

CEPF Final Project Completion Report

Instructions to grantees: please complete all fields, and respond to all questions listed below.

Organization Legal Name	FISHBIO Laos	
Project Title	Strengthening Sustainable Community Management of Fish Conservation Zones for Endangered Probarbus Fishes at Kengmai Rapids, Lao PDR	
CEPF Grant or Number	CEPF-077 (CEPF RIT code) CEPF-104302 (CEPF Secretariat code)	
Date of Report	9 June 2019 (revised 19 Nov 2019)	

CEPF Hotspot: Indo-Burma

Strategic Direction: 4: Empower local communities to engage in conservation and

management of priority key biodiversity areas.

Grant Amount: \$20,000

Project Dates: September 1, 2017–March 31, 2019

PART I: Overview

1. Implementation Partners for this Project (list each partner and explain how they were involved in the project)

FISHBIO: Staff from FISBHIO's U.S. office were involved in project planning as well as financial and progress reporting.

Lao Department of Livestock and Fisheries: Staff from the District Agricultural and Forestry Office in Sanakham District assisted in the legal process to approve updated Fish Conservation Zone (FCZ) regulations at the District Governor's office.

2. Summarize the overall results/impact of your project

This project resulted in strengthened community fisheries management in four villages in Lao PDR to manage the Kengmai Rapids Fish Conservation Zone in the Mekong River. This included the retraining and equipping of FCZ enforcement teams, amending of FCZ regulations to increase penalties for illegal fishing, marking of FCZ boundaries, refurbishment of FCZ

signboards, networking among communities from previous FCZ projects via a study tour, and an environmental education program consisting of a fisheries conservation school activity. The project supported focused enforcement of the FCZ during the *Probarbus jullieni* spawning season from Jan–March 2019.

3. Briefly describe actual progress towards the overall project goal (as stated in the small grant contract)

List the project goal from the small grant contract

Description of the overall project goal (as stated in the small grant contract)	Summary of actual progress towards this goal
The goal of this project is to improve the capacity of community members to manage the Fish Conservation Zone at Kengmai Rapids into the future to protect endangered <i>Probarbus</i> fishes and promote sustainable fisheries.	The project has helped improve the capacity of four communities to conduct Fish Conservation Zone management through the provision of training, networking, resources and supplies. The project supported focused enforcement of the FCZ during the <i>Probarbus jullieni</i> spawning season from Jan–March 2019.

4. Describe the success or challenges of the project toward achieving its overall goal

Successes of this project towards achieving the goal of improved community fisheries management at the Kengmai FCZ include refresher training for community enforcement teams, the provision of supplies, including a patrol boat and boundary markers for the FCZ, and strengthening of FCZ regulations, including increased penalties for illegal dynamite fishing. Community members had a chance to network and share experiences with enforcement teams from another CEPF-funded project through a study tour, and children in Phalath village received an environmental education program related to fisheries conservation.

The project faced a large implementation challenge due to changes in the hydrology of the Mekong River at our project site, which made it no longer feasible to complete one of our project objectives (Objective 4: "Phalath, Donesork, DoneMen, and Houayla villages organize a joint community fishing day/FCZ celebration to sustainably finance the continued enforcement of the FCZ"). The fishing day was dependent on a pool within the FCZ area becoming isolated during the dry season, and thus enabling a controlled fishing day that would not disturb the rest of the protected FCZ habitat. However, based on discussions with project communities in Nov 2017 and March 2018, we learned that this pool no longer floods, meaning we no longer had a suitable location to hold a fishing day at our project site (see report in Appendix 1). Therefore, we made a request to CEPF in July 2018 to modify the objectives of our project to use the budget for this objective to increase support for FCZ enforcement during the 2018-2019 *Probarbus* spawning season (Dec-March).

Our meeting with the communities had revealed that local enforcement of the Fish Conservation Zone deteriorated since the end of donor funding from the previous phase of our project. Therefore, we deemed it necessary to increase support for FCZ enforcement. The enforcement of the Kengmai Rapids FCZ poses several logistical challenges, including its large size (5 km), and the fact that it is located far away from all of the project villages. Trying to coordinate the management among the four villages has also presented its own challenges with communication and cooperation

(described in Appendix 1). These logistical difficulties are some of the largest challenges to the sustainability of FCZ management. In light of these challenges, we re-evaluated our project Objective 3: "FCZ regulations have been amended (at the request of the communities) to add a buffer zone with increased fishing gear restrictions around the boundaries of the FCZ." Following the completion of our previous CEPF project to establish the Kengmai FCZ (CEPF-036) in August 2016, members of the village committees had expressed interest in creating a buffer zone around the FCZ to prevent people from setting nets just outside the boundaries that could drift into the protected area. However, when we met with the communities in November 2017 and March 2018, we learned that there were already challenges with effectively enforcing the 5 km FCZ based on the existing regulations, and further that some community members objected to any additional restrictions being created as part of this already very large FCZ. Because of our desire to respect social safeguards as part of this project, we made a request to CEPF in July 2018 to amend our project work plan to remove this objective, and direct the associated budget (mostly staff time) to support an enforcement refresher training. Communities were willing, however, to increase the penalty for illegal dynamite fishing, which continues to be a problem in the area. Therefore, we supported the communities in receiving official government approval to increase the fine for dynamite fishing from 5 million kip to 8 million kip. Despite this success, no one has yet been charged with a fine for illegal fishing at this FCZ.

Financial sustainability is a long-term challenge facing this FCZ. Finding a source of income to support the fuel costs of FCZ patrolling remains an issue, given that the FCZ location is far from the villages that manage it. We had hoped that introducing a community fishing day could serve as an annual fundraiser to support FCZ management. However, it was not feasible for us to implement this fundraising activity as described above, and other financial solutions are needed to ensure long-term sustainability. The project also identified that some of the challenges to effective FCZ enforcement include members of the FCZ enforcement teams being reluctant to strictly enforce the penalties of the FCZ for fear of retaliation. We hope to help address these challenges as part of a separate, ongoing CEPF-funded project (CEPF-103512), and are encouraging local government officials to help provide stricter enforcement.

5. Were there any unexpected impacts (positive or negative)?

The changes to the hydrology of the river (e.g. timing of flooding) at the FCZ were an unexpected negative impact to the project that meant we could not complete the project as originally intended with a mechanism for fundraising to promote financial sustainability.

PART II: Project Objectives and Activities/Deliverables

6. Objectives (as stated in the small grant contract)

List each objective and activity/deliverable from the small grant contract and describe the actual progress/results. Add or remove number of Objectives and Activities as required.

Objective 1: FCZ enforcement teams have the necessary capacity and support for effective FCZ		
monitoring		
Activity description	Deliverable(s)	Summary of actual progress/results for this activity
List each activity as stated	List the deliverable(s) for	Describe actual progress/results for this activity
in the small grant contract	each activity	
Activity 1.1: Hold a FCZ refresher training workshop for members of 7 target villages	Refresher training held, with at least 7 people from 7 villages participating (49 total). Outputs documented in refresher training report	FCZ refresher training was held during the study tour in March 2018 with 34 total villagers from 7 communities. This included reviewing community monitoring systems for reporting illegal fishers, patrolling rotations, and sharing enforcement responsibilities among multiple villages. While we had hoped to have higher participation from each village, travel to the study tour location is logistically challenging for some villages, and not as many people were available to make the trip as we had originally planned. Following the decision to amend the scope of the project based on the challenges and discussions included in Appendix 1, and the decision to shift budget from incomplete objectives to support a new round of enforcement activity, an additional set of enforcement team refresher trainings was held in November and December 2018 with 37 participants from all four villages combined (some of whom also participated in the March 2018 training), along with local government staff to prepare for additional enforcement during the 2018–2019 Probarbus spawning season. This additional enforcement support was deemed necessary given the lapse in enforcement activity following the end of funding in August 2016 from of a previous project to establish the FCZ (CEPF-036). In addition to the training, per diems were paid to enforcement teams for 3 months of enforcement during the <i>Probarbus</i> spawning season from December-February.

A total of 40 people from Phalath and Donsok Activity 1.2: Survey conducted. villages were interviewed for a KAP survey in Conduct a Results documented November of 2017, and a total of 40 people were Knowledge Attitudes in survey report. interviewed in Donmen and Houyla in March 2018. and Practice (KAP) survey in 4 Kengmai Goals of the KAP survey were to understand target villages. village fishing practices, particularly regarding Probarbus fishes, to assess villager knowledge. understanding, and support of the FCZ and its regulations, and to understand the prevalence of illegal fishing practices. Results were documented in a report (Appendix 2). Nearly all of the respondents had heard of the FCZ and thought the FCZ enforcement activities were working. However, 68% of respondents noted that illegal fishing activities were still prevalent in the river. Only 43% thought the local government was helping with enforcement activities. Of the respondents, 96% thought the regulations of the FCZ were fair, 95% thought the FCZ had been generally positive for the community, and 99% wanted to continue having the FCZ in their community. Training held; 2 boats and motors, and Equipment handover and training was held in Activity 1.3: enforcement team November 2018 as part of enforcement team training Provide equipment. supplies provided to with 21 participants for Phalath and Houyla villages, training, and enforcement teams in and 16 participants from Donsok and Donmen patrolling support for 4 villages villages. One new boat was purchased for Phalath enforcement teams in 4 villages in Kengmai and Houyla villages. Donmen and Donsok villages during the Probarbus already had a boat for their use purchased by a spawning season. previous CEPF-funded project, so a second boat was not purchased. All four villages received new equipment for the enforcement teams, such as life jackets, binoculars, and walkie-talkies. The teams

Objective 2: Village FCZ enforceme	nt teams function as a net	work, easily able to exchange lessons learned.
Activity description	Deliverable(s)	Summary of actual progress/results for this activity
List each activity as stated	List the deliverable(s) for	Describe actual progress/results for this activity
in the small grant contract	each activity	

also receive equipment log forms to manage

equipment use in the village.

Activity 2.1:

Conduct a study tour at the Kengmai FCZ for members of 3 village FCZ enforcement teams from Xayabouri and Luang Prabang to join the target villages of this project.

Study tour conducted, with at least 5 people from 3 villages (15 total) participating. Outputs documented in study tour field trip report.

A study tour was held in Phalath Village in March 2018 that included 34 villagers from seven communities, 3 FISHBIO staff, and 14 government staff from 4 district offices and 1 provincial office. Participants shared successes and challenges from their FCZ experience. Successes included apparent increases in fish populations or spawning activity in response to protection from the FCZ. Challenges included the logistics of patrolling an FCZ that is far from the village, and fining violators who are in positions of power. Recommendations included installing guard houses to facilitate overnight patrolling, and improving coordination among villages as well as between villages and government officials. A study tour field trip report was produced (see Appendix 3).

Objective 3: FCZ regulations have been amended (at the request of the communities) to add a buffer zone with increased fishing gear restrictions around the boundaries of the FCZ.

zone with increased fishing gear restrictions around the boundaries of the FCZ.		
Activity description	Deliverable(s)	Summary of actual progress/results for this activity
List each activity as stated	List the deliverable(s) for	Describe actual progress/results for this activity
in the small grant contract	each activity	
Activity 3.1: Organize a FCZ regulation amendment workshop for 4 Kengmai villages (to establish buffer zones and community fishing day).	Workshop held. Report documents 4 villages agreement on expanding buffer zones and community fishing day management.	Community workshops were held in November 2017 in Phalath and Donsok and in March 2018 in Donemen and Houyla. At that time, it was deemed that it was no longer feasible to implement a community fishing day because the suitable fishing location was no longer flooding due to changes in river hydrology. It was also determined that there were existing challenges to enforcing the FCZ given its current boundaries, and that some members of the community would object to expanding the regulations to include a buffer zone. The FCZ is already quite large at 5 km long, so some community members expressed concerns about adding any additional spatial restrictions to fishing in the area. Based on these discussions with the community, we requested to CEPF in July of 2018 to shift the focus of the project away from the buffer zone and community fishing day to instead focus on improving the existing FCZ enforcement, such as increasing the penalties for illegal dynamite fishing.

Activity 3.2: Submit revised regulations to the district government office for final approval.	FCZ regulations amended and approved by District Governor's Office.	Following meetings with village committees in which community members proposed increasing the FCZ penalty for dynamite fishing, amended FCZ regulations to increase the penalties for illegal dynamite fishing from 5 million kip to 8 million kip were approved by the Sanakham and Kenthao District Governor's offices on November 13, 2018.
Activity 3.3: Hold 4 workshops to disseminate the new FCZ regulations at the district and village levels (in Sanakham and Kenthao districts)	4 workshops held, with a total of at least 275 participants.	These workshops were not held because the changes to the FCZ regulations were not extensive enough to warrant formal dissemination. This budget was used to support additional enforcement team training in November and December of 2018.
Activity 3.4: Update/install FCZ signs in 4 villages	12 FCZ signs updated or installed	Since the buffer zone was not added to the FCZ, we did not need to update the maps of the existing FCZ signs. We instead refurbished or replaced a total of 6 FCZ signs at Donesork village that had become faded or damaged (3 large and 3 small signs).
Activity 3.5:	Survey conducted. Results documented in survey report.	

Conduct a Mid-term KAP survey in 4 villages	Due to the short time-frame of the project, we did not complete the mid-term KAP survey because of logistical constraints. This change did not affect our budget, as the primary expense associated with the survey is staff time (logistical expenses are covered by other activities that the KAP survey is paired with), and the grant did not cover the full staff time required to complete the project (some staff time was
	contributed in kind).

Objective 4: Phalath, Donesork, DoneMen, and Houayla villages organize a joint community fishing day/FCZ celebration to sustainably finance the continued enforcement of the FCZ.		
Activity description	Deliverable(s)	Summary of actual progress/results for this activity
List each activity as stated	Describe the deliverable(s)	Describe actual progress/results for this activity
in the small grant contract	for each activity	
Activity 4.1: Help the four target villages organize a FCZ community Fundraising Festival.	Celebration held. Results documented in short report	We were unable to complete this activity and objective due to changes in the hydrology of the river, which meant that a suitable location to hold the community fishing day (an isolated pool that is no longer flooding regularly) was no longer available. As a result, we made a request to CEPF in July 2018 to amend our project work plan to remove this activity and use our budget instead to support FCZ enforcement activities during an additional <i>Probarbus</i> spawning season. This additional enforcement support was deemed necessary due to the logistical challenges of coordinating among the four villages to patrol the Kengmai FCZ, which is very large and far away from all villages.

Objective 5:			
Communities have great	Communities have greater awareness about FCZs and endangered <i>Probarbus</i> fishes as a result of		
school education visits	school education visits and increased signage.		
Activity description	Deliverable(s)	Summary of actual progress/results for this activity	
List each activity as stated	Describe the deliverable(s)	Describe actual progress/results for this activity	
in the small grant contract	for each activity		

Activity 5.1: School visit about the Probarbus life cycle and puppet making activity	At least 1 visit organized to 1 school in Phalath Village with 60 students and 5 teachers (grades 3-5).	In April 2018, a school visit was held in Phalath Village in honor of World Fish Migration Day. Participants included 35 students in grades 3–5 (18 female), 16 members of the village FCZ committee and government staff, and 3 FISHBIO staff (54 participants total). Lesson topics included fish migration as part of the fish life cycle, and introduction to <i>Probarbus</i> fishes, and an explanation about how FCZs function. Activities included <i>Probarbus</i> puppet making, an FCZ tag game, and a fish puppet parade. For more information, please see Appendix 4.
Activity 5.2: Conduct a Final KAP survey in 4 villages	Survey conducted. Results documented in survey report.	Because our project work to support FCZ management is continuing in the community through a concurrent CEPF project (CEPF-103512), we have not yet completed a final KAP survey. We plan to complete this survey in 2020 as part of the FCZ Network project CEPF-103512

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

An educational curriculum was developed for World Fish Migration Day as part of this project, which included a discussion of fish migration as part of the fish life cycle, an introduction to endangered Probarbus fish, and an explanation of how Fish Conservation Zones function. This included the development of an "FCZ tag" game. Please see Appendix 4 for more information.

Written media products resulting from this project:

Celebrating Fish Conservation for World Fish Migration Day: https://fishbio.com/field-notes/mekong-basin/sharing-fish-conservation-experiences-laos

Sharing Fish Conservation Experiences in Laos: https://fishbio.com/field-notes/mekong-basin/sharing-fish-conservation-experiences-laos

PART III: Lessons, Sustainability, Safeguards and Financing

Lessons Learned

8. 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)
- Describe any other lessons learned relevant to the conservation community

This grant represented a second round of funding to focus on strengthening community comanagement of the Kengmai Rapids FCZ after it was established with funds from an initial small grant. This additional funding was warranted because there are several challenges related to FCZ enforcement at Kengmai Rapids. Enforcing the Kengmai FCZ in the mainstem Mekong River is logistically challenging for the four communities involved because of its large size (5 km), and its distance from each of the villages. During the implementation of our previous project, we had hoped the four communities could rotate the responsibility of patrolling the FCZ by sharing the use of a single patrol boat. However, this rarely happened in practice after the completion of our first project. Therefore, we purchased an additional boat for the two villages in the same province to share. This has simplified the patrolling coordination and reduced the time it takes for enforcement team members to pick up the patrol boat from neighboring villages.

The study tour was a successful aspect of the project design because it was able to provide benefits not just to the communities involved in this project, but to communities involved in a previous CEPF-funded project (IUCN Project Ref 77636-000, Grant Contract no: CEPF-002). The study tour provided a valuable opportunity for villagers in all communities to learn from each other about successes and challenges at each other's FCZs. Successes included apparent increases in fish populations or spawning activity in response to protection from the FCZ. Challenges included the logistics of patrolling an FCZ that is far from the village, coordinating patrolling among multiple villages, and fining violators who are in positions of power or who show animosity towards the enforcement team. Recommendations included installing guard houses to facilitate overnight patrolling, improving coordination among villages, and increasing government support for FCZ enforcement, as effective enforcement remains challenging for communities to conduct on their own. Another successful aspect of the project design is that we were able to coordinate our educational outreach event as part of World Fish Migration Day 2018. Photos and videos from this project were featured in World Fish Migration Day promotional videos, and provided representation for Lao PDR in this global event.

Despite the fact that challenges remain for enforcing the Kengmai Rapids FCZ, and some people do reportedly violate the rules of the FCZ, villagers in the project communities generally have the perception that the FCZ is effective. The majority of *Probarbus* fishers who used to fish in the FCZ area before it was established now fish just outside the boundary, likely relieving some fishing pressure on *Probarbus* fishes that can seek refuge inside the FCZ boundary. Community members report that they believe that fish populations have increased inside the FCZ, and that while illegal fishing does still happen, they believe it would be even more wide spread if the FCZ did not exist. Thus, it seems that the FCZ may be able to provide some benefits to fish populations even if compliance is not one hundred percent.

Sustainability / Replication

 Summarize the success 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.

We were unable to implement our planned fundraising activity (a community fishing day) to support the financial sustainability of the FCZ. Financial sustainability remains an ongoing challenge to support the purchase of fuel to patrol the FCZ for enforcement. It is likely that the communities will continue enforcement activities at a reduced level without support from project funding, likely just following up on reports of illegal fishing from the community. However, we have the opportunity to continue to solidify the communities' commitment to enforcement during a separate, on-going CEPF project (CEPF-103512). This includes the construction of a guard house for enforcement team members to stay at the FCZ site overnight during their patrols, which was a recommendation raised during the study tour organized during this project, and which will hopefully increase the sustainability of FCZ patrolling.

Safeguards

10. If not listed as a separate Project Component and described above, summarize the implementation of any required action related to social or environmental safeguards that your project may have triggered.

We conducted a Knowledge, Attitudes, and Practices survey at the beginning of the project to assess community attitudes towards the FCZ. We interviewed a total of 80 people, 20 from each of four villages involved in the project. Respondents represented a mix of fishers, women, elders, and FCZ enforcement team members. Below is a short summary of key survey results (found in Appendix 2):

- When asked if they thought the FCZ regulations were fair, 77 people (96%) said "Yes," 2 people (3%) said "No," and one person (1%) declined to answer.
- When asked whether they thought FCZ enforcement activities were working, 78 people (97%) said yes, and 2 people (3%) said "No."
- When asked whether they thought having the FCZ has generally been positive or negative
 for their community, 76 people (95%) answered "Positive," one person (1%) answered
 "Negative," two people (3%) answered "Both Positive and Negative," and one person
 declined to answer.
- When asked whether they wished to continue having the FCZ in their community, 79 people (99%) answered "Yes," and one person (1%) answered "No."

Based on this survey, we ascertained that people in the community were generally still supportive of the FCZ, and did not think that it was harming their community. In addition to making the communities aware of the formal grievance reporting mechanism, we also provided multiple opportunities for community members to express concerns and grievances throughout the project. For example, due to objections and concerns of some community members about extending the regulations of the FCZ in a buffer zone that were raised at one of our early project workshops, we modified our project plan accordingly and did not pursue this as part of our project activities. Although many of the village management committee members expressed interest in strengthening the regulations of the FCZ by adding the buffer zone, we determined that this could create conflict with local fishers and instead decided to focus on enforcing the existing rules of the FCZ rather than adding new ones. In this way, we took care not to violate social safeguards

related to access to natural resources.

Additional Funding

- 11. Provide details of any additional funding that supported this project and any funding secured for the project, organization, or the region, as a result of CEPF investment
 - a. Total additional funding (US\$)

b. Type of funding

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

Donor	Type of Funding*	Amount	Notes
FISHBIO Laos	Project Co-Financing	\$4,700	In-kind support to pay for staff time not covered by the project budget

^{*} Categorize the type of funding as:

- 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)

Additional Comments/Recommendations

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

The challenges encountered during this project highlight some of the tradeoffs that may occur when selecting the appropriate site for protection in an FCZ. While the Kengmai Rapids area is identified as important fish habitat, and therefore is ecologically suitable, it is a logistically challenging location to protect, and therefore is less suitable from a management perspective. Therefore, ongoing support is required to address the logistical difficulties that arise in this kind of complex situation. This project highlights that setting up an FCZ is only the beginning of a long-term process, and that communities may require longer-term support to help them develop a sense of ownership and the capacity to successfully manage the FCZ in a sustainable manner.

PART IV: Impact at Portfolio and Global Level

CEPF requires that each grantee report on impact at the end of the project. The purpose of this report is to collect data that will contribute to CEPF's portfolio and global indicators. CEPF will aggregate the data that you submit with data from other grantees, to determine the overall impact of CEPF investment. CEPF's aggregated results will be reported on in our annual report and other communications materials.

Ensure that the information provided pertains to the entire project, from start date to project end date.

Contribution to Portfolio Indicators

13. If CEPF assigned one or more Portfolio Indicators to your project during the full proposal preparation phase, please list these below and report on the project's contribution(s) to them.

No portfolio indicators were assigned to this project.

Indicator	Narrative

Contribution to Global Indicators

Please report on all Global Indicators (sections 14 to 21 below) that pertain to your project.

14. Key Biodiversity Area Management

Number of hectares of Key Biodiversity Areas (KBA) with improved management Please report on the number of hectares in KBAs with improved management, as a result of CEPF investment. Examples of improved management include, but are not restricted to: increased patrolling, reduced intensity of snaring, invasive species eradication, reduced incidence of fire, and introduction of sustainable agricultural/fisheries practices. Do not record the entire area covered by the project - only record the number of hectares that have improved management.

If you have recorded part or all of a KBA as newly protected for the indicator entitled "protected areas" (section 17 below), and you have also improved its management, you should record the relevant number of hectares for both this indicator and the "protected areas" indicator.

Name of KBA	# of Hectares with strengthened management *	Is the KBA Not protected, Partially protected or Fully protected? Please select one: NP/PP/FP
LAO15, the Mekong River between Luang Prabang and Vientiane	215	PP

^{*} Do not count the same hectares more than once. For example, if 500 hectares were improved due to implementation of a fire management regime in the first year, and 200 of these same 500 hectares were improved due to invasive species removal in the second year, the total number of hectares with improved management would be 500.

15. Protected Areas

Number of hectares of protected areas created and/or expanded

Report on the number of hectares of protected areas that have been created or expanded as a result of CEPF investment.

Name of PA*	Country(s)	# of Hectares	Year of legal declaration or expansion	Longitude**	Latitude**	
N/A						

^{*} If possible please provide a shape file of the protected area to CEPF.

16. Production landscape

Please report on the number of hectares of production landscapes with strengthened biodiversity management, as a result of CEPF investment. A production landscape is defined as a landscape where agriculture, forestry or natural product exploitation occurs. Production landscapes may include KBAs, and therefore hectares counted under the indicator entitled "KBA Management" may also be counted here. Examples of interventions include: best practices and guidelines implemented, incentive schemes introduced, sites/products certified and sustainable harvesting regulations introduced.

Number of hectares of production landscapes with strengthened biodiversity management.

Name of Production Landscape*	# of Hectares**	Latitude***	Longitude***	Description of Intervention
N/A				

^{*} If the production landscape does not have a name, provide a brief descriptive name for the

^{**} Indicate the latitude and longitude of the center of the site, to the extent possible, or send a map or shapefile to CEPF. Give geographic coordinates in decimal degrees; latitudes in the Southern Hemisphere and longitudes in the Western Hemisphere should be denoted with a minus sign (example: Latitude 38.123456 Longitude: -77.123456).

landscape.

- **Do not count the same hectares more than once. For example, if 500 hectares were strengthened due to certification in the first year, and 200 of these same 500 hectares were strengthened due to new harvesting regulations in the second year, the total number of hectares strengthened to date would be 500.
- *** Indicate the latitude and longitude of the center of the site, to the extent possible, or send a map or shapefile to CEPF. Give geographic coordinates in decimal degrees; latitudes in the Southern Hemisphere and longitudes in the Western Hemisphere should be denoted with a minus sign (example: Latitude 38.123456 Longitude: -77.123456).

17. Beneficiaries

CEPF wants to record two types of benefits that are likely to be received by individuals: formal training and increased income. Please report on the number of men and women that have benefited from formal training (such as financial management, beekeeping, horticulture) and/or increased income (such as tourism, agriculture, medicinal plant harvest/production, fisheries, handicraft production) as a result of CEPF investment. Please provide results since the start of your project to project completion.

17a. Number of men and women benefitting from formal training.

# of men benefiting from formal training*	# of women benefiting from formal training*
34	3

This is the number of people who directly participated in enforcement trainings during the project.

17b. Number of men and women benefitting from increased income.

# of men benefiting from increased income*	# of women benefiting from increased income*

^{*}Please do not count the same person more than once. For example, if 5 men benefited from increased income due to tourism, and 3 of these also benefited from increased income due to handicrafts, the total number of men who benefited should be 5.

17c. Total number of beneficiaries - Combined

Report on the total number of women and the number of men that have benefited from formal training and increased income since the start of your project to project completion.

Total # of men benefiting*	Total # of women benefiting*
34	3

^{*}Do not count the same person more than once. For example, if Paul was trained in financial management and he also benefited from tourism income, the total number of people benefiting from the project should be 1 = Paul.

^{*}Please do not count the same person more than once. For example, if 5 men benefited from training in beekeeping, and 3 of these also benefited from training in project management, the total number of men who benefited should be 5.

18. Benefits to Communities

CEPF wants to record the benefits received by communities, which can differ to those received by individuals because the benefits are available to a group. CEPF also wants to record, to the extent possible, the number of people within each community who are benefiting. Please report on the characteristics of the communities, the type of benefits that have been received during the project, and the number of men/boys and women/girls from these communities that have benefited, as a result of CEPF investment. If exact numbers are not known, please provide an estimate.

18a. Please provide information for all communities that have benefited from project start to project completion.

Name of Community		Com		y Cha	racteri h x)	istics		Type of Benefit (mark with x)						# of Beneficiaries				
	Subsistence economy	Small landowners	indigenous/ ethnic peoples	Pastoralists / nomadic peoples	Recent migrants	Urban communities	Other*	increased access to clean water	increased food security	increased access to energy	increased access to public services (e.g. health care, education)	increased resilience to climate change	improved land tenure	Improved recognition of traditional knowledge	Improved representation and decision-making in governance forums/structures	Improved access to ecosystem services	# of men and boys benefitting	# of women and girls benefitting
Ban Phalath	Χ														Χ		7	1
Ban Donmen	Χ														Χ		7	1
Ban Donsok	Χ														Χ		7	1
Ban Houayla	Χ														Χ		7	1

^{*}If you marked "Other" to describe the community characteristic, please explain:

Notes: We were very conservative in our estimates, and have only reported numbers of people we can say for sure directly benefited from the. We did not want to claim that the communities have benefited from increased food security as a result of the FCZ because even though this is one of the theoretical benefits of FCZs, we did not directly measure this as part of our project. However, if benefiting from increased food security is seen as a valid assumption for our project, we have included the total population of each participating community below.

The main benefit that appeared relevant to our project was "Improved representation and decision-making in governance forums/structures" because our project involved working to improve the function of FCZ management committees, which we identify as a governance forum or structure. Although the FCZ management committees are intended to represent the rest of the community, again we did not measure the extent of this directly so did not want to make this assumption. Therefore, we have only included the members of the actual FCZ management committees as direct beneficiaries from this project. If this table can also include indirect beneficiaries, we have listed the population of each participating community below.

If benefits can be assumed to extend to the entire population of the village, than the total number of beneficiaries would be as follows (based on 2012 population data):

Ban Phalath: 387 men and boys, 387 women and girls (774 people total)
Ban Donmen: 555 men and boys, 536 women and girls (1,091 people total)
Ban Donsok: 209 men and boys, 120 women and girls (329 people total)
Ban Houyla: 196 men and boys, 160 women and girls (356 people total)

18b. Geolocation of each community

Indicate the latitude and longitude of the center of the community, to the extent possible, or upload a map or shapefile. Give geographic coordinates in decimal degrees; latitudes in the Southern Hemisphere and longitudes in the Western Hemisphere should be denoted with a minus sign (example: Latitude 38.123456 Longitude: -77.123456).

Name of Community	Latitude	Longitude
Ban Phalath	101° 32' 32.57"E	17° 53' 5.288"N
Ban Donmen	101° 25' 24.326"E	17° 53' 43.495"N
Ban Donsork	101° 27' 13.618"E	17° 53' 47.74"N
Ban Houayla	101° 30' 20.974"E	17° 51' 10.655" N

19. Policies, Laws and Regulations

Please report on change in the number of legally binding laws, regulations, and policies with conservation provisions that have been enacted or amended, as a result of CEPF investment. "Laws and regulations" pertain to official rules or orders, prescribed by authority. Any law, regulation, decree or order is eligible to be included. "Policies" that are adopted or pursued by a government, including a sector or faction of government, are eligible.

19a. Name, scope and topic of the policy, law or regulation

No.			Scop ark w	e ith x)					То	pic(s)	addre	essed	(mark	with	x)				
	Name of Law, Policy or Regulation	Local	National	Regional/International	Agriculture	Climate	Ecosystem Management	Education	Energy	Fisheries	Forestry	Mining and Quarrying	Planning/Zoning	Pollution	Protected Areas	Species Protection	Tourism	Transportation	Wildlife Trade
1	Kengmai Rapids Fish Conservation Zone Regulations	Х					Х			Х					Х	Х			
2																			
3																			

19b. For each law, policy or regulation listed above, please provide the requested information in accordance with its assigned number.

No.	Country(s)	Date enacted/ amended MM/DD/YYYY	Expected impact	Action that you performed to achieve this change
1	Lao PDR	Amended 11/13/2018	The expected impact of this amended regulation is to decrease the use of highly destructive, illegal dynamite for fishing purposes in the Mekong River at Kengmai Rapids.	The amended regulations increase the initial penalty for using dynamite from 5 million kip to 8 million kip. The second offense carries a doubled fine and the offender is sent to the district office for sentencing. The third offense includes jail time.
2				

3		

20. Best Management Practices

Please describe any new management practices that your project has developed and tested as a result of CEPF investment, that have been proven to be successful. A best practice is a method or technique that has consistently shown results superior to those achieved with other means.

No.	Short title/ topic of the best management practice	Description of best management practice and its use during the project
1	N/A	
2		

21. Networks & Partnerships

Please report on any new networks or partnerships between civil society groups and across to other sectors that you have established as a result of CEPF investment. Networks/partnerships should have some lasting benefit beyond immediate project implementation. Informal networks/partnerships are acceptable even if they do not have a Memorandum of Understanding or other type of validation. Examples of networks/partnerships include: an alliance of fisherfolk to promote sustainable fisheries practices, a network of environmental journalists, a partnership between one or more NGOs with one or more private sector partners to improve biodiversity management on private lands, a working group focusing on reptile conservation. Please do not use this tab to list the partners in your project, unless some or all of them are part of such a network / partnership described above.

No.	Name of Network/ Partnership	Year established	Country(s) covered	Purpose
1	Northern Laos Mekong River Fish Conservation Zone Village Network	2018	Lao PDR	To connect seven villages working on community fisheries management through Fish Conservation Zones on the Mekong River in northern Lao PDR to support and learn from each other's experiences.
2				

Part V. 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 Web site, www.cepf.net, and publicized in our newsletter and other communications.

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CEPF Kengmai Narrative Report Submitted July 14, 2018

This report is intended to review about the progress of Kengmai FCZ since 2015. After two year handed over to the village responsible for managing their own fisheries resources, our project staff took this opportunity to review the previous action in November 2017 and March 2018.

In year 2017, FISHBIO Laos office has been approved a small grant approved to continue this FCZ monitoring work regarding to strengthening FCZ community capacity and ownership during the project support.

Since two year gap without project support to the target villages, there has been many issues arise and the needs to refresh the FCZ conservation monitoring system.

The objectives of this meeting are:

- Review and improve the working mechanism of the Kengmai FCZ enforcement team related to fisheries conservation management.
- Investigate the project equipment that has already supported to the patrol team.
- Discuss about the possible to establish a community fisheries (Fishing day).

Methodology

Village meeting and do KAP survey interview for 4 villages

Results

This report consisted of two separate field trips. One meeting in Nov 2017 (at Palath and Donesork villages by Sinsamout, Siphone, Dee Thao and Kethip) and another meeting in March 2018 (Donemen and Houayla villages by Sython and Siphone)

Palath village

- 35 people (4 females) attended the FCZ review meeting.
- During the project implementation in 2014-2015, the village patrol team has been worked very well every week. On the other hand, after Feb 2016, the patrol team did not work together (4 villages) on FCZ patrol due to these reasons below:
- No budget support for the village patrol team to run on boat and food for the team.
- One and half year used of wooden boat was broken and not long lasting, boat tail from the motor was lost due to Mr. Miengkham member of the team kept it with no reason about this lost.
- One big set of camera is now belong to DAFO staff (Mr. Adon), and he has to bring back to the village enforcement team.
- Two head lamps were lost in DoneMen.
- One binocular kept with sub-district officer Mr. Khamphan and still keep it in the office.
- Other equipment are still in Palath village and need to double check, bring back to the village team.
- No record on logbook monitoring and the book was lost.
- No photo record on village patrol as our team look into project cameras.
- Community fishing day has to consult with Donemen because this water resource is belongs to Donemen village property.

- o Total 15 people (1 female) attended a village FCZ meeting
- In the meeting, village head reported that the village patrol team was stopped in February 2016 and all equipment handed over to Palath and asked there was no funding support for the team more.
- From two years observation when the monitoring stopped, there was an increase of using gillnet inside FCZ in the upper and lower zones as well as seeing the use of hook and line, gillnet but they were afraid to arrest them due to they had a power. Actually was district soldier No. 504. And another Mr.Kone from Pakmee village who used electro shocker.
- Village FCZ member is still unchanged.
- This village had no any punishment from illegal fishers.
- People said this village protects FCZ but other villages still exploit this resource and they fell unfair to them.
- They suggest to have a special team (district enforcement team) to take this action with two places inside FCZ to avoid using gillnet.
 - (1). Houayking (From Head of rapid to Houayking tribuary) about 50 m length. Put in big round cement tank 4-5 pieces in there.
 - (2). From Lower part of rapid to the end section of FCZ. Put in big round cement tank 4-5 pieces in there.
- Community fishing day. They said we have to consult with Donemen because the called "NongPaKhoaw" like oxbow length= 100m, width= 50 m.

Key issues

- From KAP survey results, the village reported that district staff had never came to help and did boat patrol with them at Kengmai FCZ.
- Illegal practice: there were an increase of electro-fishing 4-5 times per week and dynamites at least 2 times per week.
- Fisher near Kengmai reported that Palath enforcement team made a fine with fisher and money did not go back to the village fund and they saw that the village committee confiscated gillnet and then they gave it to their relatives to use it again.
- It looks this village kept themselves on the bad things. They referred other village like Donemen village_Mr.Ole, who always use electro shocker along Mekong river including Kengmai FCZ.
- Electro fishing mostly they did at the night time. It was hard to arrest them even using camera to get good evidence.
- The villagers who try to fish inside FCZ, they keep monitor on the movement of FCZ committee on when and what time to go out of the village to do patrol.
- For dynamite, they did in early morning at 4-5 AM- A person who did was Mr.Kong from Pakmee village.
- Four village coordination was not working very well after project ended.
- FCZ member changed 2 people in Palath: Mr.Miengkham and village women union.
- They propose two checkpoints at Kengmai FCZ to expand the buffer zones (head and end point of FCZ)
- Next two months, it will be a spawning season of Probarbus sp as Palath reported
- For Community fishing day, there were two isolate pools (One is dry in dry season_Nongpakaow wetland- Good time in Oct and Nov for fishing but fish migration time was in rainy season, and another one (Mekong river) is blocked by sandbar with less fish catch production (not big fish mostly small fish inside that pool). Both of them could be possible to do for community fishing day.

- Distance to monitor by boat patrolling for 4 village's FCZ enforcement team. Please see on below:
 - Ban Phalath to Khokpeevae: 21km
 - Ban Houaylar to Khokpeevae: 11.6km
 - ➤ Ban Donsok to Houaymarkhing: 7.4km
 - ➤ Ban Donmen to Houaymarkhing: 12.6km

Don Men village

- Total 23 people (1 female) attended the village meeting
- Village headman reported that before and after Keng Mai FCZ monitoring, they divided it into two phases:
- ♣ Phase 1: During the project support
- FCZ has been patrolling as regular assigned weekly calendar and rotate in every week. One
 patrol team had five people such as: village head, village police and soldier to join every time
 with frequency 1-2 times per week.
- Most of the time for patrol survey they found nothing of illegal activities inside of the Keng Mai FC7
- ♣ Phase 2: End of the project support and handed over to village ownership
- After enforcement budget was nearly finished then enforcement team had reduced the number of time of FCZ patrolling to one time patrol per month. The patrol team during this time just only observed, checked around the fish conservation zone and then in later month, the patrol team was stopped due to no budget available and left this work for a year until now.

Review the past monitoring of FCZ by enforcement team: strength and weakness, issues/conflicts by these following questions:

1) Strengths

There was good to have this FCZ regulation to cover the important habitats. Project provide good support in monitoring system for village patrol team as well as field equipment support such as motorboat, camera, binocular and notebook for enforcement team, etc.

2) Weakness

FCZ distance was quite far from the village center. It was only one group for checking FCZ in the length of 5 km, so that it was quite difficult to manage in the large area at the same time. Sometimes villager reported to FCZ committee to confiscate but illegal fishers knew that FCZ would go and then illegal fisher remove all fishing gears out of FCZ area very quickly.

3) Difficulties

- Fishing in the boundary of Keng Mai Rapid FCZ was hard to control due to fishers came from many different places and also got reported that government authorities involved the use of electro shock in Kengmai FCZ and village FCZs was afraid to report to their supervisor.. etc. This incident was bad example for people in neighboring villages and people who have seen and knew about it. Another difficulty, enforcement team reported that there was a lack of continued budget support to village patrol team.

How was communication between villages to villages? What was the FCZ inspection report? Fine, Team rotation, Number of FCZ inspection per week/month?

- After end of the project, the communication between village to village was weak with no any
 patrol occurred due to funding problem, and Kengmai FCZ regulation was not effective in terms
 of enforcement monitoring (less check by village FCZ, if they find illegal fishers they did not know
 which village turn to responsible to fine a money that would confuse village reporter too in terms
 of effective reporting system.
- To reduce the fishing and illegal fishing gears in the Keng Mai FCZ, the villagers in Don Men village suggested that we need to extend more buffer zones of FCZ about 200 meters from upstream and downstream of the FCZ because, the FCZ was not really coverage enough of whole areas that Probarbus spawning zone especially in the downstream of the Keng Mai FCZ; there was one big river pool connecting to the downstream of FCZ and each year before Probarbus is going to spawn in the Keng Mai rapid FCZ then they were moving on here for relaxed and played in these areas. At the same time, this area was focusing point of the fishers and they have been camping here for many years ago to catch the Probarbus fish in these areas. Therefore, the villagers in Don Men village wonder to extending this FCZ's buffer zone that proposing to close these fishermen's camping and to safe more Probarbus fish in the future.

Want the enforcement team working on the regular patrol, what do they think?

- If the project is funded, they suggest that they want to keep a regular patrol again better than nothing to do for the FCZ.

What are the threats to protecting the fish conservation zone? How do you fix it?

- Illegal fishing gear occurred in Kengmai FCZ.

Boung Pakhao (Wallago attu's Isolated Pond)

Boung Pakhao is located nearby Mekong River. It is connected with stream channel and influence from water flow level in rainy season. When water high, it pushes water up to this area (wetland) and has temporary water from 4-5 months. This wetland presents high fish biodiversity from the Mekong during spawning season mostly villagers caught a majority of big Wallao attu fish species in this area so that Don Men called Boung Pakhao in local name that means *Wallago attu*'s Pond

During the meeting, we also discussed about Boung Pakhao (Wallago attu's Isolated Pond) with all participants in Ban Don Men village and most of them were interested be applied for community fishing day. However, right now this Boung Pakhao had no more water flooded for few years ago as village committee said. Therefore, this Isolated Pond (Boung Pakhao) could not be used for further fishing day any more. In fact, many years ago this isolated Pond had been produced a lot of Wallago species to the Mekong and its tributaries rivers because when the rainy season water rise up to the high level then water was filled up the isolated pond and became the large isolated pond called Boung Pakhao and then many Wallago species came to spawn in this area and then they went out to the Mekong river after they had been spawn their eggs inside of the Isolated Pond. But, right now it was very sad that isolated pond had dry out and no wallago species can get inside of this area again since few years ago.

Houayla Village

Total 9 people (1 female) attended the village review meeting

• Review the past monitoring of FCZ by enforcement team: strength and weakness, issues/conflicts by these following questions:

During the project monitoring, Houayla village did not find any of illegal fishing gear that used

in Keng Mai FCZ.

- 1) **Strengthen:** During the project support fund to FCZ patrol team, there were two breakdown monitoring: 1). Monitoring team by ground: use the motorbike for general observed and looked over the FCZ and 2). Monitoring team by boat on the river using the project motorboats to go to check FCZ. The enforcement team was very active in their responsible work with good facilitating equipment provided by project.
- Weakness: a communication among village to village appointment for the next round of FCZ monitoring was weak and not much pay attention on time to pick boat and monitoring equipment.
- 3) Difficulty: There was no any fines from punishment so, project monitoring fund was finished mostly village FCZ monitoring team paid for fuel, food for patrol team and they found that fishers came from outside four villages, they came from Sanakham town and Paklai district.
- How was communication between villages to villages? What was the FCZ inspection report?
 Fine, Team rotation, Number of FCZ patrol per week/month?

There was lacked of the coordination and communication between village to village after the end of project (no meeting and workplan for FCZ monitoring).

• How FCZ was patrol week/month? How many people in the patrol team, any problems, any fine, warning and education to the violator, any confiscate of the fishing gear (date/time), boat engine lost they found it or not, How was all patrol equipment, patrol notebook/keep writing or not?

The FCZ regular patrol was conducted for 2 times per week and there were 5 people per visit: 3 people from FCZ committee, 1 village soldier and 1 village cluster police. 1 week per village on monitoring task.

- How can we stop the illegals fishing?
 The village head can only disseminate FCZ regulations and need district authority to be effective in enforcing the seller who sells electroshock devices.
- We wanted the enforcement team to continue working on the regular patrol, what do they think?
 They agreed to continue if we have project fund to support to decrease the illegal fishing gears used inside FCZ.
- What are the threats to protecting the fish conservation zone? How do you fix it?

Human activity was the main threat to this FCZ ecology through the use of electrofishing, dynamites and gillnet according to village report. Moreover, there is a need from district authority to join and help in enforcing this issues.

Discussion

- The villagers propose to build up the large cement anchors and put steel in around /inside of the critical habitats (fish abundance habitats) to prevent the any use of gillnet activities. They propose to put it in the upstream and downstream of FCZ area.
- Houayla village, they have proposed to change the village rotation from village to village such as: Houayla to Phalath; Phalath to Done Sok; Done Sok to Don Men and then Don Men to Houayla again because from Phalath to Done Sok they cloud used motorbike to collect the equipment and boats.

- The first motorboat had accidently fail down during FCZ monitoring (foggy and high speed on boating without locking bolts on motor) by Houayla FCZ team and second one was brought by project to keep this monitoring continued. The lost could not be found in the deep water until now and assumed completely to cover by sand.
- After end of the project, the coordination and communication between village to village was weak with no any patrol occurred due to funding problem, and Kengmai FCZ regulation was not effective in terms of enforcement monitoring (less check by village FCZ, if they see any illegal fishers, they just know the names of violators and they did not know who will report to regarding to village monitoring rotation and active in a fine a money from them. That would confuse village reporter too in terms of effective reporting system.
- Community fishing day (Main Mekong river, isolate pool) is not appropriate to manage due to low fish catch production and present a majority of small fish (least concern species) inside a pool during uncertain water high in dry season and water connection was not block at the upper and lower part of the pool. Several years ago, water level kept certain expectation and in dry season, in the pool, water level was dropped with no any water connection and dried up with present fish diversity in there and birds to eat. It supposed to happen with this changes due to proposed hydropower in northern Laos (Xaiyaburi dam and its tributaries).
- Nongpapark (Wallago attu, isolate pool), this wetland also propose to conserve fish species during the spawning season (wet season) and manage for fishing day at the end of Nov or Dec each year. Now wetland ecology and water condition has been changed to dry up this area. According to village report, in this area right now, Donemen villagers grow corn and other vegetable garden nearby which is not much present a lot of water storage and fish species because in the past, this wetland had influence on water pushing up to the area with lots of fish species in there.

Recommendations

- Working with 4 villages to keep continue on FCZ enforcement planning and support funding for them to monitor the Kengmai FCZ and clearly on how to report to direct enforcement team for punishment.
- Cancelled the community fishing day budget to move to support FCZ monitoring team (Use the reasons above from village meeting note)
- Monitoring team should be combined with village FCZ, district police and soldiers to move this forward on reinforce FCZ regulation.
- Support more equipment for Kengmai team like new boat, spare part of boat motor, checking quality of cameras, memory cards, talky phones and other necessary items for the team to keep going.
- Put more concrete tanks to prevent the use of illegal gillnet activity in the critical fish abundant habitats (2 spots): 1./. Houayking (From Head of rapid to Houayking tributary) about 50 m length. Put in big round cement tank 4-5 pieces in there and 2./. From Lower part of rapid to the end section of FCZ. Put in big round cement tank 4-5 pieces in there.
- Repair on sign board (small and big signs)

Results of First KAP Survey for Kengmai Extension Project 2017-2018

Interview date Phalath and Donesok: 23-25/Nov/2017, Interview date Houayla and Donmen: 8-9 Mar-2018

Total of 20 people per one village respondents for this survey

Group interviewed: Fisherman group 5 people, Village women group 5 people, Village elder group 5 people, FCZ enforcement group 5 people

Numbers represent numbers of people that chose a particular answer

	Four Target Villages										
	Answer	Phalath		Donesok		Houayla		Donemen		Total	
QUESTION		Persons	Percent(%)	Persons	Percent (%)						
	1-2 days per week	8	40	7	35	1	5	4	20	20	25.0
How many days per week do you harvest	4-7days per week	6	30	3	15	5	25	3	15	17	21.3
fish in the river (Dry Sea son)?	2-3 days per month	1	5	4	20	3	15	4	20	12	15.0
,	Never	5	25	6	30	11	55	9	45	31	38.8
	1-2 days per week	5	25	3	15	4	20	4	20	16	20.0
How many days per week do you harvest	4-7days per week	1	5	3	15	2	10	3	15	9	11.3
fish in the river (Wet sea son)?	2-3 days per month	1	5	6	30	3	15	4	20	14	17.5
	Never	13	65	8	40	11	55	9	45	41	51.3
How much does fishing	Majority of my income is from fishing)	2	10							2	2.5
contribute to your household income?	Partial source of my income is from fishing	9	45	8	40	5	25	1	5	23	28.8
nousenoid meome:	I never sell my fish	9	45	12	60	15	75	19	95	55	68.8
How many days per week do you eat wild-	2-3 days per month	5	25	4	20	2	10	7	35	18	22.5
caught fish (not farmed	1-2 days per week	5	25	5	25	14	70	7	35	31	38.8

fish?)	4-7 days per week	9	45	10	50	4	20	5	25	28	35.0
	Never	1	5	1	5			1	5	3	3.8
Have you caught adult	Yes										
Probarbus in the river this year? (Yes/No)	No	20	100	20	100	20	100	20	100	80	100.0
Have you seen	Yes	13	65	1	5	3	15	2	10	19	23.8
Probarbus come to spawn this year?	No	6	30	19	95	17	85	18	90	60	75.0
Where?	N/A	1	5							1	1.3
Have you caught juvenile Probarbus this	Yes	7	35	4	20	3	15	2	10	16	20.0
year?	No	13	65	16	80	17	85	18	90	64	80.0
Have you heard about the FCZ regulation in	Yes	19	95	20	100	20	100	20	100	79	98.8
your village?	No	1	5							1	1.3
Open question											
Do you think fish	Yes	20	100	19	95	20	100	20	100	79	98.8
populations are benefiting from the	No										
FCZ?	N/A			1	5					1	1.3
Do you believe that people are following	Yes	19	95	20	100	19	95	17	85	75	93.8
the rules of the FCZ?	No	1	5			1	5	3	15	5	6.3
Do you think the FCZ enforcement activities	Yes	19	95	19	95	20	100	20	100	78	97.5
are working?	No	1	5	1	5					2	2.5
Open question											
Open question											
Do people fish with illegal fishing gear	Yes	17	85	15	75	7	35	15	75	54	67.5
(electricity, explosives, poison) in the river?	No	3	15	5	25	13	65	5	25	26	32.5
	2-3 A few times a week	11	55	6	30	0		4	20	21	26.3
How often do people fish with illegal fishing	2-3 A few times a month	4	20	7	35	4	20	6	30	21	26.3
gear in the river?	2-3 A few times a year	1	5	2	10	8	40	4	20	15	18.8
	Never	3	15	4	20	1	5	2	10	10	12.5

	N/A	1	5	1	5	7	35	4	20	13	16.3
Open question											
When there are problems with illegal	Yes	1	5	4	20	5	25	8	40	18	22.5
fishers, does anyone from your community call the district government for help?	No	19	95	16	80	15	75	12	60	62	77.5
Does the district	Yes	5	25	4	20	11	55	14	70	34	42.5
government help with enforcement to address	No	14	70	16	80	9	45	6	30	45	56.3
illegal fishers?	N/A	1	5							1	1.3
Open question											
Open question											
Do you think the	Yes	19	95	18	90	20	100	20	100	77	96.3
regulations of the FCZ	No	0	0	2	10					2	2.5
are fair?	N/A	1	5							1	1.3
Do you think having the	Positive	17	85	19	95	20	100	20	100	76	95.0
FCZ has been generally positive or negative for	Negative)	1	5							1	1.3
the community, and	A & B	1	5	1	5					2	2.5
why?	N/A	1	5							1	1.3
Do you want to continue to have the	Yes	19	95	20	100	20	100	20	100	79	98.8
FCZ in your community?	No	1	5							1	1.3

Open question KAP Survey Kengmai Extension Project 2017-2018

Example from Donesok Village

4) Have you caught adult Probarbus in the river this year? (Yes/No)? ໃນປີນີ້ເຈົ້າສາມາດຈັບປາເອີນໃຫຍ່ໄດ້ ຫຼື ບໍ່? b. Yes ຈັບໄດ້:

- 5) Have you seen Probarbus come to spawn this year? (Yes/No) ເຈົ້າໄດ້ເຫັນປາເອີນຂື້ນມາວາງໄຂ່ໃນປີນີ້ບໍ່?
- b. Yes ເຫັນ:
- In Keng Mai (1 respondent) ເຂດແກ້ງໃໝ່ 1 ຄົນ
- 6) Have you caught juvenile Probarbus this year? (Yes/No), where? ເຈົ້າຈັບໄດ້ປາເອີນນ້ອຍໃນປີນີ້ບໍ່? b. ໄດ້:
- We caught in the Donesok pool with gillnet (1 respondent). ຈັບໄດ້ຢູ່ທ່າບ້ານດອນໂຊກ, ຖືກມອງ 1 ຄົນ
- Caught 48 Probarbus in November 2017 at Donesok village (1 respondent).ຈັບໄດ້ 48 ໂຕໃນຊ່ວງເດືອນ 11 ຈັບໄດ້ຢູ່ທ່າໃຕ້ບ້ານດອນໂຊກ 1 ຄົນ
- During April-May 2017, 1 fisher caught 4-5 Probarbus, size 3 cm, caught at Donesok village (1 respondent). 4-5 ໂຕ, ຂະໜາດຄວາມຍາວປະມານ 3 cm, ຈັບໄດ້ຢູ່ທ່າບ້ານດອນໂຊກ, ຈັບໄດ້ຊ່ວງເດືອນ 4-5 ສາກົນ, ຖືກມອງ 1 ຄົນ
- They have caught 4-5 Probarbus with Cast net between April-May at Donesok village (1 respondent). ເຄີຍຈັບໄດ້ຊ່ວງເດືອນ 4-5 ສາກົນ, ເຂດທ່າບ້ານດອນໂຊກ, ຈັບໄດ້ຄັ້ງລະ 4-5 ໂຕ ຖືກແຫ 1 ຄົນ
- 8) Have you heard about the FCZ regulation in your village? Please list as many as you can. ກົດລະບຽບວັງສະຫງວນຂອງບ້ານເຈົ້າມີຫຍັງແດ່? ກະລຸນາອະທິບາຍເທົ່າທີ່ສາມາດຈື່ໄດ້?
- Prohibited all types of fishing gears to fish inside of the FCZ (5 respondents). ຫ້າມອປະກອນຫາປາທາປະເພດລົງຫາປາໃນເຂດວັງສະຫງວນ 5 ຄົນ
- Prohibited any individual people go to fish inside of the FCZ, if we found any violators then it will be fined regarding to the FCZ regulation as defined (2 respondents). ຫ້າມບໍ່ໃຫ້ບຸກຄົນເຂົ້າໄປຫາປາຢູ່ໃນຂອບເຂດວັງສະຫງວນຖ້າຜູ້ໃດລະເມີດຈະຖືກປະຕິບັດຕາມກົດລະບຽບທີ່ໄດ້ກຳນົດໄວ້ 2 ຄົນ
- Prohibited use of electric shock, hook and line, gillnet, if who is violated then it will be fined (3 respondents). ຫ້າມຊ້ອດປາ, ຫ້າມໃສ່ຜຽກ, ມອງ ຖ້າຫາກໃຜຝ່າຝືນຈະຖືກບັບໄໝ 3 ຄົນ
- Prohibited any individual or group of people go to fish inside of the FCZ, if we found any violators then it will be fined regarding to the FCZ regulation as defined (3 respondents). ຫ້າມບໍ່ໃຫ້ກຸ່ມຄົນ ຫຼື ບຸກຄົນເຂົ້າໄປຫາປາໃນຂອບເຂດວັງສະຫງວນຖ້າຜູ້ໃດລະເມີດຈະຖືກປະຕິບັດຕາມກົດລະບຽບກົດໝາຍ 3 ຄົນ
- Prohibited using of explosive, poison, electric devices, spear gun and etc. (8 respondents). ຫ້າມຖີ້ມລະເບີດ, ຢາເບື້ອ, ຫ້າມໃຊ້ໝໍ້ຊອດ, ໝໍ່ດູດປາ ແລະ ຫ້າມໃຊ້ປືນໜ້າກາກ 8 ຄົນ
- Prohibited fishing in the FCZ, if anyone violated, will be fined 300,000 LAK /1 time with education and warning to the violator (1 respondent).

ຫ້າມລ່ວງລະເມີດໃນການຫາປາຂອບເຂດວັງສະຫງວນ ຖ້າໃຜລະເມີດຈະຖືກປັບໄໝ 300, 000ກີບ/ຄັ້ງ ພ້ອມສຶກສາອົບຮົມ ແລະ ຕັກເຕືອນ 1 ຄົນ

- 9) Do you think aquatic animal populations are benefiting from the FCZ? ເຈົ້າຄິດວ່າປະຊາກອນສັດນຳ້ໄດ້ຜົນປະໂຫຍດຈາກການປົກປັກຮັກສາວັງສະຫງວນບໍ? a. Yes ແມ່ນ:
- There is a benefit for the reproduction and grow up of fish population without any threatened. ແມ່ນມີຜົນປະໂຫຍດຕໍ່ການຂະຫຍາຍຕົວຂອງປະຊາກອນປາບໍ່ໃຫ້ຖືກຄຸກຄາມ 4 ຄົນ
- Making fish has available habitats due to there are many rapids, rocks, and other (2 respondents). ເຮັດໃຫ້ປາມີບ່ອນຢູ່ອາໄສເພາະວ່າມີແກ້ງມີຫີນໃນເຂດວັງສະຫງວນ 2 ຄົນ
- Get more benefits because the aquatic animals will not be destroyed and there is no one disturbed the fish inside of the FCZ, then fish will increase number of their population in each year (7 respondent).

ໄດ້ຮັບຜົນປະໂຫຍດຫຼາຍຍ້ອນສັດນ້ຳ້ຈະບໍ່ຖືກທຳລາຍ, ເນື່ອງຈາກບໍ່ມີຄົນໄປລົບກວນປາຢູ່ໃນວັງສະຫງວນ, ສະນັ້ນປາຈຶ່ງມີການຂະຫຍາຍຕົວຫຼາຍຂື້ນໃນແຕ່ລະປີ 7 ຄົນ

- Increasing the reproductive population, especially is Probarbus fish because the protected areas are a habitat for them (1 respondent). ເປັນການປົກປັກຮັກສາປະຊາກອນສັດນຳ້ໃຫ້ແຜ່ພັນຫຼາຍຂື້ນໂດຍສະເພາະແມ່ນເຮັດໃຫ້ປາເອີນ ແຜ່ພັນຫຼາຍຂື້ນເພາະວ່າວັງສະຫງວນແມ່ນເປັນບ່ອນຢູ່ອາໄສຂອງປາເອີນ 1 ຄົນ
- Making fish has reproductive area (2 respondents). ເຮັດໃຫ້ປາມີບ່ອນປະສົມພັນ 2 ຄົນ We have fish for eat, have money, younger generation have seen it (1 respondent).

ໄດ້ກີນ, ໄດ້ເງີນ, ລູກຫຼານໄດ້ເບີງໄດ້ເຫັນ 1 ຄົນ

- 11) Do you think the FCZ' enforcement team are active working? ເຈົ້າຄິດວ່າທີ່ມງານລາດຕະເວນວັງສະຫງວນມີຄວາມຫ້າວຫັນໃນການເຮັດວຽກບໍ? b. If not why ບໍ່ມີແມ່ນຍ້ອນຫຍັງ:
- 12) If you found some illegal fishers who would you like to inform first and what is the report priority? ຖ້າເຈົ້າເຫັນຄົນທີ່ຫາປາຜິດກົດໝາຍເຈົ້າຈະແຈ້ງໃຜ ແລະ ມີຂັ້ນຕອນການລາຍງານຄືແນວໃດ?
- Report to FCZ committees (2 respondent) ລາຍງານໃຫ້ການຈັດຕັ້ງຄະນະກວດກາລາດຕະເວນວັງສະຫງວນ 1 ຄົນ
- Informed to the head of village and village police (6 respondents) แจ้วมายบ้าม, ปกส บ้าม 6 ถิ่ม
- Informed to village committees and FCZ enforcement team (9 respondents) ແຈ້ງຕໍ່ອຳນາດການປົກຄອງບ້ານ ແລະ ຄະນະກວດກາລາດຕະເວນ 9 ຄົນ
- Informed to village cluster and enforcement team (1 respondent) ແຈ້ງກຸ່ມບ້ານ ແລະ ໜ່ວຍງານລາດຕະເວນທັງສີ່ບ້ານ 1 ຄົນ
- Take photo first then informed to the village head (1 respondent) ຖ່າຍຮູບໄວ້ກ່ອນ ແລ້ວຈຶ່ງແຈ້ງນາຍບ້ານ 1 ຄົນ
- Call for warning first but not fined them yet (1 respondent) ເອີ້ນມາຕັກເຕືອນ ແຕ່ບໍ່ປັບໄໝ 1 ຄົນ
- 13) What thing would you like to suggest to the FCZ enforcement team to improve? ເຈົ້າຢາກແນະນຳໃຫ້ທີມງານລາດຕະເວນວັງສະຫງວນຄວນມີການປັບປຸງຄືແນວໃດ?
- Agreed (2 respondents) ເຫັນດີ 2 ຄົນ
- We would like them to regular patrol at least 2 times/month (1 respondents)

ຢາກໃຫ້ເຄື່ອນໄຫວເປັນປະຈຳຢ່າງໜ້ອຍສອງຄັ້ງ/ເດືອນ 1 ຄົນ

- Would like them put more emphasis on patrolling (5 respondents) ຢາກໃຫ້ເອົາໃຈໃສ່ໃນການກວດກາລາດຕະເວນຕື່ມອີກ 5 ຄົນ

- Want to increase responsibility for patrolling (2 respondents) ຢາກໃຫ້ເພີ່ມຄວາມຮັບຜິດຊອບໃນການກວດກາລາດຕະເວນ 2 ຄົນ

- Want to comply with the strict rules and regulations of the FCZ (1 respondent) ຢາກໃຫ້ປະຕິບັດຕາມຂໍ້ກຳນົດກົດລະບຽບຢ່າງເຂັ້ມງວດ 1 ຄົນ
- Want them to set the rotation team for patrolling with involved of all families in the village (1 respondent)

ຢາກໃຫ້ຈັດຕັ້ງເປັນຜຽນເວນຍາມໃຫ້ມີສ່ວນຮ່ວມກັນໝົດທຸກຄອບຄົວພາຍໃນບ້ານ 1 ຄົນ

- Want the enforcement team from the district (DAFO) to lead the enforcement team first (3 respondents)

ຢາກໃຫ້ທີມງານລາດຕະເວນຂອງພະນັກງານເມືອງມານຳພາທີມງານລາດຕະເວນເຮັດຕົວຈິງກ່ອ ນ 3 ຄົນ

- Want to have regular patrolling (2 respondent) ຢາກໃຫ້ມີການລາດຕະເວນເປັນປົກກະຕິ 2 ຄົນ
- If there is a lack of funds, the activity cannot be moved because there is a need to buy a boat gasoline to go to patrolling (1 respondent). ຖ້າຂາດແຫຼ່ງທຶນໃນການເຄື່ອນໃຫວກິດຈະກຳ. ແມ່ນບໍ່ສາມາດເຄື່ອນໄຫວໄດ້ເພາະວ່າຕ້ອງໄດ້ຊື້ນຳ້ມັນໃສຈັກເຮືອເພື່ອອອກລາດຕະເວນ 1 ຄົນ Want to have a good protecting and released some more fishes in the FCZ. ຢາກໃຫ້ເບີ່ງແຍງໃຫ້ດີ ແລະ ເອົາປາມາປ່ອຍໃສ່ຕື່ມໃຫ້ຫຼາຍ?
- 14) Do people fish with illegal fishing gear (electricity, explosives, poison) in the river? ຍັງມີຄົນຫາປາລັກໃຊ້ເຄື່ອງມືທີ່ຜິດກົດໝາຍ (ໄຟຟ້າຊ໋ອດ, ລະເບີດ, ຢາເບືອປາ) ໃນແມ່ນຳ້ນີ້ບໍ່? a. ມີ:
- In the past was not found and not arrested (7 respondents). ໃນໄລຍະຜ່ານມາແມ່ນບໍ່ແມ່ນບໍ່ເຫັນແລະບໍ່ໄດ້ຈັບກຸມ 7 ຄົນ
- They were not found yet (1 respondent). ຍັງບໍ່ທັນພົບເຫັນອຸປະກອນນີ້ເທື່ອ 1 ຄົນ
- Only get warning to the user but they never have any arrested yet. ມີແຕ່ຕັກເຕືອນ ແຕ່ວ່າຍັງບໍ່ທັນໄດ້ຈັບກຸມຈັກເທື່ອໃນໄລຍະຜ່ານມາ 1 ຄົນ
- No answer (3 respondents) ບໍ່ມີຄຳຕອບ 3 ຄົນ
- Did not do because the violator was escaped before enforcement team arrived (1 respondent) ບໍ່ໄດ້ເຮັດເພາະວ່າຜ່ານມາເຂົາເຈົ້າໜີໄປໄດ້ 1 ຄົນ
- 16) How can you end the behavior of the offender (who has violated the regulation) and wish to destroy the property of the other people or of the aggregate in the village? ເຈົ້າມີທາງອອກຄືແນວໃດເພື່ອຢຸດຕິພຶດຕິກຳຂອງຜູ້ກະທຳຜິດ (ຜູ້ທີ່ເຄີຍຝ່າຝືນກົດລະບຽບ) ແລ້ວຫວັງທຳລາຍສັບສິນຂອງບຸກຄົນ ຫຼື ຂອງສ່ວນລວມພາຍໃນບ້ານ?
- They must be arrested for legal action (4 respondents) ຕ້ອງຈັບກຸມດຳເນີນລະບຽບກົດໝາຍໃຫ້ມີຄວາມເຄັດຫຼາບ 4 ຄົນ
- Don't do it again (3 respondents) ຢ່າເຮັດອີກ 3 ຄົນ
- Wish the fisher has fair fishing, do not violet because of there would be lost of the fish population in the future (1 respondent).

ຢາກໃຫ້ຫາກີນແບບບໍລິສຸດບໍ່ຕ້ອງຝາຝືນເພາະຈະເຮັດໃຫ້ປາດັບສູນ ປະຊາຊົນບໍ່ສາມາດຊົມໃຊ້ໃນອານາຄົດ 1 ຄົນ

- Please follow up with the rules and regulations of the FCZ (2 respondent). ຕ້ອງປະຕິບັດຕາມກົດລະບຽບ 2 ຄົນ
- Wanted the district government help with enforcement to address illegal fishers (3

respondents).

ແມ່ນຢາກໃຫ້ອຳນາດລັດກໍ່ຄືການນຳໃຊ້ພະນັກງານຂອງລັດເຂົ້າມາແກ້ໄຂບັນຫາຊ່ວຍ 3 ຄົນ

- Want to stop the mistake because if they found again then they would be fined (2 respondent). ຢາກໃຫ້ເຊົ້າເຮັດຜິດ ເພາະວ່າຖ້າເຫັນອີກຈະຖືກປັບໄໝ 2 ຄົນ
- Assign the relevant authority to provide the rules for the person concerned (1 respondent). ມອບໝາຍໃຫ້ເຈົ້າໜ້າທີ່ທີ່ກ່ຽວຂ້ອງເປັນຜູ້ປະຕິບັດລະບຽບຕໍ່ພາກສ່ວນດັ່ງກ່າວ 1 ຄົນ
- Let the specific authority come to arrested the violator (1 respondent) ໃຫ້ໜ່ວຍສະເພາະກິດລົງເລິກປາບປາມຈັບກຸມໂດຍກົງ 1 ຄົນ
- No Comments (2 respondents) ບໍ່ມີຄວາມເຫັນ 2 ຄົນ
- Want to have a record and do not send back an evidence to the offender, do not allow them come in around the FCZ areas again (1 respondent). ຢາກໃຫ້ມີການເຮັດບົດບັນທຶກ ແລະ ບໍ່ຢາກໃຫ້ສົ່ງຂອງກາງຄືນໃຫ້ຜູ້ກະທຳຜິດ, ຂອບເຂດບໍລິເວນວັງສະຫງວນແມ່ນບໍ່ຢາກໃຫ້ມາຫຍຸ້ງກ່ຽວ 1 ຄົນ

19) In your opinion, what are the benefits of protecting a fish conservation zone? ໃນນາມສ່ວນຕົວ ການປົກປັກຮັກສາວັງສະຫງວນມີຜົນປະໂຫຍດຄືແນວໃດ?

- Very useful because fish are safe, fish will spread up in every year (2 respondents). ມີຜົນປະໂຫຍດຫຼາຍເພາະວ່າປາບໍ່ຖືກທຳລາຍ, ປາຈະແຜ່ຂະຫຍາຍເພີ່ມຂື້ນໃນແຕ່ລະປີ 2 ຄົນ
- It is very beneficial to society in the future (2 respondents) ແມ່ນມີຜົນປະໂຫຍດຫຼາຍຕໍ່ສັງຄົມໃນອານາຄົດ 2 ຄົນ
- It is very beneficial because when the fish increased a lot then they will go out in everywhere and then people can catch it more fish (2 respondent). ມີຜົນປະໂຫຍດໝາຍເພາະເຮັດໃຫ້ປາແຜ່ພັນແລ້ວອອກໄປຖີ້ນອື່ນເຮັດໃຫ້ປະຊາຊົນຫາປາມາເປັນ ອາຫານໄດ້ຫຼາຍຂຶ້ນ 2 ຄົນ
- Good benefit because of protecting FCZ is for the community and new generation in the future (1 respondent). ຜົນປະໂຫຍດດີເພາະວ່າການປົກປັກຮັກສາໄວ້ເປັນບ່ອນສືບທອດຕ່ຳໃປຂອງລກຫານ ແລະ

ຊມຊົນ 1 ຄົນ

- We have fish for eat, got the money and children can see it in the future (3 respondents) ໄດ້ກີນ, ໄດ້ເງີນ, ລຸກຫຼານໄດ້ເບີ່ງໄດ້ເຫັນ 3 ຄົນ
- Increase the number of fish, and make some fish species that left here for long time then come back again, such as: Hybsibarbus family (1 respondent) ເຮັດໃຫ້ຈຳນວນຂອງປາເພີ່ມຂື້ນ,

ເຮັດໃຫ້ປາບາງຊະນິດທີ່ຫາຍໄປດົ່ນແລ້ວກັບມາເຫັນຄືນອີກເຊັ່ນວ່າ: ຕະກນປາປາກ 1 ຄົນ

20) In your opinion, do you have any difficulty on fishing after FCZ is established. ໃນນາມສ່ວນຕົວການສ້າງວັງສະຫງວນມີຂໍ້ຫຍຸ້ງຍາກຕໍ່ການຫາປາຂອງເຈົ້າຄືແນວໃດ?

Not difficult due to we still have other fishing areas to fish (9 respondents).
 ການສ້າງວັງສະຫງວນແມ່ນບໍ່ມີຂໍ້ຫຍຸ້ງຍາກເພາະວ່າຍັງມີບ່ອນຊອກຫາກີນຫຼາຍບ່ອນ 9 ຄົນ
 Not difficult because actually they did not fish in this FCZ areas (1 respondent).

ບໍ່ຫຍຸ້ງຍາກເພາະວ່າບໍ່ໄດ້ໄປຫາເຂດວັງສະຫງວນຢູ່ແລ້ວ 1 ຄົນ

- Not difficult, we agreed because of established FCZ can reduce the illegal fishing (1 respondent). ບໍ່ຫຍັງຍາກ,

ເຫັນດີເພາະວ່າມີວັງສະຫງວນແລ້ວສາມາດຫຼຸດຜ່ອນການຫຼາປາຜິດກົດໝາຍ 1 ຄົນ

- Not effective to the livelihood (2 respondents) ບໍ່ມີຜົນກະທົບໃນການທຳມາຫາກີນ 2 ຄົນ

- Not difficult because we did not go fishing (2 respondents). ບໍ່ຫຍ້າຍາກເພາະບໍ່ໄດ້ໄປຫາປາ 2 ຄົນ

- Difficult because they not allow to fish (1 respondent). ຫຍ້າຍາກ ເພາະເພີ່ນບໍ່ໃຫ້ໄປຫາປາ

APPENDIX 2

1 ຄົນ

- 21) Do you think the FCZ regulations are fair? ເຈົ້າຄຶດວ່າກົດລະບຸງບຸວັງສະຫງວນມີຄວາມຢຸດຕິທຳຫຼືບໍ່?
- b. If not why? ບໍ່ມີຍ້ອນຫຍັງ:
- Wanting to everyone using the natural fishing gears without using illegal tools to fish, especially those who have a rice field closed to the FCZ (1 respondent). ຢາກໃຫ້ຫາປາແບບທຳມະຊາດແບບບໍ່ໃຊ້ເຄື່ອງມືດັບສູນລົງຫາປາໄດ້ໂດຍສະເພາະແມ່ນຄົນທີ່ມີໄຮ່, ນາ ຕິດກັບຂອບເຂດວັງສະຫງວນ (1 respondent)
- 22) Do you think having the FCZ has been generally positive or negative for the community, and why? ເຈົ້າຄິດວ່າການສ້າງວັງສະຫງວນມີຜົນດີດ້ານບວກ ຫຼື ດ້ານລົບຕໍ່ກັບຊຸມຊົນບໍ່? ຍ້ອນຫຍັງ?
- a. Positive effect ດ້ານບວກ:
- Fish reproduce so much then fish go out of the FCZ and people can catch it (5 respondents). ປາແຜ່ພັນຫຼາຍຂື້ນຈົນເຮັດໃຫ້ປາອອກມາເຂດນອກວັງສະຫງວນ ແລະ ປະຊາຊົນສາມາດຈັບປາມາກິນໄດ້ 5 ຄົນ
- Because of this area become the fish breeding, then number of fish has increased ຍ້ອນເປັນບ່ອນອະນຸລັກພັນປາເຮັດໃຫ້ປາມີການແຜ່ຂະຫຍາຍເພີ່ມຂື້ນ 2 ຄົນ.
- The community have fish for long term consume (2 respondents). ເຮັດໃຫ້ຊຸມຊົນມີປາໄວ້ກີນຍາວນານ 2 ຄົນ
- Cause to the aquatic animal has an opportunity for reproduction (3 respondents). ຍ້ອນວ່າເຮັດໃຫ້ສັດນຳ້ໄດ້ມີໂອກາດແຜ່ພັນຫາຍຂື້ນ 3 ຄົນ
- Making the people is respect to the regulations of the fishing (1 respondent). ເຮັດໃຫ້ປະຊາຊົນເຄົາລົບກົດລະບຽບໃນການຫາປາ 1 ຄົນ
- Incorrect answer (1 respondent) ຕອບບໍ່ຕົງປະເດັນ 1 ຄົນ
- Wanting to keep it for our children in the future (2 respondents). ຍ້ອນຢາກຮັກສາໄວ້ເພື່ອອານາຄົດຂອງລູກຫຼານ



Kengmai Fish Conservation Zone Study Tours and Exchange Visit Report



Submitted To:

Critical Ecosystem Partnership Fund (CEPF)

Reported By:

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04 April, 2017



Implemented by: FISHBIO, and DAFO Date of implementation: 26-28 March 2018

Location: Palath village.

Project name: Strengthening sustainable community management of FCZs for Endangered

Probarbus Fishes at Kengmai Rapid,

Lao PDR.

Project number: 5000/P01027/AVTH-00026 Support by: CEPF Small grant, IUCN

Activity highlight though project objectives

Objective 2: Village FCZ enforcement teams function as a network, easily able to exchange lessons learned.

Activity 2.1:

Conduct at study tour at the Kengmai FCZ for members of 3 village FCZ enforcement teams from Xayabouri and Luang Prabang to join the target villages of this project.

Objective 3:

FCZ regulations have been amended (at the request of the communities) to add a buffer zone with increased fishing gear restrictions around the boundaries of the FCZ.

Activity 3.1:

Organize a FCZ regulation amendment workshop for 4 Kengmai villages (to establish buffer zones and community fishing day).

I. Background.

With support from CEPF in 2015-2016, community members in the four villages around Kengmai Rapids worked with FISHBIO to designate a Fish Conservation Zone (FCZ) in the area. The four communities share responsibility for enforcement, and generally agree that the FCZ has been successful in preventing fishing at the Probarbus spawning ground, and deterring illegal fishing in the general area. However, community members have expressed concern about fishermen who set their nets right outside the FCZ boundaries, where the river current can cause the nets to drift inside the protected area. Therefore, the communities have requested FISHBIO to help them establish a buffer zone on either side of the FCZ where certain types of fishing gear are restricted. This would increase the protections to endangered Probarbus and other fishes inside the FCZ. As the communities currently lack the resources to convene meetings with the local government authorities to finalize and approve such amendments, FISHBIO Laos will help facilitate this process.

The key to the success and sustainability of a protected area is consistent enforcement of the regulations. Community members from project villages are responsible for patrolling their local FCZs and FISHBIO has provided training for these teams during previous phases of the project. However, confronting and apprehending illegal fishers is a new experience for community members, and poses several challenges. Now that FISHBIO has supported two separate village clusters to establish FCZs with CEPF support (one project in 2014-2015, and one project in 2015-2016), in the proposed project we plan to bring the enforcement teams from all of the villages together for a study tour. We will conduct refresher training for all the teams together, and allow



them a chance to exchange ideas, experiences, and lessons learned to strengthen the capacity and confidence of all teams. This will lay the foundation for building a network of community-managed FCZs along the Mekong River in northern Laos that can turn to each other for support.

Enforcing the FCZ requires funding for patrol team salaries, fuel, and boat maintenance. The proposed project will fund the communities in Kengmai to patrol the FCZ for an additional Probarbus breeding season (Dec-Feb). However, the ultimate goal is to help the community to sustain monitoring and enforcement of their FCZ once donor support ends, which currently poses a funding challenge. While the collection of fines from illegal fishers is one mechanisms for financing FCZ operations, the villages at Kengmai have yet to apprehend any illegal fishers in their FCZ, as the presence of enforcement teams has served as a strong deterrent. Therefore, the community has proposed hosting a one-day community fishing and FCZ celebration event each year that could serve as a fundraiser to support the long-term activities of enforcing the FCZ. The event would also raise community awareness about the important role of the FCZ in sustaining community fisheries.

During the Lao PDR dry season from November-May, the water level of the Mekong River drops substantially. When this happens, a single pool in the Kengmai FCZ becomes isolated from the rest of the FCZ by the formation of a sandbar. The communities propose to allow fishing within this pool one day per year as part of the FCZ fundraiser. Proceeds from the sale of fishing permits will go toward supporting FCZ enforcement activities. Opening FCZs for a single community fishing day is a common practice in community-managed protected areas around the world, and reflects how FCZs can be made adaptable so as to still protect biodiversity while allowing community members to exercise their fishing rights

The one day of fishing in a discrete area of the FCZ that will not occur during the Probarbus breeding season will not conflict with the goal of protecting these endangered fishes. To begin with, during the project conception, FISHBIO and IUCN initially proposed that the FCZ be closed only during the Probarbus spawning season. It was the communities themselves who decided that the regulations should be strengthened to year-round closure, and is also the right of the communities to adapt the management of the protected area according to their needs. Thus, even with one day of community fishing, the overall protection for fishes in the FCZ will still be much stronger than what project staff had initially proposed. FCZ enforcement teams will be responsible for ensuring that no Probarbus are caught during the fishing day, and the event will not be held during the critical Probarbus spawning season of December-February, or on the primary spawning ground. Allowing the communities to modify the fishing restrictions of their FCZ is in keeping with the social safeguards of the project by ensuring that the project does not pose undo restrictions on their livelihood, and the funds raised will allow the communities to continue conservation activities independently. Fishing activities during the community celebration day will be mostly recreational in scale, and the communities will also use the day to hold picnics, music events, and other festivities. The celebration will help foster a sense of community pride for their FCZ and unique Probarbus fishes, and remind villagers of the value of the FCZ to community.

FISBHIO will use the project activities to continue to raise community awareness about FCZs and Probarbus fishes. The district governor's office of Sangthong, one of the districts participating in the project, has requested additional signs that can be help raise awareness about the FCZ among



tourists. FISHBIO has also developed a primary school presentation and activities to teach Lao children about Probarbus fishes, and previously led these activities with children in Vientiane on World Fish Migration Day in May 2016. The proposed project would allow FISHBIO to bring these activities to the school children in the four villages around Kengmai Rapids to build community awareness and pride around the importance of protecting Probarbus. The activity guides the children to make Probarbus puppets and culminates in a fish parade. This parade could be paired with the community FCZ fundraiser to add to the celebration of protecting local biodiversity.

Project Goal:

The goal of this project is to improve the capacity for community members to manage their Fish Conservation Zone into the future to promote sustainable fisheries and protect endangered Probarbus Fishes.

Project Objectives:

To achieve this goal, the project proposes to meet the following objectives:

- 1. Provide continued training and support for FCZ enforcement teams.
- 2. Foster networking among village FCZ enforcement teams to exchange lessons learned.
- 3. Amend FCZ regulations at the request of the communities to add a buffer zone with increased fishing gear restrictions around the boundaries of the FCZ.
- 4. Help the village organize a community fishing day/FCZ celebration to sustainably finance the continued enforcement of the FCZ.
- 5. Raise community awareness about FCZs and endangered Probarbus fishes through school education visits and increased signage.

Expected Project Outputs of the project:

- 1. Re-trained enforcement team members from seven villages.
- 2. FCZ regulations amended with community and government support to ensure sufficient protection and sustainability of the FCZ at Kengmai Rapids.
- 3. School curriculum and activities related to FCZs and endangered Probarbus fishes.
- 4. Signs to inform community members and tourists about the FCZ and Probarbus fishes.
- 5. A community FCZ management plan to support and sustain the enforcement of the FCZ into the future.
- 6. Photos, videos, and blog posts of project activities posted to the FISHBIO and Mekong Fish Network websites..

II. Objectives of this activity:

- To exchange information and building network through village discussion and oral presentation between enforcement team among 7 villages including the reporting of village Enforcement team review workshop.

> Target participants and location

Approximately 5 participants from 7 villages attended on this study tour and enforcement network building, 3 FISHBIO staff, 2 DAFOs x 4 districts, 1 DLF.



Location: Palath village meeting room

III. Methods

- Overview of project implementation (Phase to phase) under CEPF small grant support in 7 villages by FISHBIO staff.
- Presenting FCZ field guidebook assessment by FISHBIO staff.
- Sharing FCZ project experience, lesson learned (working and not working) and challenges: Village presentation and reporting.
- Discussing and improving the way forward for sustainable fund to support FCZ enforcement. Village group brain storming, table presentation.
- Buffer zones extension for Kengmai and Community fishing day discussion.
- Improving FCZ monitoring mechanism and report system (Gap analysis for future support).
- Kengmai site visit with study tour group.

Question 1: How's about the FCZ boundary at present? Is there any problem on FCZ marks? What is the future recommendations to define the right mark of FCZs if you want to modify?

ຄຳຖາມທີ່ 1- ຂອບເຂດຂອງວັງສະຫງວນປະຈຸບັນນີເປັນແນວໃດ ການກຳນົດມີຄວາມສອດຄ່ອງ ແລະ ຖືກຕ້ອງບໍ່? ມີຂໍ້ແນະນຳທິດທາງຄວາມຮູ້ແນວໃດ ເພື່ອກຳນົດຂອບເຂດວັງໃຫ້ຖືກຕ້ອງ ແລະ ເໝາະສົມໃນຕໍ່ໜ້າ

Question 2: How to manage the enforcement team monitoring to be an effective ways in the future? ຄຳຖາມທີ່ 2:

ເຮັດ ແນວໃດຈຶ່ງສາມາດຄຸ້ມຄອງບໍລິຫານໃນການກວດກາການລາດລະເວນໃຫ້ມີປະສິດທິພາບໃນອະນາຄົດ?

Question 3: What is your recommendations to improve or change the FCZ monitoring?

ຄາຖາມທີ່ 3-

ແມ່ນຫຍັງແດ່ທີ່ເຈົ້າຕ້ອງການແນະນຳໃຫ້ປັບປຸງກ່ຽວກັບການກວດກາລາດຕະເວນຂອງວັງສະຫງວນ າ

Question 4: What is your recommendations to adjust the FCZ regulation in the future? ຄຳຖາມທີ່ 4-ເຈົ້າຄິດວ່າ ຄວນມີການປ່ຽນແປງໂຕໃດຕື່ມບໍ່ໃນກົດລະບຽບຄຸ້ມຄອງວັງສະຫງວນປາ?

Table 1: Meeting Agenda

Time	Description	Responsible person
8:00- 8:30	Registration ລົງທະບູນ	Registration and welcome guests ຜູ້ເຂົ້າຮ່ວມທັງໝົດລົງທະບຽນ ແລະ ຕ້ອນຮັບແຂກ
8:30- 8:50	Introduction on 4 FCZs establishment history ນຳສະເໜີປະຫວັດໂຄງການໃນການສ້າງວັງສະຫງວນ 4 ວັງ ແລະ ຄູ່ມືການປະເມີນວັງສະຫງວນ	FISHBIO staff ພະນັກງານໂຄງການ
10:00- 11:00	Village FCZ report presentation on FCZ management experiences (working and not working about FCZ monitoring), challenges, management systems,	ບ້ານຜາລາດ (ກ່ງວກັບວງກແກ້ງໃໝ່) ແລະ 3 ບ້ານຊ່ວຍປະກອບຕື່ມ



	coordination, communication and recommendations in the future. ສະເຫຼີບໂດຮຽນໃນການຄຸ້ມຄອງວັງສະຫງວນ(ສິ່ງທີ່ເຮັດໄດ້ດີ ແລະ ເຮັດບໍ່ໄດ້ດີ ມີອັນໃດແດ່?), ຂໍ້ຄົງຄ້າງ(ສິ່ງທ້າທາຍໃນການເຮັດວຽກວັງສະຫງວນ), ລະບົບການຄຸ້ມຄອງ, ປະສານງານ, ການຕິດຕໍ່ພົວພັນ ແລະ ຂໍ້ແກ້ໄຂໃນຕໍ່ໜ້າ.	ບ້ານຫ້ວຍຂົວຫລວງ (1ວັງ ເຂດບ້ານຫ້ວຍຂົວຫລວງ) ບ້ານຄົກຟາກ ແລະ ປາກພີ (2 ວັງ: ຄົກຟາກ ກັບເຂດ ບ້ານປາກປຸ໋ຍເກົ່າ) Village Head presentation and discussion exchange ຖາມ-ຕອບ ແລະ ແລກປ່ຽນສົນທະນາກັນກ່ຽວກັບບັນຫາ ແລະ ປະເດັນທີ່ພົບພໍ້ ລວມທັງທີດທາງການແກ້ໄຂໃນຕໍ່ໜ້າ	
11:00- 12:00	Discussion on FCZs management on the topics of strengthening, FCZ regulation amendment, FCZ buffer zones and community fishing day. ສົນທະນາກ່ຽວກັບການບໍລິຫານການຄຸ້ມຄອງ-ຕິດຕາມໃຫ້ມີຄວາມເຂັ້ມແຂງ. ການປັບປຸງເນື້ອໃນ, ຂະຫຍາຍເຂດກັນຊົນ ແລະ ວັນຜ່າປາ. ການປະເມີນປະສິດທິພາບຂອງວັງສະຫງວນ ຄວາມຕ້ອງການໃນການສະໜັບສະໜູນໃນການຄຸ້ມຄອງອະນູລັກ	FISHBIO staff facilitators	
12:00- 14:00	Lunch party ພັກຜ່ອນກິນເຂົ້າທ່ຽງ	All participants ໝົດທຸກຄົນ	
14:00- 16:00	Visit Kengmai FCZ ລົງໄປຢ້ຽມຢາມແກ້ງໃໝ່	All participants ສະເພາະທີມງານມາແຕ່ໄຊຍະ ແລະ ບ້ານເຈົ້າພາບໄປຮ່ວມ	

ສະເໜີບົດຮຽນໃນການຄຸ້ມຄອງວັງສະຫງວນ (Proposing lesson learned from FCZ management)				
ສະພາບທົ່ວໄປ (General situation)				
ສິງທີ່ເຮັດໄດ້ດີ ແລະ ເຮັດບໍ່ໄດ້ດີ ມີອັນໃດແດ່? (what is a strength (work very well)and weak points (Not working)				
ຂໍຄົງຄ້າງ(ສິ່ງທ້າທາຍໃນການເຮັດວຽກວັງສະຫງວນ) Constraints and challenges of FCZ monitoring				



ລະບົບການຄຸ້ມຄອງ ເປັນແນວໃດໃນໄລຍະຜ່ານມາ? Tell us about the FCZ management system in the past?
ການຕິດຕໍ່ພົວພັນ, ປະສານງານເປັນແນວໃດໃນໄລຍະຜ່ານມາ? Tell us about the communication, coordination in the past?
ຂໍແກ້ໄຂປັບປຸງທິດທາງໃນຕໍ່ໜ້າ. (The ways forward to improve the future work in your FCZ?)

IV. Expected Outputs

- Seven villages, local government staff will share their FCZ management experience, lesson learned and build communication network under CEPF project support.
- Get to know on final agreement of amend FCZ regulations and planning for making sustainable ways of FCZ patrolling.
- Improve the FCZ monitoring system and ideas for future FCZ monitoring and assessment.

V. Results

Total of 51 participants (3 female, see Table 3) joint this meeting and site-seeing at Kengmai FCZ. All target participants were from FCZ committee. During the meeting, our staff presented the purposes of this meeting, study tour agenda (Annex I) and allowed the village representative to report based on the format of Village Reporting (Annex II). The meeting also presented the background of FCZ establishment, the length of FCZ coverage, the achievement, constraints and progress of village FCZ monitoring.

At the meeting, village representatives reported about their past experience on FCZ patrolling, issues/ problems faced and future recommendations to improve our project. The bb details of village note are shown in the table 4.

Table 3: Number of Participant involved in the study tour at Kengmai FCZ



Village Organization	Government sectors	FISHBIO staff
Pakpee = 5 (0 Female)	Saiyabouri PAFO= 1 (0 Female)	3 (0 female)
Houaykhoualoung=5 (0 Female)	Saiyabouri DAFO and sub-district = 3(0 Female)	
Kokfak = 5 (0 Female)	Nan DAFO and sub-district = 3(0 female)	
Donemen= 5 (0 Female)	Kenthao DAFO and sub-district= 4 (0 Female)	
Houayla = 2 (0 Female)	Sanakham DAFO and sub- district= 3 (0 Female)	
Donesork = 5 (1 Female)		
Palath = 7 (2 Female)		
Total= 34 (3 female)	Total= 14 (0 female)	Total= 3(0 female)

Table 4: Summary report of FCZ exchange study for 7 villages

General description:

<u>Palath:</u> FCZ establishment is for communities and our community has ownership to conserve and protect the aquatic animals including endangered fish species. Therefore, FCZ establishment is to allow aquatic life including fish species to breed and has abundance increasingly.

<u>Donesork:</u> Location and FCZ border of Kengmai is the right habitat to conserve because every year many fish species migrate up and spawning there.

Donemen: FCZ location in Kengmai is located far away from our village and large areas of protection that cause difficulty during the patrol. This FCZ is not guarantee to safe from illegal fishing practices because people used to go to fish for a long time so, we want project to extend more 500m in the upper and lower parts of FCZ borders.

Houayla: FCZ core zone is suitable habitat to conserve and also near the fishing hotspots using gillnet if possible, just move FCZ border more like buffer zone of 500m. For FCZ regulation is OK.

Houaykhoualoung: This village is located far way from Saiyabouri town about 50 Km and established 1 FCZ, the length is about 2,200 m. Our village appointed the patrolling team and educate the villagers to know about FCZ regulation and clear message on FCZ borders and their fines. The FCZ is a right habitat but we need to expand more 50 m for buffer zone.

Kokfark: Kokfark has two FCZ, FCZ #1 starts from village downstream to Houaylom stream, FCZ#2 starts from Pakpui (old village) to Eya stream. Two of them are the right conservation areas regarding to Probarbus species conservation.

<u>Pakpee:</u> Pakpee has three FCZs bordering to other two villages (Houaykhoualoung and Kokfark) in total of three FCZs.

Things that work well and not work very well

<u>Palath</u>: FCZ committee and enforcement team paid much attention to patrol the Kengmai FCZ borders and to protect illegal fishers especially people who use electro-shock, poison and others harmful gears.

<u>Donesork:</u> FCZ is well but the effective of implementation of FCZ regulation was not well addressed like punishment



Donemen & Houayla and Houaykhoualoung

Work well: Village committee disseminated to the villagers and set up the village patrol team to check regularly.

Not work very well:

FCZ regulation did not widen educate well to outsiders and FCZ committee sometimes did not stay in the village and did not join FCZ when problem occurred.

Kokfark:

Work well: One month did patrol 2 times, found gillnet and hook and line and then confiscated. Beside that, patrol team found illegal fishers to do Probarbus fishing and then fine it based on FCZ regulation.

Not working very well: Problem about the hates between the illegal fishers and enforcement team.

Pakpee: One month did patrol 2 times, found gillnet 10 sets and then confiscated but did not know the owners of gillnet.

Constraints (Challenges of FCZ working)

Palath: When we did patrol we don't have the house for rest during the rain and sunny. Budget did not enough to monitor this work regularly.

Donesork: N/A **Houayla:** N/A

<u>Houakhoualoung:</u> There were the Illegal fishers using electro-shock and use the gillnet in vicinity of FCZ. Some of them came from other villages that cause difficult to check and arrest them.

<u>Kokfark:</u> Lack of fund to monitor and equipment to use during the patrol.

Pakpee: Lack of fund and equipment to support the enforcement team

FCZ management system in the past:

Palath FCZ management in the past faced difficulty because FCZ site is located far away from village center and would not be able to arrest the illegal fishers in time.

<u>Donsork:</u> Change patrol team in monitoring every week by using village rotation to monitor.

<mark>Donemen:</mark> N/A <mark>Houayla: N/A</mark>

<u>Houaykhoualouang:</u> Receive the advices from sub-district staff and set up the schedule of patrolling regularly.

<u>Kokfark:</u> In the past, the enforcement monitoring system set up very well and village team did patrol regularly.

<u>Pakpee:</u> The management system in the past was acted as FCZ regulation set up. FCZ committee and enforcement team did regular check up at the site all the time.

Communication and Coordination in the past:

Palath: Communication with all sectors did not well communication.

DoneMen: N/A **Houayla:** N/A

<u>Houaykhoualoung:</u> If village team know about the fishing violators, our village was called the village FCZ team in each village (Pakpee and Korkfark) to find or chase the illegal fishers and help each others.

Kokfark: Called the Neighboring village to close reporting.

Pakpee: Regular communicate with neighboring villages.

Recommendations to improve next phase:



<u>Palath</u>: Want to revise FCZ committee and members of enforcement team again and want project to support additional equipment for enforcement team monitoring.

<u>Donesork:</u> Want to revise village FCZ committee again and need support of equipment to enforcement team to ensure that FCZ is effective as well as the need to build a watching house for the guard.

Want to solve the problem of the use of gillnet enter to FCZ zone (upper and lower parts of Kengmai FCZ) by using steel net with rocks putting in this areas.

<u>Donemen:</u> Enforcement monitoring should have govt staff participation and wants small changes of FCZ regulations especially the destructive fishing gears using dynamites.

- FCZ committee should exchange their lesson learned together by organizing village meeting.
- Want project to support fund for FCZ monitoring and provide more equipment such us guard watches 2 sites, new boat, camera, the punishment should be based on gillnet size for examples, gillnet mesh size 16-26 cm will be fined about 1,000,000 kip per person per time, next time same person will be double and documented. Hook and line will be 500,000 Kip per set, next time same person will be double and documented. Chemical poison, weapon, electro-fishing will be 2,000,000 kip/person/time*. Next time same person will be sentenced to the district court. (*Note, the regulations actually are 5,000,000 kip/person/time for the first offense, this village did not remember the amount correctly).

Houavla: To be effective monitoring, we should have the house watches for village guards and needs district soldiers to join monitoring team (at least 3 soldiers and 1 village FCZ). Need FISHBIO company to support village perdiem and fuel for boat.

<u>Houaykhoualoung:</u> Wants project to organize the exchange information every time after FCZ monitoring and disseminate more FCZ regulation to the target audiences. Making monk ceremony, spirit houses and support fund for monitoring team, Talky phone, boat and boat motor-13 HP.

Kokfark: To strict in FCZ regulation by improving FCZ members and increase awareness of FCZ and their regulations. Support village fund for FCZ monitoring, communication gadget and equipment for FCZ team.

Pakpee: Strict in FCZ regulation and divide the responsibilities of team members.

ຂໍແກ້ໄຂປັບປຸງທິດທາງໃນຕໍ່ໜ້າ. (The ways forward to improve the future work in your FCZ?)

Palath: Recruitment of the village FCZ management team and supply more patrolling equipment to the team. Kokfark: Continue to disseminate FCZ regulation to neighboring villages

All villages agreed to continue FCZ monitoring but they need support as below:

- District authority/enforcement team to enforce illegal fishers after they got local report to check or arrest.
- Regulation violations still occurred so it is hard to village FCZ to follow FCZ regulation strictly. i.e, they help offenders because they are relatives or village head's relatives.
- Support equipment and budget for village enforcement team during Probarbus monitoring.

41



Curriculum for World Fish Migration Day 2018 School Presentation

Materials:

- Probarbus puppet print outs (left and right sides)
- Mekong fish coloring page
- Markers or crayons
- Scissors
- Glue or tape
- Wooden chopsticks
- FCZ posters
- 5 pieces of rope (for FCZ tag game)
- Tape measure (to show length of Probarbus)

1) Introduction to fish migration in the Mekong River

- Who likes to eat fish? (have students raise their hands) What are some of your favorite kinds of fish to eat?
- Who has gone fishing before? What kinds of fish did you catch?
- Fish are very important for people in Laos for eating and for making a livelihood. We need healthy fish populations for healthy human populations!
- What do fish need to live? (food, water, oxygen, shelter)
- What is the life cycle of a fish? (They grow from eggs to larvae, grow from little fish into big fish, need to eat to survive, then grow big enough to lay their eggs)
- Most animals do not stay in one place for their whole lives. They move around.
- How many of you have traveled to another village? How did you travel there? How do you
 travel to the market to get food? (using a road).
- Fish also travel to find food or find the right place to lay their eggs. How do they travel?
 (They swim, and the river is like their road)
- o When a fish travels a long distance, we call this a "migration."
- Fish can migrate for more than 150 km, farther than the distance from Phalat to Vientiane Capital! It's a long distance for a small fish to swim.
- The Mekong River is a very important home for many fish species. It's also like a big road (or superhighway!) for fish to travel on!
- April 21 is a very special day around the world. It is called World Fish Migration Day, and people in many different countries are celebrating the fish that migrate in their rivers. We have a lot of fish species to celebrate in Laos – more than 500 species!

[Sing a song or play a game with the students]

2) Introduction to Fish Conservation Zones

- It's not easy to live as a fish. What are some things that make life dangerous for a fish?
 (They might get eaten by another fish or animal, they might get caught by a fisherman, they might run into pollution in the water).
- If a fish gets caught before it lays its eggs, then it will not produce any baby fish. Will the size of the fish population get bigger or smaller if there are no baby fish? (The fish population will get smaller if the fish can't lay their eggs.)
- We want people in this village to always be able to catch fish for many years to come.
 What can we do to prevent the fish population from getting smaller?



- One idea is to make sure that the fish can lay their eggs to help increase the fish population. This means we need to protect the places where fish lay their eggs and make safe places for them to travel.
- This kind of solution is called a Fish Conservation Zone. Who knows what a Fish Conservation Zone is?
- Do you have a Fish Conservation Zone in your village? (Yes) What is it for? (It is to provide a safe place for the fish to lay their eggs and help increase the fish population.)
- How does the Fish Conservation Zone work? What are the rules? (No fishing of any kind is allowed inside the Fish Conservation Zone.)
- Taking care of the Fish Conservation Zone is a way to help keep the fish population healthy!

3) Play FCZ Tag Game

Round 1: No FCZ

- Set up a start and a finish line (use rope or other markers) on the playground. Choose 2 or 3 kids to be fishermen, and the rest of the kids are fish.
- The goal of the fish is to run from the start line (feeding area) to the finish line (spawning area) to lay their eggs. They get tagged by one of the fishermen, the fish is "caught" and is out of the game.
- Have the fish line up at the starting line. Say, "1, 2, 3, go!" and have the fish run toward the finish line. How many of them cross the finish line and survived to lay their eggs?

Round 2: With an FCZ

Step up a start and a finish line (use rope or other markers) on the playground. This time, also
make 2 or 3 "FCZs" with circles of rope between the start and finish line. These are "safe zones."
Tell the fish that if they make it inside the safe zone, they can't be tagged.



- Choose 2 or 3 kids to be fishermen, and the rest of the kids are fish.
- The goal of the fish is to run from the start line (feeding area) to the finish line (spawning area) to lay their eggs. They get tagged by one of the fishermen, the fish is "caught" and is out of the game. If they make it to safe zone, they can't be tagged.
- Have the fish line up at the starting line. Say, "1, 2, 3, go!" and have the fish run toward the finish line. How many of them cross the finish line and survive to lay their eggs?
- After the game, ask the kids:
 - o Did more fish survive to lay their eggs with or without the safe zone?
 - Was it easier to survive as a fish with or without the safe zone?

4) Introduce students to *Probarbus* fish

 For World Fish Migration Day, we want to tell you about a very special fish called Probarbus.



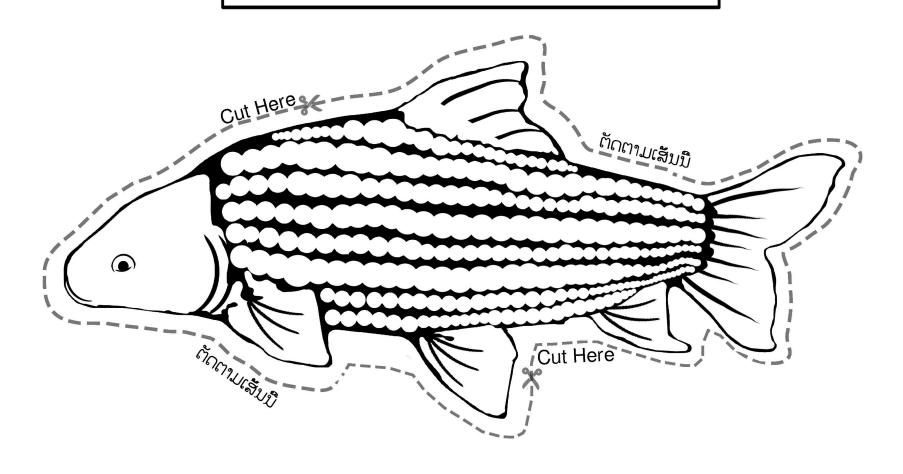
- Probarbus is a very beautiful fish that lives in the Mekong River. It is gold in color, has black stripes, and red eyes.
- o How many of you have seen a Probarbus fish before?
- Probarbus are special because they can grow to be some of the largest fish in the Mekong River! The record size for Probarbus is 1.5 m! How big is this compared to the span of your arms? (Get a volunteer student and use the tape measure how long 1.5 m compares to his or her outstretched arms).
- Probarbus can also grow as big as 60 kg!
- Probarbus fish are very special, but they are also in trouble. Their population has been very reduced because many people like to catch and eat them. There are not very many Probarbus fish left, and they are much smaller than they used to be.
- Your village is very lucky you have a place in the Mekong River near your village where Probarbus come to lay their eggs. This place is called Kengmai Rapids.
- One of the reasons the Fish Conservation Zone was set up in Kengmai rapids was to protect the place where Probarbus fish spawn. We want to have Probarbus in our river for many, many years into the future!
- o To celebrate World Fish Migration Day, we are going to make Probarbus puppets and take them on a migration parade around the school!

5) Puppet making

- Have students color their puppets, cut them out, stuff them with crumpled paper, and glue or tape them together on a wooden chopstick or other stick to hold them.
- o Students can also color the picture of migratory fish species for their classroom
- Finish the school visit with a parade!



ປາເອິ້ງ Jullien's Golden Carp





ປາເອິງ Jullien's Golden Carp

