Project Period	06/01/2011 - 08/31/2012
Award Amount	$41,000.00
Matching Contributions	$80,000.00
Project Location Description (from Proposal)	Three focal areas in Eastern Indonesia (Padaido Islands in Papua, Depapre Bay near Jayapura in Papua, Kei Islands in the Moluccus and one in Timor-Leste (Metinaro).
Project Summary (from Proposal)	Support a growing network of locally managed marine protected areas. Project will strengthen capacity-building and socioeconomic monitoring.
Summary of Accomplishments	ILMMA has successfully achieved the intended outcomes of this project and significantly advanced coral reef conservation in our project sites. We undertook training on climate change outreach, participatory vulnerability assessment, and adaptation planning using materials adapted from those developed by the Micronesian Conservation Trust and U.S. CTI. We also undertook training in socio-economic monitoring using the SocMon and SEM-Pasifika approaches. These training included all ILMMA technical staff, Focal Area Coordinators, Village Coordinators, as well as guests from TNC, CI, the Coral Triangle Support Program, the Indonesia Marine and Climate Support Project, and the Coral Triangle Center. Since the training, five sites have completed management plans that include newly identified activities to enhance climate change adaptation. For example, in the Padaido Islands communities have identified the importance of designing resilient networks of LMMAs to support climate change adaptation. The development of this network will be carried out in late 2012 and 2013 under a second NFWF grant. We have reviewed and updated our 2010 socio-economic monitoring and undertaken baseline socio-economic surveys with new communities. We continued training and mentoring existing sites in key LMMA skills and new LMMA communities received training and mentoring in developing LMMAs. Each of our partner communities has advanced their LMMA skills and LMMA management.
Lessons Learned	Over the past several years, ILMMA partner communities have been concerned about climate change but have never fully understood the issues and concepts. The Climate Change training helped us to understand climate change, how to undertake vulnerability assessment, and how to integrate adaptation planning into our ongoing plans. Through the training we learned that the majority of our partner communities do want to pursue climate change adaptations. While some communities that don't have existing management plans may find it helpful to develop separate Local Early Action Plans (LEAPs) for climate change adaptation, we found that it is preferable to go through the climate change planning process and simply include any identified adaptation activities in existing management plans or work plans. Some adaptation activities require additional technical guidance. Fortunately ILMMA is working with our partners to develop appropriate guidance on key adaptation topics. As ILMMA expands we have started to recognize the need to simplify our resource materials including the climate change adaptation modules. Increasingly community members will be teaching one another how to carry out key processes. As a result, we are starting to develop simple supplementary guidance

materials that can support community training. Overall, the project has been a great success and we have learned several lessons that will help us to continue to improve our LMMA implementation work.

Conservation Activities	Mentoring in Key LMMA Skills (enforcement, monitoring, and other key skills)
Progress Measures	Level of capacity for enforcement in MPA (% available out of what is needed)
Value at Grant Completion	80
Conservation Activities	Training in Managment Planning including Climate Change Adaptation
Progress Measures	% of Human resources available for implementation of MPA management plan
Value at Grant Completion	80
Conservation Activities	Development of Managment Plans including CCA at Five LMMA Sites
Progress Measures	# of management plans created or updated within last five years
Value at Grant Completion	5
Conservation Activities	Training and Mentoring in SocMon including socio-economic data analysis and reporting
Progress Measures	# activities from management plan being implemented (Number of communities with active implementation of SocMon, data analysis, and reporting)
Value at Grant Completion	9
Conservation Activities	Completion of SocMon baseline for two new communities
Progress Measures	# activities from management plan being implemented (Number of communities with baseline SocMon monitoring)
Value at Grant Completion	2
Conservation Activities	Support four new LMMA communities to build basic skills to design and an initiate their LMMAs and MPAs
Progress Measures	Level of capacity for enforcement in MPA (% available out of what is needed)
Value at Grant Completion	75
Conservation Activities	Develop training modules and materials to support the capacity development program
Progress Measures	Other (Completed training modules (Management Planning and SocMon))
Value at Grant Completion	2
Conservation Activities	Support and mentor advanced communities to improve their sustainability
Progress Measures	# activities from management plan being implemented (Number of communities with new eco-enterprises)
Value at Grant Completion	2

Conservation Outcome(s)	Partner communities actively and successfully managing their LMMAs
Conservation Indicator Metric(s)	% activities from management plan being implemented
Baseline Metric Value	60
Metric Value at Grant Completion	75
Long-term Goal Metric Value	90
Year in which Long Term Metric Value is Anticipated	2013
Conservation Outcome(s)	Improved abundance of target species
Conservation Indicator Metric(s)	Mean fish abundance of target guild (ie herbivorous fish)
Baseline Metric Value	Current abundance per monitoring
Metric Value at Grant Completion	Increase 5% to 10% annually
Long-term Goal Metric Value	25% increase
Year in which Long Term Metric Value is Anticipated	2014
Conservation Outcome(s)	Improved ecosystem health
Conservation Indicator Metric(s)	% live coral cover
Baseline Metric Value	average 25% live cover
Metric Value at Grant Completion	average 30%
Long-term Goal Metric Value	average 35%

Year in which Long Term Metric Value is Anticipated	2014
Conservation Outcome(s)	Reduction in threat of illegal fishing
Conservation Indicator Metric(s)	Other (# illegal fishing violations/year)
Baseline Metric Value	20
Metric Value at Grant Completion	10 or less
Long-term Goal Metric Value	5 or less
Year in which Long Term Metric Value is Anticipated	2013
Conservation Outcome(s)	Completed Zoning and Regulations
Conservation Indicator Metric(s) with complete zones and regulations)	# activities from management plan being implemented (Number of LMMAs
Baseline Metric Value	7
Metric Value at Grant Completion	12
Long-term Goal Metric Value	15
Year in which Long Term Metric Value is Anticipated	2014
Conservation Outcome(s) successful implementation	Completed Management Plans including Climate Change Adaptation under
Conservation Indicator Metric(s) management plans completed and under implementation)	% activities from management plan being implemented (Five new
Baseline Metric Value	60
Metric Value at Grant Completion	75
Long-term Goal Metric Value	90
Year in which Long Term Metric Value is Anticipated	2014
Conservation Outcome(s)	Stable or improving abundance of target marine species
Conservation Indicator Metric(s)	# of overfished stocks assessed at stable or increasing levels
Baseline Metric Value	2
Metric Value at Grant Completion	6
Long-term Goal Metric Value	10
Year in which Long Term Metric Value is Anticipated	2014

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 on-line final programmatic report task as instructed.

1. Summary of Accomplishments

ILMMA has successfully achieved the intended outcomes of this project and significantly advanced coral reef conservation in our project sites. We undertook training on climate change outreach, participatory vulnerability assessment, and adaptation planning using materials adapted from those developed by the Micronesian Conservation Trust and U.S. CTI. We also undertook training in socio-economic monitoring using the SocMon and SEM-Pasifika approaches. These training included all ILMMA technical staff, Focal Area Coordinators, Village Coordinators, as well as guests from TNC, CI, the Coral Triangle Support Program, the Indonesia Marine and Climate Support Project, and the Coral Triangle Center. Since the training, five sites have completed management plans that include newly identified activities to enhance climate change adaptation. For example, in the Padaido Islands communities have identified the importance of designing resilient networks of LMMAs to support climate change adaptation. The development of this network will be carried out in late 2012 and 2013 under a second NFWF grant. We have reviewed and updated our 2010 socio-economic monitoring and undertaken baseline socio-economic surveys with new communities. We continued training and mentoring existing sites in key LMMA skills and new LMMA communities received training and mentoring in developing LMMAs. Each of our partner communities has advanced their LMMA skills and LMMA management.

2. Project Activities & Outcomes

The project had two main objectives with several supporting activities each. During the course of the grant, ILMMA carried out all the proposed activities and accomplished our objectives. There were no major discrepancies between the proposed activities and those that were carried out. Below we provide a summary of the originally proposed activities with details on the specific things ILMMA accomplished under each.

Objective One: Communities that are operating or initiating LMMAs have necessary capacity in key MPA management skills including climate change adaptation to successfully implement their LMMAs and MPAs.

1. **Train ILMMA staff including core technical staff and Focal Area and Village Coordinators to facilitate communities to develop Management Plans that incorporate Climate Change Adaptation into their planning and operations:**

   From November 6 to 10, 2011, ILMMA held a workshop to train our staff on Climate Change Outreach, participatory vulnerability assessment, and climate change adaptation planning. The training was administered by Scott Atkinson and Meghan Gombos as consultants to ILMMA. The training included all of ILMMA's core staff: technical Program Staff, Focal Area Coordinators, and Village Coordinators. The training utilized a Climate Change Outreach Tool Kit that has been adapted from the Micronesia Conservation Trust (MCT) tool kit and a participatory Vulnerability Assessment and Local Early Action Planning (VA-LEAP) manual developed by MCT and the U.S. Coral Triangle Initiative (U.S. CTI). The training materials were all translated into Indonesian prior to the training so they can be used by ILMMA staff on an ongoing basis. During the training, we initiated preparation of Local Early Action Plans (LEAPs) for climate change adaptation for five sites. For example, the Padaido Islands identified development of a resilient network of LMMAs as one of its most important climate change adaptation activities.

2. **Support and Mentor LMMA sites to create Management and Adaptation Plans.**

   Accomplishments: After the initial training of ILMMA staff, our Focal Area coordinators held smaller workshops in two Focal Areas to continue the process of participatory VA and Local Early Action Planning.

During our 2012 management and work planning each of our Focal Areas carried out Climate Change Outreach and the communities identified adaptation activities. These were subsequently included in the management plans for 2012 and beyond. Examples of activities that were identified include review and adaptation of the LMMA design in both the Paidado Islands and in the Kei islands to improve the resilience of the overall LMMA in the face of long-term change. We are starting with the update to the design of the Padaido Islands LMMAs to expand to create a network of LMMAs that incorporate resiliency principles. This work is being supported by NFWF in late 2012 and 2013 through a second grant. Similar work in the Kei Islands will be pursued as we are able to secure necessary funding support.

3. **Support and mentor advanced communities to improve their sustainability. ILMMA will continue to mentor advanced communities in ILMMA skills such as biological and socio-economic monitoring, enforcement, community outreach and reporting, and financial management.**

Accomplishments: ILMMA has continued to mentor advanced communities in ILMMA skills such as biological and socio-economic monitoring, enforcement, community outreach and reporting, and financial management. This includes the communities in Tanah Merah Bay, the Padaido Islands, and the Kei Islands where ILMMA has been working for several years. ILMMA Focal Area Coordinators visit partner communities approximately monthly to help them successfully implement their LMMAs. The LMMA Program Director makes visits approximately once per Quarter to each of the ILMMA partner communities to help ensure they have all the skills and resources they need to successfully carry out LMMA management tasks. The ILMMA Finance Director also visits advanced communities approximately twice per year to ensure they have all the finance management training they need to successful manager their projects. This includes training them in the use of finance management approaches of the ILMMA which is documented in a Finance Guidebook. This book provides communities a reference to use in between visits by ILMMA finance staff.

The advanced communities in the ILMMA network have managed to eliminate all destructive fishing activities and poaching is now an extremely rare occurrence. As a result, the marine resources of the LMMAs are now in extremely healthy condition and are helping to support local near shore fisheries.

LMMA has already supported the establishment of two successful community-based enterprises. In coming months, ILMMA will support additional enterprises through matching funds from the MacArthur Foundation. ILMMA has developed an eco-enterprise guide to assist with planning for eco-enterprises.

4. **Support four new LMMA communities to build basic skills to design and an initiate their LMMAs and MPAs.**

Accomplishments: During the reporting period, ILMMA technical staff has made several visits to Timor-Leste to support the Manatuto District communities to: develop a conservation group, identify a village coordinator, complete community action planning, and identify LMMA boundaries and regulations. We have also been working with new communities in the Padaido Islands and Depapre Bay to: develop conservation groups, undertake community action planning, and initiate the ILMMA zoning and regulation development process.

With co-financing provided by the Coral Triangle Support Partnership, we also sponsored a very successful exchange visit of community members from Timor-Leste to our LMMA sites in Indonesia. This included learning about all the skills to establish and maintain LMMAs and specifically learning about successful ways each of the LMMAs is working to diversity incomes including: elements of each growing sea weed, establishing Fish Aggregating Devices (FADs), and establishing small scale tourism.

5. **Develop community appropriate training modules to support the capacity development program.**

Accomplishments: ILMMA had already developed training modules in basic project planning, community-based finance management, and development of eco-enterprises. During the reporting period we translated the Climate Change Outreach and VA-LEAP into Indonesian and completely revised and simplified it to ensure that it can be readily utilized by community facilitators. This revision was carried out with technical advisors from the Coral Triangle Support Partnership and the Micronesia Conservation Trust and now is forming the core tool for the updated VA-LEAP for use both in CTI and Micronesia. This simplification has made the overall VA-LEAP

process much more efficient and effective. The updates have been so successful that they are now being used in the updated version of the U.S. CTI and Micronesia Conservation Trust Climate Change Adaptation toolkits. For example the update guide was recently used for CCA training in Palau, Micronesia. A SocMon/Sem-Pasifika training was provided as detailed under objective two. The trainer developed guidance documents including instruction on reporting that were used along with the Sem-Pasifika manual. These tools were translated into Indonesian and simplified to be appropriate for use in the field and with the local communities. These tools help to make it as easy as possible for our community facilitators to update their socio-economic monitoring in the field. In addition to the CCA Outreach, VA-LEAP, and Soc-Mon/Sem-Pasifika tools, we also prepared the following instructional modules in Indonesian: How to construct and Deploy Fish Aggregation Devices (FADs), How to Farm Seaweed in Your Community, How to Create a Locally Managed Marine Area, How to Map your Resources. These modules are in use by all our partner communities and have been a great help in supporting the expansion of the ILMMA model to new communities.

Objective Two: ILMMA's adaptive management is greatly advanced by enhancing capacity in socio-economic monitoring and adaptive management techniques

Activities and Accomplishments include:

1. **Improve skills in socio-economic monitoring through training and mentoring in the SocMon approach.**

   Accomplishments: On November 4, 5, and 6th, 2011, we held a socio-economic monitoring utilizing the SocMon and SEM-Pasifika approach. The training included all of ILMMA's core technical staff, Focal Area coordinators, and Village Coordinators and was conducted by Meghan Gombos. The training focused on ILMMA's weakest areas including improving how to analyze and report on data and how to use socio-economic monitoring results for adaptive management. This training was followed by application of the SocMon monitoring in our field sites with consistently efforts to improve the skills of the field team in data collection, analysis, and interpretation to support adaptive management.

2. **Review results of socio-economic monitoring data analysis and reporting and review project plans to ascertain if project adaptive management is necessary. We will then adapt our project plans as needed**

   Accomplishments: Following the socio-economic monitoring training provided in November of 2011, our project team reviewed our 2010 socio-economic monitoring results. This included identifying any areas of the project that may need adjustment based on the monitoring results. The main learning from this review is that diversification of income sources is even more important now given the threats of climate change. If climate impacts affect one or more of the community's primary sources of income, this could result in an unraveling of the marine management accomplishments they have achieved as people will become more dependent on marine resources. As a result, given anticipated increased impacts from climate change it is even more important to work with communities as they work to diversify their income base.

   We also carried out full updates to socio-economic monitoring in nine existing partner communities. Due to bad weather we were only able to carry out these surveys in the last two months of the project grant. At the time of this reporting, we were still in the process of analyzing and interpreting all data. As a result, we do not yet have complete conclusions on any necessary adaptive management in project activities based on the socio-economic conditions in the communities. We will be able to complete the interpretation early in 2013 to help inform our long-range planning.

3. **Undertake baseline socio-economic surveys for new LMMA sites in Timor-Leste and Depapre Bay.**

   Accomplishments: We undertook baseline socio-economic monitoring in Depapre Bay through recent site visits. The only significant change in the project activities over what was planned is that through our site visits we came

to learn that socio-economic information for partner communities in Timor-Leste had already been collected as part of the national census process. As a result, we decided to capture and compile this information into a baseline for the communities rather than undertake additional Soc-Mon surveys there.

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.

The project has achieved the outcomes that it set out to accomplish. There are no major changes over what we had planned

The Proposed long-term Outcomes with a summary of our Accomplishments is provided below:

1. The strengthening and dissemination of ILMMA's sustainable and low cost coral reef conservation mechanism for focal communities in the world's most biological diverse marine area.

   Accomplishments: In 2012, we presented the LMMA approach in two international conferences to help to further disseminate the LMMA model. These were the International Coral Reef Symposium and the Convention on Biological Diversity Conference of the Parties 11. We also completed several training modules including a complete update of the VA-LEAP process and a simple guide on how to establish an LMMA. These tools are increasingly be utilized by practitioners both in Indonesia and beyond including by partners in other Coral Triangle countries and Micronesia. As a result of our promotion of the LMMA process, ILMMA has been invited to support new efforts to establish LMMAs in Aceh, Bali, and the Banda Sea.

2. Eleven existing communities (covering 151,366 hectares of coral reef) and four new communities (covering an additional several thousand hectares) will improve their capacity to effectively plan, operate, and adaptively manage their LMMAs including consideration of climate change impacts.

   Accomplishments: As a result of this project, we have strengthened ongoing LMMA practice in existing sites by mentoring them in all ongoing LMMA management activities

3. More effective LMMA management will result in all the benefits that LMMAs can provide. These include major increases in abundance and biodiversity of coral reef species, improvements ecosystem health including live coral cover, improvements in community governance and organizational skills. The possible benefits from LMMA implementation are best explained through examples from existing field sites.
   a. Coral Cover: In the Padaido Islands near Biak in Papua Indonesia, with the support of ILMMA the community established several MPAs starting in around 2000. Since the establishment of the LMMAs destructive fishing practices have been greatly decreased in these areas and live coral cover has increased, from 27% in 2000 to 36% in 2010;
   b. Sea Cucumbers: In the Kei Islands, with ILMMA support, the community established LMMAs in 2005 and has experienced extremely positive results. In the five years since LMMA establishment, six absent species of sea cucumber have returned, the population in the MPA increased 26 times, and catch outside increased three fold.

   Accomplishments: Since this project was only one year in length, we cannot say for sure yet if the project activities have resulted directly in improvements in biological indicators. However, our monitoring does show that most target species have increased in LMMA sites over the last two years. Additionally, catch per unit effort for most target species has improved over the last two years. Additionally, the project has strengthened the management of LMMAs on the ground resulting in reduced numbers of poaching incidents. This is allowing nature to take its course, which result in ongoing improvements in coral reef health and increases in populations of marine species.

The following are the Proposed Detailed Outcomes with a Summary of Accomplishments Under Each:

1. **Fifteen communities improve their capacity to effectively implement LMMAs. Eleven existing ILMMA communities will achieve greater capacity in the implementation of their programs. Four New ILMMA communities will gain skills in basic project planning and LMMA establishment.**

   Accomplishments: The needs of existing communities and new communities are significantly different and training and mentoring is tailored to meet their specific needs. Since existing partner communities have already established their LMMAs including their rules, regulations, and zones they need support in daily implementation, awareness raising, enforcement and compliance, monitoring and reporting. Through this grant, ILMMA made roughly monthly visits to each of the eleven existing partner communities to continue to train and mentor them in the following topics: climate change outreach and adaptation planning, biological and socio-economic monitoring, catch per unit effort monitoring, community enforcement, threat monitoring, reporting results to the community, managing and reporting on community grants, development of diversified income sources, and other key topics as the needs arise. As a result of this continued training and mentoring these communities have gained improved competency and are getting closer to being able to fully implement their LMMA with minor ongoing technical support from ILMMA.

   New communities received training in the basics of how to design and establish an LMMA. This includes going through consultations to understand their resource management challenges, working together to develop solutions including formation of an LMMA, identifying the boundaries for the LMMA, mapping the LMMA, establish regulations and management, undertaking baseline surveys, and raising community awareness about the importance and benefits of establish an LMMA. This type of training and mentoring was provided to four new communities including two in Timor-Leste and two in Papua. The result has been establishment of new LMMAs in all four communities, each with clear boundaries and detailed management regulations.

2. **Reduction in threat of illegal and destructive fishing**

   Accomplishments: In all LMMA communities restrictions on destructive fishing and overly efficient gear types such as gill nets have been put in place across the entire LMMA. Additionally, all communities have created one or more no take zones to protect the reproductive stock of target species and ecosystem health. In several communities these management measures have been in place for several years and a combination of awareness raising and community-based enforcement has resulted in nearly 100% compliance. ILMMA and the community train all community fishermen to understand and enforce the rules so they can work toward compliance and enforcement as they go about their daily fishing activities. In newer communities where the restrictions are new, a reduction in illegal and destructive fishing has already been observed. However, more time is needed to raise awareness and achieve full compliance. All ILMMA partner communities are working diligently toward achieving full compliance with their rules. Reduction in both illegal and destructive fishing will be increasingly successful until such time as violations are non-existent or extremely rare.

3. **Improved abundance of target species (considering natural variability)**

   Accomplishments: ILMMA and partner communities carried out biological and catch per unit effort monitoring twice in 2012. This monitoring was carried out with Meos Mangguandi in three MPA sites, in Auki Island in three MPA sites, in Tablasupa, Tablanusu, and Demoikisi in Depapre Bay, and in Tanimbar Kei. The analysis of the data indicates that in the majority of sites the abundance of target species has increased over the last two years; however in a couple of areas the abundance of target species has decreased slightly. For example, in Meos Mangguandi the abundance of sea cucumbers increased by 176% in the closed areas and the catch per unit effort increased by 534%. Similarly in the Auki Islands the abundance of sea cucumbers in the closed area increased by 475% and the catch per unit effort increased by 367% in the last two years. Increases in both abundance in the closed areas and in catch per unit effort were also observed for red snapper and clams in most of the communities. However, for rabbit fish in both Meos Mangguandi and in Auki Island there were mixed results. In Meos Mangguandi we observed an increase in abundance in the closed area but a decrease in catch per unit effort. In Tablanusu we saw a slight decrease in both

abundance and catch per unit effort. Fortunately, any decreases in species abundance or catch seem to be isolated to one or two communities whereas across all LMMA sites the overwhelming trend is an increase both in abundance in closed areas and in catch per unit effort in open areas for all target species. The decreases can be explained by several factors including the possibility of a poor recruitment year for certain species and ecological factors such as competition between other parts of the food web. Also at some point, as a result of the complete elimination of destructive fishing and overfishing, the populations of target species will reach a maximum abundance and we will no longer see increases. At that point slight fluctuations in abundance and catch are to be expected as the systems regain their natural equilibrium.

Overall important indicators of success include major reduction or near elimination of threats thus allowing nature to take its course, high abundance of target species, a healthy ecosystem, and an improving natural balance between feeding guilds. Likewise, perhaps the most important indication of success is that over several years catch levels have been sustained at satisfactory levels thus resulting in community benefit and continued conservation enthusiasm by local community members.

4. Improved ecosystem health (increased live coral cover also considering natural variability)

Accomplishments: ILMMA carries out substrate monitoring including live coral cover once every five years. The next monitoring for this will be carried out in 2015. As a result, we do not have detailed information on habitat quality and changes. However, our partner communities have reported that as a result of LMMA work, destructive fishing practices are no longer being practiced and cases of poaching are rare. Likewise the LMMAs have helped to ensure that no overfishing is occurring. Additionally, at this point there are no major ongoing land based sources of pollution in our partner communities. In areas where threats existed previously the community has halted both mining and logging. As a result, we feel confident that the ecosystems in our partner communities are increasingly healthy and are returning to largely natural conditions. Of course there is natural variation and climatic patterns indicate that an El Nino year is possible sometime in the next five years. While we are concerned about the possibility of bleaching, the LMMA actions taken by the community are helping to reduce vulnerability by maintaining strong and healthy ecosystems.

5. Completed Zoning and Regulations in five new communities (seven already have these)

Accomplishments: ILMMA supported the following partner communities to complete zoning and regulations for the LMMAs: The Tanimbar Kei community, two villages in Meos Mangguandi Island, two villages in Auki Island, Tablanusu and Tablasupa villages in Depapre Bay. The Manatuto community in Timor-Leste also completed their mapping, regulations and zoning but still need to secure official Government approval of this management scheme. The Padaido Island communities of Pasi and Mbromsi have developed the maps of their marine territory and overarching natural resource management regulations that apply to the entire LMMA area. They are now pursuing the process of developing management zones within their LMMAs and are doing so using resiliency principles with the support of ILMMA.

6. Completed Management Plans including Climate Change Adaptation in five communities

Accomplishments: The following communities completed management plans that including Climate Change Adaptation activities: The Tanimbar Kei community, two villages on Meos Mangguandi Island and two villages on Auki Island in the Padaido Islands, Tablanusu and Tablasupa in Depapre Bay. Examples of Climate Change Adaptation activities that were identified by the communities and are now being pursued include:

1. Reforestation of hardwood trees in the Meos Mangguandi and Auki Islands in the Padaido Islands. This is being pursued to help retain water resources and is being done through a festival approach involving kids and their parents.
2. Moving from working in one island to clusters of islands with the design of resilient LMMA networks in the Padaido Islands. This will include expanding from only one island, Meos Mangguandi to 4 islands (Meos Mangguandi, 2 villages; Pasi, 2 villages; Mbromsi, 4 villages and Padaidori, 3 villages). This project will be supported by a second NFWF grant in late 2012 and 2013.

3. Adding more communities (villages and sites) in Tanah Merah Bay. From only 3 villages (Tablasupa, Tablanusu and Demoi) and now adding 2 new villages: Meukisi & Bukisi
4. Completely restricting cutting or clearing of mangroves, which are a key to protecting coastal shorelines and a nursery area for important marine species. Fortunately in most areas mangroves are already healthy so there is not a need to replant.

5. Community appropriate training modules including: SocMon and management planning

Accomplishments: As mentioned above, ILMMA has worked with our consultant team, partner communities, and local practitioners to develop or refine the following training modules:

1. Climate Change Outreach materials. We adapted the outreach materials from US CTI (see attached photos of a Climate Change Outreach workshop at the community level using adapted outreach materials).
2. Adapting to a Changing Climate: Vulnerability Assessment and Climate Change Adaptation Guide. Working with our lead consultant, we also adapted and simplified this guide from U.S. CTI for use by our field trainers. Our updates have now been used as a basis for a simplified Micronesia and U.S. CTI guide.
3. SocMon/Sem-Pasifika Socio-economic Monitoring Manual. The trainer under this program developed simple instructions for the use of these manuals and we further adapted and translated these instructions. The SocMon and Sem-Pasifika manuals themselves remain a primary reference as we carry out socio-economic monitoring.
4. How to construct and Deploy Fish Aggregation Devices (FADs),
5. How to Farm Seaweed in Your Community,
6. How to Create a Locally Managed Marine Area,
7. How to Map your Resources.

These modules are in use by all our partner communities and have been a great help in supporting the expansion of the ILMMA model to new communities

6. Establishment of at least two new eco-enterprises to help support LMMAs (through match funding)

Accomplishments: ILMMA continued to assist with the expansion of the use of Fish Aggregation Devices (FADs) and seaweed farming as primary enterprises to diversify income at the community level. In both cases the goal is to diversify income to reduce pressure on near shore marine resources. Communities have achieved great success both Depapre Bay with FADs and Tanimbar Kei with seaweed farming. The result has been that community members depend less on near shore fishing and have been able to successful set aside and operate their LMMA no take zones and eliminate use of overly efficient gear across their entire LMMAs.

To build on this success, ILLMA sponsored an exchange visit between LMMA sites in Timor-Leste and Indonesia. Inspired by the success in Depapre Bay and Tanimbar Kei, new communities are now developing FADs and seaweed farming. Additionally, ILMMA is now undertaking feasibility assessments for the development of a salt drying enterprise with partner communities in Timor-Leste.

Development of enterprises to diversify incomes remains on of the most challenging areas for ILMMA and requires very careful analysis of market and production conditions. We do feel fortunate to have overcome challenges in several communities to achieve success with some enterprises. However, in coming years this will be more of a focus of our work as we support communities to become more diversified and thus more resilient in terms of income sources that are linked to and support conservation.

7. Completion of socio-economic monitoring reporting and adaptive management for existing LMMAs and baseline for two new LMMAs.

Accomplishments: Through this project we have completed socioeconomic surveys in nine communities in the Padaido Islands, one community in the Kei Islands, three communities in Depapre Bay near Jayapura. In Timor-Leste we found that the socio-economic data collected by the census was sufficient so we did not conduct new surveys there. Nine of the communities had carried out socio-economic monitoring before and for four communities socio-economic monitoring is new. We are nearly done analyzing and interpreting the surveys and will include any needs for adaptive management in the upcoming annual management planning. Through this process we have already identified several activities and elements that will be included in future work plans. For example, it will be very important for communities to diversify their income sources as a means to build community resilience in the face of long-term change. Additionally, in most communities there is a high degree of satisfaction with management of their LMMAs and an interest in expanding management activities including additional fisheries regulations. It will be helpful to expand community awareness activities to help ensure that all community members fully understand the reasons for and benefits from the LMMA management. Additional adaptive management activities will be identified as the interpretation of the data is completed.

3. Lessons Learned

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?

Key lessons include:

1. ILMMA has been supporting communities on marine resource management for several years. We have been concerned about climate change but have never fully understood the issues and concepts. The Climate Change training helped us to understand climate change concepts, how to undertake vulnerability assessment, and how to integrate adaptation planning into our ongoing plans. Even more importantly, the approach the training provided an opportunity for community members to understand climate change, its impacts, and what they can do to adapt. A key lesson is that community members have a great deal of knowledge that can be applied toward climate change adaptation. Additionally, the importance of maintaining healthy environments and resources as a critical adaptation strategy become very evident through the training.

2. As ILMMA expands we have started to recognize the need to simplify our resource materials. Increasingly community members will be teaching one another how to carry out key processes. As a result, we are starting to develop simple supplementary guidance materials that can be used to support community to community training. For example, the Micronesia and CTI climate change materials were originally too complicated for use in the field with LMMA communities. As a result we had to put a lot of time into adapting them to be appropriate for use by our field staff. Fortunately the changes we made to the documents were also applicable to other practitioners throughout the CT and Micronesia. As a result this simplified version has become a basis for updates for Micronesia and the U.S. CTI. This lesson of ensuring a very simple approach for development of future training materials will be applied to development of the guide to resilient LMMA networks that we are now working on with the U.S. CTI and other tools in the future.

3. While some communities that don't have existing management plans may find it helpful to develop separate Local Early Action Plans (LEAPs) for climate change adaptation, we found that it is preferable to go through the climate change planning process and simply include any identified adaptation activities in existing management plans or work plans. This avoids the confusion of having two "Plans" at the community scale and mainstreams climate change adaptation into the normal LMMA management and work plan process. We update management plans and develop work plans with each of our partner communities annually. As a result, we were in a very good position to apply the climate change outreach and planning tools and use the results to update the usual planning process.

4. The majority of our partner communities do want to pursue climate change adaptations including designing resilient LMMAs, addressing coastal erosion, addressing water supplies, and other adaptation activities. While through this project we were able to identify the various appropriate adaptation activities and include these in community management plans, we will need additional technical support, guidance materials, and financing to pursue several of

these. Fortunately NFWF has provided a follow up grant that will support us to pursue design of a resilient LMMA network in the Padaido Islands. We will continue to seek additional funds to support application of climate change adaptation activities in our other partner communities.

5. The national census in Timor-Leste is a very good source of baseline socio-economic information by community. Discovering this made it not necessary to carry out detailed baselines SocMon surveys with our partner communities in Timor-Leste. Instead we focused on compiling this information to set useable baselines.

6. Eco-enterprise development remains the most challenging work-stream of the ILMMA. Fortunately we have had some success with supporting communities on tourism and Fish Aggregating Devices (FAD). However, we are now considering a shift from the concept of developing alternative eco-enterprises to developing diversified incomes as part of overall community resiliency. This may be more in keeping with the capacity of the local community. Rather than developing entirely new enterprises it may be possible to work toward diversification of income sources utilizing several existing options. We will work to understand this potential in coming months and years.

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.

ILMMA disseminates the results of its work and lessons learned in several ways to several audiences. Our primary audience for sharing lessons is with new communities that are interested in pursuing the LMMA approach. This is done through consultations, presentations showing the success of other communities, and cross site learning where we bring new communities together with existing LMMA partner communities to learn. For Government agencies such as the Provincial and District Fisheries and Education Departments we meet with them at least two to four times per year to share the lessons form our work and provide tools and approaches they can use in their work. We make PowerPoint presentations, provide them with handouts, and provide copies of LMMA tools such as manuals. We strive to have any presentations made to Government be given by community members themselves to build a direct relationship. The communities often invite Government to engage in community field sites visits as possible so they can play an active role in supporting the partner communities. In some cases, this has resulted in the local Government supporting LMMA sites with modest funding for field activities. For NGOs we make presentations to share our work and explore ways that this work may assist them in their conservation activities. In several cases this has led to active partnerships in the field in which LMMA and the NGO often use approaches pioneered by the LMMA for community engagement. For example we have formed a new partnership with the Coral Triangle Center (CTC) to develop sites in the Banda Sea. Finally, we share lessons with the larger conservation community by attending and making presentations at International conferences, publishing articles, sharing fliers about our work, and through the LMMA network website.

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;
- 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.

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.*