

CEPF Final Project Completion Report

Organization Legal Name:	FISHBIO Lao Sole Co., LTD
Project Title:	Strengthening Community Co-Management of a Mekong River Fish Conservation Zone Network
Grant Number:	CEPF-103512
CEPF Region:	Indo-Burma II
Strategic Direction:	4 Empower local communities to engage in conservation and management of priority key biodiversity areas
Grant Amount:	
Project Dates:	May 01, 2018 - September 30, 2020
Date of Report:	December 02, 2020

IMPLEMENTATION PARTNERS

List each partner and explain how they were involved with the project.

The key implementation partners included the FCZ committees and other community members of Houaykhoualouang, Korkfak, Pakpee, Donsok, Donmen, Phalath, Houayla, Ang Noi and Sakai villages. Community members participated in the drafting and dissemination of FCZ regulations, mapping of FCZ boundaries, FCZ patrolling and enforcement, and evaluation surveys for *Probarbus* fishes.

The Lao Department of Livestock and Fisheries supported this project by participating in project meetings and activities. Government staff from the district and provincial levels facilitated the approval and regulation dissemination of three new FCZs in Ang Noi and Sakai villages, and participated in a fisheries conflict management training hosted by FISHBIO, participated in an exchange visit and study tour for project communities, and joined in monitoring enforcement teams.

CONSERVATION IMPACTS

Summarize the overall impact of your project, describing how your project has contributed to the implementation of the CEPF ecosystem profile.

This project expanded and strengthened a network of seven FCZs in the mainstem Mekong River in northern Laos to protect important habitats for endangered *Probarbus* fishes. The project represents the culmination of multiple previously funded CEPF projects to establish FCZs between Vientiane

and Luang Prabang. The network expansion included the establishment of three new community co-managed FCZs in the villages of Ang Noi and Sakai in Sangthong District, Vientiane Capital, to reduce the targeted fishing pressure on CEPF priority species *Probarbus jullieni* and *Probarbus labeamajor*. These communities were connected to seven other communities that manage FCZs in the network, and the network was strengthened through trainings in enforcement and conflict management, the provision of equipment and resources, and the incorporation of traditional Buddhist practices to strengthen support for the FCZs among community members. The community management committees were empowered with the authority and ability to coordinate with local government officials and enforce local regulations against destructive fishing practices to protect fisheries resources.

Planned Long-term Impacts – 3+ years (as stated in the approved proposal)

Impact Description	Impact Summary
Two pilot projects on community co-managed FCZs on the Mekong River between Vientiane and Luang Prabang previously funded by CEPF will be scaled up into a long-term conservation program through the creation of an FCZ community network that will increase the ability of nine communities to address the threats to their fisheries resources into the future.	This project resulted in new protection at three freshwater Fish Conservation Zones and strengthened management at four Fish Conservation Zones in Key Biodiversity Area (KBA) LAO15, the stretch of the Mekong River between Luang Prabang and Vientiane. One civil society network for the management of Fish Conservation Zones in the mainstem Mekong River was developed among nine communities to enable collective responses to threats such as overfishing.
Nine communities in Vientiane, Xayabouri, and Luang Prabang provinces will be empowered with the increased authority and ability to coordinate with local government officials and enforce local regulations against destructive fishing practices to protect fisheries resources.	Nine communities received equipment, training, and networking opportunities to build connections among communities and with local government officials. However, increased effort and coordination is needed with local officials to improve FCZ enforcement.
Two new community co-managed FCZs will be established on the Mekong River between Vientiane and Luang Prabang to reduce the targeted fishing pressure on CEPF priority species <i>Probarbus jullieni</i> and <i>Probarbus labeamajor</i> .	Three FCZs were established in 2019 in the Mekong River between Vientiane and Luang Prabang at reduce fishing pressure at habitats thought to be used by <i>Probarbus jullieni</i> and <i>Probarbus labeamajor</i> .
FISHBIO Laos will demonstrate improved organizational capacity for coordinating and implementing a large-scale conservation project across nine villages in three provinces guided by the CEPF ecosystem profile over the course of two years.	FISHBIO Laos effectively implemented the activities and achieved the deliverables of a large-scale conservation project across nine village in three provinces guided by the CEPF ecosystem profile.
Approximately 312 part-time fishers (246 men and 66 women) and 8 full-time fishers (all men) will benefit directly from the strengthened aquatic resource management practices in this project, which should improve the long-term sustainability of fishing catches. Approximately 5,305 people (2,596 male and 2,709 female) will benefit indirectly through community solidarity generated through the increased authority and ability of their communities to protect natural resources at the local level.	Community members have reported increased fish catches as a result of the FCZ, suggesting that the FCZs have the ability to improve the long-term sustainability and food security of the project communities.

Planned Short-term Impacts – 1 to 3 years (as stated in the approved proposal)

Impact Description	Impact Summary
The management of four existing community co-managed FCZs on the Mekong River between Vientiane and Luang Prabang will be	Management was strengthened through the provision of training, equipment, and resources to community managers at four existing FCZs.

strengthened to protect freshwater species and reduce targeted fishing pressure on endangered CEPF priority species <i>Probarbus jullieni</i> and <i>Probarbus labeamajor</i> .	
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Describe the successes or challenges of the project toward achieving its short-term and long-term impact objectives.

Key success of the project include the successful establishment of three new FCZs in Ang Noi and Sakai villages. Regulations for these FCZs were approved by both community members and Lao government officials, and the FCZs were blessed by Buddhist ceremonies and spirit houses in keeping with local cultural beliefs. Both communities received equipment and training to aid the enforcement of their FCZs, including the construction of two guard house shelters to facilitate patrolling overnight or during inclement weather.

A conflict management consultant was hired to provide training for FISHBIO staff as well as NGO representatives and government staff engaged in community fisheries management. FISHBIO staff then held a conflict management workshop with community members during a study tour, which included diagnosing conflict and discussing strategies to address it.

A subset of project FCZs were assessed for ecological, socioeconomic and governance effectiveness. Scientific fisheries surveys demonstrated that *Probarbus* juvenile fishes use the habitat at the Kengmai Rapids FCZ, and fishers reported catching both juvenile and adult *Probarbus* near the FCZ, indicating that the target species is using the protected habitat. Socioeconomic and governance surveys revealed that community members are largely supportive of FCZ management, but feel that enforcement activities could be strengthened. However, enforcement team members do not feel confident to confront illegal fishers without government support. Surveys also indicated there is opportunity for improved community outreach and education regarding the function and benefits of FCZs.

Key efforts to strengthen the FCZ network included bringing together representatives from seven villages to learn about each other's experiences through a study tour, which allowed participants to share successes and challenges with other communities facing similar situations. Community members were also connected as part of a communication network through Facebook and WhatsApp.

Challenges to achieving project impacts included continued challenges with the apprehension of illegal fishers. Despite receiving training and equipment, community members are still reluctant to pursue and confront people fishing illegally in the FCZs, and request additional support from Lao government officials. This reluctance will likely pose continued challenges to the effectiveness and impact of FCZs. Restrictions from the coronavirus pandemic, flooding, and social unrest related to illegal drug trafficking in the project communities prevented us from completing some of the final project activities in all villages as planned, namely an outreach activity for World Fish Migration Day.

Were there any unexpected impacts (positive or negative)?

One positive unexpected impact was that the conflict management training intended for FISHBIO staff was made available to other practitioners, including

NGO representatives and government staff. The outcomes of the training were also published in a peer-reviewed journal thanks to the assistance of the conflict management consultant

(<https://onlinelibrary.wiley.com/doi/abs/10.1111/emr.12419?af=R>), which greatly increased the reach and impact of this project activity.

Another positive unexpected impact of the project was that it provided the basis for a capstone project for a graduate student (Biraj Shrestha) from the Coastal Science and Policy program at the University of California Santa Cruz. Biraj spent 10 months in Laos over the course of the project, and assisted with project activities, reporting, and outreach materials. An article about Biraj was published on the FISHBIO website: <https://fishbio.com/field-notes/mekong-basin/santa-cruz-laos-nepal-conservation-connection>

PROJECT COMPONENTS AND PRODUCTS/DELIVERABLES

Describe the results from each product/deliverable:

Component		Deliverable		
#	Description	#	Description	Results for Deliverable
1	FCZ Network Expansion	1.1	Finalized FCZ regulations establishing two new FCZ committees	Regulations for the Ang Noi FCZ were approved by the district governor on 7 Feb 2019 (Registered number 046/SDG), and on 13 Feb 2019 for the Sakai FCZ (Registered number 054/SDG). Regulations were submitted with a previous report.
1	FCZ Network Expansion	1.2	District governor announcement and sign boards installed to establish two new FCZs in the Mekong River	The district governor announcement was made and sign boards were installed on April 25 and 26, 2019
1	FCZ Network Expansion	1.3	Enforcement team rosters and training attendance forms for two new enforcement teams	On 20th December 2019, we organized training for Sa Kai and Ang Noi villages in Sangthong district, Vientiane capital to review how to enforce FCZ regulations and data collection approaches for better monitoring. Together 16 people (only males) who were fishers, ordinary people, DAFO, and police personnel benefited from participating. The rosters and attendance forms were submitted with a previous report.
3	FCZ Network Strengthening	3.1	Enforcement team refresher training attendance forms for seven villages	Enforcement team refresher training with seven villages took place during the 2020 study tour - summary attached this report.
3	FCZ Network Strengthening	3.2	Spirit houses installed with monk blessing ceremony at six FCZs to increase community respect for the protected areas	Three spirit houses were installed with monk blessing ceremonies at the three major FCZs locations - one for the cluster of three FCZs in Xayabouri/Luang Prabang province, one for Kengmai rapids, and one for the two FCZs in Sangthong District.

3	FCZ Network Strengthening	3.3	Observation platform installed at one Probarbus spawning ground to facilitate enforcement	Two guard house platforms were installed at two separate FCZs/spawning grounds to facilitate enforcement (Kengmai and Pakpoui)
3	FCZ Network Strengthening	3.4	Agenda and attendance records conflict resolution training in nine villages	The conflict resolution training was conducted on February 26, 2020, as part of a study tour that included seven of the project villages. A total of 30 community members and 17 government staff participated in the training. The summary of the conflict management training is provided in the attached study tour report.
4	Communicating Lessons Learned	4.1	Video in Lao and English about project lessons learned shared with government staff, local communities, and general public.	This video was completed and is available to view on YouTube: https://www.youtube.com/watch?v=WQzE0dk7f6o
4	Communicating Lessons Learned	4.2	Summary report and policy brief of project lessons learned for successful FCZ management shared with the Department of Livestock to inform government policy on community fisheries.	The policy brief and report is attached to this report, and will be submitted to DLF once the translation has been finalized.
4	Communicating Lessons Learned	4.3	List of Department of Livestock and Fisheries staff trained in	A total of 12 staff from the Department of Livestock and Fisheries at central, provincial, and district levels received training in fisheries co-management through participation in project activities. The list of staff names will be emailed separately from this report.

			community fisheries co-management approaches	
4	Communicating Lessons Learned	4.4	Project web stories shared on the FISHBIO and Mekong Fish Network websites	<p>Five stories were written about the project and shared on the FISHBIO and Mekong Fish Network</p> <p>New FCZ Consultation: https://fishbio.com/field-notes/mekong-basin/bringing-conservation-full-circle</p> <p>New FCZ Establishment: https://fishbio.com/field-notes/mekong-basin/extending-fish-conservation-zone-network-northern-laos</p> <p>Visiting UC Santa Cruz graduate student: https://fishbio.com/field-notes/mekong-basin/santa-cruz-laos-nepal-conservation-connection</p> <p>FCZ Exchange visit: FISHBIO - https://fishbio.com/field-notes/mekong-basin/building-fcz-network-exchange-visit-laos Mekong Fish Network - https://www.mekongfishnetwork.org/exchange-visit-lao-pdr-enhances-fcz-network/</p> <p>Conserving Fish for the Future: https://fishbio.com/field-notes/conservation/new-video-conserving-fish-future-laos</p>
2	FCZ Performance Assessment	2.1	Assessment report on socioeconomic and governance performance of four existing FCZs	The socioeconomic assessment of the FCZs was combined with the Dec 2019 KAP survey, and the governance assessment was performed during the February 2020 study tour. Summaries of both are attached to this report.
2	FCZ Performance Assessment	2.2	Monitoring methods for FCZ ecological performance developed, including impacts on the Probarbus population, developed, tested, and	Fish survey methods based on the gill net surveys and fisherman interviews were developed and tested. Juvenile Probarbus were documented at the Kengmai rapids FCZ, and fishermen reported catching both adults and juveniles near the FCZ. Results of the surveys are attached to this report.

			reported to CEPF	
2	FCZ Performance Assessment	2.3	Compliance with CEPF Social Safeguard Policies monitored and reported to CEPF	A KAP survey was conducted with 120 respondents in December 2019 to monitor compliance with social safeguards, and a summary was submitted with a previous report
3	FCZ Network Strengthening	3.5	Points of contact and contact information compiled for FCZ communication network	Contact information from 18 people across the nine villages were compiled into a Whats'App group to share questions and concerns related to FCZ management. Additionally, the page "Fish Conservation Zone Mekong Fish Network" was created as a Lao language communication tool to post updates about the project and other FCZ-related information as part of an effort to build a communication network among project communities: https://www.facebook.com/fczmekonglaos
4	Communicatin g Lessons Learned	4.5	Improved organizational capacity of FISHBIO Laos, as demonstrated by increased civil society and gender tracking tool scores between project start and end.	Gender tracking scores improved as a result of FISHBIO Laos staff receiving a gender training as part of this project. However, the civil society score was reduced as a result of FISHBIO Laos losing some staff members over the course of the project, who joined another organization.

Describe and submit any tools, products or methodologies that resulted from this project or contributed to the results.

FCZ assessment methodologies: This project drew on the FCZ assessment guidebook developed by FISHBIO as part of a previous CEPF-funded project. This included the development and implementation of fish surveys to survey for *Probarbus* fishes (which were detected at the Kengmai FCZ) and interviews with fishers to assess the ecological effectiveness of FCZs, as well as community interviews and focus group discussions to assess the socioeconomic and governance performance of the FCZs. Reports of the various assessments are attached to this report.

Publication: A synthesis of a conflict management training held as part of the project was published in the journal *Ecological Management and Restoration*:

Bond, J., E. Loury, and S. Ounboundisane. 2020. A report on a fisheries conflict management training workshop in Laos. *Ecological Management and Restoration*. <https://onlinelibrary.wiley.com/doi/abs/10.1111/emr.12419?af=R>

Video: Fish For the Future: Community Managed Fish Conservation Zones. A 15-minute video about the project, featuring interviews with community members and FISHBIO staff:

https://www.youtube.com/watch?v=WQzE0dk7f6o&feature=emb_logo

Web stories: Five stories were written about the project and shared on the FISHBIO and Mekong Fish Network

1. New FCZ Consultation: <https://fishbio.com/field-notes/mekong-basin/bringing-conservation-full-circle>
2. New FCZ Establishment: <https://fishbio.com/field-notes/mekong-basin/extending-fish-conservation-zone-network-northern-laos>
3. Visiting UC Santa Cruz graduate student: <https://fishbio.com/field-notes/mekong-basin/santa-cruz-laos-nepal-conservation-connection>
4. FCZ Exchange visit: FISHBIO - <https://fishbio.com/field-notes/mekong-basin/building-fcz-network-exchange-visit-laos> Mekong Fish Network - <https://www.mekongfishnetwork.org/exchange-visit-lao-pdr-enhances-fcz-network/>
5. Conserving Fish for the Future: <https://fishbio.com/field-notes/conservation/new-video-conserving-fish-future-laos>

Facebook Page: The page “Fish Conservation Zone Mekong Fish Network” was created as a Lao language communication tool to post updates about the project and other FCZ-related information as part of an effort to build a communication network among project communities: <https://www.facebook.com/fczmekonglaos>

Outreach Poster: An educational poster was created in both English and Lao languages (attached to this report) to communicate about the decline and conservation status of *Probarbus* fishes, key threats, and the benefits of FCZs.

LESSONS LEARNED

Describe any lessons learned during the design and implementation of the project, as well as any related to organizational development and capacity building.

Consider lessons that would inform:

- Project design process (aspects of the project design that contributed to its success/shortcomings)
- Project implementation (aspects of the project execution that contributed to its success/shortcomings)
- Any other lessons learned relevant to the conservation community

· ***Tradeoffs Between Conservation and Community Needs:*** There can be tradeoffs related to FCZ objectives in that the most ecologically valuable may not be the easiest habitats for communities to protect. Similarly, larger FCZs may provide more ecological benefit for fishes, but are more challenging for communities to patrol. When establishing FCZs for species conservation, it is important to recognize these tradeoffs and ultimately respond to the desires of the community, as they may need more support and encouragement to manage FCZs for biodiversity goals.

- ***Coordinating Responsibility Among Villages:*** Multiple villages can share responsibility and resources for patrolling large FCZs or networks of small FCZs, but this can make coordinating enforcement more complicated and challenging. Building relationships and good communication channels between communities is key. Communities that do not previously have a history of working together may take more time to develop relationships and trust to work collaboratively.
- ***Challenges in Sustaining Enforcement:*** FISHBIO supported enforcement teams to patrol regularly during the *Probarbus* spawning season (from December to February). The teams stopped regular patrolling once the funding ended, and instead only responded to reports of illegal fishing from the community. While community members are able to report activities that they observe during the day, enforcement activity is still most needed at night, when the majority of illegal fishing occurs.
- ***Ongoing Maintenance:*** Signs and guard house areas need to be regularly maintained, otherwise they can quickly get overgrown with vegetation. Faded or broken sign boards also need to be maintained or replaced every few years.
- ***Issue of Fines as a Funding Mechanism:*** Fines did not turn out to be a reliable source of funding for the FCZs. Very few violators were given more than a warning, and when a fine was issued, the communities needed to rely on the district government to distribute the fines. In one instance, the government authorities kept most of the fine and only reimbursed the patrol teams for the cost of their fuel. Other means are needed to ensure sustainable funding of FCZ activities.
- ***Managing Conflict:*** In response to retaliation against enforcement teams, FISHBIO partnered with a conflict management consultant to work with project staff on techniques such as mapping sources of conflicts and identifying all of the relevant players, as well as channels for resolution. One suggestion from the consultant was following up with dissatisfied individuals in the community, because sometimes just being able to voice dissatisfaction and feel heard, even if just by project staff, can help appease that individual, even if there is not a readily apparent way to resolve the issue. When FISHBIO conducted conflict management training with community members, many identified that increased education and outreach was needed to help villagers understand the rules and purpose of the FCZ.
- ***Need for Increased Education and Outreach:*** Although many community members are aware of the existence of FCZs in their villages, there is a need for continued outreach and awareness raising in the communities around the function of FCZs, the dangers of illegal fishing, and the conservation value of *Probarbus* fishes. Future efforts could be made to continue to build grassroots support for the management of FCZs at the local level.
- ***FCZs and Destructive Fishing:*** Destructive Illegal fishing, such as by using electrofishing and dynamite, is a widespread, serious problem that cannot be addressed by FCZs and community enforcement teams alone, especially when it is carried out by people in positions of power who may be armed. Properly addressing this issue will ultimately require more political will, support, and action from government staff.
- ***Imperfect can Still be Beneficial:*** Even if occasional illegal fishing in the FCZs continues, the FCZs are not considered a failure. Community members report that the situation is better than before the FCZs existed – without the FCZs, they believe that illegal fishing would be even more widespread. Although compliance may not be 100%, some fish populations can still benefit from reduced fishing pressure.

SUSTAINABILITY/REPLICATION

Summarize the successes or challenges in ensuring the project will be sustained or replicated, including any unplanned activities that are likely to result in increased sustainability or replicability.

FISHBIO has provided equipment, training, and networking opportunities for FCZ management and enforcement teams, and worked to build community support for the FCZs through the incorporation of Buddhist traditions, all in the hopes of ensuring that the project activities will be sustained. Ultimately, however, the continued management and support of the FCZs will depend on the will and sense of ownership and responsibility from each community. This may result in management and enforcement activities being less frequent or rigorous in the future without external support. In addition, planned future hydropower development on the Mekong River has the potential to jeopardize the sustainability of these FCZs, as several locations would be flooded to create reservoirs. Successes and lessons learned from the project have the potential to be replicated as part of a new partnership between the Wildlife Conservation Society and FISHBIO Laos to establish and monitor FCZs in the Xe Champone Wetlands of Savannakhet Province.

SAFEGUARDS

If not listed as a separate project component and described above, summarize the implementation of any required action related to social, environmental or pest management safeguards.

Prior to establishing three new FCZs with two communities in Sangthong District, FISHBIO staff held consultation meetings with each community and received free, prior, informed consent and agreement from the communities to establish the FCZs. Community members expressed support for FCZ establishment due to declining fish populations. Fishing is the primary source of income for less than 5% of households in the two villages, and even with FCZ establishment, other locations are available for fishing. Community members participated in designating the location and boundaries of the FCZ.

The project also sought to provide training and resources to address conflicts associated with FCZ management. This included partnering with researcher Dr. Jen Bond from Charles Sturt University in Australia, who held a conflict management training for FISHBIO staff and other fisheries conservation professionals in Vientiane Capital in November 2019. FISHBIO staff then built on this experience to hold a conflict management training with community representatives during a study tour in February 2020.

A mid-term KAP survey conducted in December 2019 included interviews with 120 respondents from seven project villages. The report found that satisfaction with the FCZs was generally high, with all respondents sharing that they thought the effect of the FCZ on the community was generally "positive," 78% of respondents saying that they thought that people were complying with the rules of the FCZs, and 89% saying they thought that FCZ enforcement activities were working.

However, illegal fishing activities persist, and 58% of respondents said there is a need for increased patrolling joined regularly by the district government staff, while 39% of respondents believed an enhanced community outreach effort is needed to disseminate FCZ regulations widely.

ADDITIONAL COMMENTS/RECOMMENDATIONS

Use this space to provide any further comments or recommendations in relation to your project or CEPF.

ADDITIONAL FUNDING

Provide details of any additional funding that supported this project and any funding secured for the project, organization or region as a result of CEPF investment.

Total additional funding (US\$)

\$16,400.00

Type of funding

Provide a breakdown of additional funding (counterpart funding and in-kind) by source, categorizing each contribution into one of the following categories:

- A. Project co-financing (other donors or your organization contribute to the direct costs of this project)
- B. Grantee and partner leveraging (other donors contribute to your organization or a partner organization as a direct result of successes with this CEPF-funded project)
- C. Regional/portfolio leveraging (other donors make large investments in a region because of CEPF investment or successes related to this project)

Project co-financing was provided by FISHBIO's U.S. office to support the involvement of communications director Erin Loury (146 hours) and videographer and graphics designer Dee Thao (143 hours) in project activities, equating to approximately \$16,400 in in-kind support.

INFORMATION SHARING AND CEPF POLICY

CEPF is committed to transparent operations and to helping civil society groups share experiences, lessons learned and results. Final project completion reports are made available on our website, www.cepf.net, and may be publicized in our e-newsletter and other communications.

1. Please include your full contact details (name, organization, mailing address, telephone number, email address) below.

fishbiolaos@fishbio.com, info@fishbio.com