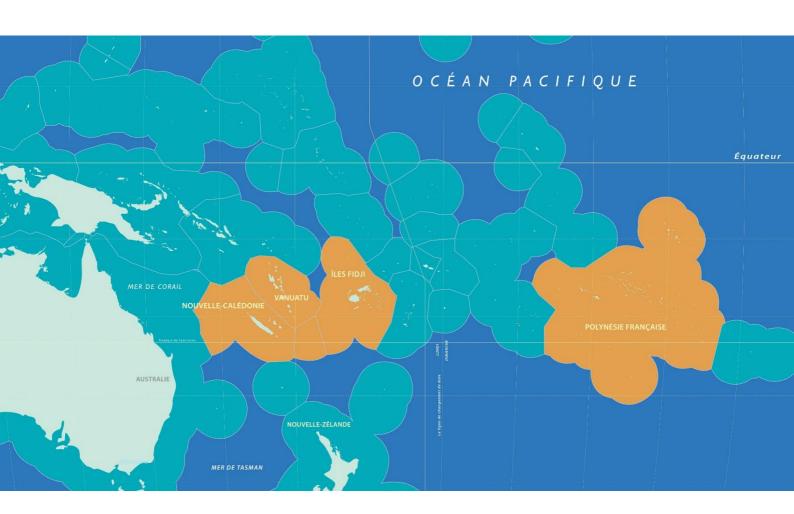




The RESCCUE Approach







Authorship

Raphaël Billé and Jean-Baptiste Marre wrote this paper but many ideas have been appropriated and sections copied and pasted from the November 2014 and July 2015 meeting documents.

Main redactor(s)/Contributor(s)	Date of publication
Raphaël Billé and Jean-Baptiste Marre	July 2015

Citation

Billé R, Marre JB (Eds). 2015. The RESCCUE approach. RESCCUE working paper, SPC, Noumea.

Disclaimer

The views expressed are the sole responsibility of the authors and do not necessarily match those of SPC, AFD, FFEM or participants to the experts meeting on project approach and methodology.

Why this paper?

Piloting the implementation of approaches and tools such as integrated coastal management, adaptation to climate change, economic valuations and innovative financial mechanisms, that have rarely been put into practice or combined – even less so in coastal areas and in the Pacific – is not straightforward. The RESCCUE team recognizes the need to be modest in the face of:

- The complexity, multiplicity and interconnections of several areas of expertise that are each quickly evolving which is both a RESCCUE strength and challenge;
- The strong divides that exist between experts in emerging fields such as economic valuations and innovative financial mechanisms, including on what works or does not work in practice;
- The many different possible approaches to these areas most of which perfectly legitimate and grounded in science and experience.

This paper hence provides clarifications on key concepts of relevance to RESCCUE, and how to deal with them in pilot sites activities. In a nutshell, it defines the "RESCCUE approach".

What is this paper?

It is based on the RESCCUE team's own inputs as well as on some key references from the literature, including especially the six papers that were commissioned to prepare the RESCCUE experts meeting on project approach and methodology (SPC, Noumea, 24-28 November 2014) as well as the 2nd Regional Steering Committee meeting (SPC, Noumea, 21-22 July 2015). It also draws extensively on discussions held during these meetings and is one of their core outputs. Invited experts therefore need to be warmly thanked: Yolaine Bouteiller, James Comley, François Devinck, Hugh Govan, John Hay, Paula Holland, Laurent Mermet, Nicolas Pascal, Jan Steffen and Caroline Vieux. Special thanks also go to all steering committee members for their inputs in the discussions on the contribution of RESCCUE to adaptation to climate change.

Objective

The objective is to ensure that RESCCUE activities start on technically robust ground, and to ensure operators are guided on key project concepts, approaches and methodologies from the very beginning of their activities. This is needed both to ensure coherence in project implementation across pilot sites, and to lead to strong capitalization and dissemination outputs e.g. through publications of doctrine and guideline documents for SPC, AFD, FFEM and other interested agencies. The primary target audience of this paper is RESCCUE's operators, but it is also made for all RESCCUE partners be they national governments and administrations, donor agencies, project teams, etc.

The intention is to be specific and operational enough to define a consistent RESCCUE approach and be directly useable by partners in the field, while being general enough to let such partners adapt to national and pilot sites circumstances and policies, and to contribute their own knowhow, experience and expertise. After project activities start on the ground in 2015, such a paper is bound to be regularly debated and updated to account for field realities and lessons learnt, until it is eventually finalized towards the very end of the project – probably in a different format.

While there is no reason to impose a huge quantity of readings on operators, **reading and appropriating this paper and its appendices (i.e. the six above-mentioned papers)**, is necessary for operators if the project is to be more than a collection of pilots. References include useful complements for interested readers.

TABLE OF CONTENTS

1.	Inti	oduc	tion: the RESCCUE journey	5
	1.1.	Pro	ject objectives	5
	1.2.	Brie	ef project overview	5
	1.3.	The	RESCCUE theory of change	6
	1.4.	Opp	oortunities, challenges, and risks	7
	1.4	1.	An innovative project	7
	1.4	2.	Opportunities	8
	1.4.3.		Challenges	8
	1.4	4.	Risks	9
2.	inte	egrate	ed coastal management (ICM)	9
	2.1.	Nar	nes matter to some extent	9
	2.2.	ICM	as a way and an objective, not a procedure	9
	2.3.	Geo	graphical coverage of ICM	9
	2.4.	The	environmental dimension of ICM	10
	2.5.	ICM	l, sectors and governance	10
3.	Ada	ptati	on to climate change	10
	3.1.	Syn	ergies between ICM and ACC	11
	3.2.	ACC	and ecosystems protection	12
	3.3.	Rec	ommendations to design ACC solutions	12
4.	Eco	nom	ic analysis	10
	4.1.	A d	emand-driven approach	14
	4.2.	Rec	ommendations on conducting economic analysis within RESCCUE	16
5.	Eco	nom	ic and financial mechanisms	17
	5.1.	Med	chanisms considered in RESCCUE	17
	5.2.		ottom-up classification of economic and financial mechanisms for the RESC	
	5.3.		sting institutions and dynamics	
	5.4.		three Es": Effectiveness, Efficiency and Equity	
	5.4.		Effectiveness	
	5.4.			
			Efficiency	
_	5.4.		Equity	
6.			articipation in decision making	
	6.1.		indamental tension: participation as an end in itself or a means to an end	
	6.2.6.3.		endency for public action situations to become more complex	
	6.4.		nging procedures and practices to change power relations	
	6.5.		o participates? The question of the public, from citizens to international NGOs	
7			reloping individual and organizational capacities	
7.	1 116	: biio	t approach: Sustainability and replicability in time and space	∠ /

1. Introduction: the RESCCUE journey

1.1. Project objectives

The Resilience of Ecosystems and Societies to Climate Change (RESCCUE) project is a regional project implemented by the Secretariat of the Pacific Community.

The overall goal of RESCCUE is to contribute to increasing the resilience of Pacific Island Countries and Territories (PICTs) in the context of global changes. To this end RESCCUE aims at supporting adaptation to climate change (ACC) through integrated coastal management (ICM), resorting especially to economic analysis and economic and financial mechanisms.

Alongside this overall objective at the regional level, RESCCUE has specific objectives at pilot sites level:

- Develop **integrated coastal management** planning practice and pilot implementation;
- Strengthen the **use of economic analysis** for integrated coastal management;
- Ensure **economic and financial sustainability** of integrated coastal management;
- Facilitate **learning, dissemination and replication** of experiences gained from pilot sites.

Each of these specific objectives has corresponding expected outcomes that are detailed in the logical framework (logframe) of the project. Each outcome is to be assessed through proposed indicators, given specific risks and assumptions, and is associated with activities and means of verification.

1.2. Brief project overview

The RESCCUE project operates on one to two pilot sites in four countries and territories: Fiji, New Caledonia, French Polynesia, and Vanuatu.

It is structured around five components:

- **Component 1: Integrated coastal management -** supporting ICM implementation through ICM plans, ICM committees, management activities concerning both terrestrial and marine ecosystems, capacity building and income generating activities.
- **Component 2: Economic analysis -** using economic analysis to support coastal management and policy decisions.
- **Component 3: Economic and financial mechanisms** setting up economic and financial mechanisms to generate additional and sustainable funding for ICM: review of options (payment for ecosystem services, taxes, user fees, trust funds, quota markets, offsets, labels...); feasibility studies; implementation; monitoring.
- Component 4: Capitalization, communication, dissemination of project outcomes in the Pacific going beyond pilot sites activities in order to have impacts at the regional level, by fostering experience sharing between sites, cross-sectoral expertise, and communication and dissemination of the project outcomes.
- **Component 5: Project management –** implementing and coordinating the project, by providing technical assistance, organizing local and regional steering committees, conducting audits and evaluations (mi-term and ex-post), etc.

RESCCUE is funded primarily by the French Development Agency (AFD) and the French Global Environment Facility (FFEM) for a duration of five years (01/01/2014-31/12/2018). It is implemented by SPC, and is based on implementing agreements signed between SPC and

governments and administrations of the four countries and territories. Together, SPC and the governments/administrations contract one so-called "operator" in each country for the operational implementation of activities. The operators consist of consultancies, civil society and research organisations and are selected through Requests for Proposals. Figure 1 illustrates the organisation of the project.

Two levels of steering committees are set up for good governance:

- A regional steering committee, convened once a year, chaired by SPC with representatives of the 5 partner executing agencies, the 5 operators, the Secretariat of the Pacific Regional Environment Programme (SPREP), the University of the South Pacific (USP) and AFD;
- National/provincial steering committees, convened twice a year, with the national executing agency chairing, SPC, the operator, relevant sectoral administrations and AFD. These committees mainly aim at guiding and monitoring the work of the operators.

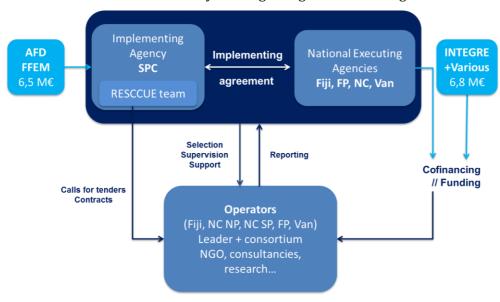


Figure 1. RESCCUE organisational chart

1.3. The RESCCUE theory of change

RESCCUE catalyses changes in public policies and in stakeholders' behaviours on the ground to better protect ecosystems, increase their resilience and that of the populations who depend on them for their livelihoods, with specific attention being paid to gender issues. This is done through very tangible activities as well as technical assistance, transfer of knowledge and capacity-building.

The theory of change promoted by RESCCUE rests upon a pragmatic and critical approach, fully directed towards clearly identified management demands to strengthen environmental protection for the benefit of Pacific people. As demands build upon commitments from governments and other stakeholders, identifying such commitments – or the lack thereof – is essential. This includes not only commitments to the project implementation, but a much broader range of substantial commitments to sustainability, which translate in practice through human and financial resources allocated, sectoral policies, law enforcement efforts etc. Such commitments form a favourable environment for field activities, policy advice or new financial mechanisms to generate significant, tangible and sustained outcomes.

RESCCUE is an **operational** project, not a study or research project: once environmental issues and management needs are identified, it aims at **designing** *and* **implementing actions** to answer those needs, resorting to best available science and experience, as well as **participatory**

approaches. While studies and research will inevitably be conducted within RESCCUE, they will directly match policy or management needs. This means that **changes**, be it in people's practices and activities, in public policies and instruments, and in the state of pilot sites' coastal areas, **must be observed** before the end of the project **and be sustained** beyond 2018.

RESCCUE focuses on the key threats to the coastal zone as defined by an appropriate level of participation of most affected stakeholders as opposed to a wider casting of the net to include all possible minor threats. In particular, harvesting 'low hanging fruit' i.e. issues that are obvious, defined and have a sectoral solution that can be implemented quickly with minimal resource needs allows demonstrating success with the benefit of reinforcing involvement of all stakeholders to challenge some larger and more complex issues.

RESCCUE promotes a **strategic use of the economics toolbox** as a change engine. This includes economic analysis and economic and financial instruments. This toolbox complements a more classical range of approaches and techniques such as strategic and spatial planning, protected areas, public participation, ecological restauration/rehabilitation, community-based conservation-oriented activities (e.g. pilot farms, agroforestry), education and awareness raising, capacity building etc.

Last, the pilot sites approach is at the core of RESCCUE's project and theory of change. A pilot is an action undertaken by one or more public and/or private stakeholders in order to test novel practices or technologies. Its main characteristic is to be implemented on a smaller scale than that of the ultimate objective: local scale for national objectives, pilot farms for watershed-wide objectives, etc.

1.4. Opportunities, challenges, and risks

RESCCUE presents several features that make it an innovative project, which brings opportunities, challenges and risks.

1.4.1. An innovative project

The RESCCUE project is innovative in several respects.

- i. First, it promotes a dual objective: increasing resilience and enabling climate change adaptation (CCA) by supporting ICM implementation.
- ii. Second, it is closely connected to other ICM projects funded by different donors on common but also different sites, and on different timeframes (EU-funded INTEGRE¹, the SPC/GIZ CCCPIR², EU funded GCCA: PSIS³, BMU-funded MACBIO⁴, ADB-funded CTP⁵, GEF-funded R2R⁶...). Strong synergies are to be sought.
- iii. Third, RESCCUE seeks to develop, utilize and refine economic and financial toolboxes to achieve its stated goal and sustain progress made, including especially economic analyses and innovative financial mechanisms. While both already have a few decades of history in research and practice, they are still widely considered to be at an experimental stage and their application to coastal management is in its infancy (Holland, 2014; Agardy and Pascal, 2014).

7

¹ Initiative des Territoires pour la Gestion Régionale de l'Environnement

² Coping with Climate Change in the Pacific Island Region

³ Global Climate Change Alliance: Pacific Small Island States

⁴ Marine and Coastal Biodiversity Management in Pacific Island Countries and Atolls

⁵ Coral Triangle Project

⁶ Ridge-to-Reef

iv. Fourth, the project is organized in such a way that national governments and administrations define policies, strategies and objectives, supervise implementation, but do not directly manage finances.

1.4.2. Opportunities

This provides many opportunities, among which:

- Piloting the implementation of approaches and tools (ICM, CCA, economic valuations and innovative financial mechanisms) that have rarely been put into practice or combined even less so in the Pacific;
- Developing context-based approaches using a comprehensive tool-box, given the potentially very wide range of economic analyses and instruments available;
- Reaching out to segments of society (particularly decision-makers and stakeholders) with economic-based arguments, tools and approaches that hold more traction with those less inclined towards more "traditional" environmental, biodiversity or conservation arguments and ICM policies and projects;
- Directly addressing sustainability issues in the project design by setting up innovative and sustainable financial mechanisms;
- Building bridges between French overseas territories and their Pacific neighbours, and increasing regional integration and cooperation.

1.4.3. Challenges

Each of the above innovations also raises its own series of challenges:

- i. Links between ICM and CCA is not always obvious, although in general it is assumed that more integrated coastal management contributes to building resilience to climate change. Much experience and literature are available but the way in which CCA may be practically embedded within an ICM project like RESCCUE must be further clarified through field activities.
- ii. Ensuring an efficient partnership between RESCCUE and other parallel development cooperation projects mentioned above is an absolute necessity given their inter-dependence and complementarity, however some differences in approach, geographic scope, governance mechanisms, timeframe, will require regular and flexible dialogue and planning.
- iii. Economic valuations and innovative financial mechanisms need to be usefully harnessed to support ICM implementation. This is challenging for several reasons:
 - Economic valuations have seldom been used for decision / policy making so far (Laurans et al., 2013; Marre et al., 2015; Waite et al., 2015);
 - Innovative financial mechanisms have not yet lived up to expectations in terms of scaling up efforts and results, and generating significant additional funding for biodiversity conservation;
 - RESCCUE pilot sites have been chosen for a variety of reasons but not necessarily because they were deemed suited to the implementation of such tools. These mechanisms hence need to be developed without introducing an unnecessary degree of complexity or locally inappropriate methods.

In addition, while the pilot sites approach developed by RESCCUE is not new, it should be noted that there is a mixed track-record of the pilot-site theory of change effectively leading to replication and more systemic changes. The challenge here is to make RESCCUE a truly regional project, with widely applicable knowledge and lessons, rather than a collection of stand-alone pilot initiatives (Billé, 2014).

1.4.4. Risks

Some risks are associated with such challenges, which deserve to be mentioned so as to be avoided:

- National partner administrations should not be weakened by the project workload, but instead strengthened along the way;
- There is a risk that recommendations are made, tools are promoted, economic valuations are conducted, but decision-makers do not take them into account and no economic instrument is actually upscaled;
- There is also a risk that tools be taken for objectives, with the project being perceived as "selling" particular (economic) approaches that do not fit specific contexts and needs.
- Climate change adaptation can sometimes be perceived as a marketing catchphrase only, while the project must effectively address the negative impacts of climate change and creatively seize any opportunity to do so.
- While operators will necessarily have a certain degree of autonomy, they should not become uncontrolled businesses. On-sites activities must match national and project objectives, and be coherent.
- Finally, there is always a risk that great things happen on-sites but remain unknown so that lessons are not learnt and pilot sites remain isolated "islands of innovation", instead of generating more systemic changes either nationally or regionally.

2. INTEGRATED COASTAL MANAGEMENT (ICM)

2.1. Names matter... to some extent

The key tenets of Integrated Coastal Management have been at the core of a plethora of projects in the Pacific in recent times. With the range of projects has come a diverse range of terms used to describe them, such as ecosystem-based management, integrated island management, ridge-to-reef management etc.

The name given for Integrated Coastal Management under RESCCUE in a given PICT must respect if there is already a named process contained in national policy or legislation. At the regional level, ICM (*GIZC* in French) is preferred since it is deemed to be the most general one.

2.2. ICM as a mean and an end, not a procedure

ICM is both the way by which RESCCUE intends to contribute to increasing Pacific societies' and ecosystems' resilience to climate change, and the objective – that management be integrated. ICM is not understood here as a pre-conceived procedure or protocol to follow, but an objective (or a "utopian horizon" given that management will never be fully integrated; Comley and Govan, 2014) and a context-dependent management framework that aims to address integration issues (between land and sea, sectors, levels of governance, science and management...). In other words ICM is oriented towards solving – or managing – problems and conflicts.

2.3. Geographical coverage of ICM

In many of the PICTs, the true definition of the coastal zone from the function of an ecological unit is from the ridge out to the reef. By contrast, in many jurisdictions legislation and policy limit the coastal zone to a (possibly arbitrary) narrow strip (e.g. 30m from the high water mark in Fiji).

Within RESCCUE the coastal zone, hence the project geographical coverage, is defined according to management needs for the key issues identified as needing to be tackled with project support. This usually spans several administrative units and actually goes up to the ridge in all selected pilot sites.

2.4. The environmental dimension of ICM

The importance of the environmental dimension of ICM requires clarification. Issues considered for management within RESCCUE are mainly environmental as it is first and foremost an environmental project rather than an economic or social development one: RESCCUE is funded primarily under environmental development assistance windows by AFD and FFEM. While the three pillars of sustainable development are of course considered and addressed in their interactions, the key issues that RESCCUE aims to address in the various pilot sites as well as at the regional level are either connected to the impacts of human activities on the coastal environment, or to the impacts of human activities on one another with the coastal environment as the physical link. This matches the *raison d'être* of ICM which historically was developed to balance the rapid development of coastal areas – not to promote economic development or social equity.

2.5. ICM, sectors and governance

Two other needed clarifications concern the links between ICM and sectoral policies, and between ICM and general governance patterns. ICM does not aim to replace sectoral policies: it does not delegitimize nor make them obsolete. Sectoral socio-economic activities and interventions (such as fisheries, mining, tourism, protected areas...) are the key drivers of change in coastal areas. Strong sectoral policies and their effective regulation (including through Environmental Impacts Assessments (EIAs) or licensing procedures) are crucial and offer considerable leeway for more integrated management. On the "theoretical side" of ICM, the systemic approach at the origin of the integration concept is essential to understand articulations, synergies, side effects etc. On the "action side" of ICM, a more integrated coastal management stems first and foremost – and maybe ironically – from strategic interventions on sectors and sectoral policies guiding them. The unquestionable need for more integration should not remove the focus from the main threats to the coastal zone – usually the lack of or appropriate implementation of sectoral policies.

Think integrated, act strategic – and often sectoral⁷: this could be the motto summarizing the RESCCUE approach to ICM.

3. Adaptation to climate change (ACC)

Climate change mainly comes into play by exacerbating existing threats and problems – and maybe sometimes by presenting opportunities. Coastal management issues in the Pacific do not stem first from the impacts of climate change but from the impacts of development policies and processes that are progressively becoming unsustainable. However, most often climate change amplifies existing threats, sometimes in a decisive way by bringing out threshold effects, with ecosystem functions for example. It encourages the "over-sizing" of certain policies so as to have the latitude to cope with a very uncertain future, and above all it calls to reconcile economic development with the sustainable management of coastal zones.

⁷ As developed in Billé R., Rochette J. 2015. The Mediterranean ICZM Protocol: Paper treaty or wind of change? Ocean and Coastal Management 105: 84-91.

3.1. Synergies between ICM and ACC

RESCCUE aims at supporting ACC through ICM implementation. Directly or indirectly, all RESCCUE activities contribute to building resilience and/or reducing vulnerabilities, including in relation to current and anticipated changes in climate. It is therefore necessary to ensure a clear and coherent doctrine within the project on how ACC and ICM relate to each other and what is RESCCUE's contribution to both.

The following points should be kept in mind while designing and implementing RESCCUE activities as well as while disseminating and communicating the RESCCUE approach and outputs:

- ICM and ACC⁸ share the same general sustainable development objective the sustainability of human activities and their underlying ecosystems. ICM's overall goal is to facilitate the sustainable development of coastal zones by preventing natural risks and preserving the integrity of coastal ecosystems and biodiversity. Adaptation aims to "reduce the negative impact⁹" of climate change to ensure sustainability. Moreover, the preservation of the integrity of coastal ecosystems and biodiversity, which is one of the main objectives of ICM, has a major role to play in adaptation. Indeed, well-functioning coastal ecosystems provide many services which help combat the impacts of climate change (wetlands and availability of water resources, dunes and erosion, etc.).
- Besides shared objectives, **there are also some obvious overlapping principles between ICM and ACC**: institutional coordination, public participation in decision-making, strong science-policy interfaces, etc. ICM and ACC are defined as continuous, dynamic and adaptive processes of decision-making and implementation. Neither imply reaching a stable, utopian condition: the management of a coastal zone is never totally integrated just like a coastal system can never be totally adapted. Accounting for **long-term** demographic, economic, ecological and social trends and projections is a crucial aspect of these two approaches.
- These shared objectives and principles mean that in practice ICM- and ACC-labelled policies, plans and projects often resort to similar tools and instruments. For instance by contributing to the prevention of coastal erosion and the protection of biodiversity, regulations on the extraction of sand and river sediment contribute to ACC and ICM implementation. From a more cross-sectoral point of view, policies and schemes on land-use, urban development and regional / island planning are fundamental tools of any ICM and ACC endeavour.

Overall ICM is key to effective ACC, and ACC must be accounted for in ICM planning processes and implementation. There is a need to implement integrated adaptation approaches which focus on reducing community and ecosystem vulnerabilities and enhancing their resilience to the multiple pressures they face, including those related to development and to climate variability, extremes and change. Thus climate concerns should be integrated into development processes in general, and into coastal strategies, plans and programmes in particular. As with ICM, an integrated thinking is required for ACC, while strategic actions are often to be taken on sectors and on policies that guide their development.

⁸ This section draws on Billé, R., Rochette, J. 2008. ICZM and climate change. Background document for the international seminar on "The management of coastal zones in the Mediterranean: from local to regional, how to stop the loss of biodiversity?", organised within the EU French Presidency framework, 18-19 December, Nice, France, 7 p.

⁹ IPCC definition.

3.2. ACC and ecosystems protection

Coastal ecosystems provide many services which help combat the impacts of climate change (wetlands and availability of water resources, dunes and erosion, etc.). As a result, most of the solutions to adapt to climate change require the protection (or restoration) of coastal ecosystems and biodiversity. **RESCCUE aims at implementing win-win solutions that maintain and enhance the resilience of both coastal ecosystems and Pacific people.**

It is important to note that in some cases there may be a call for trade-offs between protection and adaptation, and a need to make choices. For instance, hard adaptation measures may involve coastal defense mechanisms that interfere with natural processes. Extreme climate events, that are to become more frequent and/or more intense in the Pacific due to climate change, can lead to the adoption of limited, crisis measures which might not be immediately compatible with the protection of coastal ecosystems. The challenge for both ACC and ICM is to minimize the times when such choices are required, by exploring options such as ecosystem-based adaptation.

3.3. Recommendations to design ACC solutions

Gaining clear understanding of how, and the extent to which, pilot sites adapt to climate change is key to the successful implementation of the RESCCUE project, and more importantly to the local and national stakeholders the project aims to support. It also provides an opportunity to better inform, link with and feed into regional and international initiatives on ACC, such as SPC's Programme on Climate Change, the new Strategy for Climate and Disaster Resilient Development in the Pacific (SRDP), UNFCCC negotiations, and donor support for ACC.

In practice the following should be kept in mind:

- No one approach fits all situations

There are many ways to conceptualise and undertake adaptation to climate change, but generally a "vulnerability first" (as opposed to "impacts first") approach is more appropriate in the Pacific islands context (Lal, 2011; Hay and Mimura, 2013). The former approach, which must be highly participatory, begins with an examination of current exposure and vulnerability (sensitivity and capacity) to the various pressures currently being experienced by the human and natural systems in the communities being supported. The next step is to consider how exposure and pressures may change in the future, including as a result of development processes as well as climate variability and change. The implications for the communities are assessed, and measures to reduce adverse consequences and exploit possible benefits are identified. The choice of adaptation and related measures to be included in relevant policies and plans, including ICM and other action plans, should reflect that measures which are most effective in reducing the impacts of weather extremes and short-term climate variability are usually also highly effective in reducing vulnerability to longer term climate change.

Addressing disaster risk

Adaptation initiatives should also reflect the need to reduce disaster risk, as appropriate. In the past there has been a tendency for some commentators to focus on the differences between disaster risk reduction and climate change adaptation, and many have been identified. But increasing attention is now being given to the common focus of climate change adaptation and disaster risk reduction, namely to reduce vulnerability and enhance resilience to weather and climate-related hazards. Importantly, synergies are not just limited to those between disaster risk reduction and adaptation. Adaptation is becoming an increasingly important aspect of the recovery dimension of disaster management, especially when recovery and reconstruction involve "building back better", such as by taking the changing climate into consideration.

Development gains are always at risk from natural hazards such as cyclones and droughts, with these risks being exacerbated by climate change. Future interventions should always include initiatives that will increase the resilience of the intended development outcomes. This can be achieved by ensuring the development activities include investments in disaster risk reduction, disaster preparedness and climate change adaptation. As a rule, these activities should be implemented holistically, and as an integral part of the development activities. Appropriate levels of investment should also be made to strengthen the enabling environment for disaster risk reduction and climate change, to ensure the timely, efficient and effective delivery of resilient development outcomes.

- Contextualized expertise

In order to plan for adaptation solutions, refine understanding of RESCCUE's contributions to ACC, and increase its effectiveness in practice, there is first a need to better characterize local-level vulnerabilities (communities, institutions, private sector etc.) and determine how resilience is currently and effectively built. This implies moving from commonly encountered global scale or regional scale information to contextualized information and understanding. This applies to climate change and climate change impacts projections, but also importantly to economic analyses: for example, aggregated data on actual or expected loss of GDP do not indicate "who will lose out and where" (i.e. distributive effects), which is essential if appropriate actions favourable to the most vulnerable are to be developed.

In pilot sites where RESCCUE operates, such a contextualized expertise is needed to produce an initial assessment of vulnerability and resilience which would, in turn, show how ACC can be strengthened, outline the process, and make the linkages with national and regional levels, in particular with the SRDP (see Hay, 2015 – Appendix 6). This requires an analysis of policies, plans, resource allocations and capacities, and actions at community, provincial and national levels.

- Uncertainties

Given the uncertainties that characterize climate models and associated projections, they can seem poorly adapted to decision-making, especially at the local level. What is more, these uncertainties are not residual and will not be dispelled in the coming years: decision-makers should not count on climatologists, oceanographers, economists and other modellers to avoid making decisions in uncertain contexts¹⁰.

If decision-makers cannot wait until a perfect – and illusory – knowledge of ideal adaptation measures is available for a given coastal zone, they need to learn how to govern in a state of uncertainty and to base their decisions on incomplete scientific data. **Adaptation strategies should be robust in the face of a range of plausible futures** for which climate models and scenarios provide initial estimates only. Regardless of uncertainties, adaptation actions are needed to eliminate or reduce the vulnerability of systems to the impacts of climate change. This calls for adaptive management: a structured, iterative approach for improving actions as new understanding emerges from management actions and other events, informing adjustments in policy and projects as part of a learning process. "Learning while doing" – more than "trial by error".

- Social conflicts

The objectives, interests and reasoning of the different stakeholders with regard to climate impacts and adaptation strategies are sometimes divergent, potentially leading to latent or explicit conflicts. ACC should not ignore these but recognise them and deal with them using the array of tools available: participation, negotiation, mediation, communication and socioeconomic analyses, among other.

¹⁰ Hallegatte S. 2009. Strategies to adapt to an uncertain climate change. Global Environmental Change 19: 240-247.

Planning, monitoring, evaluation, reporting and learning (see Box 1)

The challenge for RESCCUE is to document the contribution it makes to adaptation to climate change, rather than adding new adaptation-specific activities. A revised and strengthened logical framework now ensures that this contribution will be clearly and readily documented. This includes the use of adaptation-specific performance indicators, with among other a vulnerability index, and mid-term and end-of-project targets. An important prerequisite to documenting RESCCUE's contribution to adaptation is to establish the baseline for each pilot site, and using the agreed indicators (see Diagnosis of RESCCUE Pilot Sites Guidance Document).

The revised and strengthened logical framework will also make it possible to document the costs and benefits of delivering adaptation outcomes at each of the pilot sites.

The results-based management chain which underpins the RESCCUE logical framework can also be used to demonstrate RESCCUE's contributions to regional and international agreements, including the new SRDP.

Planning, monitoring, reporting and evaluation come together under a broad management strategy aimed at achieving improved performance and demonstrable results. It is concerned with learning, risk management and accountability, with an emphasis on achieving sustainable and durable development outcomes rather than organizational results. The strategy involves an ongoing process, with constant feedback, learning and improving. Existing plans are regularly modified based on the lessons learnt through monitoring and evaluation, and future plans are developed based on these lessons.

The main objectives of good planning, monitoring, evaluation, reporting and learning are to: (i) support substantive accountability to governments, beneficiaries, donors, other partners and stakeholders; (ii) highlight any need to corrective actions; and (iii) ensure informed decision-making.

Box 1. Planning, monitoring, evaluation, reporting and learning

4. ECONOMIC ANALYSIS

4.1. A demand-driven approach

Using economic analysis for integrated coastal management and climate change adaptation in selected pilot sites is part of RESCCUE's identity. The underlying objective is to complement the "traditional" ICM toolbox with what economics has to offer to a wide range of stakeholders with contrasted needs.

RESCCUE starts from the four-fold diagnosis that:

- i. Economic analysis is underutilized in coastal management globally;
- ii. Experience from the Pacific and elsewhere so far shows both growing interest for economic valuations in support to environmental management (Holland, 2015), and growing concern over the lack of use of such valuations when they are conducted (Laurans et al., 2015);
- iii. Economic analysis in support to environmental management is often restricted to ecosystem services valuation, while a much broader range of studies are potentially useful;
- iv. The problem is largely that experience so far has been mainly supply-driven (based on what economists have to offer) rather than demand-driven (based on stakeholders' needs).

Therefore what RESCCUE promotes is an increased possibility for stakeholders to use the economics toolbox in favour of more integrated coastal management. This means that in the various pilot sites, whenever useful, the operators will conduct, provide and / or use economic studies in order to achieve a specific policy or management objective (Figure 1). They will consider a wide array of techniques, including ecosystem services economic valuation, estimation of willingness-to-pay or willingness-to-accept, cost benefits and cost effectiveness analyses, computation of added value, study of distributive effects, funding needs assessments, estimation of opportunity costs etc. For illustration purposes, Figure 2 provides a list of examples of possible articulations between management objectives and types of economic analysis.

Several projects in the Pacific have been or are promoting ecosystem services economic valuations and testing economic analysis techniques. This is not RESCCUE. RESCCUE uses economic analysis in support of decision-making processes and public policies to achieve specific integrated coastal management objectives with positive environmental and climate change adaptation outcomes. This means that each economic analysis that will be conducted will have a precise and explicit role in achieving a given management objective, which will define the type of analysis and methodology to be used (Figures 2 and 3). High attention will be paid throughout the project to the adequacy between the types of analysis and their expected roles and objectives, and to the implication of / collaboration with the end-users (managers, decision-makers, NGOs, donors...) in the choices made. In sum, component 2 must be a direct and explicit contribution to components 1 and 3 – or to the communication part of component 4.

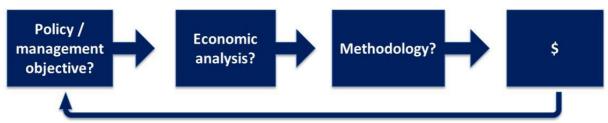


Figure 1. From management objectives to economic analysis

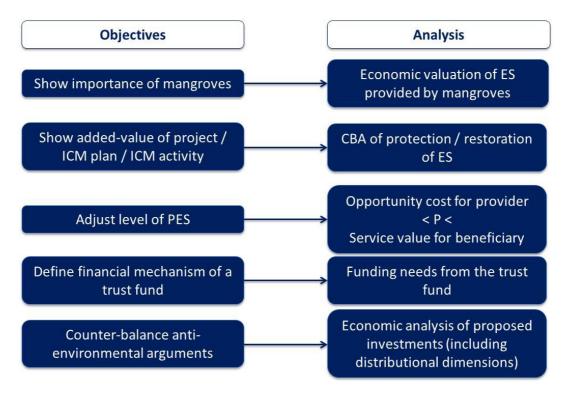


Figure 2. Examples of articulations between management objectives and economic analysis

4.2. Recommendations on conducting economic analysis within RESCCUE

- i. Do not assume that an economic analysis and/or a particular technique is necessarily needed or relevant (for example, ecosystem services valuation is not necessarily needed or relevant to convince a minister that a mangrove area is valuable to protect, or to establish an entrance fee in a protected area).
- ii. In the case of ESV, assess what can really be expected in the specific context of a pilot-project. E.g.: what is the current state of public debates about biodiversity, ecosystem management and ecosystem services? What gap would an ESV fill in the information currently used on the ground for public discussion and by public decision-makers? Are such expectations realistic in view of the state of decision-making deliberations on the ground? What are the strengths and weaknesses in terms of the available data for ESV?
- iii. Work with stakeholders to understand if and why they may need an economic analysis. Clearly identify the objective(s), use(s) and end-user(s) of the economic analysis. This implies a precise understanding of the (usually complex) decision-making process, of the environmental management issue, of the potential conflicts and diverging objectives of key stakeholders;
- iv. Consider carefully the legal and regulatory framework relevant to the economic analysis work being conducted to assess whether/how these can be conducive to the uptake and use of the analysis by decision-makers;
- v. Anticipate and consider the costs and benefits of providing and obtaining information, with respect to the demand. This includes transaction costs, opportunity costs and data availability. It can help defining when to use a specific economic analysis or not, which technique to use, and the level of precision required;
- vi. Make sure the knowledge and familiarity of decision-makers and other potential endusers with the methodology and technique(s) used in the economic analysis is adapted to allow for effective use;

vii. Facilitate the appropriation of economic analysis by paying attention to vocabulary, being transparent on hypotheses and limits. Strategic communication is crucial.

5. ECONOMIC AND FINANCIAL MECHANISMS

While building resilience to climate change through ICM can be considered RESCCUE's number 1 priority, setting up economic and financial mechanisms in support of ACC and ICM is a central pattern of RESCCUE's identity. It is what makes RESCCUE a different, innovative project, and raises high expectations from partners. Most importantly, RESCCUE is not (only) about studying which mechanisms would be feasible: such mechanisms which are deemed useful and feasible must be set up and fully operational within the project lifespan. This guarantees that initiated changes from RESCCUE activities will not stop at the end of the project.

5.1. Mechanisms considered in RESCCUE

These mechanisms refer to all economic and financial instruments that can help generate additional and sustainable funding and/or achieve a positive environmental outcome through incentive-based monetary transfers among stakeholders. It may involve setting up new transfers (e.g. a payment for ecosystem services scheme) or changing existing ones (taxes, subsidies, exonerations...). As such, they potentially refer to a wide range of instruments: payments for ecosystem services (PES), taxes, conservation easements, user fees (e.g. diving, anchoring), entrance fees (e.g. protected areas), trust funds, quotas markets (e.g. individual transferable quotas), biodiversity offsets, green labels, carbon finance (e.g. REDD+)... While these mechanisms potentially have numerous advantages when suited to their context, well-designed and well operated, they have not yet been deployed on a large scale, especially not in the Pacific and not for ACC and ICM. It is therefore useful to promote their wise use, not in replacement of more classical instruments such as norms, protected areas etc., but in complement.

5.2. A bottom-up classification of economic and financial mechanisms for the RESCCUE project

The existing literature on so-called "innovative funding mechanisms", "market-based instruments", or on PES¹¹¹ in particular shows that there is no general agreement on the definition and underpinning theory of these tools, both in the scientific community and at the international, more political level. Each mechanism's appellation may refer to a variety of operating schemes in practice: for instance, there are various categories of biodiversity offsets or PES, which strongly differ from one another to a point where simply talking about offsets or PES does not give any idea of the actual nature of the mechanism referred to.

A common framework with a precise and homogenous nomenclature, and associated definitions, to categorize and differentiate mechanisms RESCCUE is supporting in pilot sites would be critical to capitalization and dissemination efforts. Nevertheless, taking stock on the scientific as well as grey literature, this does not seem possible. We thus consider more pragmatic, at least at this stage, to propose a very basic framework of four unnamed categories, which should help comparing the various mechanisms that will be supported by RESCCUE. The goal is to be able to relate any of the existing mechanisms implemented on the ground, with

¹¹ Within RESCCUE a PES is understood as "an economic tool by which a producer of ecosystem service(s) is paid to voluntarily undertake certain practices in order to maintain ecosystem service(s)" (Laurans et al., 2011).

their associated names, to others who share similar fundamental objectives or characteristics, in a capitalization perspective.

The basic framework is presented in Table 1 below. In total four categories are retained to differentiate between economic and financial mechanisms. The first two are about the primary objectives of the mechanisms:

- 1. Financial mechanisms: they are primarily implemented to generate funding that is then used to cover general administrative or management costs;
- 2. Economic mechanisms: they are primarily designed to provide incentives to limit harmful behaviors to biodiversity and ecosystem services (and/or to generate environmental friendly behaviors).

The other two categories distinguish mechanisms based on the agent who is paying:

- 1. The polluter pays: an agent conducts or takes part in activities that are considered by other stakeholders to have a significant impact on biodiversity and ecosystem services. He pays either voluntarily or is required to pay because of these impacts;
- 2. The beneficiary pays: an agent benefits from the preservation or restoration of biodiversity and ecosystem services either directly or indirectly. He, or a representative, pays voluntarily or is required to pay so that he can get the benefits. The representative acts on behalf or in the interest of the agent. It may be a government, an association, an NGO, an industry etc.

Table 1 lists names of mechanisms that are frequently mentioned by a variety of stakeholders. Some of the financial mechanisms are actually listed under two categories (polluter pays or beneficiary pays): it means that the objectives behind their implementation, and hence the modalities of implementation vary on the ground. An example is tourism taxes. The green fee for tourists in Palau is clearly a "beneficiary pays" financial mechanism, as tourism does not pose a major threat to ecosystems in Palau. Tourists rather pay so they can enjoy the various services provided by healthy ecosystems, protected thanks to (among others) resources generated by the tax. In some other countries, tourism might be considered as a major threat on (socio-)ecosystems, and a tax is applied either to control tourism flows, target higher-end tourism, or manage tourism environmental impacts specifically. Tourists then pay because they significantly impact ecosystems – the polluter-pays principle applies.

Table 2 applies this framework to the list of mechanisms identified by Agardy and Pascal (2014) for PICTs.

Table 1. Classification of economic and financial mechanisms for the RESCCUE project

What for? Who pays?	Economic mechanisms Primary objective: provide incentive(s) to limit harmful behaviors to biodiversity and ecosystem services	Financial mechanisms Primary objective: generate funding to cover administrative or management costs for biodiversity and ecosystem services conservation or restoration (one-off or regular payments)
Polluter pays An agent pays because he degrades biodiversity and ecosystem services	Tax, Ecotax (to change behavior) Quotas market Eliminate harmful subsidies	Tax, Ecotax (to generate funding) Offset Trust funds (filled by polluters) Compensation of environmental damage Royalty Usage fee, user fees, license fees Tourism tax, cruise ship tax
Beneficiary pays An agent (or a representative) pays to benefits from ecosystem services and biodiversity conservation or restoration	Payment for ecosystem services Conservation agreements (involving a payment) Conservation easements REDD+ Label Subsidies Reversed auction	Private/public donations Land acquisition Trust funds (filled by beneficiaries) Green lottery Entrance fees to protected areas User fees, license fees Airport tax, tourism tax, cruise ship tax Debt-for-nature swap

Table 2. Classification of economic and financial mechanisms for the RESCCUE project: an application to the list of mechanisms identified by Agardy and Pascal (2014) for PICTs

What for? Who pays?	Economic mechanisms Primary objective: provide incentive(s) to limit harmful behaviors to ecosystem services and biodiversity	Financial mechanisms Primary objective: generate funding to cover administrative or management costs for ecosystem services and biodiversity conservation or restoration (one-off or regular payment)
Polluter pays An agent pays because he degrades ecosystem services and biodiversity	Quotas market Vessel Day Scheme, Parties to the Nauru Agreement (vessel owners can purchase and trade days fishing at sea)	
Beneficiary pays An agent (or a representative) pays to benefits from ecosystem services and biodiversity conservation or restoration	 PES/user fees Shark Diving fees, Island of Beqa, Fiji (PES: part of payments are directed to village fishers to change practice) Trust funds The Phoenix Islands Protected Area (PIPA) (compensate loss from pelagic fishing license fees?) Tetepare Descendants' Association (TDA) Conservation Agreement Fund (initially created to avoid logging + leatherback community incentive program) Conservation agreements Seacology, Cook Islands: Muri Rarotonga (if local communities agree to create forest or marine reserve, the NGO provide funds for local development) Onereef, Helen Reef Atoll, Palau (the NGO provide payment to support jobs, training, ecological monitoring and community engagement for the managed area). 	 Trust funds Micronesia Conservation Trust (MCT) Fund (GEF, NGOs, Governments) Mama Graun Conservation Trust Fund, Papua New Guinea (created by TNC to ensure long-term funding for biodiversity conservation) Fiji Locally Managed Marine Area (FLMMA) Trust Fund (revolving operational account) Tetepare Descendants' Association (TDA) Conservation Agreement Fund (endowment and scholarships provided by donors) The Phoenix Islands Protected Area (PIPA) conservation Trust (endowment fund for the conservation of terrestrial and marine biodiversity in the Phoenix Islands group) Tourism taxes Green Fee, Palau (additional to departure tax used for Protected Areas, wastewater management and MCT) Departure tax, Cook Islands (20% goes to Environmental Protection Fund) User fees Rock Island and Jellyfish Lake, Palau (Diving fee to cover

conservation, monitoring and management of the areas + facilities)
 Namena Marine Reserve, Fiji (diving fee, goes to student fund programme and conservation activities)
- Shark Diving fees, Island of Beqa, Fiji (the five villages
involved in creating the marine reserve where the spotting
dives are made receive an annual budget to be used as they see fit)
Donations, volunteering
- TNC Adopt A Coral Reef Programme, Palau and PNG
 Moso Island - Tassiriki, Vanuatu (eco-tourism – volunteers: tagging, monitoring sea turtles, sea turtle clinic)
Bioprospection
- Strathclyde Institute for Drug Research and PharmaMar, Fiji
(fees per sample used for conservation activities and
education trust funds; one-off payment to trust to support
LMMA; royalties on marine natural products used for health
research to ?)

5.3. Existing institutions and dynamics

Most of the economic and financial mechanisms, and especially PES, can be seen as new institutions that when implemented will interact with existing multi-layered and dynamic institutions and governance systems (Invaluable concept paper, 2015). In particular, they will be inserted into larger fiscal systems and existing monetary transfers among stakeholders (Laurans et al., 2011). The success of their implementation then lies in the ability to fit with or be adapted to these existing systems and dynamics.

This ability partly rests upon the commitments to change from the various existing institutions to reach higher environmental objectives (Mermet and Laurans, 2014). Such commitments take various forms: ratification of international or regional conventions (e.g. Convention on Biological Diversity, Noumea Convention), electoral promises, existing environmental laws, procedures and associated regulations (e.g. fiscal regime, land-use regulations and land-use planning), current resources allocated to environmental management (e.g. budget allocated to biodiversity conservation, available staff in environmental department)... The RESCCUE operators will need to be fully aware of these existing commitments, at various scales, so as to better assess and anticipate support for implementing new mechanisms, or bring about changes in existing ones.

A parallel step for the RESCCUE operators will be to identify governance needs, capacities and financing gaps and what instrument(s) can be established or modified if already existing. Conducting a root cause analysis may be particularly useful, in order to get a clear picture of what is the driver of the problem, and how it can be addressed either by changing existing transfers or by establishing a mechanism for funds raised to be directed back to the root cause issue. It is important to bear in mind that a new economic or financial mechanism is not always needed or relevant: existing legal and budgeting opportunities must be examined.

In addition, as Mermet and Laurans (2014) notice, economic and financial mechanisms are closely related to other environmental management instruments. For example: conservation easements are closely affiliated with protected areas; some PES schemes are actually public subsidies; offsets are usually an integral part of permitting procedures etc. A careful examination of current environmental management instruments is therefore essential from a capitalization and learning perspective, to assess needs and issues at stake.

Overall, the RESCCUE operators will therefore need to get a precise understanding of the institutional context in which the new mechanisms would be deployed or the existing ones modified. International experience shows that for most mechanisms, success is often conditioned by strong legal or institutional foundations (including procedures ensuring dialogue between stakeholders) that either pre-exist or must be built carefully: this goes against a commonly held view that innovative funding mechanisms such as PES represent a simple and straightforward way to achieve collective or bilateral agreements to replace or compensate flawed institutions in natural resource management.

5.4. The "three Es": Effectiveness, Efficiency and Equity

Three criteria are at the core of the sustainability and replicability of the new mechanisms or changes in existing ones: environmental effectiveness, economic efficiency and distributive equity. These need to be considered carefully and anticipated by the RESCCUE operators. Strong inter-dependencies exist between these three criteria: they should not be considered separately.

5.4.1. Effectiveness

Planned environmental outcomes should be defined since the outset, and the mechanisms' outputs should be measurable to allow for monitoring and evaluation (with respect to initial environmental objectives). In practice, proxies are often used to decrease the costs of monitoring, and compensate for the lack of data: in the case of PES, empirical evidence has shown that existing payments are rarely conditioned to a precise monitoring of the ecosystem services being paid for.

When defining an environmental objective, particular attention should also be paid to **additionality**: while integrating a financial mechanism into existing efforts or dynamics is an important factor of success, the extent to which such a mechanism contributes to the expected environmental outcome must be assessed. This allows avoiding so-called "windfall effects", that is, when a mechanism is implemented but was actually not necessary to reach a given environmental objective.

When developing a mechanism designed to change practices, **opportunity costs** of conservation or activities' change (e.g. land-use practices) must be accounted for. Many international experiences show that PES and biodiversity offsets usually target or end up operating on areas with low to middle conservation opportunity costs: in the end, it means that they are unable to deal with the most harmful activities (Lapeyre, 2015). Conversely, if targeting areas and stakeholders with highest opportunity costs, mechanisms risk further increasing inequalities by oriented cash flows towards those who have capital-intensive activities.

In the case where the mechanism generates funding that are superior to the opportunity costs, the possibility of a "**rebound effect**" must be anticipated and accounted for: the money or working time generated by a new mechanism may end up being used to other harmful activities. This impairs environmental effectiveness.

Empirical evidences points to other factors that can hinder the environmental effectiveness of a new mechanism such as lack of public participation and dialogue between stakeholders, lack of associated regulations or lack of additional social measures. A potential consequence of these is the "crowding-out" issue: there is a risk to change pro-conservation motivation into a utilitarian one. This "no pay, no conservation" behaviour has already been observed in practice (Lapeyre et al., 2015).

5.4.2. Efficiency

Efficiency is about reaching given objectives with an optimal consumption of resources. Higher efficiency drastically increases chances of applicability, replicability and sustainability. When implementing a new mechanism or initiating changes in an existing one, it is crucial to anticipate and monitor the costs of the operation to ensure that the benefits of the mechanism are worth the investment.

For instance, the payment interval for an efficient PES should in theory be comprised between the **opportunity costs** (lower limit) and the value of the ecosystem services provided (higher limit); the closest to the opportunity costs, the more efficient.

Transaction costs represent a key parameter when considering efficiency. To the extent possible, they should be monitored (time, human resources, money invested). Who bears the costs is also an important issue. Within RESCCUE, for replicability purposes, transaction costs should ideally not be supported solely by the operators under RESCCUE funding.

The potential risks threatening environmental effectiveness, such as "windfall effects", "rebound effects" and "motivation crowding-out" may decrease economic efficiency.

5.4.3. Equity

It is crucial to get a clear picture of who are/will be the **beneficiaries** of the mechanisms, to consider their **rights / access** to the natural resource or ecosystems, and how the benefits are/will be **distributed**. The latter is especially important in the case of the Pacific, where collective tenure regimes are frequent. Empirical evidence has proven that **distributive equity and justice consideration** are key to social acceptability and long-lasting success (e.g. Lapeyre et al., 2015).

Negative social impacts such as marginalisation, difficulty to access resources, elite capture, land tenure insecurity, gender inequalities etc. must be anticipated and avoided. Most of them may impact negatively conservation outcomes in the long term. For instance, since opportunity costs will be lower for the poorer, and higher for the richer, an economically efficient and environmentally effective PES may end up paying mainly the richer, thereby increasing inequalities. Such inequalities may later hinder environmental effectiveness.

6. Public participation in decision making

Public participation and open decision-making processes are essential dimensions of ICM (Comley and Govan, 2014) and fundamental principles guiding RESCCUE implementation. The notion of public participation in decision-making is ancient, as are attempts to implement it in the Pacific. The persistent impression of novelty is therefore probably a sign of the weakness of the *culture* of participation. For this to change, it must become a matter of standard practice.

Public participation in coastal management has always been, and remains today, very uneven in the Pacific depending on the sociopolitical context. Environmentalists are in general neither more nor less reluctant to embrace participatory approaches than players in other major fields of public action. When the needs and wishes of the poorest and most vulnerable stakeholders are not taken into account in mining, tourism, infrastructure or agricultural projects, when their rights to land or to participation in decisions that concern them are flaunted, environmental management is usually no exception and struggles with participatory democracy¹². It requires the rule of law and a certain degree of decentralization.

¹² Participatory democracy is not opposed to but, on the contrary, complements representative democracy through which citizens elect their representatives and delegate their decision-making power. It implies the direct involvement of the people, independently of electoral processes, regarding a number of decisions concerning them, through neighborhood associations, public debates, concertation meetings, steering committees, etc. Nevertheless, the legitimacy of public policies, and of the administrations that promote and implement them, is fully recognized. ICM provides a framework where top-down and bottom-up approaches hybridize, and allow for adaptive management.

6.1. A fundamental tension: participation as an end in itself or a means to an end

Is participation an end in itself, or a means to improve project performance and acceptability? Should it question the validity of choices that have been made upstream, or be limited to marginal adaptations with regard to local interests and concerns? The management of such tensions creates recurrent and very real practical problems: for example, can the participatory management of a protected area result in its being degazetted? Under which conditions?

There is no simple or general answer to these complex questions. Keeping them in mind is however necessary as environmental policies, programmes and projects that are more focused on procedures than on substantive outcomes are many. The former provide formal ways of organizing relations among stakeholders but leave them with significant freedom as to objectives and means for action. The latter are grounded in objectives and means: they typically include protected areas, land acquisition or pollution standards.

Both may be legitimate and effective in different contexts of action, depending especially if there is a specific, identified environmental problem to solve (like a coastal point-source pollution or a bird species on the brink of extinction), or if issues are more diluted and the objective is mainly e.g. to create a local sense of stewardship. In practice, most environmental management situations are hybrids and involve both procedural and substantive actions – being aware of the distinction can help coming up with the right mix and clarifying what is and what is not negotiable.

6.2. A tendency for public action situations to become more complex

ICM illustrates how public action is growing more complex. The development of participation is both a consequence, since it becomes necessary when a given stakeholder can no longer act alone, and a cause: the implementation of participatory processes is itself highly complex and leads to debates and actions that strengthen the polycentrism of the public sphere and the difficulty of acting autonomously.

Whereas in the past, a single person would have quickly made a decision based on a technical-economic study and rapid behind-the-scenes negotiations, today it takes years of dialogue, hundreds of pages of reports, and dozens of public meetings, in many cases, to adopt a management plan. Stakeholders are at times confused with the extreme complexity of the legal and political frameworks for action, requiring them to evolve without losing their legitimate concerns but better accepting others'. ICM promoters may feel a genuine shock when faced with a diverse public and divergent perspectives, far from feeling united behind the hypothetical "general interest" they think they represent. Such complexity cannot really be reduced. But the lack of clarity may eventually hinder people's participation in decision-making processes that they do not understand globally. It also risks reducing evaluability of projects and policies as well as accountability of decisions.

It is hence important to keep participatory processes as simple as possible, consistent with specific objectives.

6.3. Changing procedures and practices to change power relations

Changing procedures, e.g. in the way management plans are developed and implemented, is often necessary but not sufficient to bring about an in-depth transformation of processes and practices. The latter, rather than the procedures, is what the impetus of participation seeks to transform.

If only procedures are changed, the risk is high that the balance of power remains identical. Public participation is indeed a strategic issue that as such may be instrumentalized. It does not eliminate power struggles or the use of influence over other stakeholders, but rather represents an additional instrument that stakeholders can use to bring such relationships into play. The better the quality of a participatory approach on the ground, the more likely it is to bring about changes (which may have a negative impact on the interests of some stakeholders), and the stronger the resistance to such an approach – whether expressed or silent. Experience shows that stakeholders complaining *a posteriori* about a given participatory process are usually actually unhappy about its outcomes rather than about the process itself.

6.4. Who participates? The question of the public, from citizens to international NGOs

The expected public rarely corresponds to the participants who actually take part in participatory processes. For the person leading the process (a civil servant in charge of setting up a protected area, a RESCCUE operator in charge of developing an ICM plan, etc.), these participants are generally not qualified enough – or overqualified and raising too many questions, not focused enough on the community's interests – or victims of the NIMBY¹³ syndrome, not concerned enough about protecting biodiversity – or too concerned about certain species, not representative enough of the diversity of concerns – or wanting to shoot too many birds with one stone. They are too few or too many, too apathetic or too vocal, etc.

Who is the public thus appears to be a central issue. Who does or does not participate? Who is recognized and appointed as "civil society", "local populations", "beneficiaries"? These questions are as important as they are sensitive. In some PICTs, "local communities" have implicit or explicit tenure over land and sea. As such, in these jurisdictions the need for their participation is obvious. In other jurisdictions this is not the case and such "local communities" may even be impossible to define and identify.

Any participatory process runs the risk of overlooking some stakeholders who are marginalized and poorly represented. It can just as readily leave out stakeholders whose power is so great that it would appear there is nothing to negotiate with them. What is participation worth under such conditions? One of the lessons experience has taught is that when a stakeholder is absent it is often because an issue considered to be of minor importance at the beginning of the participatory process later becomes decisive. This means that participatory coastal management requires frequently renewing the process of identifying conflicts, issues, stakeholders, and their representatives.

6.5. Developing individual and organizational capacities

Changing practices, changing culture: participation requires new competencies from stakeholders involved in coastal management. The demand for training and methods is growing in the Pacific. In this regard it is essential to capitalize on past experience, both positive and negative, from the region and when possible from all over the world.

Developing individual capacities is, however, not sufficient as long as the impetus of participation brings with it numerous internal management challenges for organizations. If they do not evolve and adapt, public offices and agencies in charge of various components of coastal management may trap their personnel between the imperatives of a hierarchical and centralized

-

¹³ Not In My BackYard.

system designed to reach political objectives, and the obligations of open, participatory decision-making processes.

Most of the questions raised in this discussion remain unanswered. They need to be discussed and re-discussed, however, in constantly changing contexts: this way individuals can gradually build their own theoretical and practical references. There is no right or wrong level of participation: all levels and modalities can and should be mobilized depending on contexts and objectives, from mere information in some cases to co-decision in other cases. It is necessary to avoid generalizations about the "recipes" for how participatory ICM should be conducted if the culture of participation is to gain more ground throughout the Pacific.

7. THE PILOT APPROACH: SUSTAINABILITY AND REPLICABILITY IN TIME AND SPACE

The pilot sites approach is at the core of the RESCCUE project and its architecture. Given the mixed track-record of projects based on pilots in generating change at the targeted level, there is a need to ensure that RESCCUE is designed around a robust theory of change in that regard, and strengthening this theory over time.

Appendix 2 (Billé, 2014) defines the pilot concept and the questions it raises, highlights why the pilot approach is so widely used, and explores the most widespread obstacles facing the pilot approach. Appendix 1 (Comley and Govan, 2014) provides insights and lessons learnt on the ability of ICM projects using a pilot sites approach to generate replicable, sustainable changes.

Both highlight the pitfalls of the pilot theory of change and point to the highly unlikely success of the "fingers crossed strategy" as a response. Recommendations for the successful implementation of a pilot approach during project design, management and implementation include:

- Cost effectiveness of activities, in relation with the capacities needed to sustain the initiated changes (e.g. resources available in public administrations);
- Insertion of the project and its activities, since the outset, into existing institutions and governance systems dynamics, including Pacific islands cultural foundations.

Appendix 2 discusses on the extent to which RESCCUE is already on the right track, and what needs – and can – be changed. It goes on to outline what this strategy could look like, or at least which questions and challenges should be addressed so that such a robust strategy is developed and implemented. It is articulated around four key topics:

- What are the **objectives** of the pilot approach in RESCCUE? What do we want to achieve through the pilot projects? Four distinct objectives are possible depending on cases, which require tailored strategies: testing tools; piloting for replication; initiate country-or region-wide changes; and acculturating Pacific decision-makers to (relatively) new tools and practice.
- What are the **opportunities** to reach such objectives, from which RESCCUE will benefit? A large regional activities programme, the way pilot sites were selected, the involvement of partner governments and administrations in the project governance, the financial mechanisms set up by the project, and the specificities of having SPC as an implementing agency are discussed.

- What are the **obstacles** to reach such objectives, from which RESCCUE may suffer? These include among others the specificities of pilot sites, the learning challenge, and the lack of budget and usually of donor appetite for replication.
- What specific **resources** should RESCCUE harness to reach its objectives? Planning the replication effort, documenting successes and failures, engaging with other donor agencies during the project, strengthening national and local ownership and combining tangible field activities with policy support, are briefly explored.

Here again, no general recipe, but a number of check points to be discussed and reviewed iteratively during the project.

REFERENCES (and recommended readings)

Agardy T. and Pascal N. 2014. Innovative financial mechanisms for coastal management in the Pacific: a state of the art. RESCCUE working paper, SPC, Noumea.

Billé, R. 2008. Integrated coastal zone management: four entrenched illusions. Surveys and Perspectives Integrating Environment and Society (Sapiens) 1(2): 75-86. http://www.surv-perspect-integr-environ-soc.net/1/75/2008/sapiens-1-75-2008.pdf

Billé R. 2014. The pilot sites approach to ICZM, its pitfalls and how to avoid them. RESCCUE working paper, SPC, Noumea.

Comley J., Govan H. 2014. ICM in the Pacific and participation in decision making. RESCCUE working paper, SPC, Noumea.

Hay J.E. and N. Mimura. 2013. Vulnerability, Risk and Adaptation Assessment Methods in the Pacific Islands Region: Past Approaches, and Considerations for the Future. Sustainability Science 8(3): 391-405.

Holland P. 2014. Economic valuation for coastal management in the Pacific – A snapshot. RESCCUE working paper, SPC, Noumea.

Lal P.N. 2011. Climate Change Adaptation in the Pacific: Making Informed Choices. A report prepared for the Australian Department of Climate Change and Energy Efficiency (DCCEE), IUCN, Suva, Fiji.

Lapeyre R. (ed.) 2015. Governing biodiversity and ecosystem services through market-based instruments? Theory and practice for decision-makers. Invaluable concept paper, newsletter $n^{\circ}6$, June, 18 p.

http://www.iddri.org/Evenements/Conferences/Concept%20Paper_Newsletter%20INVALUAB LE%206_June%202015_PLANCHE.pdf

Lapeyre R., Pirard R., Beira L. (2015) Payments for environmental services in Indonesia: What if economic signals were lost in translation? Land Use Policy 46: 283–291.

Laurans Y, Leménager T, Aoubid S. 2011. Les paiements pour services environnementaux. A savoir n°7, AFD, 215 p.

http://www.afd.fr/webdav/site/afd/shared/PUBLICATIONS/RECHERCHE/Scientifiques/Asavoir/07-VA-A-Savoir.pdf

Laurans Y., Rankovic A., Billé R., Pirard R., Mermet L. 2013. Use of ecosystem services valuation for decision-making: questioning a literature blindspot. Journal of Environmental Management 119: 208-219.

Marre, J.-B., Thebaud O., Pascoe S., Jennings S., Boncoeur J., Coglan L. 2015. The use of ecosystem services valuation in Australian coastal zone management. Marine Policy 56: 117-124.

Mermet L, Laurans Y, Leménager T. 2014. Tools for what trade? Analysing the utilization of economic instruments and valuations in biodiversity management. A savoir n°25, AFD, 343 p. http://www.afd.fr/webdav/site/afd/shared/PUBLICATIONS/RECHERCHE/Scientifiques/Asavoir/25-VA-A-Savoir.pdf

Mermet L. and Laurans Y. 2014. Economic tools for biodiversity: what contributions to expect from additional players in a crowded playing field? RESCCUE working paper, SPC, Noumea.

Oréade-Brèche. 2014. Etude sur les mécanismes d'autofinancement des Aires Marines Protégées en Nouvelle-Calédonie. Conservatoire des espaces naturels, août. http://ifrecordoc.fr/files/original/b0c436ee65b54cf80bd6bebe263e7fea.pdf

Waite R., et al. 2015. Use of coastal economic valuation in decision making in the Caribbean: Enabling conditions and lessons learned. Ecosystem Services 11: 45-55.

APPENDICES

Appendix 1: Comley J., Govan H. 2014. ICM in the Pacific and participation in decision making. RESCCUE working paper, SPC, Noumea.

Appendix 2: Billé R. 2014. The pilot sites approach to ICZM, its pitfalls and how to avoid them. RESCCUE working paper, SPC, Noumea.

Appendix 3: Holland P. 2014. Economic valuation for coastal management in the Pacific – A snapshot. RESCCUE working paper, SPC, Noumea.

Appendix 4: Agardy T. and Pascal N. 2014. Innovative financial mechanisms for coastal management in the Pacific: a state of the art. RESCCUE working paper, SPC, Noumea.

Appendix 5: Mermet L. and Laurans Y. 2014. Economic tools for biodiversity: what contributions to expect from additional players in a crowded playing field? RESCCUE working paper, SPC, Noumea.

Appendix 6: Hay J.E. 2015. Strengthening the inclusion of adaptation to climate change in RESCCUE activities at regional and pilot site Levels: Advice and actions. RESCCUE working paper, SPC, Noumea.