



WorldFish
C E N T E R

Community-based adaptive resource management in Solomon Islands: lessons learned

KEY MESSAGES

- Initiatives in community resource management that develop from genuine requests for participation from entire communities, have realistic expectations, secure stakeholder access to land and sea, and compensate for language barriers can successfully identify risks and threats to communities in order to guide adaptation planning and the assessment of possible supplementary livelihoods.
- Good community management institutions must be created and/or strengthened, provincial and national fishery officers should be brought on board, and research-for-development partnerships should be sealed with formal agreements and facilitated with effective communication.
- Management plans and monitoring methods should be simple and straightforward, tailored to local conditions so that they build on existing community norms and are realistic and sustainable.
- Decision-making tools and skills for adaptive community resource management enhance stakeholder capacity in general, improving community governance, cooperation and cohesion.

1. INTRODUCTION

This brief presents a review of lessons learned and good practices in developing management plans within the context of community based resource management (CBRM) in Solomon Islands. The lessons are based on work done by the WorldFish Center, the Foundation of the Peoples of the South Pacific International (FSPI) and the Solomon Islands Ministry of Fisheries and Marine Resources. The document is intended to complement other initiatives in the country and through the Solomon Islands Locally Managed Marine Area Network add to lessons learned by other organizations in order to help the people and the government of the Solomon Islands meet their marine resource management goals.

WorldFish lessons are a compilation from two ACIAR funded projects: (1) Improving sustainability and profitability

of village sea cucumber fisheries in the Solomon Islands; and (2) Improving resilience and adaptive capacity of fisheries-dependent communities in Solomon Islands (the 'Resilience' project). FSPI lessons are from its work within the Communities and Coasts programme in Solomon Islands. The key lessons learned and recommendations are discussed according to a conceptual scheme for diagnosis and management of small-scale fisheries that guides the WorldFish approach to community based adaptive management.

Through the 'Resilience' project, WorldFish has adopted the overarching 'Ecosystem Approach to Fisheries' (EAF) management, within which work is structured around a Participatory Diagnosis Adaptive Management (PDAM) framework (Figure 1, Andrew et al., 2007, Evans and

Andrew. 2009). Within the logical framework different management tools and approaches can be applied in order to provide practitioners with a clear pathway to improve fisheries management.

The framework provides a level of organization that specifically addresses the challenges least developed countries face in managing Small Scale Fisheries (SSFs). The framework places emphasis on: (i) the broader non-fisheries sector drivers of fisheries management performance and the opportunities and threats they present to people's livelihoods, and (ii) the institutions that govern fisheries, particularly the nature and legitimacy of use rights as a central requirement for effective management. Underpinning this framework is the need to define the fishery and, therefore, make a judgment whether processes controlling the status of the fishery are within the fishery (and directly under the influence of an agreed set of stakeholders; e.g. overfishing) or external to it and therefore not under the direct influence of identified participants in the fishery (e.g. climate change). The premise is that management should seek to make the fishery less vulnerable or resilient to those external drivers.

Community based management terminology in Solomon Islands

Community based resource management (CBRM) and community based fisheries management (CBFM) are terms that tend to be used interchangeably in the Solomon Islands largely because they have, until recently, both been primarily exercised within marine and coastal areas.

CBRM is a participatory, collaborative process where the focus is on local communities managing their natural resources. This practice has been associated with decentralized management approaches, which empower communities to become better stewards of their customary land and sea resources. In a broad perspective, CBRM relates to communities, government institutions, and civil society groups that work together to manage resources at the community level. CBFM generally refers to a system in which participants in the fishery practice management which may include: participating in decision making on aspects of management; defining access rights, limiting harvesting, practicing enforcement and compliance and undertaking marketing etc.

The term CBRM is adopted here for consistency with

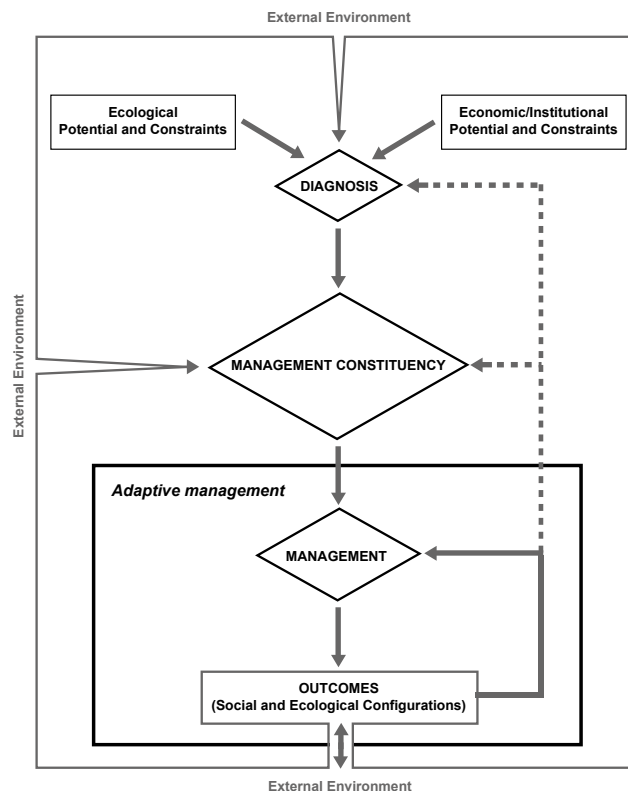


Figure 1. The Participatory Diagnosis Adaptive Management framework: a conceptual scheme for the diagnosis and management of small scale fisheries (Andrew et al., 2007). Processes for adaptive management are depicted by the diamonds; arrows show the direction of influence and boxes represent states. The solid feedback loop connecting the management phase to the outcomes represents normal management implementation and the monitoring and evaluation cycle. The dashed line illustrates a less frequent review that may include assessing fisheries trends, identifying other stakeholders that need to be included, or identifying possible actions to strengthen governance if there is weak enforcement and administration of management measures.

current policy (e.g. Solomon Island National Strategy for the Management of Inshore Fisheries and Marine Resources 2010-2012) and to reflect a more holistic approach to fisheries management in accordance with the Ecosystem Approach to Fisheries.

Partners and information sources

Information used for the compilation of this document was gathered from reviewing project documentation, several key presentations and outputs and outcomes from stakeholder workshop consultations. In addition, suggestions and experiences shared by project personnel were integrated into the analysis.

The lessons learned and good practices have been derived from the implementation of CBRM projects in Solomon Islands by the following organizations.

The Foundation of the Peoples of the South Pacific International (FSPi) is a network of nongovernmental organizations in the Pacific. FSPi's Communities and

PROPOSED PRINCIPLES FOR CBRM IN SOLOMON ISLANDS 2007

At a national workshop on CBRM held in Honiara in March 2007 through the SILMMA network, proposed principles for CBRM in Solomon Islands were jointly agreed upon by MFMR, SILMMA and other NGOs. They were based on lessons learned by all participants and were to form a platform to which further lessons learned could be added, enabling the principles to be refined. It is envisaged that this lessons learned document will build on these proposed principles.

1. Roles and responsibilities

MFMR is the lead agency responsible and:

- Organizations should provide them with information about intended workplans and target communities and sites
- All NGOs should work towards having MoUs or mutually acceptable agreements with MFMR
- Organizations should ensure reporting of project progress back to all responsible bodies (MFMR, SILMMA, donors, province, communities)

2. Relations between stakeholders – partners should ensure

- That communities are clear on the intended goals, responsibilities and likely consequences and that information is shared appropriately and regularly. This may be covered in a written agreement between community and project. Communities will be involved in project design wherever possible.
- Broad and inclusive participation of all stakeholders is vital at the community level (women, youth, churches, resource owners, etc) - the bottom up approach
- Consultation and appropriate involvement of provincial government, appropriate national ministries and NGOs in collaborative partnerships.
- Resources such as information, skills, personnel, gear, publications and reports are shared as much as possible to all levels. Communities should have improved access to information.
- Networking is a good mechanism for achieving resource sharing and assisting MFMR to liaise with different stakeholders. The existing national SILMMA network is an appropriate body for this.

3. Management approach should ensure that

- People, their aspirations and livelihoods are a central focus
- External and broader issues, risks and long term implications including sustainability are considered
- Capacity building at all levels plays a central role
- Mechanisms for monitoring and evaluation (internal and external) are defined
- Special consideration is given to land and marine tenure as well traditional and customary values
- Management process is flexible and adaptive – experiences and lessons learned should inform and improve management on a continual basis
- Management / action plan should be documented and contain minimum agreed information
- Due regard and support for the present and future legal framework is made
- If possible, CBFM projects should be distributed among provinces

A general “best practice” guideline for a CBRM process in Solomon Islands

1. Engagement with a community should follow a request / genuine expression of interest
2. Consult all stakeholders at national, provincial and local level
3. Effective community awareness and project clarification*
4. Community based problem and situation assessments
5. Participatory management and action planning resulting in a clear and agreed management/action plan
6. Implementation (and monitoring) of the action plan including following agreed rules and agreed responses to rule breakers
7. Adaptive management = monitoring and evaluation which are critical to assess performance
8. Long term, sustainable / exit strategy

* Points for effective community awareness

- Literacy may be a barrier
- Exchange visits and hearing from other communities may be most effective
- Pijin may not be as good as English
- Be clear who you are targeting, ensure it is the right people for the project
- Must be a continued process
- Appropriate timing and place
- Awareness for education/information is different from awareness as part of enforcement.

2. LESSONS LEARNED ACCORDING TO THE CONCEPTUAL SCHEME FOR DIAGNOSIS AND MANAGEMENT OF SMALL SCALE FISHERIES

2.1 DIAGNOSIS

The 'Diagnosis' Phase of the PDAM framework focuses on the evaluation of opportunities, strengths and threats, covering both the biological/ ecological and social/ economic processes in a fishery. This phase involves the exchange of information between project teams and the communities assisting facilitators to understand community dynamics and leadership structures, and helps facilitators and community decision makers alike to identify suitable entry points for management. It may also include the sourcing of traditional ecological knowledge and baseline scientific information on species, habitats and fisheries trends that may help determine management actions.

2.1.1 CBRM projects need to be community initiated

CBRM needs to be community initiated, as communities are more likely to accept and adopt management processes and rules that are in place if the initiative is 'bottom up' rather than 'top down'.

2.1.2 Request made by communities for resource management needs to be genuine

Community requests to participate in CBRM projects are becoming more common in Solomon Islands as the concept becomes more widely known. Such requests need to be assessed and validated as to whether they are genuine community requests, i.e. headed by the rightful resource owners, rather than a request issued by a sole individual or minority group, who may have intentions that differ from the CBRM purpose.

2.1.3 Community consultations need full community participation

To gather information and viewpoints from a wide perspective, it is important to include all sectors of the community; including men, women, youths, leaders and chiefs. There may be cultural or other social barriers to full engagement by all in a community meeting, so it is recommended that separate discussions be held with targeted sectors or groups within the community.

Coasts Program promotes sustainable, integrated resource management by building capacity, developing research and awareness materials, and informing policy. In Solomon Islands, the program emphasizes building the capacity of communities and other stakeholders by providing training in participatory processes, supporting the establishment of marine managed areas, restoring mangroves and coral reefs, promoting alternative livelihoods, and building networks and partnerships. It operates in the districts of Marau in Guadalcanal, Sandfly in Gela and Langalanga Lagoon in Malaita.

WorldFish is a non-profit international research centre committed to fighting poverty and hunger by ensuring resilient fisheries and expanding sustainable aquaculture. In Solomon Islands, WorldFish works to achieve community adaptive management of inshore fisheries and to develop alternative livelihood options, currently on the island of Vella Lavella and the Shortland Islands in Western Province, at Kia in Isabel Province, and in Lau Lagoon in Malaita Province.

The third partner, the Ministry of Fisheries and Marine Resources, is governed by the Fisheries Act, 1998, which is currently under review. It has developed inshore fishery and coastal community strategies to guide community resource management.



Involving all sectors of the community, including men, women, youths, leaders and chiefs is important to gather information and viewpoints

2.1.4 Initial community doubts, community expectations and false hopes need to be addressed in the earliest stages of engagement

Often communities will have doubts, high expectations and false hopes about the potential of a resource management initiative. It is better to address such doubts and expectations in the initial stages of building a working relationship and to hear their feedback, rather than risk community disagreements and a loss of trust at a later time, during the implementation of the management process.

2.1.5 Secure land and sea tenure and access

The rights of community members to their resources need to be clearly defined. This helps in determining the scales and boundaries of management, and to identify potential stakeholders that need to be included in the management process. This is important not only for developing management rules and norms, but also to avoid potential disputes over resources that may arise during the management phase. It may be necessary to give time for communities to resolve disputes or alternatively agree to leave disputed areas out of managed area boundaries.

2.1.6 Language barriers need to be considered when collecting information from communities

Collecting information from a community can be difficult if the collector of information is speaking a different language than the respondent. In remote parts of Solomon Islands, pijin may not be adequate for the task of communicating with some sectors of a community. Often, if the respondent does not understand your question, they will give an answer that may not capture the scope of the question. It is recommended that a translator be included in activities. The translator may be part of the team that is collecting the information, or can be a member of the community that can understand concepts well enough to convey the question to the respondent. Provincial fisheries officers can play an important role here.

2.1.7 Identify the risks and threats to utilization of marine resources

Identifying risks and threats to utilization of marine resources during the initial stages of relationship building between an external organization and the community



will help to define the goals of management and to focus stakeholders on a common goal. At this stage it is important that communities have a strong understanding of the underlying principles and components of ecosystem function in the coastal and marine realm. For example, as coastal communities are located in areas that are susceptible to natural disasters, like tsunamis, rough seas and strong winds, an appreciation that coastal ecosystems not only support fisheries and coastal livelihoods but also provide protection from the effects of natural disasters; can help in identifying management goals.

2.2 MANAGEMENT CONSTITUENCY

The 'Management Constituency' phase of adaptive CBRM identifies who should be involved in management decisions (people and organizations), how should they be involved (interactions) and structures that they abide by. This is a process of identifying appropriate or potential stakeholders, relationships, networks and guidelines in preparation for the management process. This stage needs to be strongly focused on the socio-cultural norms of the communities so as to build trust between communities and other stakeholders.

2.2.1 Good management institutions need to be present or set up in the communities-good governance approach

An effective management institution needs to be present or established in communities undertaking CBRM. In Solomon Islands this may be a group of chiefs, resource owners or committee members that have been identified and recognized by the community as having the right to

manage their resources. In the process, communities need to ensure that their leaders are exercising aspects of good governance. That is; leaders need to be accountable and transparent to community members, be reliable, and have the capacity to make decisions. The establishment of community institutions greatly assists in getting communities to organize themselves, assists in negotiation, ensures community contribution and helps in getting the community to participate in community organized activities.

2.2.2 Investments in strengthening management institutions and providing conflict resolution skills are worthwhile

Investment in strengthening management institutions within communities may be necessary. This may include training on tools for adaptive management, or helping community members to clarify local mechanisms for resolving (or preventing) conflicts and misunderstandings. A management institution that can effectively manage their resources and/or solve problems will be stronger for not needing to be dependent on outside institutions, will gain the community's trust and assist in general community governance. This supports the Solomon Islands government's initiative to empower communities to be able to manage their resources effectively with little outside intervention and is envisaged as a mechanism to enable the sustainability of management plans and thus, help improve livelihoods of rural people.

2.2.3 Engagement of provincial fisheries officers and other fisheries officers is essential

Collaboration between government authorities and communities is vital since management of marine resources is, at different levels, the responsibility of the national and provincial governments, and resource owners. Involving provincial and national fisheries staff in CBRM that is being implemented by an external organization allows them to gain the necessary experience to interact effectively with communities. At the receiving end, communities are empowered when their provincial fisheries officers and other government staff are physically present with them, and participate in the implementation of their management plans. As an example communities within the Abalolo, Gwaedalo and Ailau tambu site in Langalanga Lagoon in Malaita, three villages owning and managing the site,

expressed satisfaction at the presence of a provincial fisheries officer who could assist them in implementation of their management and action plan. Although this site's ecological benefits are limited and being questioned, the communities continue to seek alternative and supplementary livelihoods opportunities, including ecotourism. In another example, Foueda community in Lau, also in Malaita, viewed the inclusion of provincial fisheries officers in resource management as being beneficial; not only for the officers, but for the communities as well through its concrete illustration of government support.

2.2.4 Make formal agreements between projects and communities

Finalising an agreement between parties at the initial stage of the project is one way for implementers and communities to show they have come to a common understanding. This can also serve as a referral point for any future discussions or disagreements in later phases of the project. Agreements can also serve to clarify intended goals, responsibilities, benefits and potential activities to be carried out by the project within the communities.



2.2.5 Effective communication pathways lead to better understanding between parties and a better flow of work

Good communication between communities and implementers is essential and should be reciprocal. This may not necessarily mean using the latest technologies available, but one that works well for the community. An effective communication channel will link implementers with communities, and vice versa, monitoring the progress of work and avoiding misunderstandings or loss of trust by communities that may arise. While communication between implementers and communities is important,

communication between the communities that are engaging in CBRM and other neighbouring areas is also critical. By informing others of what communities are doing in terms of management of resources, neighbouring communities are more likely to respect management measures they have in place.

2.3 MANAGEMENT

This phase sets out policies and actions that support the development of a management plan and an ongoing adaptive management process. It features a decision making process including deciding on desired outcomes and deciding on necessary actions to achieve them. Actions are evaluated using biological or social indicators.

2.3.1 There is no absolute set of rules for success

In CBRM there are no blue prints that are guaranteed to achieve success. Communities with different forms of norms, rules or management regulations have all variously identified some forms of success within their CBRM. For instance, in terms of governance, some communities may work better with an overarching committee for a number of communities belonging to the same area, whilst others may not. In one region of Vella Lavella for example, which comprises three communities, one overarching committee has been formed for sharing lessons and experiences and for ensuring that fishers with reciprocal fishing rights have a common understanding, but communities decided that they were able to implement the management plan more effectively on a day to day basis at the level of the individual community committee level rather than the regional level. Community indicators of success also vary and have included increased abundance or size of marine resources,

increased social cohesion or enhanced income generation opportunities from their involvement. Each community is different, so management needs to be tailored or adapted to suit local conditions. Each community will likely have a different story to tell regarding their CBRM experience.

2.3.2 A management plan needs to be simple and in plain text so that it can be easily understood by the full community

Different styles or formats of management plans are used by communities and their partner institutions in the Solomon Islands. Ranging from tabulated action plans to 20 plus page documents some plans can be complex and difficult to be understood by community members considering the relatively low levels of literacy within some communities. While a comprehensive plan may be desired as a reference document a simple summary of actions and plans is also needed so that all members of the community can understand it.

For the full plan, attention should be paid by partner agencies (NGOs, government) to relevant fisheries and environment legislation when assisting communities with drafting, to ensure that plans include enough information to achieve legal status in the future, if desired. For the community summary, a recommendation is to use plain text brochures or posters which summarize the rules and norms and identify boundaries of managed areas. A further advantage of this approach is that translation to language can be rapidly completed by a community member. In summary, management action plans should be documented in some way and contain the minimum amount of agreed information as is necessary to provide context.



2.3.3 Monitoring needs to be kept simple, reliable, and cost effective, and have community interest

The current expectation of the Solomon Island Government is that communities will be empowered to manage their own resources well into the future with minimum outside help. Some common tools used in biological monitoring are too sophisticated for communities to use within a self-sustaining CBRM programme. For example the use of SCUBA for coral reef monitoring is not only expensive, but communities cannot be involved in the monitoring process unless certified as SCUBA divers. In developing monitoring protocols, consideration needs to be given to what monitoring activities communities will be able to participate in, their understanding of what it is they are monitoring, and how these activities fit in the broad picture of helping them to make decisions within the adaptive management process. Monitoring needs to be simple so that communities can interpret results for feedback into the management process and monitoring needs to be reliable, i.e. the data and information collected provides good information about the status of their resources. By being involved in monitoring activities for their management plans from an early stage, communities are more likely to have an interest in carrying on the process once partner organizations are no longer on call in their area.



2.3.4 Management tools/measures can be relatively simple, utilizing those that the community are comfortable with

Tools used for the purpose of management such as rotational tambus and closed areas and enforced by fisheries bylaws or community rules should be articulated in a clear and straight forward manner. It is better to build on management already in place or practiced within the community, than to introduce a wide range of new concepts at once. Familiarity and comfort with rules and norms is likely to improve ease of enforcement. For instance in a Shortland Island community, the establishment of a CBRM plan and process moved with relative ease as the rules and actions decided on by the community and leaders were not new concepts. This community had been practicing the traditional tambu system for over 30 years and envisaged that a formal management plan would only strengthen this practice.

2.3.5 Realistic long-term management plans

A successful long-term management plan needs to be realistic and have a way of funding activities if necessary. The need for funds will vary from place to place depending on the extent of resource area being managed and the monitoring and enforcement activities agreed on. Self-financing options need to be discussed at an early stage so that communities are aware of possible exit strategies. It is recommended that if funds are likely to be required, management bodies governing CBRM in communities or regions be formalized and registered as a Community Based Organisation (CBO) so that planning for self-financing and sustainable strategies can be initiated during the course of the CBRM development process. In the Sandfly and Longana districts of Gela, resource owners have established a 'Resource Owners Association', which acts as the umbrella management committee for community-based marine resource management in that part of Gela. This management committee is in the process of registering their body to become a CBO as it prepares to be self-reliant in the long term once external assistance terminates.

2.3.5 CBRM needs to be recognized by national government

For government recognition, CBRM needs to be consistent with national laws and regulations and management plans need to be aligned accordingly. The lack of government recognition for local rules or community by

laws is a common issue of concern raised by communities, expressing the difficulty that some of them face in enforcing their rules. It is anticipated that the legal aspects of CBRM will be better enabled by the new Solomon Islands Fisheries Act and regulations.

2.3.6 An integrated ecosystem approach is useful when doing community based resource management

Marine ecosystems such as mangroves, sea grass and coral reef habitats are interconnected. Other factors such as ocean currents make larval dispersal possible between ecosystems. While managing individual resources independently can have some value, partners working with communities should make sure communities understand these important ecological processes, and adopt or integrate such concepts into their management strategies. An ecosystem approach is important as the sea and land are interconnected, so that management can ensure all ecosystems are healthy and support the resources within them.



2.3.7 Printed awareness material is more effective if translated to the local language

On average, 68% of the nation is literate (Solomon Islands Govt, 1999) and 71 different languages are spoken as a mother tongue (Lewis, 2009). To cater for the general rural community, it is recommended that printed science concepts or awareness messages be communicated in the local language when possible. Community feedback suggests that printed media such as posters, brochures or flyers translated to the local language of the community or region are better understood, than those produced in English or Pijin, however the preferred language can vary from place to place and should be discussed with the community in the first instance.

2.3.8 Appropriate supplementary livelihoods should be considered only where/when necessary

A call for supplementary livelihoods to generate cash is a common request from communities who are managing their marine and coastal areas. There is no easy one-size fits all solution to supplementary livelihood requests and a preferred approach, in the initial stages of CBRM at least, is to ensure that management options agreed by the community do not result in undue hardship for the subsistence component of the community livelihood and therefore do not require 'alternatives' for obtaining food. Project partners and the community leaders must then consider if it is to the community's advantage to be involved in a particular supplementary or alternative livelihood, and if they have, or foresee they will have, the necessary capacity to manage such initiatives. Partners working with communities should carry out feasibility assessments of proposed supplementary livelihoods, including environmental suitability, and the social and economic viability. Results should then be communicated back to the community so that they understand the implications of such assessments. It is important that implementers tread carefully until feasibility assessments are complete as communities can have unrealistic expectations when the possibility of generation of cash benefits is involved.

2.4. OUTCOMES

2.4.1 Linkages are formed between communities and different levels of government.

Throughout the adaptive management process, communities will identify potential stakeholder groups to work with. An outcome of the management process is expected to be that communities will find themselves linked increasingly closely to different levels of government and other organizations. This may be facilitated through social-networking processes such as the provincial networking processes that have recently been initiated in Central and Malaita Provinces or through the Solomon Islands Locally Managed Marine Area (SILMMA) network. Social networks provide an avenue for a wide spectrum of stakeholders to gather and can provide opportunities for community members to meet and discuss issues surrounding community-based management and action plans with those such as provincial and national government partners

who may not necessarily have the time to visit every community practicing resource management. Communities should expect to work closely with such institutions as part of stakeholder participation in the implementation of their management and action plans, and be prepared to inform others of their management progress.



2.4.2. Communities are equipped with adaptive decision making tools and skills for better handling of a range of situations that may arise

Communities will have their own ways of dealing with and solving problems. However one outcome of getting communities to understand and participate in adaptive management is that they have opportunities to gain additional skills with respect to decision making. This helps not only the formal management institution in being able to monitor and assess their management plan independently and effectively, but can also have flow-on effects to improved general community governance.

2.4.3 Good community governance and organization assists in improving community cooperation and cohesion

A successful CBRM process requires good community governance and organization. A well organized committee is a driver for an effective management plan and a good community working environment. For instance, communities of Lau have expressed how the formation of a committee has resulted in more communal cooperation within the fishery, and also assisted in building up other general community activities. When cooperation is shown in executing monitoring processes and upholding of rules

and regulations, respect from nearby villages can also be gained. Recognition from implementing partners will also be acquired and this in turn can capture the attention of other stakeholders interested to engage in additional projects with the community. In another example, communities of Sandfly and Longana districts in Gela have spoken highly of the role ROA (Resource Owners Association of Gela) has played in promoting cooperation and cohesion in marine and coastal resource management among community people and in acting as a focal point for provincial government contact with local communities. This in turn has attracted other communities interested in joining ROA.

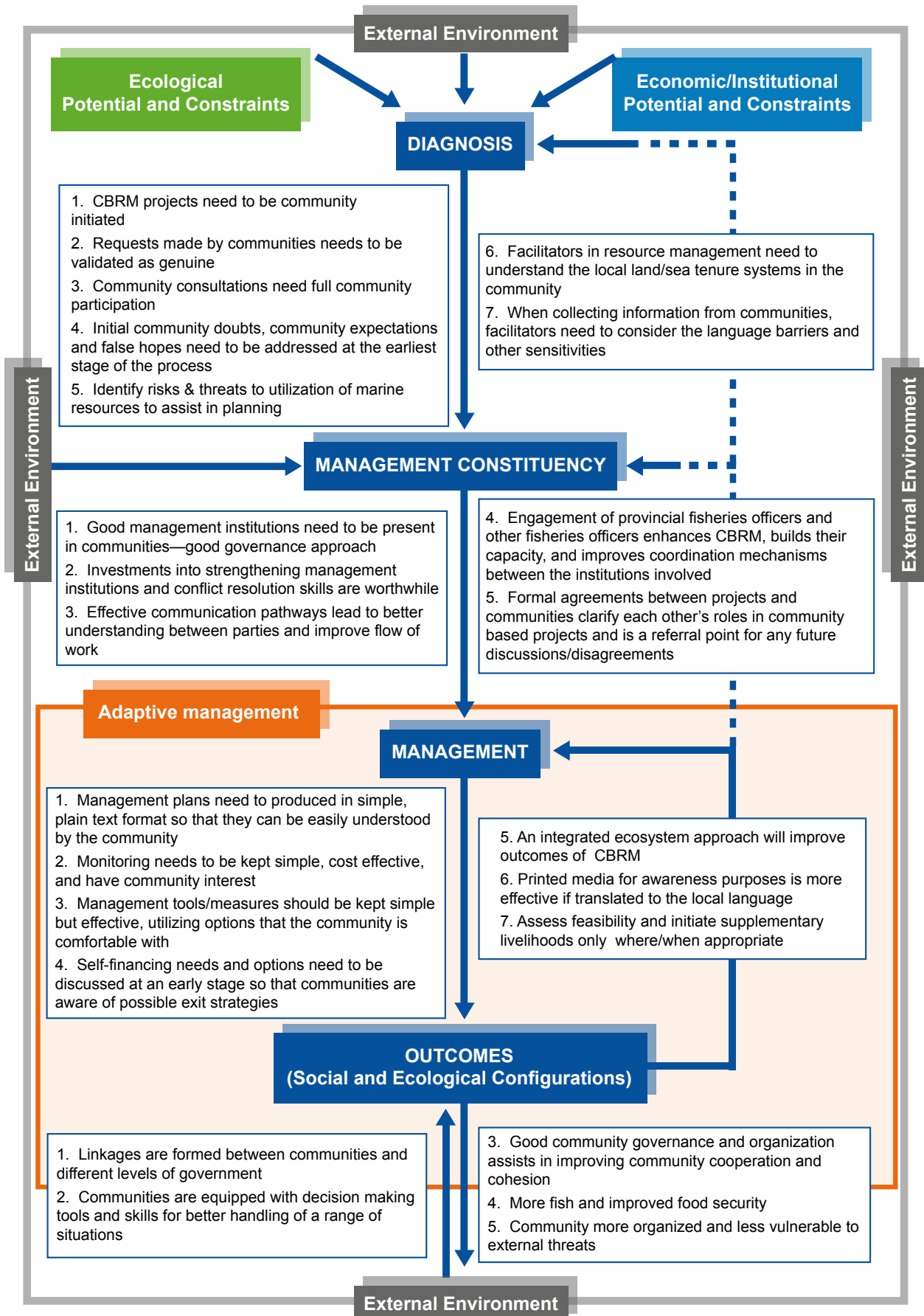
3. WAY FORWARD

It is envisaged that in Solomon Islands communities working with a CBRM plan will continue to do so long after projects/ partners that help them to initiate the work leave. Currently communities are responsible for enforcement and compliance through their own governance systems. To facilitate sustainability, it is important to make sure that community initiatives are integrated into national policies and recognized under appropriate national legislation. In the future, the (currently in-review) Fisheries Act, will be able to assist in providing legislative support to enforce rules and regulations outlined in community plans, thereby fulfilling the enforcement gap identified by many communities. Nevertheless, it will remain paramount that communities owning CBRM plans respect and comply with those plans to the best of their ability before assistance will be able to be sought from outside.

Although government strategies outline initiatives to have CBRM work spread throughout the country, there is currently insufficient manpower and funding to do this in one giant leap. Communities will need to understand the limited nature of potential assistance from projects and so practice self-reliance strategies as early as possible in the life of any assistance opportunity. Self reliance might refer to: the utilization of existing skills and ideas; contributing ideas towards fundraising activities or developing management approaches that require minimal financial input to be sustainable.

Having communities participate in resource management activities long into the future provides an opportunity for an increased recognition at the community level of the linkage between food security, climate change and their ability to adaptively manage with the goal of yielding positive outcomes for fisheries and marine resources. With an increasing population, increased cost of living and soaring

LESSONS LEARNED MAPPED TO CONCEPTUAL SCHEME FOR DIAGNOSIS AND MANAGEMENT OF SMALL-SCALE FISHERIES



food prices, communities need to be clearly informed on the need for careful management of (marine) resources and the role that these can be expected to play for their community in the future. Engaging in CBRM processes can better the understanding of elements of resilience, and help build adaptive capacity to various drivers of change.



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