

FINAL REPORT

A Cooperative Agreement to Reduce Fishing Impacts and Effectively Conserve Coral Reefs in the Hawaiian Islands

Final Report for Federal Award ID #NA16NOS4820105

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Introduction

Coral reefs are among the most diverse and productive ecosystems worldwide, but the abundance of key species and habitat builders has declined globally due to human activities. Economic estimates of the value of goods, services, and livelihoods associated with coral reefs exceed \$30 billion. Reef fisheries provide livelihoods, coastal protection, and cultural benefits for millions of people worldwide, and environmental degradation places these ecosystem services at risk, with significant consequences for resource-dependent communities. In Hawai‘i and the US Pacific Islands region, coral reefs support a diverse set of fisheries in which multiple gear types are used to harvest more than 100 species of reef finfish and invertebrates, estuarine species, and schooling coastal pelagics that seasonally reproduce in reef environments. Communities in this region rely on these fisheries for economic, social, and cultural services, including supporting important livelihood and food provisioning functions, as well as cultural practices, customs, and traditions. Further, marine tourism generates hundreds of millions in revenue for the region, providing a strong economic impetus for sustainable management. Effective coral reef conservation strategies are greatly needed in this region, particularly given current challenges to management capacity and the importance of reefs to local cultures, coastal protection, and food security.

NOAA’s Coral Reef Conservation Program (CRCP) has prioritized the three most pressing global threats to coral reefs, including fishing impacts, climate change, and land-based sources of pollution. Fishing impacts – one of the major drivers of coral reef ecosystem decline – can lead to the depletion of key functional groups of reef species such as apex predators and herbivores. This can have cascading impacts on coral reef habitats and associated species and ecosystems. There is broad scientific consensus about the impacts of fishing on coral reef environments, and a growing community of conservation practitioners are developing and implementing a suite of strategies that involve governmental, private sector, non-profit, and resource user groups.

Conservation International (CI) is pleased to present its final report on progress to date implementing *A Cooperative Agreement to Reduce Fishing Impacts and Effectively Conserve Coral Reefs in the Hawaiian Islands* under the above referenced Federal Award. CI's overarching objective is to aid NOAA CRCP and its partners to meet strategic coral reef management needs in a targeted, cost-effective, and efficient manner through a NGO cooperative agreement that focuses on CRCP's *Fishing Impacts* priority threat for the Hawaiian Islands.

About Conservation International

Founded in 1987, CI works in more than 30 countries with over 900 employees and over 1,000 partners – to help move societies toward a healthier, more sustainable development path that values nature's role in human wellbeing. In 2011, CI created its Hawai'i program to *ho'i i ke kai momona* – return to an abundant ocean that will feed Hawai'i's people for generations to come. The mission of the Hawai'i program is to restore seafood security in Hawai'i, by engaging communities and stakeholders to protect their critical natural capital, foster effective governance, and promote the sustainable production, distribution, and consumption of locally sourced, sustainable seafood. The Hawai'i program has 8 staff members and has developed strong working relationships with State and Federal resource managers, other non-profit organizations, research scientists and technical experts, and over 50 community groups across Hawai'i. The Hawai'i program's multi-disciplinary team has a unique combination of social science, biological science, cultural knowledge and practice, law and policy, and business and finance acumen. Our program employs several fishers, works with fishing communities and stakeholders statewide, and has a track record of successful team-based approaches to marine fisheries' conservation challenges. Perhaps most important, CI's Hawai'i program has a strong record of successfully engaging fishers in policy, management, and community-driven processes and is well positioned to aid NOAA to achieve more effective coral reef conservation.

Alignment with CRCP Program Priorities and Themes and Hawai'i Jurisdictional Priorities and Capacity Needs

Our projects have focused on CRCP's *Fishing Impacts* priority, as outlined in NOAA CRCP's strategic guidance on program priorities for FY 2010-2015. The NGO cooperative agreement has addressed all 4 of CRCP's Fishing Impacts goals. The projects also aligned with the ten-year priority goals and objectives, described in the State of Hawai'i's Coral Reef Strategy: Priorities for Management in the Main Hawaiian Islands 2010-2020, developed by the State of Hawai'i and NOAA's CRCP program, and also addressed critical capacity gaps identified in the jurisdictional capacity assessment, developed by Sustainametrix.

This report includes two task components that are reported on separately (Table 1).

Table 1: Cooperative Agreement Tasks, with outcomes and outputs, and alignment with NOAA CRCP goals and objectives for fishing impacts (CRCP Fishing Impacts goals), and jurisdictional goals and ten-year priorities identified in the Hawai‘i Coral Reef Strategy.

Cooperative Agreement Tasks	Project descriptions, including primary goals and objectives	NOAA CRCP Goals and Objectives and Jurisdictional Priorities in Hawai‘i’s Coral Reef Strategy (HCRS)
TASK 1. Sustainable Management of Coral Reef Fisheries in South Kona on the Island of Hawai‘i	This task has supported proactive coral reef stewardship in South Kona, by undertaking key assessments to understand current threats and status of coral reef fisheries, and by supporting the communities to develop and implement plans to reduce unsustainable fishing and rebuild populations of key reef-associated species.	CRCP Fishing Impacts goals 1,3, and 4; HCRS Goal 4; HI Priority Obj. 3 & 4
TASK 2. Providing Technical Assistance and Policy Guidance to Redesign Hawai‘i’s Fisheries Licensing System	This task has provided technical and policy guidance that built a strong foundation for a statewide fisheries licensing system redesign, supporting a feasibility study and joint fact-finding process, and the implementation of summary recommendations from a fisheries licensing system expert Steering Committee.	CRCP Fishing Impacts goals 3-4; HCRS Goal 4; HI Priority Obj. 4

Task 1: Sustainable Management of Coral Reef Fisheries in South Kona on the Island of Hawai‘i

The coral reefs of South Kona, Hawai‘i, including those in the coastal community of Miloli‘i, are among the most intact of any coral reefs in the Main Hawaiian Islands, and are not currently as severely threatened by land-based pollution or alien invasive species as in other parts of the State. However, in the past few decades, community members and marine managers alike have observed major declines in populations of important nearshore coral reef fish species. *This task has supported proactive coral reef stewardship in South Kona through key assessments undertaken by CI to understand current threats and status of coral reef fisheries and through CI’s support for the communities’s development and implementation of plans to reduce unsustainable fishing and rebuild populations of key reef-associated species.* We have worked with the community of Miloli‘i to implement community-based planning and management, together with State of Hawai‘i Department of Land and Natural Resources (DLNR) manager, supporting co-management plans and site-based fishery regulations. This program has supported NOAA CRCP Fishing Impacts goals 1, 3, and 4, HCRS Goal 4, and HI Priority Obj. 3 & 4.

1. Project Goals & Objectives

Overarching Goal

The long-term impact and outcome of this project is improved stewardship of coral reef resources at a priority site in South Kona by increasing the effectiveness and durability of collaborative management between local communities, the State, and supporting organizations.

Objectives

The short- to medium-term objectives of Task 1 included:

- Providing outreach and workshops to strengthen community knowledge on coral reef and fisheries ecology and management in Miloli‘i to create a strong foundation for development of effective management, actions, sustainable fishing practices, and proposed rules;
- Working closely with a core group of community members to provide support for a community planning process to develop plans to strengthen sustainable nearshore and coral reef fisheries management for Miloli‘i;
- Assisting Miloli‘i to gain the needed knowledge and support to consider and utilize in reestablishment of its Makai Watch program; and
- Assisting Miloli‘i in documenting key processes used to develop its plan for sustainable nearshore fisheries management, to be shared with other communities interested in pursuing a similar stewardship process.

The long-term objectives of Task 1 have included:

- Developing a coral reef fisheries sustainable management plan for Miloli‘i, which may include proposed rules as a basis for state rulemaking;
- Providing document trainings or information sessions to provide the knowledge and support required for Miloli‘i to consider and utilize in reestablishment of its Makai Watch program; and
- Sharing document planning approaches used in Miloli‘i, with other communities interested in pursuing similar coral reef management processes.

Collectively, this effort has provided the needed support and guidance for Miloli‘i to work in collaboration with the State and partners to develop and implement coral reef fisheries management actions.

2. Progress During Reporting Period October 1, 2016 to September 30, 2021

With continued support from CI, the Miloli‘i community group Kalanihale continued to increase community knowledge of marine and coral reef ecology, which has informed concrete stewardship actions in Miloli‘i.

Throughout this project, CI and Kalanihale have been able to leverage funding support and collaborative activities to significantly advance the marine management goals of the Miloli‘i community. Since 2016, CI has provided Kalanihale with technical support to implement a diverse strategy for coral reef and nearshore marine resource management, one that is grounded in descendant-led and community-driven planning and action. Throughout this project period, the Miloli‘i family and community members brought their cultural values, traditional practices, and contemporary techniques to the work of stewarding their ancestral land and ocean resources. Coupled with the technical guidance provided by CI, the community has achieved the desired medium- and long-term project outcomes of an established marine management plan, rules for 10 fisheries species, and documentation of planning approaches.

Additionally, the community has formally submitted their Miloli‘i Community-based Subsistence Fishing Areas (CBSFA) management proposal to the Department of Land & Natural Resources-Division of Aquatic Resources (DLNR-DAR) and is anticipating a decision by the Board of Land & Natural Resources to formally enter into the Chapter 91 administrative rule-making process in Spring 2022. Marine monitoring, management plan development, and Miloli‘i CBSFA outreach efforts were conducted under this NOAA-CRCP project with additional funding support from the Harold K.L. Castle Foundation, the Dorrance Family Foundation, the Atherton Family Foundation, and the Hawai‘i Community Foundation.

Outreach and Workshops to Strengthen Community Knowledge on Coral Reef Ecology and Management in Miloli‘i

The Miloli‘i community prioritized education and outreach on coral reef ecosystems as a way to A) perpetuate communal pride around cultural marine practices and B) illustrate the need for appropriate resource stewardship that would support the ongoing use and transmission of those practices. CI Hawai‘i staff collaborated with Kalanihale to develop and implement a variety of workshops and learning experiences for community members. CI’s innovative program Mōhala Nā Konohiki (MNK) was also piloted with community members in Miloli‘i, and has increased knowledge and action around active marine management -- specifically, researching and documenting seasonal species and ecosystem changes in order to develop place-based stewardship practices. Since 2016, these events have ignited action and collaboration with important stakeholders including the DLNR-DAR. A summary list of activities is provided below:

	2016	2017	2018	2019	2020
Community Interviews	37	17	1	1	
Marine monitoring activities	1		4	2	
CBSFA Management Planning Meetings		6	5	7	6
Outreach activities			1	4	4
Mōhala Nā Konohiki events			7	3	

Table 1 – Various Miloli‘i stewardship events completed during the project period.

MNK workshops are designed and implemented to advance the knowledge of MNK apprentices in traditional and integrated marine resource management from one of Hawai‘i’s few, remaining, traditional konohiki (resource manager) Kelson “Mac” Poepoe. The MNK program began in 2018 in Miloli‘i with workshops primarily focused on teaching Miloli‘i and other community participants marine monitoring techniques necessary for implementing community-based monitoring under the Miloli‘i CBSFA. MNK participants have been immersed in monitoring trainings that include in-water assessments as well as spawning season research through fish and invertebrate gonad analysis. MNK workshops have also taught holistic (ahupua‘a-based) management approaches, providing a comprehensive learning experience that equips the participants with the tools, skills, and knowledge to successfully implement their Miloli‘i CBSFA management efforts.

With support from CI through the NOAA CRCP program, Kalanihale conducted over 50 interviews with family and community members in Miloli‘i. Information collected in those interviews directly contributed to the justification for the Miloli‘i CBSFA, as well as the rules and management actions within the Miloli‘i CBSFA management plan.

Community-based marine monitoring efforts were implemented with leveraged support from additional funding partners. The nearshore focus of those monitoring efforts provided key biological and ecological data supporting the CBSFA rules and boundaries. Kalanihale and members of the Miloli‘i community continue to implement regular monitoring and are engaged participants in the Community-Based Monitoring Hui (CBM Hui). The CBM Hui is a collaborative space facilitated by CI Hawai‘i and other partners to support community-based marine monitoring and to elevate local and place-based knowledge and monitoring data into formal management partnerships with the state.

Throughout this award, CI Hawai‘i has participated in outreach activities focused on pono fishing practices, community-based and collaborative marine management, and integrated (Kanaka Oiwī + Western science) natural resource monitoring. These activities were implemented during annual community events like Lā ‘Ohana, annually held in November, and Miloli‘i Lawai‘a ‘Ohana Camps -- week-long events held each summer. These events provided the opportunity to share-out marine resource stewardship-related activities with the Miloli‘i families, as well as gain their input and guidance on management actions and

planning. These events also became impromptu community “recruitment” efforts that resulted in new community members becoming engaged in marine management planning efforts (participants in CBSFA planning) and other marine-related and educational programming (Mōhala Nā Konohiki, LOCs, etc.).

Support Community Planning Processes to Develop a Community-Based Management Plan

The proposed Miloli‘i CBSFA is the largest Marine Managed Area designation of its kind in Hawai‘i. The CBSFA was created through legislative designation in 2005, and since 2015 CI staff have collaborated with family and community members in Miloli‘i to develop fisheries rules for nine key marine subsistence species and to draft a comprehensive management plan for the area. As shown in Table 1, members of the community group Kalanihale as well as other Miloli‘i families participated in 24 meetings facilitated by CI staff to develop the draft fisheries rules and an outline for the CBSFA management plan.

In January 2020, Kalanihale submitted to DLNR-DAR its Letter of Intent (LOI) formally communicating to the division the community’s intent to pursue management actions via the DLNR Chapter 91 process. Alongside the LOI, Kalanihale shared the Miloli‘i CBSFA draft fisheries rules so that the community could ascertain and benefit from a DLNR-DAR informal review of and feedback on the rules. DLNR-DAR staff have held regular meetings with the Miloli‘i community and CI staff have been present to provide updates on community-based marine monitoring activities, CBSFA education and outreach, and management plan development. These meetings were an important part of this management process and have resulted in the steady completion of required activities and progression towards the ultimate goal of Miloli‘i adopting community-led management actions. As stated above, the collective impact of the work conducted via the support of this NOAA CRCP award has led to the successful submission of the Miloli‘i CBSFA marine management proposal and fisheries rules to DAR, where close communication and collaboration will play a significant role in the success of formal adoption of their plan by the DLNR.

With CI technical support and guidance, in 2020 Kalanihale developed and implemented an internal (Miloli‘i village) community engagement process to present the draft rules and management plan actions and receive important feedback and suggestions. Those efforts significantly increased internal community support for the Miloli‘i CBSFA, which was critical during the formal Chapter 91 process. In 2021, the Miloli‘i community continued key, virtual and limited in-person outreach and engagement with Miloli‘i community members and external stakeholders (adjacent landowners, fisher groups, etc.). The Miloli‘i community co-facilitated a public scoping meeting in October 2021, engaging Hawai‘i island community members and fishers. Additionally, DAR hosted a second, statewide, public scoping meeting in December to gather additional feedback and input on the CBSFA proposal. Both meetings saw strong participation and support for the Miloli‘i CBSFA. The meetings also allowed for critical feedback and questions about the impact of the Miloli‘i CBSFA, to be given to DAR. Examples of vocal opposition to place- and community-based Marine Management Area designations have been witnessed in other Hawaiian coastal communities. Therefore,

ongoing, external engagement and intense public outreach and feedback gathering is critical for the success of the Miloli‘i CBSFA. The Miloli‘i CBSFA management plan rules, actions, and process have been incorporated into the outreach strategy and were prominently incorporated into a short, Miloli‘i CBSFA video co-developed by the community with support from CI. This video was used in the external stakeholder engagement strategy through 2021. Throughout the project CI staff also developed additional, multi-platform outreach materials for use in the Miloli‘i community engagement strategy.

Assist Miloli‘i to Reestablish the Makai Watch Program Together with the Division of Conservation and Resource Enforcement (DOCARE)

With key support from new partner Arizona State University, Greg Asner and the Hawai‘i Marine Education & Research Center (HawaiiMERC), Kalanihale and Miloli‘i community members have worked to reestablish the Miloli‘i Makai Watch (MW) program. The DLNR-DAR MW program coordinator has participated in multiple Miloli‘i training programs and the Miloli‘i MW has re-established itself strongly within the community. Kalanihale will be the lead community organization for the MW program, but as a way to increase community participation in the program, they will work to implement a rotating community coordinator each year, which will hopefully lead to more family and community members taking on leadership roles. The community has strategized to combine the enforcement aspects of the MW program with the monitoring efforts, co-led by CI, in Miloli‘i. This will be an additional way to engage more community members creating even more community cohesion and investment in the marine stewardship of Miloli‘i.

Support Miloli‘i to Develop Ecosystem-Based Management for Nearshore Fisheries and Share Experiences with Other Communities

Kalanihale and Miloli‘i community members continue to actively engage in island and statewide networks. Participation in these networks facilitates knowledge exchanges and sharing of community work, which can support and inform other community action. Miloli‘i is considered advanced in its co-management status with the state and offers valuable knowledge on process and lessons learned. CI Hawai‘i provides technical support and helps to create outreach materials for Kalanihale’s use in network meetings, outreach, and education events.

Kalanihale members participated in a facilitated presentation and discussion on their CBSFA work on Kanaeokana’s Lei Ānue program in August 2020. The Lawai‘a Pono: A Movement for Fishing Hawaiian (<http://kanaeokana.net/lei>) was broadcast live on the Kanaeokana website and Facebook platforms, where it drew participation and comments from interested community members around the state and continental U.S. During the broadcast Kalanihale presented their community-driven work to support and improve the educational, environmental, and cultural well-being of the Miloli‘i community. They focused specifically on their marine stewardship engagement, which began with CI-supported educational efforts including their Lawai‘a ‘Ohana Camps and ultimately led to their work to establish formal programs and efforts to effectively manage marine resources along their

coasts. This includes the work to establish rules and a management plan for their Miloli‘i CBSFA. In addition to Miloli‘i, community members from Ka‘ūpulehu, Hā‘ena, and Kipahulu joined the conversation, sharing their experiences and the numerous collaborations that supported their marine stewardship goals.

Based on their first virtual statewide presentation, the Miloli‘i community is enthusiastic about additional opportunities and platforms to share their work and journey. CI has continued to provide support in the creation of materials for these upcoming events.

Metrics of success

- *“By the end of the grant award, CI has successfully provided technical assistance to the Miloli‘i community as it works to complete a plan to improve the sustainable management of nearshore fisheries and identifies and initiates implementation of critical coral reef fisheries stewardship actions that in time will help to reduce the primary threat of overfishing, rebuild the population of key coral reef fish, and strengthen ecosystem management of the area’s high priority coral reefs.”*
 - Miloli‘i submitted the Miloli‘i CBSFA marine management proposal, which included draft fisheries rules and boundaries, to DAR in January 2020. A comprehensive CBSFA marine management proposal and administrative record will be presented to DLNR in January 2022. DAR has proposed the Chapter 91 process commence in March 2022.
- *“By the end of the grant award, effective community-based coral reef management planning processes used in South Kona are documented and shared with other communities across the Hawaiian Islands.”*
 - An extensive administrative record of the Miloli‘i CBSFA management process has been compiled by CI staff and will be included in the January 2022 management plan submission to DLNR. Administrative record content includes a detailed timeline of the process; stewardship and monitoring effort descriptions and timelines; partnership and network affiliations; and examples of outreach materials used in the community’s stakeholder engagement process. Once submitted, both the management plan and administrative record documents will be available for the public to view throughout the Chapter 91 process.
 - Numerous presentations, posters, maps, and informational documents have been written and utilized by CI and the community to share-out the Miloli‘i CBSFA management planning process and a variety of community, state, and community support network gatherings. These materials and documents showcase the Miloli‘i communities, and their partners’ commitment to marine stewardship.
 - CI provided key technical support for the creation of an informational video on the Miloli‘i CBSFA, which has been gainfully used in their outreach

strategy. The video has been shared in numerous meetings including in two public scoping meetings facilitated and hosted by Kalanihale and DAR.

- *“By the end of the grant award, the needed knowledge and technical assistance for Miloli‘i to consider and utilize in reestablishment of its Makai Watch program has been provided.”*
 - In 2019, the State brought on a permanent Makai Watch (MW) coordinator, providing the State with the capacity to provide MW training workshops and support to more communities across Hawai‘i. South Kona continued its work for the establishment of a formal MW program in the Miloli‘i and Ho‘okena communities. Community leaders, including Kalanihale members, have established a plan to reestablish the MW program in Miloli‘i and have identified a lead community member from Miloli‘i who will implement the plan. To implement their place-based program, Kalanihale will continue to work with CI, the MW coordinator, the Hawai‘i Marine Education & Research Center, and other partners to implement their place-based program.

3. Planned Activities Not Completed

All planned activities were completed during this reporting period.

4. Lessons Learned and Remedial Actions

The onset of the COVID-19 crisis around the world has heavily impacted the rural coastal communities of South Kona. From job loss and increased fishing pressure to significant changes in familial and social interactions within our communities, the impacts to project work have been real and hard-hitting. In-person monitoring and workshop efforts were halted and state resources have been driven towards mitigating the health and economic impacts of COVID-19 in Hawai‘i. As community organizations and agencies continue to navigate through uncertain times, the bandwidth of individual and institutional partners is significantly decreased. Despite these changes and pandemic impacts, we have been able to take advantage of technology and other resources to maintain connection and continue implementation of specific project activities. Virtual fish dissection workshops and pop-up, community-led, education outreach sites are just a few ways that staff and community partners have adapted to address new challenges and needs during the changing reality of the global pandemic.

As reported above, community partners have responded to COVID-related changes with innovation and a continued sense of urgency. CI and community partners have pivoted to virtual meeting platforms to ensure collaborative management planning and action continues and certain benchmarks have been met. As virtual technologies have been embraced, the history and establishment of the Miloli‘i CBSFA has been shared with a broader audience,

increasing community engagement and awareness to a degree previously unanticipated. This larger audience has brought additional support for the community’s efforts (i.e. other coastal communities pledging support), although stakeholders opposing marine managed areas have also been able to vocalize and establish their counter-arguments in public forums. We anticipated oppositional views, however, and worked to design the fisheries regulations in a way that ensured the continued accessibility of marine resources with a dual focus on fishing practitioners and science-based rationales for protection. Kalanihale has done an excellent job of increasing their educational campaigns that provide many stakeholders with the opportunity to participate in this process and voice interests and concerns in constructive ways. With CI support, Kalanihale has created and implemented culturally appropriate outreach strategies -- including intimate (family-based) discussions; community meetings; online surveys; and environmental network collaborations -- to engage as many community members as possible, an incredible feat given the impacts of an unprecedented pandemic. With continuing CI support, Kalanihale will continue to implement their strategy and advance their goal of pono marine management for Miloli‘i.

Task 2: Providing Technical Assistance and Policy Guidance to Redesign Hawai‘i’s Fisheries Licensing System

The lack of a comprehensive and well-designed fisheries licensing system (including a marine non-commercial license) places the State of Hawai‘i at a significant disadvantage by: (1) Creating significant information gaps that limit management effectiveness; (2) Creating missed opportunities for fisher engagement, dialogue, and buy-in for fisheries management; and (3) Foregoing significant financial resources for fisheries management. *This task provided technical and policy guidance for building a strong foundation for a statewide fisheries licensing system redesign, supporting a feasibility study and joint fact-finding process, and the implementation of summary recommendations from a fisheries licensing system expert Steering Committee.* Building on existing CRCP-funded activities, this task helped establish the foundation for a comprehensive statewide system of identifying, communicating with, and gathering data from non-commercial fishers, helping meet NOAA CRCP Fishing Impacts goals 3-4, HCRS Goal 4, and HI Priority Obj. 4.

1. Project Goals & Objectives

Overarching Goal

The overarching outcome of this project was the creation of enabling conditions and key technical outputs that= laid the foundation for getting several key stakeholder groups – including State legislators, policy-makers, natural resource agency managers, and fishers – to the table to redesign a viable, comprehensive statewide licensing system for coastal fisheries.

Objectives

The short- to medium-term objectives of Task 2 included:

- As part of an in-depth feasibility study, engaged state DLNR leaders and staff and supported the integration of key legal, policy, management, and financial aspects into

- the fisheries licensing system redesign – playing a bridging role to reduce capacity gaps that would otherwise prevent DLNR staff from fully engaging in the development of recommendations from the Steering Committee process. ^[17]_[SEP]
- At the conclusion of the feasibility study, worked closely with DLNR and other stakeholders to implement the summary recommendations, including conducting outreach, education, and socialization of the findings with DLNR, the State legislature, and the State executive branch, ensuring that the findings from this feasibility study were shared with key decision-makers and thought leaders across the State.
 - Working closely with DLNR during the implementation of the feasibility study, supported the incorporation of key legal, policy, management, and financial aspects into the fisheries licensing system redesign – ensuring that the system redesign fully integrated the complexities of its policy and management implications, as well as financial and operational considerations.

The long-term objectives of Task 2 included:

- Developing products and deliverables in the course of the feasibility study, including legal and policy analysis of existing legislation and relevant policy, and an operational and business model and financial analysis, that are fully grounded in existing DLNR operations, policy, and financial practices.
- Creating tailored study summaries that are shared with key executive and legislative leaders, and along with other key decision makers.
- Creating roadmaps for a Financial Pathway, Data Pathway, and Outreach & Education Plan to help DLNR leadership and staff implement the Steering Committee recommendations (subject to the timing of any successful legislation or rulemaking processes).

The combination of these objectives will help to advance all four of NOAA CRCP's *Fishing Impacts* goals, as well as contribute to CI's mission of improving seafood security in Hawai'i.

2. Progress During Award Period: October 1, 2016 to September 30, 2021

Feasibility Study Activities

At the start of this award (October 1, 2016), CI and the Western Pacific Regional Fisheries Management Council (Council) secured commitments from sixteen individuals to participate in a Steering Committee for the project. Representing eleven entities including non-profits, fishery consultants, government managers, and fishers, the participants met several times throughout the year to discuss the potential for a non-commercial fishing registry, permit or license for Hawaii. In these professionally facilitated meetings, the diverse group participated in a fact-finding process to explore fisheries management options by hearing perspectives from other U.S. states and territories, enforcement officers, Native Hawaiian fishers, and charter boat operators. Due to the exploratory, non-prescriptive design of the experience, the participant group became recognized as the Registry, Permit, and License (RPL) Study Group.

Although the Study Group members originally intended to share their findings and gather feedback throughout the state to identify the most likely broadly popular RPL system option, the group reevaluated this approach due to unforeseen pressure from potential bills in the 2017 Legislative Session. The Study Group decided to wrap-up its fact-finding process early and release a report that provided an analysis of the advantages and disadvantages of pursuing each RPL system option in Hawai'i without naming a preferred option.

On December 1, 2016, the Study Group expressed unanimous support for submitting the feasibility study to DLNR-DAR.

Outreach, Education, and Socialization of Study Findings

Within a few days of the feasibility study's release, it was covered by several local news shows, newspapers, and local blogs. It was also the main point of discussion at the DLNR Fisheries Talk Story Session, where the DLNR-DAR Administrator discussed its contents and directed attendees to review the findings and recommendations. A few weeks later, an article about the report appeared in *Hawai'i Fishing News*, followed by a longer article later in the February 2017 issue. Each of these media and outreach events also generated discussion on several online and social media platforms, spurring discussion in fisher networks.

In early March 2017, two companion resolutions (H.C.R. No. 73 and H.R. 38) on non-commercial marine fishing RPL options were introduced in the legislative session. These resolutions urged DLNR-DAR to conduct outreach on this issue consistent with the recommendations provided in the feasibility study. While these resolutions were ultimately unsuccessful, the introduction of these resolutions generated significant attention for the feasibility study and further helped to spread awareness of the RPL options and Hawaiian fisheries' importance.

After the Legislative Session concluded, the Study Group was reconvened to discuss the next steps. The group voiced support for conducting additional outreach and, based on the information in the report, created outreach materials distilling report information into an easily sharable and accessible format for fishers and others in their networks. Printed or electronic copies of these materials were shared with more than 1,000 fishers through Study Group member networks by the end of November 2017.

In the 2018 Hawai'i State Legislature, there was strong evidence that the Study Group's outreach materials and full RPL feasibility study had been reaching fishers and key decision-making audiences. In the first week of the legislative session, two bills related to a non-commercial marine fishing license were introduced. These bills were developed and introduced independent of CI and the Study Group process, but included language contained in the RPL feasibility study and its recommendations. These bills did not pass, but, importantly for this project, these bills did not create the level of divisiveness seen when similar bills were introduced in the past. The written testimony submitted for

these bills was less emotional and, overall, more informed by facts. CI believes that the RPL feasibility study had a very positive effect on the tone and content of the conversation about these issues during the public decision-making process.

After the close of the 2018 legislative session the DLNR-DAR Administrator sent a letter to the Study Group stating that, after reviewing the different options explored in the report, DLNR-DAR believed a fee-based license with fee waivers or reductions for certain categories of fishers would be the most effective option for accomplishing the department's management goals. He then requested that, prior to the 2019 legislative session, the Study Group conduct outreach sessions to present the Study Group's findings to fishers and other stakeholders and to gather feedback on DLNR-DAR's preferred option.

After much consideration and discussion, the Study Group agreed to take DLNR-DAR's request as an opportunity to progress the Study Group's own recommendation for statewide outreach. The Study Group members shared a sincere desire to ensure that fishers' voices were thoroughly gathered and documented—enabling agencies, decision makers, and members of the public to make more informed decisions.

With assistance from a third-party facilitation team (Ecologic Consulting) the Study Group conducted outreach using two methods. The first method involved nine small group meetings held on Oahu, Kauai, and Hilo. The second “Information Exchange” approach focused primarily on information sharing. Six information exchanges were held on six islands around the State. In total, more than 300 people attended these six exchanges in person and an additional 26 participated online. A detailed description of the methods used for this outreach, the information shared, and the information gathered during this effort were compiled in a Community Input Report. The Community Input Report was finalized by the first week of January 2018 and shared online, where it received 884 unique views alone during its first month online.

In 2019, the Study Group continued to implement outreach of the feasibility study. At the 2019 Hawai'i Conservation Conference, CI and the Study Group members provided a mini-demonstration of the information exchanges and provided insights on how this project might inform better engagement between fishers, conservationists, and managers on complex fisheries issues. The forum was well-attended and CI staff received very positive feedback from attendees of the session, including funders, natural resource managers, and members of the press. Of importance were inquiries from state managers on how the process can be used for the state's 30x30 Initiative.

After the Conservation Conference, CI began discussions with DLNR-DAR to develop a plan to integrate the RPL content into the state's 30x30 outreach efforts. Shortly thereafter, however, the onset of the COVID-19 crisis incurred challenges. As multiple events converged – the increasing restrictions on travel and in-person meetings; the occurrence of DLNR-DAR staffing changes; and modifications to the state's 30x30 plan – it was decided that the priority

for the 30x30 outreach would focus primarily on scoping a proposed statewide herbivore rule package and postpone the more complicated RPL discussions for a later date.

Despite the delays caused by COVID-19 in 2020, significant developments occurred during this period that built upon the CI-led RPL study and outreach effort. A bill proposing to create a non-resident-only, non-commercial marine fishing license was proposed by DLNR-DAR during the 2021 Hawai'i Legislative Session. At the request of DLNR-DAR, CI revisited the financial impact analysis model developed as part of the RPL study from 2016 to provide DLNR-DAR with a way to understand the financial feasibility of the non-resident license being proposed in HB 1023. The updated model was shared with DLNR-DAR in a format that could be adapted as facts or details in the bill changed and could be shared publicly with stakeholders and decision-makers to support their own experimentation with different licensing scenarios.

Additionally, legislators introduced a similar bill that would require DLNR-DAR to create a new statewide comprehensive non-commercial fishing license program that would include both a new saltwater fishing license and the existing freshwater fishing license (HB1150). At the request of DLNR-DAR, the financial model was updated again to include fields for both a resident license, non-resident license, and combined license scenario. The resulting financial model was used by DLNR-DAR in their discussions with legislators.

The bill requiring a statewide comprehensive fishing license was ultimately deferred; however, in April 2021 it was discussed during the DLNR-led Fisheries Advisory Group. Legislators at the meeting shared that their purpose for introducing HB1150 was to resurface the discussions that had occurred in the 2020 legislative session, much of which centered on the RPL study. During that meeting, CI shared the history of the study and discussed its findings with the Fisheries Advisory Group. Although there was some criticism of the study, non-CI members of the RPL Study Group, who now sit on the Fisheries Advisory Group reinforced their support of the study's findings. DLNR-DAR also referenced CI's financial model in discussions of the potential economic value of a comprehensive fishing license.

The other bill, HB 1023, proposed a non-resident, non-commercial marine fishing license. At the request of DLNR-DAR, CI staff remained in communication with DLNR to provide technical clarifications on the RPL process and findings of the RPL study, as well as on the financial model as they shared the information with decision-makers.

On June 8, 2021, World Oceans Day, HB 1023 HD1 SD2 CD was signed into law by the Governor of Hawaii creating Hawaii's first non-resident, recreational marine fishing license. CI was honored to be invited to participate virtually in the Governor's signing ceremony along with many of the partners who were involved in the RPL study process.

Products, Deliverables, and Tailored Summaries

As mentioned in the long-term objectives, CI was tasked with developing products, deliverables, and tailored summaries related to the feasibility study that could be shared with decision-makers and aid DLNR-DAR in the implementation of the Study Group recommendations.

Throughout the project, several of these products and deliverables were created and utilized by decision-makers. Several examples include:

- The Feasibility of a Non-Commercial Marine Fishing Registry, Permit, or License System in Hawaii. (https://dlnr.hawaii.gov/dar/files/2016/12/NCMF_final_report.pdf)
- A Comparison of Coastal States & Territories Compared to Hawaii. (https://dlnr.hawaii.gov/dar/files/2016/12/NCMF_APPENDIX_B.pdf)
- A Comparison of Non-Commercial Marine Fishing Regulations Systems in States Similar to Hawaii. (https://dlnr.hawaii.gov/dar/files/2016/12/NCMF_APPENDIX_D.pdf)
- An Overview of Hawaii Legal Considerations for Potential Systems to Regulate Non-Commercial Marine Fishing. (https://dlnr.hawaii.gov/dar/files/2016/12/NCMF_APPENDIX_E.pdf)
- Right to Fish Language in Other States. (https://dlnr.hawaii.gov/dar/files/2016/12/NCMF_APPENDIX_F.pdf)
- Evaluation of Proposed Hawai'i Noncommercial Marine Fishing Registry, Permit, and License Design Scenarios & Policy Recommendations for Resolving Potential Conflicts with Native Hawaiian Rights. (https://dlnr.hawaii.gov/dar/files/2017/10/NCMF_APPENDIX_G.rev_.pdf)
- A Summary Financial Impact Analysis of Hawaii Non-Commercial Marine Licensing Program. (https://dlnr.hawaii.gov/dar/files/2016/12/NCMF_APPENDIX_H.pdf)
- A Community Input Report on the Feasibility of a Non-Commercial Marine Fishing Registry, Permit, or License in Hawaii. (https://dlnr.hawaii.gov/dar/files/2019/01/FINAL_Community_Input_Report_1.7.2019.pdf)
- Posters and one-page summaries of the high level topics from the RPL Study. (https://www.conservation.org/docs/default-source/publication-pdfs/appendix_5-posters.pdf?sfvrsn=a256144b_2)

Metrics of success

- *“Project products and deliverables are finalized by the end of the grant award.”*
 - All products and deliverables were finalized by the end of the grant award. As mentioned above, many of the products and deliverables were designed collaboratively with the Study Group and played a significant role in informing fishers, DLNR-DAR leadership, and state legislators.
- *“For each project year, at least 6 consultations have been hosted with key DLNR staff (leadership, administrators, and technical staff) to solicit input on the products and buy-in for the process of developing these products.”*

- For each project year, CI met on a regular basis with key DLNR-DAR staff to discuss the RPL study and outreach process. On a monthly basis, CI met with DLNR-DAR managers and the marine law fellow to discuss the RPL related topics. These meetings increased during the legislative session to ensure that DLNR-DAR had the necessary summary documents from the RPL Study to inform decision-making. The DLNR-DAR Administrator, several managers, and staff biologist also attended the Study Group meetings on a regular basis to provide input on the process and products.
- *“By the end of the grant award, at least 6 high-level engagement meetings with decision-makers (agency leads, Hawai’i legislators, key thought leaders in the fishing community) have taken place regarding the project outputs.”*
 - Throughout the project, CI met on a regular basis with decision-makers. On a recurring basis, CI met with the DLNR-DAR Administrator and influential fishers to discuss the RPL study and process. Starting in 2019, CI also met with the DLNR-DAR Administrator, DLNR Deputy Director, and two key legislators on a monthly basis to discuss RPL related topics and the study findings. Lastly, CI met on a monthly basis with influential fishers during Talk-Story Sessions and Fisheries Working Group meetings to share and discuss fisheries data, enforcement, finance, and outreach. In total, the meetings with high-level decision-makers during this award far exceeded six meetings.

3. Planned Activities Not Completed

All planned activities were completed during this project.

4. Lessons Learned and Remedial Actions

The most significant lesson learned during this project is that a group process must be adaptable to account for changing conditions, while continuing to move toward the original goal. This is difficult, particularly when the group process involves parties with diverse priorities, motivations, and missions, who have engaged in a process voluntarily.

During this multi-year project (2016-2021), the fisheries management landscape was continually in flux. DLNR-DAR staff and priorities changed. Legislative proposals and actions changed. And due to COVID-19, even the ability to travel and meet in person changed. If the project had remained linear, inflexible, and prescriptive, it would not have been successful. While the original intent was to reach consensus on a preferred RPL option, the Study Group was not comfortable with that. The resulting RPL feasibility study, which did not include a preferred option, ended up being more palatable and informative to the general fishing community and decision-makers, precisely because it did not advance one specific option.

By using a collaborative, open approach to fact-finding and outreach, trust was also a pillar of strength for the Study Group. Previous to this project, seeing the Study Group participants together in public would have been highly unlikely. However, by the end of the process, Study Group participants were standing side-by-side in public meetings sharing the information from “their” RPL study. The trust built by this project and process has extended into other fishery initiatives, and the Study Group members now collaborate on a regular basis to promote sustainable seafood, advance place-based fisheries management, and participate in the state’s 30x30 initiative.

The experience of this project indicates that building and maintaining trust among the diverse group should be prioritized above responding to what appears to be favorable political conditions that could require group decision-making and action before the group is ready. The political landscape in fisheries will likely continue to change unpredictably. By contrast, the relevant stakeholders involved in a difficult issue are likely to remain the same over time, particularly in a small community like Hawai‘i.