameworks as shown in its outputs.

#### 2.2 Questions

The research questions remained essentially the same throughout, but question 3 was incorporated to some extent into the research of the PhD students tackling questions 2 and 4 following the loss of the MPhil student previously working on question 3. The questions were:

- 1. Can a research framework for marine resource governance in the eastern Caribbean, using small-scale fisheries as the social-ecological system, be constructed from the current literature?
- 2. At levels ranging from transboundary to local, what characteristics of networks determine resilience and adaptability of marine resource governance in the eastern Caribbean?
- 3. At the national level, what kinds of interventions and governance structures are effective for enhancing adaptive capacity and enabling self-organisation that contributes to resilience?
- 4. At the local level, what are the formal and informal processes and conditions for establishing and sustaining the adaptive co-management of small-scale fisheries?

# 3. Research findings

The project has generated research findings documented in the outputs listed in this report. Research findings and the process of working from the start with a variety of boundary partners and target audiences<sup>1</sup> allowed the MarGov team to learn much about marine resource governance in the sub-region. The findings have shaped the project to meet practical and policy influencing objectives. Below we provide some of the main findings linked to the four research questions, with footnotes as to which outputs contain additional detail.

<sup>&</sup>lt;sup>1</sup> CERMES. 2007. Report of the MarGov Project Inception Workshop held at the UWI Cave Hill Campus, Barbados, 15-16 May 2007. CERMES MarGov Project Document 1. Centre for Resource Management and Environmental Studies, Barbados. 33pp.

#### 3.1 Research framework

There has been considerable progress in developing and refining a Caribbean research framework for marine resource governance. The network perspective originally proposed has proven to be durable<sup>2,3</sup>. But, for the Caribbean, a larger geographic scale than the eastern Caribbean (MarGov project area) was more appropriate as the unit of analysis. So MarGov teamed up with the larger CERMES effort working with the CLME project on a regional (Wider Caribbean) governance framework. For some resources (e.g. eastern Caribbean flyingfish) the focus was on the MarGov study sites, but for most resources the view of governance is not complete without taking into account further linkages. The CERMES team working mainly with project partners at Dalhousie University has developed a research framework and models of governance in the region based on nested, multi-level, polycentric policy cycles for marine resources and issues<sup>4</sup>. These have been shared as far afield as the GEF International Waters programme. MarGov has published on LME complexity<sup>5,6</sup> and small-scale fisheries<sup>7,8</sup> using these frameworks. In practical application, work continues with the CLME project (one of the MarGov boundary partners). We are seeing our work being incorporated into the Strategic Action Plan phase of the CLME project in which countries pledge to take action based upon the research findings. This is in large part due to the integration of the research framework into marine ecosystem-based management (EBM) which aligns with emerging policies from Wider Caribbean to local levels, spanning the entire range of marine resource governance stakeholders.

#### 3.2 Transboundary to local levels

Answers to this question encompass mainly the research of faculty and one PhD candidate. The latter started scoping a comparative analysis of the pelagic and reef fisheries of Grenada and St Lucia but the logistics of such research proved too daunting<sup>9</sup>. The focus switched to on study site, Grenville in Grenada, and a whole network analysis of the fisheries in that town linked to governance at national, regional and global levels<sup>10</sup>. The main research sub-questions and preliminary findings include the following.

- 1. How can the fisheries in Grenville Grenada and their governance be characterized from socialecological systems and resilience perspectives [taking into account multiple scales and levels]?
  - The fisheries clearly constitute complex SES given their multi-species, multi-gear harvest, seasonality, inherent uncertainty (on the ecological side) and the highly flexible patterns of work and interactions relating to livelihoods and management (on the social side).
  - Some aspects of resilience are demonstrated in terms of changes in fishing technology, swift recovery from natural disasters, and responses to government interventions ranging from rules to infrastructure. There is also evidence of vulnerability to several types of perturbation.
- 2. From local to transboundary levels, how do the specific issues in these fisheries that are of concern to stakeholders influence the structure and operation of fisheries networks and governance?

<sup>&</sup>lt;sup>2</sup> Parsram, K. and P. McConney. 2008. A research framework for examining the characteristics of networks that determine resilience and adaptability in marine resources governance in the English speaking eastern Caribbean. Proceedings of the Gulf and Caribbean Fisheries Institute 60: 668

<sup>&</sup>lt;sup>3</sup> CERMES 2007. Network analysis in marine resource governance from a policy perspective. CERMES Policy Perspective, April 2007.

<sup>&</sup>lt;sup>4</sup> McConney, P., R. Mahon, K. Parsram and S. Cox. 2011. Fisheries networks in the Caribbean. Pp. 273-284 in R. Chuenpagdee [ed.] World Small-Scale Fisheries Contemporary Visions, Eburon Academic Publishers, Delft, The Netherlands.

<sup>&</sup>lt;sup>5</sup> Mahon, R., L. Fanning and P. McConney. 2009. A governance perspective on the large marine ecosystem approach. Marine Policy 33: 317–321.

<sup>&</sup>lt;sup>6</sup> Mahon, R., L. Fanning, P. McConney and R. Pollnac. 2010. Governance characteristics of large marine ecosystems. Marine Policy 34:919–927

<sup>&</sup>lt;sup>7</sup> CERMES. 2010. Managing Small-Scale Fisheries: Moving Toward People-Centered Perspectives. CERMES Policy Perspective,. April 2010

<sup>&</sup>lt;sup>8</sup> Mahon, R., P. McConney and R. Roy. 2008. Governing fisheries as complex adaptive systems. Marine Policy 32:104-112

<sup>&</sup>lt;sup>9</sup> Parsram, K. 2009. Social-ecological system interactions in small-scale fisheries: case studies of the large pelagic and shallow reef fisheries of Grenada and St. Lucia under construction. Proceedings of the Gulf and Caribbean Fisheries Institute 61:57-66

<sup>&</sup>lt;sup>10</sup> Parsram, K. 2010. People, issues and networks in small-scale fisheries in the eastern Caribbean. Proceedings of the Gulf and Caribbean Fisheries Institute 62:128-136.

- Three main issues of concern to fisherfolk were ecological knowledge, fish marketing and fishery management, but particularly the latter two.
- The network structures for livelihoods (marketing) and governance (management) differ in many respects ranging from actors involved to strength of ties and other network metrics. It is possible to relate structure and function in the empirical results as well as to propose how they can be improved based on a partial/conceptual model of ideal networks.
- 3. What structural features and network processes enable or constrain resilience characteristics such as self-organization, adaptive capacity and transformation?
  - There is evidence of self-organisation, especially for fish marketing, but it is not connected to effective governance. It is more of a coping strategy than adaptive capacity.
  - The latter is limited by low levels of education and hence occupational mobility, social factors including an increasing level of crime and several factors that result in poor fisherfolk organisation. These factors also constrain transformation, so the system remains impaired.
- 4. What are the implications of the findings in Grenville for marine resource governance in the eastern Caribbean?
  - The structural holes in networks, and constraints on resource governance, found in Grenville are likely to be found in other parts of the Caribbean. Further research on a site basis should be undertaken to determine the range of situations found in eastern Caribbean fisheries.
  - Recommendations for Grenville to build adaptive capacity, provide enabling policy without
    exacerbating dependency, encourage self-organisation, improve transboundary connections
    to useful actors and the like will be appropriate for testing elsewhere in policy experiments.

In addition to this PhD research other investigations were on the practices of organisations in participating in regional meetings related to marine resource governance, in science networks<sup>11</sup>, and on the dynamics of the marine-science to policy interface in decision-making at regional and international levels<sup>12</sup>. We again found that network analysis is a useful tool, and that deficiencies in the networking, meeting and decision-making processes could be improved by more proactive management of networks<sup>13</sup>. The communications initiatives of MarGov, described later, also explored multi-level issues. MarGov partnered with the CRFM to help develop a regional multi-level network of fisherfolk organisations<sup>14,15</sup> as a very practical application of the conceptual framework<sup>16</sup>. Uptake by the fisherfolk was impressive<sup>17</sup>. Transboundary research continues.

#### 3.3 National level

National level governance research was compromised by the sudden death of the MPhil student assigned the topic at the stage of early implementation. To adapt, more attention was paid to the national level by the PhD candidates and faculty, and by project partners under their small grants (also addressed later).

Parsram, K. 2008. A preliminary analysis of fisheries science networks in the eastern Caribbean. Proceedings of the Gulf and Caribbean Fisheries Institute 60:88-96

<sup>&</sup>lt;sup>12</sup> Deane, L. and P. McConney. 2011. Communication between marine science and policy in the eastern Caribbean. Proceedings of the Gulf and Caribbean Fisheries Institute 63:406-410.

<sup>&</sup>lt;sup>13</sup> McConney, P. and A. T. Charles. 2010. Managing Small-Scale Fisheries: Moving Toward People-Centered Perspectives. Pages 532-545 in R. Q. Grafton, R. Hilborn, D. Squires, M. Tait and M. Williams (eds.) Handbook of Marine Fisheries Conservation and Management. Oxford University Press, New York. 784pp

McIntosh, S., M. Lay, P. McConney and T. Phillips. 2010 The development of a Caribbean regional network of fisherfolk organisations and its role in influencing fisheries policy. Proceedings of the Gulf and Caribbean Fisheries Institute 62: 298-305
 McConney, P. and T. Phillips. 2011. Collaborative planning to create a network of fisherfolk organisations in the Caribbean. Pp 207-230. In B. Goldstein (ed.) Collaborative Resilience: Moving Through Crisis to Opportunity. MIT Press, Cambridge, Massachusetts 376 pp.

<sup>&</sup>lt;sup>16</sup> McConney, P. 2007. Fisher folk organisations in the Caribbean: briefing note on networking for success. Report prepared for the of the Caribbean Regional Fisheries Mechanism (CRFM) Secretariat, Belize City, Belize. 18 pp.

<sup>&</sup>lt;sup>17</sup> CERMES 2007. Getting more fisherfolk into better fisheries governance. CERMES Policy Perspective. September 2007.

The original MPhil research and one of the small grants focused on the Barbados Fisheries Advisory Committee (FAC)<sup>18</sup>. Somewhat similar work was done under two small grants to CANARI for investigating fisheries institutions in Trinidad and Tobago<sup>19</sup>. The findings reinforced the relevance of network analysis as a research tool. Deficiencies in the capacities of fisheries institutions to undertake governance were seen. The importance of informal relationships was highlighted, especially in the context of many actors having multiple roles in these small countries which made the formal separation of their functions very difficult. It is evident that national level co-management and related governance structures such as these multi-stakeholder committees need a more structures approach to learning-by-doing so as to become adaptive.

The process of developing the CARICOM Common Fisheries Policy was investigated<sup>20</sup>. National level dynamics overshadow regional and local levels and are very much dominated by fisheries authorities. The vertical connections of these national authorities are often limited as are their perspectives on marine resource governance. Over the project period we saw a slow change towards more inclusivity and some broadening of perspectives, both associated mainly with movement towards EBM. This is occurring more in MPAs than in fisheries at present. MarGov drew the CRFM and OECS into exploring the introduction of EBM in one country and found willingness on the part of national stakeholders to institute policy change<sup>21</sup>.

National level research also looked closely at the governance structures and processes used for fisheries management planning. The inability of countries to develop and actively implement fisheries plans (often associated legislation as well) remains a significant barrier to effective marine resource governance. We found that again there was more progress in this arena with MPAs. One consequence is an externally-driven conservation orientation that is creating tension with the prevailing quest for sustainable livelihoods in places that are too small for both to be clear winners. National decision-making processes for policy advice and determining trade-offs among policy and management options remain rudimentary. In national workshops on resilience in fisheries governance and on social networking MarGov tackled capacity building in this area<sup>22</sup>, but found that much more work is required including case studies of real research to draw upon in providing the lessons used for training the wide range of stakeholders intended to benefit.

#### 3.4 Local level

The second PhD candidate focused on the local level. She investigated the potential for adaptive comanagement (ACM) of the sea urchin fisheries in Barbados and St Lucia<sup>23</sup>. Her work in St Lucia was assisted by a MarGov small grant to their fisheries authority. Sub-questions and some findings are below.

- 1. Based on the literature on ACM generally, and small-scale fisheries specifically, what are the conditions that favour successful adaptive co-management?
  - An evaluative framework proposed by Canadian research colleagues, but never field-tested, was adapted by the researcher and applied to the literature on co-management and ACM.
     The project also contributed to the further development of ideas on ACM amidst complexity<sup>24</sup>.

<sup>18</sup> Haynes, C., P. McConney and S.Cox. 2009. Report of the Workshop on the Code of Conduct for Responsible Fisheries, Solutions Centre, UWI Cave Hill Campus, 12 October 2009. CERMES MarGov Project Document 14. 30 pp

Department of Marine Resources. 2011. Preparing to introduce an ecosystem approach to fisheries in St Kitts and Nevis: what people said. Report of the DMR produced under a CERMES MarGov Small Grant. 5pp
 Deane, L, M. Pena and P. McConney. 2010. Report of the Workshop on the application of resilience thinking to fisheries

<sup>&</sup>lt;sup>19</sup> Sandy, K., N. Leotaud, S. Leid and K. Blackman. 2011. Network analysis of two stakeholder organisations involved in the governance of the fishing industry of Trinidad and Tobago. CERMES Technical Report No. 49. 20 pp <sup>20</sup> CERMES. 2008. Good governance under the Common Fisheries Policy and Regime (CFP&R). CERMES Policy Perspective,

CERMES. 2008. Good governance under the Common Fisheries Policy and Regime (CFP&R). CERMES Policy Perspective May 2008

Deane, L, M. Pena and P. McConney. 2010. Report of the Workshop on the application of resilience thinking to fisheries governance in the Eastern Caribbean, 1-2 September 2010, UWI Cave Hill Campus, Barbados. CERMES Technical Report No. 32. 51 pp.

<sup>&</sup>lt;sup>23</sup> Cox, S. (presenter) and P. McConney. The role livelihood strategies and outcomes play in adaptive co-management of the sea urchin fisheries in Barbados and St. Lucia. Poster presentation at the 64th Gulf and Caribbean Fisheries Institute, Puerto Morelos, Mexico, 31 Oct - 4 Nov 2011

<sup>&</sup>lt;sup>24</sup> Armitage, D., Plummer, R., Berkes, F., Arthur, R., Charles., T., Davidson-Hunt, I., Diduck, A., Doubleday, N., Johnson, D., Marschke, M., McConney, P., Pinkerton, E., and L. Wollenberg. 2009. Adaptive co-management for social-ecological complexity. Frontiers in Ecology and the Environment 7(2): 95–102.

- The lists of favourable conditions are typically between 2 and 25 factors depending on the author's level of aggregation and the situation. Common property theorists often select few high level factors whereas applied governance researchers select more either with or without clustering into a few overarching dimensions. There is a gap between theory and practice.
- How are the conditions that favour success manifested in the sea urchin fisheries in Barbados and St. Lucia enabled or constrained?
  - Conditions that favour success include well defined boundaries, healthy state of the resource, viable livelihoods from harvest and trade, communication and collaboration among parties, a management regime that is participatory and fairly predictable, trust and many more. These are often enabled by close integration of the fishery into the socio-cultural fabric of the settlement. Fisheries are not treated as separate from other ingredients of well-being.
  - Constraints are many and similar to findings in the Grenville transboundary study. By using a slate of five study sites the researcher found that these included ill-defined property-rights, porous boundaries in some cases, the depleted state of the resource, poor communication at the local level with the national fisheries authority, limited opportunities for advancement.
- 3. Do social networks support the development and sustainability of the conditions that favour success? If so, how?
  - The researcher examined local fisheries networks of kinship, ecological knowledge, labour, trust and management. The different types of network played offered support to varying degrees. It was difficult to assess the extent of learning and adaptation in some cases.
  - Kinship was important in the smaller settlements, but trust was always important everywhere. Ecological knowledge and management networks could be supportive if they were used for communication between government and other stakeholders, for example.
- 4. What are the implications of these findings for local level marine resource governance in the eastern Caribbean?
  - ACM is important regionally, nationally and locally. But most of the lessons of adaptation are likely to be learned at the local level among networks of friends, kin (e.g. household), labour networks and the like. This research is thus relevant to many places with urchin fisheries.
  - Lessons are also likely to be applicable to other fisheries and coastal management situations given the differences among the study sites and the evidence that fisheries for other types of dive-harvested resources and the seine fishery are often similar to sea urchin fisheries.

Other local level research at the local level was carried out by faculty and assistants focusing on MPAs in Grenada and Dominica, and their experiences and potential for local area management as an experiment in governance<sup>25</sup>. The findings revealed how a good original institutional design could be compromised by its limited capacity to adapt to changing ecological and social circumstances 26. We also found that the very rigid provisions of Caribbean legal-institutional arrangements were perceived to be significant barriers to adaptation rather than assets that favoured the stability of governance arrangements. Research on the adaptive capacity and resilience of MPA governance arrangements continues. incorporating many of the findings from the fisheries investigations completed under MarGov.

# 4. Fulfilment of objectives

# 4.1 Project objectives

The project objectives were achieved. The five interim progress reports chronicle success by associated milestones and their outputs. Without repeating these details, or citing again the documents previously footnoted, we outline below the major ways in which MarGov achieved its objectives.

<sup>&</sup>lt;sup>25</sup> CERMES. 2010. The importance of local area management for MPA and other sites. CERMES Policy Perspective, December.

<sup>2010.

26</sup> Pena, M. and P. McConney. 2011. Institutional arrangements for local management of marine areas in the eastern Caribbean.

Objectives	Measures of success
Construct a conceptual framework for applied research on marine resource governance in Caribbean using CAS and SES perspectives	he the research framework that was constructed.
Investigate governance in the context of small scale fisheries in the eastern Caribbean primarily using cross-scale network analyses with emphasis on features that enhance resilience and adaptation	fulfilment of this objective in research findings.
3. Increase the capacities of partners to undertake their own research and use the results by involving them in the participatory applied research	<ul> <li>Training and field research was participatory and there is evidence of uptake from the small grants</li> <li>Knowledge mobilised to build capacity has been retained in the region and is accessible for use</li> </ul>
4. Facilitate, through outreach and information, the incorporation of the research results into initiatives related to marine resource governance for fisheries	<ul> <li>Outputs are being used as evidenced by change in the policy language, incorporating more of the concepts into real marine resource governance</li> <li>Communication strategy and plan were utilised</li> </ul>
Establish applied research into marine resource governance as a new demand-drive programme	<ul> <li>Regional and national marine authorities are demanding more from the research programme</li> <li>A CERMES governance programme is in place with applied research and testing still continuing</li> </ul>

The remaining sections of this report reinforce the extent to which the objectives were fulfilled. There is still, however, much more to be done since several of the objectives are open-ended and do not suggest that all is well with marine resource governance once certain outputs are achieved. It is an ongoing quest.

# 5. Project design and implementation

# 5.1 Project design

The project was designed to be interdisciplinary and participatory. Major components were applied academic research, practical small grants to project partners and communication for outreach and capacity building. It was also intended to be adaptive. A project monitoring and evaluation group was established from the outset, but it was only lightly used apart from screening small grant applications and being informed of progress on a bi-monthly basis via an electronic newsletter. Participation was in several forms ranging from the selection of study sites at inception to learning-by-doing alongside researchers.

Social network analysis was conceptually the main research tool, but networks were investigated in relation to several features of marine resource governance such as livelihoods, information exchange, trust, marketing, decision-making and more. Resilience analysis and livelihoods analysis were used. In addition, both natural science and social science methods were employed, ranging from resource mapping to focus groups to participant observation. Ethnographic methods were used to embed the investigation in the social and cultural fabric of the settlements studied. Validation of the preliminary research findings was an important aspect of the design. This was both to assist interpretation and to give back information to the people who had participated in the research by sharing their time and knowledge.

# 5.2 Project implementation

Project implementation took place from March 2007 to February 2012. The MarGov project team changed a few times during implementation, but only in terms of the individuals and not their function. The main area of deviation from the project proposal was the absence of a postdoctoral researcher at inception due to reasons beyond the control of the manager. The project web site tracked these changes and provided a means for any interested parties to get involved. Below are the main components implemented.

Project component implemented	20	07	-200	80	20	008	-20	09	20	09-	·20	10	20	10-	-20°	11	20	11-	·20	12
Communications assistance																				
Communications workshops																				
Inception workshop and preparation																				
Faculty research and communication																				
PhD research																				
MPhil research																				
MPhil research converted to PhD																				
Small grants to project partners																				
Regional resilience workshop																				
National resilience, network workshops																				

#### 5.3 Partnerships for participation

Partnerships for participation were a hallmark of the MarGov project. Collaboration included the initiative on *Strengthening Principled Ocean Governance Networks: Transferring Lessons from the Caribbean to the Wider Ocean Governance Community* (PROGOVNET project) implemented by Dalhousie University and CERMES. These and other alliances also connected especially to the CLME project.

An exciting departure from typical academic research project implementation was an initiative of the communications assistant to obtain private sector partnerships operationalised through funding<sup>27</sup>. Two pan-Caribbean private sector companies – The Simpson Oil Group (Sol) and Island Heritage Insurance – came on board to provide support to MarGov's public outreach efforts. The Caribbean Media Corporation (CMC) cable channel CaribVision also signed on as a broadcast media partner to the project to provide MarGov with an avenue to reach its 1.2 million viewers in 23 countries including continental Europe. Up to the present, MarGov is still receiving feedback that its products are being aired on a regular basis.

MarGov also collaborated extensively with the CRFM Secretariat, one of its major boundary partners, on several fronts, but particularly on fisherfolk organisation strengthening and networking. The Gulf and Caribbean Fisheries Institute (GCFI) provided an annual venue for sharing project outputs and building capacities. GCFI funded the communication workshops and became a partner in fisherfolk empowerment, assisting the Caribbean Network of Fisherfolk Organisations (CNFO).

CANARI was an important boundary partner and has incorporated many products from MarGov into its work. The partnership with TNC/USAID for the Local Area Management Project (LAMP) allowed the MarGov team to research local governance arrangements and communication associated with MPAs. The project also benefitted from the participation of Canadian university students researching fisherfolk organisation<sup>28</sup> and sea urchin management<sup>29</sup>.

### 6. Project outputs and dissemination

The project outputs are listed in the Appendix. Most not published under another copyright are available as downloads from the CERMES web site. Products were also disseminated throughout the project in paper and electronic formats. Having a full-time communications assistant was indispensible for this. A communications strategy and plan<sup>30</sup> kept up to date through revisions<sup>31</sup> was also critical. The CERMES

<sup>27</sup> Haynes, C. 2010. Report on activities sponsored by private sector and NGO partners. CERMES MarGov Project Document 17. 8 pp.

pp. <sup>28</sup> Tabet, L.M. 2009. Fisherfolk organisation in the network governance of small-scale fisheries in the CARICOM region. C ERMES Technical Report No. 20. 63 pp

<sup>&</sup>lt;sup>29</sup> Nayar, R., I. Davidson-Hunt, P. McConney and B. Davy. 2009. The sea urchin fishery in Grenada: a case study of social-ecological networks. CERMES Technical Report No. 24. 22 pp.

<sup>&</sup>lt;sup>30</sup> Roach, D., K. Parsram and P. McConney. 2007. Communication strategy and plan. CERMES MarGov Project Document 2. Centre for Resource Management and Environmental Studies, Barbados 9 pp.

Deane, L. and P. McConney. 2010. Communication strategy and plan Revision 3. CERMES MarGov Project Document 2 (Rev. 3). 15 pp

Connections bi-monthly newsletter contained a special MarGov section in each issue and reached a wide readership. Towards the end of the project the communications assistant recently received training from IDRC on new technologies and techniques for getting research into policy. She produced an innovative video on the governance of the Barbados sea egg fishery with the assistance of an IDRC small grant to the local production company. Several outputs have been referenced as footnotes to this report. In the sections below observations are made about these items.

- Information sharing and dissemination: This constituted the bulk of the project outputs. Also see the section above on partnerships for information on [boundary] partners in this process.
- Knowledge creation: This does not apply, although new polices are intended outcomes.
- Training: Resource materials were produced for and during several sets of training events. The doctoral dissertations and future publications arising from them will also form major outputs.

# 7. Capacity-building

Capacity building was an explicit objective of the MarGov project. See previous sections for achievement. In addition to participation in the applied academic research described above, the main other means of capacity-building were the small grants and workshops that were mentioned but are elaborated on here.

#### 7.1 Small grants

The aim was to support field research, test findings and facilitate uptake of lessons learned through allocating 2-3 small grants per year to selected project partners approved by the monitoring and evaluation core group. The application and awarding process was simple and swift, but implementing and reporting on the small grants consumed a significant amount of time, funds and technical assistance. The grants are listed below. The experience of the grantees and CERMES was shared at the regional 2011 GCFI meeting and a paper will be published in the proceedings along with other MarGov outputs there<sup>32</sup>.

Recipient	Grant title	Actual duration
Caribbean Natural	Institutional framework and capacity for fisheries	Oct 2007 – Oct
Resources Institute (CANARI)	governance in Trinidad and Tobago	2008
Grenada Fisheries Division	Sea urchin fishery governance in Grenada	May 2008 – Nov 2009
Barbados Fisheries	Improving governance through the Barbados Fisheries	Aug 2008 – Dec
Advisory Committee (FAC)	Advisory Committee (FAC)	2009
Sustainable Grenadines	Strengthening fisher folk collaboration in the Grenadines	Nov 2009 – Aug
Project		2011
Caribbean Network of	The adaptive capacity of the Caribbean Network of	Jan 2010 – Feb
Fisherfolk Organisations	Fisherfolk Organisations	2012
Department of Fisheries,	Formalising a Participatory Decision-Making Mechanism	Apr 2010 – Feb
St. Lucia	for the Management of Sea Urchin Resources in St Lucia	2012
Department of Marine	Preparing for fisheries governance in St Kitts and Nevis	Oct 2010 – Jun
Resources, St. Kitts and	based on the ecosystem approach to fisheries (EAF)	2011
Nevis		
Caribbean Natural	Institutional framework and capacity for fisheries	Dec 2010 – Sep
Resources Institute	governance both at the national level and in a few	2011
(CANARI)	selected regions	

Given the importance of this component of the project, extracts from the paper that detail experiences are provided in the box below. These are partial results of monitoring and evaluation done with grantees.

<sup>32</sup> CERMES. 2012. Marine Resource Governance in the eastern Caribbean: Papers, posters and presentations at the 64th Gulf and Caribbean Fisheries Institute (GCFI), 31 October - 4 November 2011, Puerto Morelos, Mexico. CERMES MarGov Project Document 26. 54pp.

Grantees outlined the main strengths of the small grants undertaken as follows:

- Capacity building of recipient agencies and stakeholder empowerment.
- Participatory and collaborative nature of the research and recognition of stakeholders.
- Range of activities supported and funded, and flexibility adapting activities.
- Easy and relatively simple format for accessing funds.
- Improved networking fostered during the grant activity.
- Innovation and the opportunity to test and use a new tool.

Weaknesses of specific small grants were identified by only four of the respondents. They were as follows:

- Poor productivity of the initially selected research team, with poor communication links being a major contributor, as well as lack of confidence to do well. Reliance on one or two persons resulted in major delays, as these persons had other obligations.
- The limited interest of the fisheries management authority in the outcomes of the grant and its reluctance to meet the expectations of the stakeholders.
- No provision for continuation by some grantees. Small grant activity provided lots of information that still needs to be analysed.
- The time and budget allocated for the project was limited; this affected CANARI's ability to achieve all the objectives.

Respondents provided additional feedback on their MarGov small grants as set out below:

- MarGov has been exceptional in its understanding and flexibility.
- The MarGov small grant outputs were the only positive outcome of 10 plus years of a no-take
  moratorium, since no budgetary allocations were made over the years for similar activities expected
  by the moratorium. It is grants like these that permit the bridging of resource gaps occasioned by
  poor resource allocations and allow for critical governance work on the ground.
- There should be follow up activities to examine the success of the recommendations being proposed and the bottlenecks if any.
- This sort of mechanism is important as a way for agencies such as the Department of Fisheries to source valuable funds and technical assistance to address priority needs within the area of governance and sustainable use of resources. It is important that these mechanisms continue to be available to government and well as non- government agencies and groups.
- Could the results of the grants be used to develop further grants?
- The small grant allowed CANARI to learn and practice a new tool that will have wide application within the organisation and our stakeholders by extension.

### 7.2 Workshops

MarGov also featured several types of capacity building workshops. Most were on-day workshops organised by the MarGov team and delivered to national multi-stakeholder groups. Communications workshops and those on resilience and social networking were delivered in almost all project countries. The inception workshop (2007) and the resilience workshop (2010) were regional events of a few days duration. Meetings (rather than full workshops) were also held at many conferences where a cross-section of MarGov target audiences could be assembled and information from the project discussed. The GCFI Fishers Forum, now an institutionalised annual event unique to the region, was partly a MarGov effort in its first years.

Workshops were also held in support of specific small grant activities, some of them conducted by the PhD researchers who also held validation workshops at their study sites to share and check their preliminary research findings with the project participants. The three graduate seminars held by the PhD candidates as part of their academic requirements were also highly interactive and very well received. MarGov did not track the numbers of people attending its workshop and related events as an output metric, but at every event an evaluation on paper or an oral reflection was standard procedure. These are

reported with the workshops. The overall image is of workshops that were mostly well run, attended and received by all target audiences in the MarGov communications strategy and plan.

#### 7.3 Sustainability and skills

As described above, MarGov has contributed to the capacity of CERMES as a research, outreach and teaching centre through equipment, software, literature, student and staff research support, and funds for communicating in many ways. The UWI has benefited from MarGov via the IDRC fellowships, and has contributed in kind by waiving the students' payment of economic costs. The project fitted the CERMES strategic plan for strengthening graduate and faculty research capacity. The section on partnerships and participation, and on small grants and workshops, detailed other sides to capacity building.

How much of this is sustainable? We believe that the skill sets acquired and knowledge mobilised will not only be sustainable but have acted as catalysts for further advancement of marine resource governance. A demand for follow-up research and development in several areas is being met through other projects.

# 8. Project management

The interim progress reports provide details of project management triumphs and challenges throughout. We summarise only a few highlights here.

#### 8.1 Administration

CERMES is a Centre in the UWI Cave Hill Campus Faculty of Pure and Applied Sciences. It is not an autonomous academic or research entity and it relies much on the campus central administration, such as the Bursary, for much of its administrative services. Thus its administrative capacity is limited. That being said, few administrative issues arose or constraints were experienced during the project. Project management adapted to the reliance on the Bursary and consequent need for careful time management to meet deadlines and quickly respond to circumstances. Cave Hill was visited twice by an IDRC auditor and easily passed scrutiny. IRDC was also extremely adaptive in extending the project for another year.

# 8.2 Scientific management

The project manager served as one of the principal investigators and was also responsible for scientific management. The latter was challenging given the cutting edge nature of the research and it very applied orientation. The former was addressed largely by networking with several other related initiatives around the world such as of the Resilience Alliance, Earth System Governance, Academic Council on the United Nations System, Global Environment Facility and more that are actively researching governance in social-ecological systems and addressing complexity. The graduate students also played an active part in this networking and formed their own linkages internationally (including several with Canadian enterprises).

### 8.3 Technical support from IDRC

There were few calls for technical support from IDRC. However, IDRC staff Brian Davy (now retired), Merle Faminow and Renaud de Plaen were all very helpful at various stages of the project along with their grant administration and library/information service colleagues. IDRC Senior Program Specialist Renaud De Plaen participated in the September 2010 workshop on resilience thinking in fisheries governance. The Communications Officer received training in her area of expertise in February 2011 via another IDRC initiative. The project manager also had opportunities to interact at conferences (e.g. Coastal Zone Canada) with Canadian colleagues and international participants in other IDRC projects.

### 9. Impact

The MarGov project has had both reach and impact, although it is difficult to measure them given that the work still continues and even five years is a short time in which to see changes directly attributable to the project interventions. MarGov was mainly about changing the prevailing thinking about marine resource governance ... changing knowledge, attitudes and practices. There is evidence of target audiences using

concepts of governance and networks more frequently and more capably than before. This ranges from policy advisers and makers, through technical officers to resource users. The latter come closest to a "marginalized social group" in the context of this research. There was a brief foray into gender research, but gender, age, ethnicity, nationality and similar variables are not the major issues that need to be addressed. The impact of MarGov may perhaps require assessment through outcome mapping, a tool that was not fully employed on the project although there was awareness and limited use of it. Compared to 2007 there are now many other governance-related initiatives in marine resource governance. This makes it difficult to untangle cause-and-effect relationships in respect of project interventions. It does, however, signal that MarGov was a pioneer in fulfilling a research and development need in the region.

#### 10. Overall assessment

The MarGov project, implemented from 1 March 2007 to 29 February 2012, was of considerable benefit to CERMES and its project participants. Progress was slower than planned throughout the project, but perhaps the project was overly ambitious in some respects. The one-year extension granted by IDRC was valuable for achieving the intended outputs and seeing some desired outcomes begin to take shape.

The ability of CERMES and IDRC to adapt to project partners' limited capacities facilitated development of these capacities by taking the time to work with them at a pace they could match rather than to reduce engagement as a consequence of expediting implementation. Milestones were achieved. The five objectives were largely met. The CERMES team, post-MarGov, continues to work with regional and international network and governance-related projects and researchers, and the demand is growing. Participation in global and regional events has positioned CERMES as a leader in applied research on marine resource governance.

Publications, posters, presentations and more were produced for the diverse audiences identified in the communications strategy and plan. Communications to influence policy and governance targeted mainly the Caribbean Regional Fisheries Mechanism (CRFM), which is the key actor in regional fisheries governance. Other boundary partners included the Caribbean Large Marine Ecosystem (CLME) Project, Organization of Eastern Caribbean States (OECS) Environment and Sustainable Development Unit (ESDU), Caribbean Network of Fisherfolk Organisations (CNFO) and Caribbean Natural Resources Institute (CANARI). There is evidence of increased appreciation of marine governance in the above at the regional level. So too at the national level among the fisheries and marine protected area authorities with whom several capacity-building workshops were implemented in the last year of MarGov at their request.

The research framework continues to evolve via the work of faculty and graduate students. Several publications cover this process. The two PhD candidates are well advanced. Both have completed their academic requirements of taking courses and delivering three research seminars. They have shared preliminary results through presentations and publications. Their supervisory committees are reviewing drafts of their dissertation chapters as they complete data analysis and interpretation.

The small grants are now finished. Most posed challenges mainly due to the low capacities of grantees to either implement activities or absorb assistance. An evaluation survey of the process and products found that the beneficiary project partners were generally satisfied with their experiences and outcomes to date. CERMES now has a slate of governance related projects to sustain a programme of marine governance research well beyond the end of the MarGov project. There is evidence of both impact and sustainability.

#### 11. Recommendations

Our reading of IDRC's *Strategic Framework 2010–2015* is that projects on marine resource governance no longer fit well with any of the strategic directions that IDRC has decided to take. Our research and that associated with the CLME project and GEF International Waters indicates, however, that for the Wider Caribbean (perhaps distinct from Latin America) this is a critical area for advancement since it underpins almost everything else, especially if sustainable social and economic development is the desired result. We would urge IDRC to reconsider a strategy for promoting innovative research on governance matters.

# 12. Appendix: Project outputs

#### **Publications**

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The Decline of the Sea Egg Fishery in Barbados (24 min; Dec 2011)

MarGov project highlighted on "Science, Technology & You" which showed on SVG TV, Channel 9 on 17 January 2009, produced by Philip Jackson, Science and Technology Coordinator, SVG government

#### **ANNEX 1: TEAM COMPOSITION**

List key members of ALL applicant research teams (add more tables and rows as needed). For type of organization, indicate: government, university, private sector, NGO (national), NGO (international), or other.

Organization 1 (name, type of organization, country).										
Family name	Given name	Male (M) / Female (F)	Job title	Address (mailing address, phone number, fax, email)	Project role/responsibility (please indicate if lead PI and identify if consultant)	% of time committed on this project				
McConney	Patrick	М	Senior Lecturer		Project manager, lead PI (2007-2012)	25				
Mahon	Robin	М	Professor	Centre for Resource Management and Environmental Studies	Co-lead PI (2007-2012)					
Roach	Donna	F	Communications Assistant	(CERMES) The University of the West Indies	Communications Assistant for all types of output sharing (2007-2008)	100				
Haynes	Carmel	F	Communications Assistant	Cave Hill Campus St. Michael BB 11000 Barbados	Communications Assistant for all types of output sharing (2008-2010)	100				
Deane	Lyn-Marie	F	Communications Assistant	Tel: (246) 417-4316	Communications Assistant for all types of output sharing (2010-2012)	100				
Pena	Maria	F	Project Assistant	Fax: (246) 424-4204 cermes@cavehill.uwi.edu	Project Assistant especially for report preparation (2011-1012)	10				
Benskin	Dale	М	Information Technology Technician		Information Technology Technician (2007-2012)	5				

#### ANNEX 2 - MONITORING AFS EXPECTED OUTCOMES

This section refers to how the project and its results are contributing to AFS program outcomes. It is not expected that every AFS project will respond to ALL of these outcomes.

\*Note: Quantitative and qualitative evidence of the outcomes should be specified as much as possible. A strong claim of an outcome should be supported by evidence.

- 1. New technologies and/or farming systems and practices. How is the project leading to new and improved agricultural technologies and/or farming systems and practices that increase food production?
  - Not directly applicable to this governance project. However, adaptive capacity building workshops and interaction with national and regional fisherfolk groups emphasised the linkages between technology, livelihoods, food security and resilience. This included the need for fisherfolk organisations to use the early innovators and leaders in their governance structures to introduce new technology for improving livelihoods and food security, outcomes which would in turn strengthen their organisations. About 30 fisherfolk leaders would have received such messages directly to share with organisational members.
- 2. **Dietary diversity & nutrition.** How is the project contributing to dietary diversity/balanced diets, particularly for women and children?
  - Not applicable to this project
- 3. Engagement of Canadian researchers with Southern researcher organizations (for CIFSRF-funded projects only). Is there increased use of Canadian knowledge and resources to address environmentally sustainable agricultural productivity and nutrition problems in developing countries?
  - Not applicable to this project
- 4. **Research groups.** How is the project contributing to stronger research groups for improved food security policies and decision-making?
  - The project provided small grants, capacity building workshops and technical assistance to strengthen research at fisheries authorities and in fisherfolk organisations. Eight grants were disbursed and over 20 workshops on various topics were held. Indirectly these are likely to contribute to improved food security policies and decision-making although this was not the project focus.
- 5. **Food distribution.** How is the project contributing to more equitable food distribution for food security?
  - Not applicable to this project
- 6. **Food processing and storage.** How is the project contributing to improved food processing and storage for food security?
  - Not applicable to this project
- 7. **Risk-mitigation.** How is the project contributing to better risk-mitigation for food security?
  - Not directly applicable to this project, but see responses to #1 and #4 above
- 8. **Access to resources.** How is the project contributing to improved access to resources for food production and security? E.g. land tenure, extension and credit, market access.
  - Not directly applicable to this project, but improved capacity for marine resource governance includes the potential to improve access to resources for food production and security where constraints arise.

- 9. **Income generation.** How is the project contributing to improving vulnerable/poor people's ability to purchase more and better quality food, in particular for the benefit of women and children?
  - Not directly applicable to this project, but see responses to #1 and #4 above
- 10. **Policy options.** How is the project influencing the development and implementation food security policies?
  - Not directly applicable to this project, but the importance of achieving policy influence was included in
    marine resource governance. For example, in association with the project the Caribbean Network of
    Fisherfolk Organisations (CNFO) met with the region's Caribbean Fisheries Forum (technical) and the
    Ministerial Council (political) in order to share industry perspectives in 2009, 2010 and 2011. Their
    points included support for sustainable livelihoods and hence improvements in food security regionally.
- 11. **ICTs.** Has the use of ICTs contributed to increase access to information and improved food security for the most vulnerable?
  - Not directly applicable to this project, but the CNFO (see above) was encouraged to establish informal and formal communication networks among fisherfolk using mobile phone and internet technologies. An unknown number of fisherfolk leaders (but exceeding 50 persons) are now linked via these means.
- 12. **Gender.** How is the project considering women's specific needs in the design of the research, participation of women in the research, and potential impact of research on women
  - This project did not focus on gender, but both men and women participated in all aspects. Women (about 10) were among the fisherfolk organisation leaders trained. Two of the graduate students were women along with two Canadian women who did graduate research in association with the project.
- 13. **Environment.** How is the project affecting the environment? Are contributions environmentally sustainable? What considerations have been given to the potential environmental impacts, both positive and negative, of the applications being developed?
  - Not directly applicable to this project, but the general aim of the project is to achieve sustainable fisheries management and livelihoods in the eastern Caribbean. Hence, all aspects were indirectly contributing to improved environmental management for sustainable development.

3

#### **ANNEX 3 – OUTPUTS TABLE**

Please ensure that IDRC has copies of all outputs produced by the project.

Each output submitted to IDRC must include a title page, abstract, and keywords (see Annex 4)

This table should be updated on a regular basis and submitted with each interim report.

Project Title and number	r:				
Types of Outputs	Title / Reference & Summary Description	Date of the output	Primary authors/ organizations responsible	Was this output disseminated? If yes, how? Please indicate what type of audiences have been reached (i.e. policy makers, researchers, others?	Location of the output Please provide weblink if applicable
Peer reviewed article(s)	Adaptive co-management for social-ecological complexity. Frontiers in Ecology and the Environment 7(2): 95–102.	2009	Armitage, D., Plummer, R., Berkes, F., Arthur, R., Charles., T., Davidson-Hunt, I., Diduck, A., Doubleday, N., Johnson, D., Marschke, M., McConney, P., Pinkerton, E., and L. Wollenberg.	Online – wide audience	http://www.esajournals.org/doi/abs/ 10.1890/070089?journalCode=fron
	Governing fisheries as complex adaptive systems. Marine Policy 32:104-112	2008	Mahon, R., P. McConney and R. Roy. 2008	Online – wide audience	http://www.journals.elsevier.com/marine-policy/#
	A governance perspective on the large marine ecosystem approach. Marine Policy 33: 317–321.	2009	Mahon, R., L. Fanning and P. McConney. 2009.	Online – wide audience	http://www.journals.elsevier.com/marine-policy/#
	Governance characteristics of	2010	Mahon, R., L.	Online – wide	http://www.journals.elsevier.com/marine-policy/#

Project Title and number	::				
Types of Outputs	Title / Reference & Summary Description	Date of the output	Primary authors/ organizations responsible	Was this output disseminated? If yes, how? Please indicate what type of audiences have been reached (i.e. policy makers, researchers, others?	Location of the output  Please provide weblink if applicable
	large marine ecosystems. Marine Policy 34:919–927		Fanning, P. McConney and R. Pollnac.	audience	
Workshop/presentations	Report of the MarGov Project Inception Workshop held at the UWI Cave Hill Campus, Barbados, 15-16 May 2007. CERMES MarGov Project Document 1. Centre for Resource Management and Environmental Studies, Barbados. 33pp.	2007	CERMES	Online – wide audience inclusive of project partners, fisheries divisions, varied stakeholders	http://www.cavehill.uwi.edu/cermes/margov_profile.html
	Supplement to the Report of the MarGov Project Inception Workshop held at the UWI Cave Hill Campus, Barbados, 15-16 May 2007: Working papers and presentations. CERMES MarGov Project Document 1 Supplement. 54pp.	2007	CERMES	Online – wide audience inclusive of project partners, fisheries divisions, varied stakeholders	http://www.cavehill.uwi.edu/cermes/margov_profile.html
	Report of the CANARI workshop on Introduction to network analysis in natural resource governance, Trinidad and Tobago, 20 Aug 2007. CERMES MarGov Project Document 4. Centre for	2007	CERMES	Online – wide audience inclusive of project partners, fisheries divisions, varied stakeholders	http://www.cavehill.uwi.edu/cermes/margov_profile.html

<b>Project Title and nun</b>	nber:				
Types of Outputs	Title / Reference & Summary Description	Date of the output	Primary authors/ organizations responsible	Was this output disseminated? If yes, how? Please indicate what type of audiences have been reached (i.e. policy makers, researchers, others?	Location of the output  Please provide weblink if applicable
	Resource Management and Environmental Studies, Barbados. 4 pp.				
	Report of the Fishers Forum: "Climate change and small-scale fisheries in the Caribbean" at the 61st Gulf and Caribbean Fisheries Institute (GCFI), Gosier, Guadeloupe 10-14 November 2008. CERMES MarGov Project Document 12. Centre for Resource Management and Environmental Studies, Barbados. 19 pp.	2009	CERMES	Online – wide audience inclusive of project partners, fisheries divisions, varied stakeholders	http://www.cavehill.uwi.edu/cermes/margov_profile.html
	Report of the workshops on resilience in fisheries governance (10 May 2011) and social network analysis in fisheries (11 May 2011) at the Fisheries Division, Antigua and Barbuda. CERMES MarGov Project Document 19. 31pp.	2011	CERMES	Online – wide audience inclusive of project partners, fisheries divisions, varied stakeholders	http://www.cavehill.uwi.edu/cermes/margov_profile.html
	Report of the workshops on resilience in fisheries governance (25 May 2011) and social network analysis in fisheries (26 May 2011) in St.	2011	CERMES	Online – wide audience inclusive of project partners, fisheries divisions, varied stakeholders	http://www.cavehill.uwi.edu/cermes/margov_profile.html

Project Title and num	iber:				
Types of Outputs	Title / Reference & Summary Description	Date of the output	Primary authors/ organizations responsible	Was this output disseminated? If yes, how? Please indicate what type of audiences have been reached (i.e. policy makers, researchers, others?	Location of the output  Please provide weblink if applicable
	Kitts and Nevis. CERMES MarGov Project Document 20. 35 pp.				
	Report of the workshops on resilience in fisheries governance (15 Jun 2011) and social network analysis in fisheries (16 Jun 2011) in Barbados. CERMES MarGov Project Document 21. 37 pp. Report of the workshops on resilience in fisheries governance 2(13 July 2011) and social network analysis in fisheries (14 July 2011) in Grenada. CERMES MarGov Project Document 22. 40pp.	2011	CERMES	Online – wide audience inclusive of project partners, fisheries divisions, varied stakeholders	http://www.cavehill.uwi.edu/cermes/margov_profile.html
	Report of the workshops on resilience in fisheries governance (26 July 2011) and social network analysis in fisheries (27 July 2011) in Dominica. CERMES MarGov Project Document 23. 35pp.	2011	CERMES	Online – wide audience inclusive of project partners, fisheries divisions, varied stakeholders	http://www.cavehill.uwi.edu/cermes/margov_profile.html
	Report of the workshops on resilience in fisheries governance (7 September 2011)	2011	CERMES	Online – wide audience inclusive of project partners,	http://www.cavehill.uwi.edu/cermes/margov_profile.html

<b>Project Title and num</b>	iber:				
Types of Outputs	Title / Reference & Summary Description	Date of the output	Primary authors/ organizations responsible	Was this output disseminated? If yes, how? Please indicate what type of audiences have been reached (i.e. policy makers, researchers, others?	Location of the output  Please provide weblink if applicable
	and social network analysis in fisheries (8 September 2011), St Vincent and the Grenadines. CERMES MarGov Project Document 24, 44pp			fisheries divisions, varied stakeholders	
	Report of the workshops on resilience in fisheries governance (9 November 2011) and social network analysis in fisheries (10 November 2011), Saint Lucia. CERMES MarGov Project Document 25. 41pp	2011	CERMES	Online – wide audience inclusive of project partners, fisheries divisions, varied stakeholders	http://www.cavehill.uwi.edu/cermes/margov_profile.html
	Report of the Fishers Forum:  "Fisher folk and fisheries scientists linking and learning together" at the 60th Gulf and Caribbean Fisheries Institute (GCFI), Punta Cana, Dominican Republic, 5-9 November 2007. CERMES MarGov Project Document 6. Centre for Resource Management and Environmental Studies, Barbados. 16 pp.	2007	CERMS and CRFM	Online – wide audience inclusive of project partners, fisheries divisions, varied stakeholders	http://www.cavehill.uwi.edu/cermes/margov_profile.html
	Report of the Workshop on the application of resilience thinking to fisheries governance in the	2010	Deane, L, M. Pena and P. McConney	Online – wide audience inclusive of project partners,	http://www.cavehill.uwi.edu/cermes/margov_profile.html

<b>Project Title and nun</b>	nber:				
Types of Outputs	Title / Reference & Summary Description	Date of the output	Primary authors/ organizations responsible	Was this output disseminated? If yes, how? Please indicate what type of audiences have been reached (i.e. policy makers, researchers, others?	Location of the output  Please provide weblink if applicable
	Eastern Caribbean, 1-2 September 2010, UWI Cave Hill Campus, Barbados. CERMES Technical Report No. 32. 51 pp.			fisheries divisions, varied stakeholders	
	Enhancing marine resource governance through developing capacity for communication in the Eastern Caribbean: Participants Report of Six Workshop. CERMES MarGov Project Document 9. 15pp.	2008	Haynes, C.	Online – wide audience inclusive of project partners, fisheries divisions, varied stakeholders	http://www.cavehill.uwi.edu/cermes/margov_profile.html
	Report of the Workshop on the Code of Conduct for Responsible Fisheries, Solutions Centre, UWI Cave Hill Campus, 12 October 2009. CERMES MarGov Project Document 14. 30 pp	2009	Haynes, C., P. McConney and S.Cox.	Online – wide audience inclusive of project partners, fisheries divisions, varied stakeholders	http://www.cavehill.uwi.edu/cermes/margov_profile.html
Research reports	Developing the adaptive capacity of the Caribbean Network of Fisherfolk Organisations (CNFO). CERMES MarGov Project Document 27. 115pp.	2012	CERMES	Online – wide audience inclusive of project partners, fisheries divisions, varied stakeholders	http://www.cavehill.uwi.edu/cermes/margov_profile.html
	Report on participatory monitoring and evaluation (PM&E) information sources	2011	CNFO	Online – wide audience inclusive of project partners,	http://www.cavehill.uwi.edu/cermes/margov_profile.html

<b>Project Title and nun</b>	nber:				
Types of Outputs	Title / Reference & Summary Description	Date of the output	Primary authors/ organizations responsible	Was this output disseminated? If yes, how? Please indicate what type of audiences have been reached (i.e. policy makers, researchers, others?	Location of the output  Please provide weblink if applicable
	reviewed by the CNFO. Report prepared for MarGov small grant. CNFO, Antigua. 3pp.			fisheries divisions, varied stakeholders	
	Report on Free or low-cost web- sourced communications on the ecosystem approach to fisheries (EAF) reviewed by Caribbean Network of Fisherfolk Organisations (CNFO). Report prepared for MarGov small grant. CNFO, Antigua. 5pp.	2011	CNFO	Online – wide audience inclusive of project partners, fisheries divisions, varied stakeholders	http://www.cavehill.uwi.edu/cermes/margov_profile.html
	CNFO/CERMES MarGov project Final Report. 11pp.	2012	CNFO	Online – wide audience inclusive of project partners, fisheries divisions, varied stakeholders	http://www.cavehill.uwi.edu/cermes/margov_profile.html
	CNFO/CERMES MarGov project grant report on national fisherfolk meeting in Antigua and Barbuda. 11pp	2012	CNFO	Online – wide audience inclusive of project partners, fisheries divisions, varied stakeholders	http://www.cavehill.uwi.edu/cermes/margov_profile.html
	CNFO/CERMES MarGov project grant report on national fisherfolk meeting in St. Lucia. 6pp.	2012	CNFO	Online – wide audience inclusive of project partners, fisheries divisions, varied stakeholders	http://www.cavehill.uwi.edu/cermes/margov_profile.html
	Preparing to introduce an	2011	Department of	Online – wide	http://www.cavehill.uwi.edu/cermes/margov_profile.html

<b>Project Title and num</b>	Project Title and number:							
Types of Outputs	Title / Reference & Summary Description	Date of the output	Primary authors/ organizations responsible	Was this output disseminated? If yes, how? Please indicate what type of audiences have been reached (i.e. policy makers, researchers, others?	Location of the output  Please provide weblink if applicable			
	ecosystem approach to fisheries in St Kitts and Nevis: what people said. Report of the DMR produced under a CERMES MarGov Small Grant. 5pp.		Marine Resources, St. Kitts and Nevis	audience inclusive of project partners, fisheries divisions, varied stakeholders				
	Summary Activity Report and Project Completion Report of Enhancing marine resource governance through developing capacity for communication in the Eastern Caribbean.  CERMES MarGov Project Document 8. 26 pp.	2008	Haynes, C.	Online – wide audience inclusive of project partners, fisheries divisions, varied stakeholders	http://www.cavehill.uwi.edu/cermes/margov_profile.html			
	Final Summary Activity Report and Project Completion Report of Enhancing marine resource governance through developing capacity for communication in the Eastern Caribbean. CERMES MarGov Project Document 10. 25 pp.	2008	Haynes, C.	Online – wide audience inclusive of project partners, fisheries divisions, varied stakeholders	http://www.cavehill.uwi.edu/cermes/margov_profile.html			
	Report on Report on activities sponsored by private sector and NGO partners. CERMES MarGov Project Document 17. 8 pp.  Fisher folk organisations in the	2010	Haynes, C.  McConney, P.	Online – wide audience inclusive of project partners, fisheries divisions, varied stakeholders Online – wide	http://www.cavehill.uwi.edu/cermes/margov_profile.html http://www.cavehill.uwi.edu/cermes/margov_profile.html			

Project Title and num	nber:				
Types of Outputs	Title / Reference & Summary Description	Date of the output	Primary authors/ organizations responsible	Was this output disseminated? If yes, how? Please indicate what type of audiences have been reached (i.e. policy makers, researchers, others?	Location of the output  Please provide weblink if applicable
	Caribbean: briefing note on networking for success. Report prepared for the of the Caribbean Regional Fisheries Mechanism (CRFM) Secretariat, Belize City, Belize. 18 pp.			audience inclusive of project partners, fisheries divisions, varied stakeholders	
	The sea urchin fishery in Grenada: a case study of social-ecological networks. CERMES Technical Report No. 24. 22 pp.	2009	Nayar, R., I. Davidson-Hunt, P. McConney and B. Davy.	Online – wide audience inclusive of project partners, fisheries divisions, varied stakeholders	http://www.cavehill.uwi.edu/cermes/margov_profile.html
	Fisheries management planning for the Grenada sea urchin fishery. Marine Resource Governance in the Eastern Caribbean (MarGov) Project. CERMES Technical Report No.41. 30pp.	2010	Phillip, P.E. and C. J. Isaac.	Online – wide audience inclusive of project partners, fisheries divisions, varied stakeholders	http://www.cavehill.uwi.edu/cermes/margov_profile.html
	Network analysis of two stakeholder organisations involved in the governance of the fishing industry of Trinidad and Tobago. CERMES Technical Report No. 49. 20 pp	2011	Sandy, K., N. Leotaud, S. Leid and K. Blackman	Online – wide audience inclusive of project partners, fisheries divisions, varied stakeholders	http://www.cavehill.uwi.edu/cermes/margov_profile.html
	Fisherfolk organisation in the network governance of small-scale fisheries in the CARICOM	2009	Tabet, L.M	Online – wide audience inclusive of project partners,	http://www.cavehill.uwi.edu/cermes/margov_profile.html

Project Title and number:						
Types of Outputs	Title / Reference & Summary Description	Date of the output	Primary authors/ organizations responsible	Was this output disseminated? If yes, how? Please indicate what type of audiences have been reached (i.e. policy makers, researchers, others?	Location of the output  Please provide weblink if applicable	
	region. CERMES Technical Report No. 20. 63 pp			fisheries divisions, varied stakeholders		
Newspaper article  Bulletin, newsletter, pamphlets	CERMES Connections. A MarGov Project update page specially added to this bi- monthly e-bulletin to inform, update and share lessons learned with partners, stakeholders, policy makers and other interested persons about the project	2008-2012	MarGov project team	CERMES Connections e- mailing list – wide audience comprising CERMES colleagues; national, regional and international organisations and institutions; Universities; government departments etc.  Hard copies shared at conferences,	http://cermes.cavehill.uwi.edu/news.htm	
Databases (GIS, and other information systems)				meetings and workshops.		
Policy briefs	Network analysis in marine resource governance from a policy perspective. CERMES Policy Perspective, April 2007.	2007	CERMES	CERMES Connections e- mailing list – wide audience comprising CERMES colleagues;	http://cermes.cavehill.uwi.edu/news.htm	

Project Title and number:						
Types of Outputs	Title / Reference & Summary Description	Date of the output	Primary authors/ organizations responsible	Was this output disseminated? If yes, how? Please indicate what type of audiences have been reached (i.e. policy makers, researchers, others?	Location of the output  Please provide weblink if applicable	
	Getting more fisherfolk into better fisheries governance. CERMES Policy Perspective, September 2007.	2007	CERMES	national, regional and international organisations and institutions; Universities; government departments etc.  Hard copies shared at conferences, meetings and workshops.  CERMES Connections e-mailing list – wide audience comprising CERMES colleagues; national, regional and international organisations and institutions; Universities; government departments etc.	http://cermes.cavehill.uwi.edu/news.htm	
				Hard copies shared at conferences,		

<b>Project Title and num</b>	Project Title and number:						
Types of Outputs	Title / Reference & Summary Description	Date of the output	Primary authors/ organizations responsible	Was this output disseminated? If yes, how? Please indicate what type of audiences have been reached (i.e. policy makers, researchers, others?	Location of the output  Please provide weblink if applicable		
	Good governance under the	2008	CERMES	meetings and workshops. CERMES	http://cermes.cavehill.uwi.edu/news.htm		
	Common Fisheries Policy and Regime (CFP&R). CERMES Policy Perspective, May 2008			Connections e- mailing list – wide audience comprising CERMES colleagues; national, regional and international organisations and institutions; Universities; government departments etc.  Hard copies shared at conferences, meetings and workshops.			
	Member State representation in regional fisheries governance. CERMES Policy Perspective, December 2008.	2008	CERMES	CERMES Connections e- mailing list – wide audience comprising CERMES colleagues; national, regional and international organisations and	http://cermes.cavehill.uwi.edu/news.htm		

Project Title and num	Project Title and number:						
Types of Outputs	Title / Reference & Summary Description	Date of the output	Primary authors/ organizations responsible	Was this output disseminated? If yes, how? Please indicate what type of audiences have been reached (i.e. policy makers, researchers, others?	Location of the output  Please provide weblink if applicable		
				institutions; Universities; government departments etc.  Hard copies shared at conferences, meetings and workshops.			
	Managing Small-Scale Fisheries: Moving Toward People- Centered Perspectives. CERMES Policy Perspective. April 2010.	2010	CERMES	CERMES Connections e- mailing list – wide audience comprising CERMES colleagues; national, regional and international organisations and institutions; Universities; government departments etc.	http://cermes.cavehill.uwi.edu/news.htm		
	The importance of local area	2010	CERMES	Hard copies shared at conferences, meetings and workshops.  CERMES	http://cermes.cavehill.uwi.edu/news.htm		

Project Title and number:						
Types of Outputs	Title / Reference & Summary Description	Date of the output	Primary authors/ organizations responsible	Was this output disseminated? If yes, how? Please indicate what type of audiences have been reached (i.e. policy makers, researchers, others?	Location of the output  Please provide weblink if applicable	
	management for MPA and other sites. CERMES Policy Perspective, December. 2010.			Connections e- mailing list – wide audience comprising CERMES colleagues; national, regional and international organisations and institutions; Universities; government departments etc.  Hard copies shared at conferences, meetings and workshops.		
Books / Book chapters	Managing Small-Scale Fisheries: Moving Toward People- Centered Perspectives. Pages 532-545 in R. Q. Grafton, R. Hilborn, D. Squires, M. Tait and M. Williams (eds.) Handbook of Marine Fisheries Conservation and Management. Oxford University Press, New York. 784pp. Communication. Pages 178-195	2010	McConney, P. and A. T. Charles.  McConney, P. and	Announcement of publication via personal email and CERMES Connections emailing list.		

Project Title and num	Project Title and number:								
Types of Outputs	Title / Reference & Summary Description	Date of the output	Primary authors/ organizations responsible	Was this output disseminated? If yes, how? Please indicate what type of audiences have been reached (i.e. policy makers, researchers, others?	Location of the output  Please provide weblink if applicable				
	in R. S. Pomeroy and N. Andrew (eds.) Small-scale Fisheries Management: Frameworks and Approaches for the Developing World. CABI Publishing, Oxfordshire. 258 pp		C. Haynes.	publication via personal email and CERMES Connections e- mailing list.					
	Collaborative planning to create a network of fisherfolk organisations in the Caribbean. Pp 207-230. In B. Goldstein (ed.) Collaborative Resilience: Moving Through Crisis to Opportunity. MIT Press, Cambridge, Massachusetts 376 pp.	2011	McConney, P. and T. Phillips.	Announcement of publication via personal email and CERMES Connections emailing list.					
	Fisheries networks in the Caribbean. Pp. 273-284 in R. Chuenpagdee [ed.] World Small-Scale Fisheries Contemporary Visions, Eburon Academic Publishers, Delft, The Netherlands.	2011	McConney, P., R. Mahon, K. Parsram and S. Cox.	Announcement of publication via personal email and CERMES Connections emailing list.					
	A network approach to understanding coastal management and governance of small scale fisheries in the eastern Caribbean. Pages 334-	2011	Parsram, K. and P. McConney	Announcement of publication via personal email and CERMES Connections e-					

Project Title and number	Project Title and number:							
Types of Outputs	Title / Reference & Summary Description	Date of the output	Primary authors/ organizations responsible	Was this output disseminated? If yes, how? Please indicate what type of audiences have been reached (i.e. policy makers, researchers, others?	Location of the output  Please provide weblink if applicable			
	350. In R. Ommer, R.I. Perry, P. Cury and K. Cochrane (eds.). World Fisheries: A Social- Ecological Analysis. Wiley- Blackwell, Oxford, UK. 440pp.			mailing list.				
Thesis, essay, paper	Understanding marine resource governance in the eastern Caribbean from complex adaptive social-ecological systems and networks. PhD research.	In progress	Parsram, K.	Components of PhD research presented at conferences, meetings and workshops, and published as chapters in books or papers presented at conferences (see relevant output headings)				
	Improving governance of sea urchin fisheries in Barbados and St. Lucia by evaluating the potential of implementing adaptive co-management. PhD research.	In progress	Cox, S.	Components of PhD research presented at conferences, meetings and workshops, and published as chapters in books or papers presented at conferences (see relevant output headings)				

Project Title and number	Project Title and number:							
Types of Outputs	Title / Reference & Summary Description	Date of the output	Primary authors/ organizations responsible	Was this output disseminated? If yes, how? Please indicate what type of audiences have been reached (i.e. policy makers, researchers, others?	Location of the output  Please provide weblink if applicable			
Conference proceedings, speech, slide presentation	Marine Resource Governance in the eastern Caribbean: Papers, posters and presentations at the 64 <sup>th</sup> Gulf and Caribbean Fisheries Institute (GCFI), 31 October – 4 November 2011, Puerto Morelos, Mexico. CERMES MarGov Project Document 26. 54pp.	2012	CERMES	Online via MarGov project reports and compilations – wide audience	http://cermes.cavehill.uwi.edu/margov_profile.html			
	Communication between marine science and policy in the eastern Caribbean. Proceedings of the Gulf and Caribbean Fisheries Institute 63:406-410.	2011	Deane, L. and P. McConney.	Online – wide audience	www.gcfi.org			
	Fisheries governance in the eastern Caribbean: network and institutional perspectives on policy. Paper and presentation at the Centre for Maritime Research (MARE) Conference 2007 People and the Sea IV: 'Who Owns the Coast?' Amsterdam, 5 -7 July 2007. CERMES MarGov Project Document 3. Centre for Resource Management and Environmental Studies,	2007	McConney, P. and K. Parsram. 2007.	Online via MarGov project reports and compilations	http://cermes.cavehill.uwi.edu/margov_profile.html			

Project Title and num	Project Title and number:							
Types of Outputs	Title / Reference & Summary Description	Date of the output	Primary authors/ organizations responsible	Was this output disseminated? If yes, how? Please indicate what type of audiences have been reached (i.e. policy makers, researchers, others?	Location of the output  Please provide weblink if applicable			
	Barbados. 15 pp.							
	The development of a Caribbean regional network of fisherfolk organisations and its role in influencing fisheries policy. Proceedings of the Gulf and Caribbean Fisheries Institute 62: 298-305	2010	McIntosh, S., M. Lay, P. McConney and T. Phillips.	Online – wide audience	www.gcfi.org			
	A preliminary analysis of fisheries science networks in the eastern Caribbean. Proceedings of the Gulf and Caribbean Fisheries Institute 60:88-96	2008	Parsram, K.	Online – wide audience	www.gcfi.org			
	Social-ecological system interactions in small-scale fisheries: case studies of the large pelagic and shallow reef fisheries of Grenada and St. Lucia under construction. Proceedings of the Gulf and Caribbean Fisheries Institute 61:57-66.	2009	Parsram, K.	Online – wide audience	www.gcfi.org			
	People, issues and networks in small-scale fisheries in the eastern Caribbean. Proceedings of the Gulf and Caribbean Fisheries Institute 62:128-136.	2010	Parsram, K	Online – wide audience	www.gcfi.org			

<b>Project Title and nun</b>	Project Title and number:								
Types of Outputs	Title / Reference & Summary Description	Date of the output	Primary authors/ organizations responsible	Was this output disseminated? If yes, how? Please indicate what type of audiences have been reached (i.e. policy makers, researchers, others?	Location of the output  Please provide weblink if applicable				
	A research framework for examining the characteristics of networks that determine resilience and adaptability in marine resources governance in the English speaking eastern Caribbean. Proceedings of the Gulf and Caribbean Fisheries Institute 60: 668	2008	Parsram, K. and P. McConney.	Online – wide audience	www.gcfi.org				
	Institutional arrangements for local management of marine areas in the eastern Caribbean. Proceedings of the Gulf and Caribbean Fisheries Institute 63:267-273.	2011	Pena, M. and P. McConney.	Online – wide audience	www.gcfi.org				
	Fisher folk and fisheries scientists linking and learning together at GCFI, Punta Cana, Dominican Republic, 5-9 Nov 2007 (18 slides)	2007	CERMES and CRFM.	Meeting - regional fisheries scientists and fisherfolk					
	Governing small-scale fisheries through adaptive comanagement: The case of the Barbados sea urchin fishery. Oral presentation at the Caribbean Studies Association Annual Conference, Almond	2010	Cox, S.	Conference – regional fisheries scientists and professionals					

Project Title and nun	Project Title and number:							
Types of Outputs	Title / Reference & Summary Description	Date of the output	Primary authors/ organizations responsible	Was this output disseminated? If yes, how? Please indicate what type of audiences have been reached (i.e. policy makers, researchers, others?	Location of the output  Please provide weblink if applicable			
	Beach Hotel Resort, Barbados, 24-28 May 2010							
	The role livelihood strategies and outcomes play in adaptive co-management of the sea urchin fisheries in Barbados and St. Lucia. Poster presentation at the 64th Gulf and Caribbean Fisheries Institute, Puerto Morelos, Mexico, 31 Oct - 4 Nov 2011	2011	Cox, S. (presenter) and P. McConney.	Conference – regional and international fisheries scientists, professionals and stakeholders				
	Communication between marine science and policy in the eastern Caribbean. Poster presentation at the 63 <sup>rd</sup> Gulf and Caribbean Fisheries Institute, San Juan, Puerto Rico, 1-5 November 2010.	2010	Deane, L. and P. McConney.					
	MarGov Project Collaboration. Island Heritage Co. Ltd. 6 March 2008 (11 slides)	2008	Haynes, C.	Meeting – targeted MarGov project partners				
	A Communicative Planning Approach to Fisheries Management Planning. Poster presented at the 61st Gulf and Caribbean Fisheries Institute, 10-14 Nov 2008, Gosier,	2008	Haynes, C.	Conference – regional and international fisheries scientists, professionals and stakeholders				

<b>Project Title and nun</b>	Project Title and number:							
Types of Outputs	Title / Reference & Summary Description	Date of the output	Primary authors/ organizations responsible	Was this output disseminated? If yes, how? Please indicate what type of audiences have been reached (i.e. policy makers, researchers, others?	Location of the output  Please provide weblink if applicable			
	Guadeloupe.  Developing and applying a governance framework for large marine ecosystems Oral presentation at the Caribbean Studies Association Annual Conference, Almond Beach Hotel Resort, Barbados, 24-28 May 2010	2010	Mahon R.	Conference – regional fisheries scientists and professionals				
	Wider Caribbean Region Ocean Governance Lessons. Oral presentation at the Conference on Sustainable Oceans and the Eradication of Poverty in the Context of the Green Economy, Principality of Monaco, 28 – 30 November 2011	2011	Mahon, R. (presenter), L. Fanning and P. McConney.	Conference – international audience				
	National level interactions with regional organizations. Oral presentation at the Expert Consultation on Operationalisation of the Caribbean Sea Commission: Building a science-policy interface for ocean governance in the Wider Caribbean, UWI Cave Hill Campus, Barbados, 7-	2010	Mahon R., P. McConney (presenter), K. Parsram, B. Simmons, M. Didier, P. Goff, L. Fanning, R. Haywood and T. Shaw.	Conference – regional and international fisheries scientists and professionals				

<b>Project Title and num</b>	Project Title and number:							
Types of Outputs	Title / Reference & Summary Description	Date of the output	Primary authors/ organizations responsible	Was this output disseminated? If yes, how? Please indicate what type of audiences have been reached (i.e. policy makers, researchers, others?	Location of the output  Please provide weblink if applicable			
	9 July 2010							
	Engaging Public Policy in Marine Resource Governance: Cases from the Caribbean. Presented at the Society for Applied Anthropology 2008 Annual Meeting in Memphis, Tennessee, USA, 26-29 March 2008. (18 slides)	2008	McConney, P. 2008.	Conference – international audience				
	Marine Resource Governance in the Eastern Caribbean (MarGov Project). The Cropper Foundation Workshop towards integrated sustainable management of the Caribbean sea: identifying the research priorities and data gaps, Trinidad and Tobago, 10-11 March 2008 (12 slides)	2008	McConney, P.	Workshop – regional fisheries experts, researchers				
	Overview of MarGov project. PROGOVNET workshop, CERMES, 3 March 2008 (4 slides)	2008	McConney. P.	Workshop – regional fisheries experts, researchers, professionals				
	"Crossing the Caribbean: networks, resilience and adaptive capacity in marine resource governance". Paper	2008	McConney, P.	Conference – international audience				

Project Title and num	Project Title and number:							
Types of Outputs	Title / Reference & Summary Description	Date of the output	Primary authors/ organizations responsible	Was this output disseminated? If yes, how? Please indicate what type of audiences have been reached (i.e. policy makers, researchers, others?	Location of the output  Please provide weblink if applicable			
	presented at The Virginia Tech Symposium on Enhancing Resilience to Catastrophic Events through Communicative Planning, 16-18 November 2008, Blacksburg, Virginia, USA. (30 slides)							
	Fisheries governance in the Caribbean: from research to outcomes. Presented at the Ocean Management Research Network 2007 National Conference, Ottawa, Canada, 23-25 October 2007 (18 slides)	2007	McConney, P. and T. Phillips	Conference – international fisheries scientists and professionals				
	A network approach to understanding coastal management and governance of small scale fisheries in the eastern Caribbean, oral presentation at Coping with Global Change in Marine Social-Ecological Systems, Rome, 8-11 July 2008	2008	McConney, P. and K Parsram	Conference – international audience				
	Governance of fisheries and coastal resources with emphasis on tenure. Oral presentation at the FAO Regional Consultation	2010	McConney, P.	Conference – international audience				

<b>Project Title and num</b>	Project Title and number:							
Types of Outputs	Title / Reference & Summary Description	Date of the output	Primary authors/ organizations responsible	Was this output disseminated? If yes, how? Please indicate what type of audiences have been reached (i.e. policy makers, researchers, others?	Location of the output  Please provide weblink if applicable			
	on Voluntary Guidelines on Good Governance. Panama City, Panama, 6 - 8 September 2010							
	Fine-tuning failure: how to fail to succeed. Poster presentation at the 64th Gulf and Caribbean Fisheries Institute, Puerto Morelos, Mexico, 31 Oct - 4 Nov 2011	2011	McConney, P.	Conference – regional and international fisheries scientists				
	Strategic planning by fishers for capacity development. Oral presentation at the 63rd Gulf and Caribbean Fisheries Institute, San Juan, Puerto Rico, 1-5 November 2010	2010	McConney, P.	Conference – regional and international fisheries scientists and stakeholders	www.gcfi.org			
	Networks for effective marine resource governance in the Caribbean Oral presentation at the Fifth Global Conference on Oceans, Coasts, and Islands, Paris, France, 3-4 May 2010	2010	McConney, P., K. Parsram, R. Mahon, C. Haynes, S. Cox.	Conference – international audience				
	Fisheries networks in the Caribbean: some thinking and testing; S. Almerigi (presenter), T. Phillips, P. McConney and M. Lay. Building capacity in Caribbean fisher folk	2010	McConney, P., R Mahon, K Parsram, S Cox.	Conference – international audience				

<b>Project Title and num</b>	Project Title and number:							
Types of Outputs	Title / Reference & Summary Description	Date of the output	Primary authors/ organizations responsible	Was this output disseminated? If yes, how? Please indicate what type of audiences have been reached (i.e. policy makers, researchers, others?	Location of the output  Please provide weblink if applicable			
	organizations. Oral presentations at the World Small-Scale Fisheries Congress (WSFC), Bangkok, Thailand, 18-22 October 2010.							
	Globalization and marine resource governance in the Caribbean. Oral presentation at the 70th Annual Meeting of the Society for Applied Anthropology (SfAA), Merida, Mexico 24-28 March 2010	2010	McConney, P., R. Mahon, K. Parsram, C. Haynes and S. Cox	Conference – international audience				
	Divers and Networks in the Sea Egg Fishery of Grenada. Paper presented at 61 <sup>st</sup> Gulf and Caribbean Fisheries Institute, 10 - 14 November 2008, Gosier, Guadeloupe	2008	Nayar R., I. Davidson-Hunt, P. McConney and B. Davy.	Conference – regional and international fisheries scientists and stakeholders				
	MarGov PhD Research Component. PROGOVNET workshop, CERMES, 3 March 2008 (4 slides)	2008	Parsram, K.	Workshop – regional fisheries experts, researchers				
	Network Governance in the Fisheries for Large Pelagics in the Eastern Caribbean. Presented at the Society for Applied Anthropology 2008 Annual	2008	Parsram, K.	Conference - international				

<b>Project Title and num</b>	Project Title and number:							
Types of Outputs	Title / Reference & Summary Description	Date of the output	Primary authors/ organizations responsible	Was this output disseminated? If yes, how? Please indicate what type of audiences have been reached (i.e. policy makers, researchers, others?	Location of the output  Please provide weblink if applicable			
	Meeting in Memphis, Tennessee, USA, 26-29 March 2008. (18 slides)							
	A research framework for examining the characteristics of networks that determine resilience and adaptability in marine resource governance in the English speaking eastern Caribbean. Presented at GCFI, Punta Cana, Dominican Republic, 5-9 Nov 2007. Poster	2007	Parsram, K. and P. McConney.	Conference – regional and international fisheries scientists and stakeholders	www.gcfi.org			
	A network approach to understanding coastal management and governance of small scale fisheries in the eastern Caribbean. International Social Network Analysis Conference (Sunbelt XXVIII) St Petersburg, Florida, 21-28 January 2008. Poster	2008	Parsram, K. and P. McConney	Conference – international audience				
	Research framework used in a project on Marine Resource Governance in the Eastern Caribbean (MarGov). Oral presentation at the Caribbean Studies Association Annual	2010	Parsram, K. and P. McConney.	Conference – regional fisheries scientists and professionals				

<b>Project Title and numb</b>	er:				
Types of Outputs	Title / Reference & Summary Description	Date of the output	Primary authors/ organizations responsible	Was this output disseminated? If yes, how? Please indicate what type of audiences have been reached (i.e. policy makers, researchers, others?	Location of the output  Please provide weblink if applicable
	Conference, Almond Beach Hotel Resort, Barbados, 24-28 May 2010				
	Outcomes and experiences from a small grant scheme in support of marine resource governance. Oral presentation at the 64th Gulf and Caribbean Fisheries Institute, Puerto Morelos, Mexico, 31 Oct - 4 Nov 2011	2011	Pena, M. (presenter) and P. McConney.	Conference – regional and international fisheries scientists and stakeholders	www.gcfi.org
	A Caribbean Regional Network of National Fisherfolk Organizations. Poster presented at the 61st Gulf and Caribbean Fisheries Institute, 10-14 Nov 2008, Gosier, Guadeloupe.	2008	Tabet, L. and T. Phillips	Conference – regional and international fisheries scientists and stakeholders	
Manual, curriculum, training material	Communication strategy. Caribbean Network of Fisherfolk Organisations. Antigua. 4pp.	2011	CNFO	Online and via email - MarGov project document	http://cermes.cavehill.uwi.edu/margov_profile.html
	Communication strategy and plan Revision 3. CERMES MarGov Project Document 2 (Rev. 3). 15 pp	2010	Deane, L. and P. McConney	Online and via email  – MarGov project document	http://cermes.cavehill.uwi.edu/margov_profile.html
	Communication strategy and plan Revision 2. CERMES MarGov Project Document 2	2007	Haynes, C., K. Parsram, and P. McConney. 2007.	Online and via email  – MarGov project document	http://cermes.cavehill.uwi.edu/margov_profile.html

Project Title and num	nber:				
Types of Outputs	Title / Reference & Summary Description	Date of the output	Primary authors/ organizations responsible	Was this output disseminated? If yes, how? Please indicate what type of audiences have been reached (i.e. policy makers, researchers, others?	Location of the output  Please provide weblink if applicable
	(Rev. 2). 14 pp.			,	
	Communication strategy and plan. CERMES MarGov Project Document 2. Centre for Resource Management and Environmental Studies, Barbados 9 pp.	2007	Roach, D., K. Parsram and P. McConney	Online and via email  – MarGov project document	http://cermes.cavehill.uwi.edu/margov_profile.html
Photograph, film	The Decline of the Sea Egg Fishery in Barbados (24 min; Dec 2011)	2011	CERMES	Online and via email to project partners and participants	http://cermes.cavehill.uwi.edu/margov_profile.html
	MarGov project highlighted on "Science, Technology & You" which showed on SVG TV, Channel 9 on 17 January 2009, produced by Philip Jackson, Science and Technology Coordinator, SVG government	2009		Television programme – general audience	
	Regional panel discussion on "Communication between marine science and marine policy in the Caribbean, is there a problem?" Abridged video (10 mins), extended video (30 mins)	2010		Online and via email to project partners and participants	http://cermes.cavehill.uwi.edu/margov_profile.html
	FU Peters PSA for Grenada marine protected areas	2010		Public service announcement – general audience	
	Marc Williams and Peter Murray	2011		Radio show – general	

Project Title and number:							
Types of Outputs	Title / Reference & Summary Description  on SKN radio	Date of the output	Primary authors/ organizations responsible	Was this output disseminated? If yes, how? Please indicate what type of audiences have been reached (i.e. policy makers, researchers, others? audience	Location of the output  Please provide weblink if applicable		
Scoping study,	On SKN radio			audience			
exploratory report  Evaluation report	First Technical Progress Report 1 March 2007–31 August 2007. CERMES MarGov Project Document 5. Centre for Resource Management and Environmental Studies, Barbados. 6 pp.	2007	CERMES	Online – wide audience	http://cermes.cavehill.uwi.edu/margov_profile.html		
	Third Technical Progress Report 1 March 2008–28 February 2009. CERMES MarGov Project Document 13. 10 pp.	2009	CERMES	Online – wide audience	http://cermes.cavehill.uwi.edu/margov_profile.html		
	Fourth Technical Progress Report 1 March 2009– 28 February 2010. CERMES MarGov Project Document 15. 8 pp.	2010	CERMES	Online – wide audience	http://cermes.cavehill.uwi.edu/margov_profile.html		
	Fifth Technical Progress Report 1 March 2010– 28 February 2011. CERMES MarGov Project Document 18. 8 pp.	2011	CERMES	Online – wide audience	http://cermes.cavehill.uwi.edu/margov_profile.html		
Websites, social media (Facebook, twitter), multimedia (Youtube, others)	CERMES pages for MarGov project				http://cermes.cavehill.uwi.edu/margov_profile.html		

Project Title and number:							
Types of Outputs	Title / Reference & Summary Description	Date of the output	Primary authors/ organizations responsible	Was this output disseminated? If yes, how? Please indicate what type of audiences have been reached (i.e. policy makers, researchers, others?	Location of the output  Please provide weblink if applicable		
Media coverage. Articles in local or international media	Fisherfolk want more say in policy matters. Find this article at: http://www.caribbean360.com/News/Caribbean/Stories/2009/01 19/NEWS0000006813.html	2009	Haynes, C.	Online – general audience			
	Bridging the fishing gap. <i>Sunday Sun</i> , 21 September 2008, 38A.  Fisherfolk learn to effectively communicate. <i>Barbados Advocate</i> , 26 March 2008, 4.	2008	Haynes, C. Goodman, K.	Newspaper – general audience Newspaper – general audience			
	Public must be informed about marine resources. <i>Barbados Advocate</i> , 23 May 2008	2008	Cox, N.	Newspaper – general audience			
	CERMES being praised for its communication workshop."  Barbados Advocate, 30 April 2008.	2008	Haynes, C.	Newspaper – general audience			
	Sol partnering with MarGov for better marine governance across the region. <i>Barbados Advocate</i> , 29 June 2008	2008	Henry, O.	Newspaper – general audience			
	Three-way link up on marine project. <i>Barbados Business Authority</i> , 26 May 2008	2008	Haynes, C.	Newspaper – general audience			
	Fisheries sector gets major boost. <i>Daily Nation</i> , 23	2008	Haynes, C.	Newspaper – general audience			

Project Title and nun	nber:				
Types of Outputs	Title / Reference & Summary Description	Date of the output	Primary authors/ organizations responsible	Was this output disseminated? If yes, how? Please indicate what type of audiences have been reached (i.e. policy makers, researchers, others?	Location of the output  Please provide weblink if applicable
	September 2008, 14.				
	Cross-border breaks seen for fisherfolk. <i>Daily Nation</i> , 4 April 2008, 3.	2008	Haynes, C.	Newspaper – general audience	
	Three-way link up on marine project: Money media services donated. <i>Nation Newspaper</i> , 3 June 2008, Community Section	2008	Hanton, A.	Newspaper – general audience	
Others					

#### ANNEX 4 – TEMPLATE FOR AFS RESEARCH OUTPUT TITLE AND ABSTRACT PAGE

Each research output submitted to IDRC must include a title page, abstract, and keywords. The kind of information that should be included is listed below. Items marked with an asterisk (\*) are particularly important and **must** appear. A blank title and abstract page follows.

\*Title:

**Subtitle:** 

**\*By:** Full Name(s) of Author(s)

**Report Type:** e.g., Final technical report, workshop report, research paper, research study, etc.

\*Date:

Published by: Full Name of Publisher

Location: Name of Place of Publication

**Series Name:** 

**Number of Series part:** 

\*IDRC Project Number, and component number (if applicable):

\*IDRC Project Title:

\*Country/Region: Country(ies) or region(s) where project was carried out

\*Full Name of Research Organization:

\*Address of Research Organization:

\*Name(s) of Researcher/Members of Research Team:

\*Contact Information of Researcher/Research Team members:

\*This report is presented as received from project recipient(s). It has not been subjected to peer review or other review processes.

\*Abstract: Research outputs should include an abstract of 150-200 words specifying the issue under investigation, the methodology, major findings, and overall impact.

\*Keywords: Include up to six subject keywords separated by commas..

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#### ANNEX 4 - AFS RESEARCH OUTPUT INFORMATION FOR SELECTED DOCUMENTS

\*Title: Report of the Workshop on the application of resilience thinking to fisheries governance in the Eastern Caribbean, 1-2 September 2010, UWI Cave Hill Campus, Barbados.

Subtitle: --

\*By: L. Deane, M. Pena and P. McConney

Report Type: workshop report

\***Date:** 2010

Published by: Centre for Resource Management and Environmental Studies

Location: The University of the West Indies, Cave Hill Campus, Barbados

Series Name: CERMES Technical Report

Number of Series part: No. 32

\*IDRC Project Number, and component number (if applicable): 103946-001

\*IDRC Project Title: Coastal and Marine Resource Governance Programme (Caribbean)

\*Country/Region: Eastern Caribbean

\*Full Name of Research Organization: Centre for Resource Management and Environmental Studies

\*Address of Research Organization: The University of the West Indies, Cave Hill Campus, Barbados

\*Name(s) of Researcher/Members of Research Team: P. McConney, R Mahon, L. Deane, M. Pena

\*Contact Information of Researcher/Research Team members: patrick.mcconney@cavehill.uwi.edu

\*This report is presented as received from project recipient(s). It has not been subjected to peer review or other review processes.

### \*Abstract:

The Workshop on the Application of Resilience Thinking to Fisheries Governance in the Eastern Caribbean was held from 1-2 September 2010 at the Solutions Centre of the UWI Cave Hill Campus in Barbados. CERMES hosting was in collaboration with the Caribbean Regional Fisheries Mechanism (CRFM) and the Environment and Sustainable Development Unit (ESDU) of the Organisation of Eastern Caribbean States (OECS). These two sub-regional organizations have been close partners of the MarGov project from its inception. The workshop for fisheries authority senior personnel covered the concepts associated with resilience thinking applied to marine resource governance. It showcased the research being done by the project's graduate students and allowed the fisheries officers to make recommendations for the completion of the project. These recommendations included capacity building at the national level on applying resilience concepts to the practical aspects of fisheries governance. Workshops to achieve this were subsequently implemented.

\*Keywords: fisheries, governance, marine, resilience, resources

\*Title: Fisheries management planning for the Grenada sea urchin fishery

Subtitle: --

\*By: P.E. Phillip and C. J. Isaac

Report Type: research report

**\*Date:** 2010

Published by: Centre for Resource Management and Environmental Studies

Location: The University of the West Indies, Cave Hill Campus, Barbados

Series Name: CERMES Technical Report

Number of Series part: No. 41

\*IDRC Project Number, and component number (if applicable): 103946-001

\*IDRC Project Title: Coastal and Marine Resource Governance Programme (Caribbean)

\*Country/Region: Eastern Caribbean

\*Full Name of Research Organization: Centre for Resource Management and Environmental Studies

\*Address of Research Organization: The University of the West Indies, Cave Hill Campus, Barbados

\*Name(s) of Researcher/Members of Research Team: P. McConney, R Mahon, L. Deane, M. Pena

\*Contact Information of Researcher/Research Team members: patrick.mcconney@cavehill.uwi.edu

\*This report is presented as received from project recipient(s). It has not been subjected to peer review or other review processes.

## \*Abstract:

The depletion of sea urchins around Grenada, caused mainly by heavy commercial fishing for an export market, prompted the closure of the fishery by the government over a decade ago. Since then there has been continuous illegal harvest and only modest recovery of urchin populations. This pattern is quite similar to that of the fisheries in Barbados and St. Lucia where the closures have not been for as long a period, but the fisheries have not been sustainable either. Pressure from resource users for the fisheries authority to open the fishery increased in 2008. Partly in response to this, but mainly as a continuance of its fisheries governance strategy, the Fisheries Division initiated a process for the participatory development of a fisheries management plan for the sea urchin fishery that would apply whether the fishery was opened or not. From April 2008 to mid-2009 there were surveys at sea to determine urchin distribution and abundance, workshops and meetings to share results with fishers and involve them in planning, and sessions of drafting followed by public consultation. This paper reports on the fisheries management planning process which may provide lessons applicable to similar situations..

\*Keywords: fisheries, governance, Grenada, marine, sea urchin

\*Title: Governing fisheries as complex adaptive systems

Subtitle: --

\*By: Robin Mahon, Patrick McConney, Rathindra N. Roy

Report Type: journal article

**\*Date:** 2008

Published by: Elsevier Ltd

Location: Oxford, UK

Series Name: Marine Policy

Number of Series part: Vol 32

\*IDRC Project Number, and component number (if applicable): 103946-001

\*IDRC Project Title: Coastal and Marine Resource Governance Programme (Caribbean)

\*Country/Region: Eastern Caribbean

\*Full Name of Research Organization: Centre for Resource Management and Environmental Studies

\*Address of Research Organization: The University of the West Indies, Cave Hill Campus, Barbados

\*Name(s) of Researcher/Members of Research Team: P. McConney, R Mahon, L. Deane, M. Pena

\*Contact Information of Researcher/Research Team members: patrick.mcconney@cavehill.uwi.edu

\*This report is presented as received from project recipient(s). It has not been subjected to peer review or other review processes.

#### \*Abstract:

Fisheries are complex human-in-nature systems. The conventional approach to fisheries systems has been to treat them as predictable and controllable. As complex systems they are neither of the two and have to be approached differently. Complex systems often exhibit the capacity to self-organize or adapt, even without outside influence. If this is true of fisheries, it should lead to a radically different approach to management of fisheries systems that places much emphasis on enabling self-organization, learning and adaptation. Conceptual and practical frameworks for enabling activities are needed.

\*Keywords: Complexity; Small-scale fisheries; Adaptation; Learning systems; Fisheries management

\*Title: Fisheries networks in the Caribbean.

Subtitle: --

\*By: P. McConney, R. Mahon, K. Parsram and S. Cox.

Report Type: book chapter

**\*Date:** 2011

Published by: Eburon Academic Publishers

**Location:** Delft, The Netherlands.

Series Name: Book title R. Chuenpagdee [ed.] World Small-Scale Fisheries Contemporary Visions

Number of Series part: Pages 273-284

\*IDRC Project Number, and component number (if applicable): 103946-001

\*IDRC Project Title: Coastal and Marine Resource Governance Programme (Caribbean)

\*Country/Region: Eastern Caribbean

\*Full Name of Research Organization: Centre for Resource Management and Environmental Studies

\*Address of Research Organization: The University of the West Indies, Cave Hill Campus, Barbados

\*Name(s) of Researcher/Members of Research Team: P. McConney, R Mahon, L. Deane, M. Pena

\*Contact Information of Researcher/Research Team members: patrick.mcconney@cavehill.uwi.edu

\*This report is presented as received from project recipient(s). It has not been subjected to peer review or other review processes.

## \*Abstract:

Emerging governance frameworks conceptualize, describe and analyze fisheries networks in the Caribbean from local to regional levels. They aim to better understand and manage such networks. How useful these frameworks will be for practical application in improving fisheries governance is a key issue. Creating enabling policy environments, facilitating self-organization, managing networks, using social science skills, partnering with the private sector and civil society, learning-by-doing, adaptive management, and grappling with uncertainty are all necessary changes in the institutional arrangements for fisheries. We present some ideas and approaches that may be useful in developing practical applications from the conceptual frameworks. We discuss how interdisciplinary research may advance this process in small-scale fisheries governance.

\*Keywords: Caribbean, governance, small scale fisheries, social network analysis

\*Title: A network approach to understanding coastal management and governance of small scale fisheries in the eastern Caribbean

Subtitle: --

\*By: Kemraj Parsram and Patrick McConney

Report Type: book chapter

\*Date: 2011

Published by: Wiley-Blackwell

Location: Oxford, UK

Series Name: Book title R. Ommer, R.I. Perry, P. Cury and K. Cochrane (eds.). World Fisheries: A Social-

**Ecological Analysis** 

Number of Series part: Pages 334-350

\*IDRC Project Number, and component number (if applicable): 103946-001

\*IDRC Project Title: Coastal and Marine Resource Governance Programme (Caribbean)

\*Country/Region: Eastern Caribbean

\*Full Name of Research Organization: Centre for Resource Management and Environmental Studies

\*Address of Research Organization: The University of the West Indies, Cave Hill Campus, Barbados

\*Name(s) of Researcher/Members of Research Team: P. McConney, R Mahon, L. Deane, M. Pena

\*Contact Information of Researcher/Research Team members: patrick.mcconney@cavehill.uwi.edu

\*This report is presented as received from project recipient(s). It has not been subjected to peer review or other review processes.

#### \*Abstract:

In the eastern Caribbean, many people depend on the good governance of fisheries and other marine resources for their livelihoods and for development to be sustainable. The governance of small-scale fisheries in the eastern Caribbean often lacks the interactions among stakeholders needed to sustain fisheries management. There is an urgent need to understand networks in the governance of these fisheries without claiming that they are necessarily good or bad. Small, low status government fisheries units often have tenuous links to public sector policy and resource users. Other stakeholders, such as in tourism, may be more connected to policy, marginalizing small-scale fisheries even in the context of integrated coastal management. Network analysis has been applied to both social systems and ecological systems, but much less to social-ecological systems. We use cases of coastal and fisheries networks in the Caribbean to investigate and seek to understand the governance of social-ecological systems in the eastern Caribbean and their capacity to adapt.

\*Keywords: Caribbean, coastal, governance, small scale fisheries, social network analysis

# ANNEX 5 – GRADUATE STUDENT INFORMATION

# Add more rows as needed for each student.

Surname	Given name	Gender	Organization	Department	Country of research	Degree pursued	Title of Thesis	Date expected
Parsram	Kemraj	M	The University of the West Indies	Centre for Resource Management and Environmental Studies (CERMES)	Grenada	PhD	Fisheries governance in Grenville Grenada: Networks and resilience in a social- ecological system	October 2013
Grant	Tenile	F			Barbados	MPhil	National level network governance (temporary working title only)	Deceased
Cox	Shelly-Ann	F			Barbados and Saint Lucia	MPhil upgraded in 2010 to PhD	Conditions for establishing and sustaining adaptive comanagement of the sea urchin fisheries in Barbados and St. Lucia	October 2013