

National Fish and Wildlife Foundation

Coral Reef Conservation Fund 2013 - Submit Final Programmatic Report (New Metrics)

Grantee Organization: OceansWatch

Project Title: Implementing Locally Managed Marine Area Practices in the Solomon Islands

Project Period	6/01/2013 - 10/31/2014
Project Location Description (from Proposal)	The southeast corner of the Coral Triangle. Fenualoa and Nifololi islands in the Reef Islands, Temotu Province, Solomon Islands.
Project Summary (from Proposal)	Implement a network of local community stewards of coral reefs to monitor and manage resources. Project will incorporate customary fishing rights to build a more sustainable management regime.
Summary of Accomplishments	2013-2014 OceansWatch worked with seven communities to develop marine management plans, implement locally managed marine protected areas and to train Reef Guardians to manage, monitor and enforce these areas. These areas are included in and make up a larger marine management area. To provide a conservation incentive we introduced a sustainable livelihood project to five communities by setting up of women's co-operatives. These small scale enterprises extracted cold-pressed coconut oil which OceansWatch bought and sold in New Zealand. To support the marine protection we increased awareness in all the communities and in the local High School by providing films, powerpoint presentations and workshops on coral reef ecosystems and the benefits of protected areas. We surveyed the coral reefs and the seagrass to monitor the effects of the management program and we carried out in depth socio-economic monitoring in one village to understand more about their needs. To determine the benefits to the community of the marine management we trained several families in fish catch rate monitoring. The overall outcome has been to empower the local communities in this remote area of the Solomon Islands about the value of creating no-take fishing areas and restricting certain fishing methods to ensure that there are fish for their future generations. They now have access to a small income through selling coconut oil and this will take the pressure off the diminishing fish resources.
Lessons Learned	We have learnt many lessons during this project and incorporate that learning as we go forward. We learnt during the last two years of engagement was that although the Reef Guardians are enthusiastic when we are there in the communities, when we are absent they sometimes may forget or do not take responsibility for collecting data so frequently. We have learnt that better community outcomes are achieved through putting more time into meetings with the local stakeholders than through surveying. Surveying takes a lot of time and effort and although it is important to have baseline surveys to underlie what we are doing, time with the locals building their capacity is of more value. We also found that it is of benefit when there is standardised management between communities so that they understand each others situations and work together. We have learnt that the government system of Protecting Areas the Protected Area Act set up in 2010 is very slow and laborious and may still not have registered anyone. To support the Solomon Islands environment department we need to put more effort into our relationships with the people in the Provincial and National government. We also think we need to be more hard hitting in our awareness program to prevent the deterioration of reefs and we need to prepare more towards future problems with crown of thorn starfish. We explored using vibrio sampling as a measure of coral health and determined it was too underdeveloped for our needs.

Activities and Outcomes

Funding Strategy: Capacity, Outreach, Incentives

Activity / Outcome: Coral - Building institutional capacity - # FTE with sufficient training

Description: Enter the number of staff or full-time equivalents with sufficient training and skills engaged in conservation activities

Required: Recommended

FTE with sufficient training - Current: 0.25

FTE with sufficient training - Grant Completion: 1.25

Notes: In one village - Tuo on the island of Fenua'aloa, we have been training 8-10 Reef Guardians for three years and they have had sufficient capacity to:

1. Say no to government decision to open their beche de mere harvest.
2. To send monthly reports to us via our Solomon Islands, Honiara directors.
3. To challenge and evict boats from their MPA.

They are not working full time as there is not the need. We have worked on the basis of four people working for one day per month or one weeks work per annum, or a quarter FTE per month per village.

At the end of the current proposal five other villages will also have had this level of training.

Funding Strategy: Capacity, Outreach, Incentives

Activity / Outcome: Coral - Outreach/ Education/ Technical Assistance - # people reached

Description: Enter the number of people reached by outreach, training, or technical assistance activities

Required: Recommended

people reached - Current: 800.00

people reached - Grant Completion: 1400.00

Notes: This relates to 90% of the population of Fenua'aloa and Nifololi.

Funding Strategy: Planning, Research, Monitoring

Activity / Outcome: Coral - Management or Governance Planning - # plan activities implemented

Description: Enter the number of management plan activities being implemented

Required: Recommended

plan activities implemented - Current: 27.00

plan activities implemented - Grant Completion: 60.00

Notes: In 2012 we held 14 Conservation Film nights, Held 5 Reef Guardian Training programs, held at least 7 meetings and one full day workshop.

In 2013 and 2014 We are spending longer in five of the communities and have a goal of holding at least 60 of these activities.

Funding Strategy: Planning, Research, Monitoring

Activity / Outcome: Coral - Tool development for decision-making - # tools developed

Description: Enter the number of tools developed

Required: Recommended

tools developed - Current: 0.00

tools developed - Grant Completion: 2.00

Notes: We are developing a "Reef Guardian" Training program using Free Choice Profiling as a qualitative tool for assessing reef health that is easily applied by people in the local communities in the Solomon Islands.

We will develop a methodology to measure Fishing effort. By monitoring time a boat is away from village and number of fish on return.

Funding Strategy: Species-specific Strategies

Activity / Outcome: Coral - Fishing effort - Catch per unit effort

Description: Enter the catch per unit effort

Required: Recommended

Catch per unit effort - Current: 4

Catch per unit effort - Grant Completion: 5

Notes: This figure is four fish per hour as the estimated catch per hour from the household surveys conducted in the villages.

Funding Strategy: Capacity, Outreach, Incentives

Activity / Outcome: Coral - Enforcement / Compliance with existing regs - Miles with enforcement presence

Description: Enter the number of miles with a minimum level of enforcement presence

Required: Recommended

Miles with enforcement presence - Current: 30

Miles with enforcement presence - Grant Completion: 117

Notes: These figures are square miles and refer to the entire managed areas not just the MPAs.

Funding Strategy: Habitat Management

Activity / Outcome: Coral - improved management practices - Acres under improved management

Description: Enter the number of acres under improved management

Required: Recommended

Acres under improved management - Current: 19000.00

Acres under improved management - Grant Completion: 75000.00

Notes:

Funding Strategy: Planning, Research, Monitoring

Activity / Outcome: Coral - Management or Governance Planning - # plans developed

Description: Enter the number of plans developed that had input from multiple stakeholders

Required: Recommended

plans developed - Current: 0

plans developed - Grant Completion: 1

Notes:

The following pages contain the uploaded documents, in the order shown below, as provided by the grantee:

Final Report Narrative - Marine
Photos - Jpeg
Other Documents
Other Documents
Other Documents
Other Documents
Other Documents
Other Documents
Other Documents

The following uploads do not have the same headers and footers as the previous sections of this document in order to preserve the integrity of the actual files uploaded.



NFWF

Final Programmatic Report Narrative

Instructions: Save this document on your computer and complete the narrative in the format provided. The final narrative should not exceed ten (10) pages; do not delete the text provided below. Once complete, upload this document into the online final programmatic report task as instructed. **Please note** that this narrative will be made available on NFWF's Grants Library and therefore should provide brief context for the need of your project and should not contain unexplained terms or acronyms.

1. Summary of Accomplishments

In four to five sentences, provide a brief summary of the project's key accomplishments and outcomes that were observed or measured. This can be duplicative to the summary provided in the reporting 'field' or you can provide more detail here.

In the 2013-2014 project season OceansWatch worked with seven communities to support them to develop marine management plans, implement locally managed marine protected areas and to train Reef Guardians to manage, monitor and enforce these areas. These areas are included in and make up a larger marine management area. To provide a conservation incentive we introduced a sustainable livelihood project to five communities through the setting up of women's co-operatives. The women set up small scale enterprises that extracted cold-pressed coconut oil which OceansWatch bought from the women and sold in New Zealand. To support the marine protection we increased awareness in all the communities we worked with and in the local High School by providing films, powerpoint presentations and workshops on coral reef ecosystems and the benefits of protected areas. We surveyed the coral reefs and the seagrass to monitor the effects of the management program and we carried out in depth socio-economic monitoring in one village to understand more about their needs. To determine the benefits to the community of the marine management we trained several families in fish catch rate monitoring. The overall outcome for this area of rich coral reef biodiversity has been to empower the local communities in this remote area of the Solomon Islands about the value of creating no-take fishing areas and restricting certain fishing methods to ensure that there are fish for their future generations. They now have access to a small income through selling coconut oil and this will take the pressure off the diminishing fish resources.

2. Project Activities & Outcomes

Activities

Describe the primary activities conducted during this grant and explain any discrepancies between the activities conducted from those that were proposed.

Our activities were carried out with the local people from eight villages.

TUWO

OceansWatch was based in Tuwo for the longest duration in 2013 due to the long standing partnership between the village and OceansWatch and the extent of work that had been developed previously. The main aims of the marine team in that year were to consolidate previous reef survey work, conduct a number of educational and awareness raising sessions in the village, and develop an on-going monitoring program. This year OceansWatch also aimed to introduce a sea cucumber restoration program, catch per unit of effort (CPUE) monitoring and seagrass monitoring. The team worked closely with the local Reef Guardians who are responsible for providing information to facilitate adaptive management by the Conservation Committee and other community members. A shorter visit was carried out in 2014.

MALUBU

2013 was the second occasion that OceansWatch worked with Malubu Village. The marine team assisted the community in the establishment of appropriate and relevant MPAs and conducted a number of baseline surveys. Reef Guardian training was undertaken and awareness films shown. CPUE was also introduced to the Reef Guardians. During our time on Fenualoa the community held their Custom Feast to declare their MPAs and this was attended and filmed. A shorter visit was carried out in 2014

TANGA

The views and conclusions contained in this document are those of the authors and should not be interpreted as representing the opinions or policies of the National Fish and Wildlife Foundation. Mention of trade names or commercial products does not constitute their endorsement by the National Fish and Wildlife Foundation.

OceansWatch spent two weeks in Tanga in 2013. World Vision was also visiting Tanga assisting them with a commercial smoked fish project. Hence work that could be completed was limited to awareness evenings with the whole village. We showed numerous educational films and gave presentations on different aspects of marine conservation. In 2014 we observed a seaweed project that had been established there and started a new trial in Mola'a where the water is cleaner.

MALAPU, MOLA'A, NIFILOLI

These three villages fish in the same reef (The Great Reef). In 2012 the communities decided to work together to identify an appropriate location for an MPA. OceansWatch stayed for a week and a half in Malapu and Mola'a in 2013, however unfortunately there was insufficient time to visit Nifiloli. However members from the Nifiloli community joined in the activities in Mola'a and Malapu. The locals from each village agreed on one permanent MPA and a five month temporary MPA located outside Malapu.

The marine team also conducted repeat Reef Check surveys within the Great Reef (three sites in Permanent and three in open-access fishing areas). The team also presented various training and awareness presentations and the CPUE program.

In 2013, Mola'a (in collaboration with Nifiloli and Malapu) designated a permanent MPA and three seasonal MPAs (Fig. 3). We worked extensively with these communities in 2014 and observed that enforcement and compliance are strong, and no illegal fishing has been observed within the MPAs. The communities recognised positive benefits within just three months of designation. These benefits include, increase in coral cover, decline in bleached coral, presence of new coral recruits and an increase in fish biomass and abundance. Sea cucumber density still remains low, despite the national moratorium in 2005, banning all sea cucumber harvest. Reef Guardian Program re-training, marine surveying and community education. Quantitative marine surveys were made by OceansWatch marine biologists within the permanent MPA (see section 2.1). Reef Guardian's from 2013, and interested new members, were trained to continue year-round data collection from their MPA (see section 2.2). Finally, educational sessions including PowerPoint presentations and videos, were held both in Fenualoa Community High School and within the community. These sessions focused on coral reef, mangrove, and seagrass ecology, crown-of-thorns (COTS) awareness and removal, sustainable fishing practices and coral reef health (see section 3).

OTELO

Following a brief introduction in the community in 2012, OceansWatch formally visited Otelolo for the first time in 2013. The marine team educated the villagers on MPAs, seagrass and mangrove awareness. Seagrass and mangrove areas were mapped for future reference. CPUE training and education was also undertaken with Otelolo's Marine Conservation Committee. Finally, sea cucumber surveys were performed to determine the viability of the area outside of Otelolo village for setting up a sea cucumber restoration program in the future. The marine program in Otelolo differed slightly to the programs in Mola'a and Nifiloli due to different use of, and proximity to, marine ecosystems. Otelolo is surrounded by dense seagrass beds and mangrove forests. Therefore, seagrasses and mangroves appear to be of greater importance to this village and are used more frequently as fishing grounds. Also, this village currently lacks any MPA and fishing regulations. Due to both of these factors the Reef Guardian Program was modified to enable a high level of education on MPAs and sustainable fishing. The Reef Guardian team were provided with factsheets about how MPAs can help them and it is hoped that this will encourage the village to establish an MPA. Following training, the Reef Guardian team informed the OceansWatch team that they would call a community meeting to discuss with the chiefs and all surrounding villagers about establishing an MPA in a section of their seagrass and mangroves by the end of November 2014. Reef Guardian's were also trained on catch per unit effort monitoring (see section 2.2.4). CPUE will enable evaluation of fisheries stocks and establishment of management regulations in future years. Furthermore, seagrass surveying, using Seagrass Watch methodology, was performed by OceansWatch marine biologists with the new Reef Guardians instead of the standard reef surveying (see section 2.3). Finally, community education remained a key component of the 2014 marine program.

NGADELI

This was OceansWatch first visit to Ngadeli village. Ngadeli had established an MPA upon their own initiative last year and requested OceansWatch assistance in monitoring and providing appropriate marine education. The marine team mapped this MPA, and undertook catch per unit effort training. This community also demonstrated an interest in crown of thorns starfish and methods of their removal. A brief baseline survey was performed to determine the abundance of crown of thorns in the reef area that Ngadeli requested. This village

also indicated great interest in the Reef Guardian program, and training was started. Ngadeli is the only village located on the island of Nendeli. There are approximately 190 members of this community, with four chiefs. The island is very low-lying and is inundated with water during high tides. The community have marine tenure over a large area of reef and seagrass. There is a dispute with Nola, a nearby village, regarding marine tenure areas. An MPA was established in 2012, although the boundaries appear relatively unknown and are not marked with tabu markers. Bumphead parrotfish, white and blacktip reef sharks and turtles are regularly observed by the villagers (and the OceansWatch team) within the MPA. The topographical complexity, and fish biomass, density and diversity is incredibly high within the MPA.

No spear, net or bow and arrow fishing is permitted within the MPA. Line fishing is permitted within the MPA for a small amount of reef fish, particularly rabbitfish and parrotfish. Fishing occurs approximately two to three times a week and is primarily concentrated in reef areas. Women also regularly collect mangrove shells for trade within LomLom's other villages. Turtles are targeted for meat and jewellery and fishermen from other villages are occasionally observed fishing for sharks. Crown-of-thorns starfish have been observed in their reefs.

(1) The plan was to hold meetings and workshops to implement the management plan and MPAs (I1.2)

We had community marine focused meetings in Tuwo, Malubu, Malapu, Mola'a, Ngadeli and Otelo in 2013 and in Mola'a, Ngadeli and Otelo in 2014. In Tuwo and Malabu we were ensuring that the tabu areas were being enforced and discussing ongoing issues that they were encountering. In Mola'a the meetings included people from Malapu and Nifololi to ensure that the three villages who have customary fishing rights over the Great reef were working together and agreeing on tabu areas. 2013 was the first year we engaged with Ngadeli and Otelo and they were very enthusiastic. The reef wall in Mohawk Bay is one of the most pristine reefs that all our scientists have seen so we are very happy that it is in the process of being protected.

We also held several meetings with the local officials in Lata (the Provincial capital) and in Honiara (the national capital) with the government's environment department offices.

To date, each of the six communities in the reef area in which we are working has established a Conservation Committee to work with OW to develop and implement its community no-take zone. An overall committee, "The Fenualoa Conservation Committee," has been established and will decide on the fishing regulations for the whole reef. Unfortunately the chairman of the committee has been in Honiara and so no meetings had been held in 2014. He is now back in the Reef Islands and is working closely with us to consolidate this work.

We are still working with the national environment department to register the entire area as an MMA under the Solomon Islands Protected Areas Act of 2010. If granted this will protect the area against the threat of mining activity as well as protect it from external fishing interests. In the Solomon Islands the Land owners Advocacy Support Unit has been set up to carry out this Protected areas work but they are not working with any communities apart from their own and so we have had to send one of the locals there to be trained by them. Nelson has since worked with some communities and in 2015 will be working with us full time to implement this.

(2) The plan was to provide "Reef Guardian" training (I1.3)

In 2013 Reef Guardian training was provided in six villages to 36 local people (Ngadeli (9), Tuwo (17), Malapu (6), Mola (2), Nifiloli (2)) and this was followed up in 2014 with training in Mola'a (for locals from Mola'a, Malapu and Nifololi) Otelo and Ngadeli a total of 29(Ngadeli (10), Otelo (8), Malapu (1), Mola (8), Nifiloli (2)) were trained in 2014. The training incorporated their traditional customary knowledge and included a monitoring method that values this.

(3) We planned to Monitor coral reef health (I1.5)

OceansWatch conducts Reef Check monitoring and is trialing the Coral Health Index monitoring methodology which includes *vibrio* counts in 2013. We spent time researching this and trying to communicate with the developers of this methodology but our scientists decided it had not been sufficiently validated for it to be of use to us.

In 2013 we carried out the following Reef Check surveys: Tuwo: 9 sites (triplicate surveys)
The Great Reef: 6 sites (triplicate surveys) and Malubu: 6 sites (triplicate surveys).

These were conducted by the OceansWatch marine team and the results are given to the local community, the provincial government, and to Reef Check International. This provides us with extensive data that will give us an indication of the MPAs effectiveness over time. We plan to repeat Reef Check surveys in the future but we do not feel they provide sufficient value for the local communities and so we have developed a monitoring system based on their traditional values

for them to use. In 2014 this methodology was used in Mola'a: 6 surveys within permanent MPA and Ngadeli: 6 surveys within permanent MPA

(4) We planned to offer alternative livelihood support

In 2013 a full set of coconut oil extraction equipment was provided for five communities on Fenualoa island. They used this to extract 100L of oil which was bought and taken to New Zealand and sold. In 2014 a mechanized extraction method was trialled in Mola'a and this produced 90L.

(5) We planned to provide coral reef/climate change education (Goal 2)

In addition to providing the Reef Guardian training, our education and awareness program included twice-weekly community movie nights, where we showed conservation-related films. In 2013 we did this in Tuwo, Malubu, Malapu, Mola'a, Fenualoa High School, Otelo and Ngadeli and in 2014 in Mola'a, Ngadeli, Otelo and Fenualoa Community High School. **We did an extensive Local Environment Adaptation Plan (LEAP) workshop with Mola'a in 2013.**

(6) Conduct household surveys (I1.5)

In depth household surveys were conducted in 2013 with every household in Mola'a. We did expect to survey more villages but thought it would be more viable to do a more comprehensive survey with one village than a less detailed one throughout Fenualoa. We were also concerned about survey fatigue as the support people implied that this might be a concern.

Outcomes

- Describe progress towards achieving the project outcomes as proposed. and briefly explain any discrepancies between your results compared to what was anticipated.
- Provide

any further information (such as unexpected outcomes) important for understanding project activities and outcome results.

1. Outcomes and Indicators

(1) Coral Health monitoring to assess effectiveness of management on the reefs against established baseline data.

OW uses the Reef Check methodology to monitor the status of coral reef health.

Reef Check surveys conducted in 2013

Tuwo: 9 sites (triplicate surveys)

The Great Reef: 6 sites (triplicate surveys)

Malubu: 6 sites (triplicate surveys)

Reef surveys conducted in 2014

Mola'a: 6 surveys within permanent MPA

Ngadeli: 6 surveys within permanent MPA

For data see the reports

(2) Fish catch rate monitoring to assess effectiveness of management of the reefs.

In 2013 we trained families in different villages to carry out catch per unit fish monitoring (CPUE) Mola (1 family trained), Malapu (1 family trained), Malubu (4 families trained), Tuwo (6 families trained)

In 2014 the Reef guardians were all trained in CPUE

(3) Reef Guardian reporting to assess the effectiveness of the Reef Guardian training.

Receiving the monthly monitoring report from the Reef Guardians indicates they are enrolled and active in assessing and protecting their MPAs. Over time comparing their results with the Reef Check surveys will help to validate this

The views and conclusions contained in this document are those of the authors and should not be interpreted as representing the opinions or policies of the National Fish and Wildlife Foundation. Mention of trade names or commercial products does not constitute their endorsement by the National Fish and Wildlife Foundation.

community-level monitoring program. Tuwo and Mola'a were the two communities that carried out their monthly monitoring.

The Reef Guardian Program is used to empower community level management of and responsibility for marine and coastal resources. This Program allows villagers to view their reef as a living entity, not just a resource. It facilitates the development of a strong team dynamic to assist in making key decisions regarding the health of their marine resources and environment. All decisions are made as a team throughout the training and after each survey in the following months. The Reef Guardian team in Mola'a is made up of members of Mola'a, Nifiloli and Malapu, because they share the reef and MPA. This has proved problematic in the past, with many members forgetting or not fully understanding their responsibility to gather data. Ngadeli's Reef Guardian comprised of members from their village only.

Two training sessions were undertaken, to refresh existing Reef Guardian's and train several new members; (training 1) Program discussion and methodology and quantitative indicator monitoring training in-water exercise and (training 2) full in-water Reef Guardian monitoring and data consensus activity. In addition to Reef Guardian training requirements, teams were trained on basic marine ecology and fisheries sustainability. All sessions were mandatory for interested individuals. A minimum of six people were required for the team with a maximum of 12. Reef Guardian's are required to survey their MPA reef a minimum of once a month. Surveys are undertaken as individuals, but a consensus is made post-survey for both the average abundance of indicator species and qualitative score.

For the quantitative monitoring, nine indicator species (parrotfish, grouper, humphead wrasse, surgeonfish, butterflyfish, giant clam, COTS, sea cucumber and urchins) were chosen. These species were selected due to their local importance as a protein and income source and their value in maintaining ecosystem health (Table 5). Reef Guardian's are also required to record the presence of any bleached coral.

The qualitative assessment of reef health and status is based on the concept of free choice profiling (FCP; Wemelsfelder, 2001). FCP enables participants to describe qualities of a place or thing using their own descriptive terms. This facilitates exploration of an individual's subjective experience and thoughts freely, rather than within the confines of pre-determined descriptors. This qualitative component of Reef Guardian monitoring is initially twofold. Firstly, during training a set of descriptive terms (between seven to ten) is chosen following a snorkel on their reef, and secondly the reef is scored against these self-generated terms. Scoring is performed during each monthly survey against a line (12.5cm) from a minimum to maximum point. The position of the scale mark is measured and recorded, and agreed upon by all team members.

A full practice survey was performed by each Reef Guardian team and results were discussed as a group. The methods of recording results after each survey were also demonstrated and clarified. Reef Guardian members were each given a snorkel set and t-shirt once they had attended all three sessions.

Results will be recorded once a month, all year and will be evaluated along with the 2013 results once a data analysis method is formulated by Glenn Edney.

(4) Number of bottles of virgin coconut oil produced will assess the initial effectiveness of the alternative livelihood project.

The amount of coconut oil produced was measured in Litres and OceansWatch paid the communities at per litre in 2013 we easily sold the 100 L coconut oil we produced and in 2014 the 90 L has not yet arrived in New Zealand. We bought the coconut oil for \$25/L in 2013 and \$30/L in 2014 this is compared to that going rate of \$23/L (Solomon Island Dollars).

(5) SEM-Pacifika household monitoring to assess the effectiveness of the education program on community awareness and compliance.

We did not carry out as extensive monitoring as planned under this application. A very extensive monitoring program was carried out in 2012 in Fenualoa. In 2013 we carried out a household survey as part of a LEAP programme in Mola'a village. The report of this is provided in the uploads.

3. Lessons Learned

The views and conclusions contained in this document are those of the authors and should not be interpreted as representing the opinions or policies of the National Fish and Wildlife Foundation. Mention of trade names or commercial products does not constitute their endorsement by the National Fish and Wildlife Foundation.

Describe the key lessons learned from this project, such as the least and most effective conservation practices or notable aspects of the project's methods, monitoring, or results. How could other conservation organizations adapt similar strategies to build upon some of these key lessons about what worked best and what did not?

We have learnt many lessons during this project and incorporate that learning as we go forward.

These observations include:

During the last two years of engagement we found that although the Reef Guardians are enthusiastic when we are there in the communities, when we are absent they sometimes may forget or do not take responsibility for collecting data so frequently.

We have learnt that better community outcomes are achieved through putting more time into meetings with the local stakeholders than through surveying. Surveying takes a lot of time and effort and although it is important to have baseline surveys to underlie what we are doing, time with the locals building their capacity is of more value.

We also found there is benefit when there is standardised management between communities so that they understand each others situations and work together.

We have learnt that the government system of Protecting Areas the Protected Area Act set up in 2010 is very slow and laborious and may still not have registered anyone.

To support the Solomon Islands environment department we need to put more effort into our relationships with the people in the Provincial and National government. We have found this very time consuming and expensive and generally working from the bottom up is more effective locally.

We also think we need to be more hard hitting in our awareness program to prevent the deterioration of reefs and we need to prepare more towards future problems with crown of thorn starfish.

We explored using vibrio sampling as a measure of coral health and determined it was too underdeveloped for our needs. We have developed a reef monitoring system that uses the locals customary traditional knowledge that is more comprehensive to the local reef guardians and that they understand and undertake. As we develop and refine this system it may be useful for other organisations as it is much more accepted by the local communities as it is more qualitative than quantitative and yet it has a scientific basis.

We have learnt that when there are more than one organisation working with a community that sometimes they can be working at cross purposes. In Tanga one of the villages trialled a program in smoking fish for the Honiara market so while we were encouraging them to conserve their fish this other NGO were trying to get them to catch as much as possible. Luckily their trial was not extended.

4. Dissemination

Briefly identify any dissemination of project results and/or lessons learned to external audiences, such as the public or other conservation organizations. Specifically outline any management uptake and/or actions resulting from the project and describe the direct impacts of any capacity building activities.

As a result of this marine conservation work that we have achieved with communities we have been working with Conservation International and CEPF to carry out some terrestrial Endangered species work and the establishment of Ridge to Reef protected areas on other islands in the Temotu Province.

We have shared our project reports through our website.

We have sent Reef Check reports to Reef Check International in 2013

We have had in the Solomon Star Newspaper

We send out monthly newsletters to over 5000 subscribers

One of the ways we have observed our empowerment and capacity building making a difference has been the response of the community to government regulations. In response to the recent Tsunami the Solomon Islands government has just lifted the ban on harvesting Sea Cucumbers. This allows local people to collect and sell any Sea Cucumbers they find in a totally unregulated manner. Populations could be wiped out and with no Sea Cucumbers left the ecosystem as a whole will suffer. This is because of the essential role they play cleaning and aerating the substrate, thus constraining harmful algal growth and ensuring a suitable habitat for invertebrates, which in turn provide food for bottom feeding fish.

The OceansWatch trained Reef Guardians now understand the important place Sea Cucumbers have in their community

The views and conclusions contained in this document are those of the authors and should not be interpreted as representing the opinions or policies of the National Fish and Wildlife Foundation. Mention of trade names or commercial products does not constitute their endorsement by the National Fish and Wildlife Foundation.

owned reefs and also know that they have a responsibility to take care of them.

So instead of rushing out in their canoes to harvest, these Reef Guardians had a meeting and through their recently gained knowledge they very wisely decided NOT to harvest the Sea Cucumbers. These Reef Guardians now understand what real sustainability means, they see that in the long term, having a viable breeding population of sea cucumber is far more important than short term gain of just a few dollars.

On another occasion it was observed that government officials came to observe the reef near Tuwo village and the local Reef Guardians went out and confronted them and told them that they were managing their reefs and they did not need any advice.

5. Project Documents

Include in your final programmatic report, via the Uploads section of this task, the following:

- 2-10 representative photos from the project. Photos need to have a minimum resolution of 300 dpi. For each uploaded photo, provide a photo credit and brief description below;
- Report publications, Power Point (or other) presentations, GIS data, brochures, videos, outreach tools, press releases, media coverage;
- Any project deliverables per the terms of your grant agreement.

Uploaded documents

- 10 photos from the project
- Marine Report 2013
- Coconut Oil report 2013
- Mola'a data
- Marine Report 2014
- GIS map of Reef area
- OceansWatch brochure
- List of OceansWatch PowerPoint presentations used for teaching

POSTING OF FINAL REPORT: *This report and attached project documents may be shared by the Foundation and any Funding Source for the Project via their respective websites. In the event that the Recipient intends to claim that its final report or project documents contains material that does not have to be posted on such websites because it is protected from disclosure by statutory or regulatory provisions, the Recipient shall clearly mark all such potentially protected materials as "PROTECTED" and provide an explanation and complete citation to the statutory or regulatory source for such protection.*