CEPF SMALL GRANT FINAL PROJECT COMPLETION REPORT

Organization Legal Name:	Royal University of Phnom Penh
Project Title:	Community-based monitoring and conservation of threatened fish species in the 3S (Sekong, Sesan and Srepok) region
Date of Report:	November 15, 2013
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CEPF Region:
Indo-Burma
hotspot

Strategic Direction: Strategic Direction 2: Develop innovative, locally led approaches to site-based conservation at 28 key biodiversity areas.

Grant Amount: $19,885

Project Dates: November 01, 2012 – October 31, 2013

Implementation Partners for this Project (please explain the level of involvement for each partner):

During the project period, lecturers, researchers and students of Royal University of Phnom Penh (RUPP) worked closely with local communities in the 3S region. Local communities were the key partners in the project. They were actively involved in the majority of the project activities including fish species monitoring and recording. More importantly, they assisted us in indentifying the major issues they are facing as well as gaps in their knowledge and awareness about fishery law and regulation. Other key partners were the staff of the Fisheries Department in Seim Pang district and Stung Treng province. Our local researchers of RUPP and district and provincial fishery officials were collaborating in awareness raising and distribution of educational materials about fish species conservation and fishery law to local villagers in the region. They were invited to be speakers in our awareness raising workshop and to our final project workshop. They did not only participate actively in the workshop but also provided feedback and recommendation for future directions of the project.

Conservation Impacts

Please explain/describe how your project has contributed to the implementation of the CEPF ecosystem profile.

Our project has improved the awareness and capacity of local community in the conservation of the threatened fish specise in three major tributaries of the Mekong River: the Sekong, Sesan and Srepok rivers in northeastern Cambodia.

Please summarize the overall results/impact of your project against the expected results detailed in the approved proposal.

The overall goals of the present project was to improve the conservation of threatened fish species in three major tributaries of the Mekong River: the Sekong, Sesan and Srepok rivers (later referred to 3S) in northeastern Cambodia. We work closely with local fishers to achieve three specific objectives: 1) to monitor threatened species at landing sites, 2) to determine catch-per-unit-effort and examine water parameters, and 3) promote conservation awareness of threatened fish among local villagers.

To achieve the first objectives, the project team worked closely with local fishers to conduct a presence/absence survey of threatened fish species at landing sites and major fishing locations. At the beginning of the project, a team consisting of six fishers from Siem Pang and six undergraduate students from RUPP were recruited for the project implementation. The team was tasked to visit landing sites and certain islands and pools to monitor and investigate the presence of endangered fish species. Pictures and measurement of fishes were taken by the team whenever threatened fishes were presented. The major monitoring sites include: Koh dat, Koh touch, Koh kampa, and Kbal trognol. The results from the monitoring survey indicated that at least three species of Cyprinid namely *Probarbus jullieni, P. labeamajor* and, *P. labeamajor* that listed as IUCN endangered Red List species appeared at the monitoring sites frequently. There was one occasion that the famous Mekong giant catfish *Pangasianodon gigas* (Mekong giant catfish) was spotted at the monitoring site. In addition to the endangered fish species above, the team reported seeing other threatened fish species, which include *Osphronemus exodon* (Elephant ear gourami), *Osphronemus goramy* (giant gourami), *Datnioides undecimradiatus* (Narow barred tiger perch), *Glyptothorax fuscus*, *Wallago leeri*, *Bagarius bagarius* (Dwarf goonch), and *Bagarius suchus* (crocodile catfish). Although these species listed for protection under the Cambodian fisheries law signed on August 2009, villagers were not aware of such regulation.

To achieve the second objective, we established three local monitoring groups consisting of six experienced fishers (two from Siempang, two from Veurnsai, and two from Lomphat) to monitor their daily catch of fish. Each fisher was trained to use a monitoring form that was developed with expert consultation at the beginning of the project. The task of each fisher was to record their daily fish catch, gear used, fishing location, and, number of hours spent fishing. In total, fishers collected more than two hundred fish species during the dry season. However, lesser number of species were recorded during the wet season

because there was less fishing effort during this period plus it was difficult to fish during this season. However, only several species such as *Hypsibarbus malcolmi*, *Henicorhynchus lobatus, Labiobarbus siamensis, Hemibagrus nemorus, and Hemibagrus spilopterus* dominate the catch. There were approximately ten fishing gears reported to be used by our fisher team, among them gill nets are the most common. In general fishers place their gills in the main channel or near island for about 24 hours from 6 PM to 6 AM the next day. The daily catch ranges from 1.5 kg to 11 kg. On average, each fisher harvest about 3 kg for each fishing trip. Water parameters (pH, conductivity, TDS) measurements indicated that pH did not vary from seasons or locations (7.0-7.3), conductivity was low (close to 0 μs/cm) overall, and total dissolved solids ranged between 20 and 30 ppm.

To achieve the third objective, multiple continuous training sessions were conducted for key fishers and students about monitoring techniques and fish identification. Additionally, education materials such as posters and banners of protected and threatened fishes as well as fishery regulation were produced and distributed to the target area in the 3S region. A midterm workshop was conducted to identify training needs for the project team and to identify major gap in their knowledge about fishery regulations. The workshop outputs illustrated that the project team members particularly local fishers were not well aware of fishery regulation and that a number of fish species that they catch are being protected under the country sub-degree. A district workshop was organized at the end of the project to address major knowledge gap that was identified during the midterm workshop. The workshop also aimed to promote conservation awareness, share project outputs, and seek recommendation for further research. Stakeholders including district and provincial government officers, fishery authorities, high school students and teachers of Stung Treng, and local community fisheries of the 3S region were invited and they were actively participated in the workshop discussion. Over 50 local high school students of Stung Treng province participated in the workshop. They all expressed strong interests in conservation and the project itself. Series of group discussions were carried out during this workshop to discuss about challenges of threatened fish species conservation and future needs for conservation. The discussion outputs indicated that in the past there was not sufficient law enforcement in conservation efforts particularly in the biodiversity hotspots such as pools at our project monitoring sites (e.g. Koh dat, Koh touch, Koh kampa, and Kbal trogon).

Please provide the following information where relevant:

Hectares Protected: NA
Species Conserved: *Probarbus jullieni, P. labeamajor*, *P. labeamajor, Osphronemus exodon*, *O. goramy*, *Datnioides undecimradiatus, Wallago leeri*, *Bagarius bagarius* and *B. suchus.*
Corridors Created: NA

Describe the success or challenges of the project toward achieving its short-term and long-term impact objectives.

Short-term impact: Overall, the project strengthened the capacity of local villagers in monitoring techniques of fish species in remote areas of Cambodia. At least 12 local fishers and 6 undergraduate students received direct training in conducting fish monitoring such as: fish identification, use of GPS, record data into data base, and taking digital fish pictures. In addition, the project provided students with hands-on experience working in the field, particularly the experience working with local community. Two students in the team expressed interests in fish ecology and fishery conservation in the region. They also plan to conduct their thesis research in the project site. They will use the skill and knowledge gained from this project to design their research. Further, findings from this study will serve as an important input to scientific publications because there are very few publications available on this subject in this remote area of Cambodia. Our team plan to publish our findings in the Cambodian Journal of Natural History and integrate it into the team's university undergraduate course curricula.

Long-term impact: Our project has potential contribution to the conservation of globally and locally threatened fish species and strengthens local capacity through community based approaches in the 3S region of Cambodia. First, the 3S watersheds have been recognized as critical areas for biodiversity conservation. About three hundred fish species have been recorded from the region, about two hundred was reported by our team. Further, the 3S provides local people with livelihood (fishery) which they heavily depend upon.

Were there any unexpected impacts (positive or negative)? No.

Lessons Learned

Describe any lessons learned during the design and implementation of the project, as well as any related to organizational development and capacity building. Consider lessons that would inform projects designed or implemented by your organization or others, as well as lessons that might be considered by the global conservation community.

It appeared that we initially underestimated the monitoring task which involved extensive knowledge on fish taxonomy and patient in working in the field. We faced a great challenge in recruiting the project team. It was hard to find local fishers who were interested to participate in the project, and able to write and read in Khmer at the same time. Even our requirement was low (ability to write and actively involved in fishing activity), there were not many people in the villages were able to write or even could able to communicate with us. Many people in the region use Laotian as their primary language in communication. It was even harder to find students, from the capital city, who were willing to go to

remote areas of Cambodia for extended period and live on basic amenities or in field condition. To solve the issue with fish taxonomy knowledge, we hired a national consultant to help train our team.

Project Design Process: (aspects of the project design that contributed to its success/shortcomings)

We believe the use of local ecological knowledge in our project design is the most appropriate for conservation of endangered species. Local fishers have an intimate relationship with these rare species and have much more chances to encounter these species than investigators visiting the areas occasionally.

Project Implementation: (aspects of the project execution that contributed to its success/shortcomings)

We believe it is impossible for this project to be successfully executed without the full active collaboration of local communities. It is proven that the establishment of community-based fish monitoring working group was effective for conservation of threaten fish species in the area because these local fisher folks have tremendous knowledge about the fish species and the habitats associate with each species. In addition, because these project sites are remote, it is difficult to implement all activities without collaboration from local communities.

Other lessons learned relevant to conservation community:
NA

ADDITIONAL FUNDING

Provide details of any additional donors who supported this project and any funding secured for the project as a result of the CEPF grant or success of the project.

Donor	Type of Funding*	Amount	Notes
NA			

Additional funding should be reported using the following categories:

A *Project co-financing (Other donors contribute to the direct costs of this CEPF 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 project.)*

C *Regional/Portfolio leveraging (Other donors make large investments in a region because of CEPF investment or successes related to this project.)*

Sustainability/Replicability

Summarize the success or challenge in achieving planned sustainability or replicability of project components or results.

The project provided the opportunity for our local researchers to work closely with local community to promote conservation awareness in order to improve the conservation status of threatened fishes. Due to the remoteness of these areas, management and conservation of these resources would be difficult to sustain without the involvement of local people. Further, the project raised conservation awareness among fishers, local villagers and students in the 3S area and Stung Treng province. This knowledge is useful and has potential contribution to address the threats to fish species in the region. Finally, the project employed simple monitoring techniques with low cost and can be replicated, and thus can assist long-term planning for biodiversity conservation in the region.

Summarize any unplanned sustainability or replicability achieved. NA.

Safeguard Policy Assessment

Provide a summary of the implementation of any required action toward the environmental and social safeguard policies within the project. NA.

Performance Tracking Report Addendum				
CEPF Global Targets				
(Enter Grant Term) **Provide a numerical amount and brief description of the results achieved by your grant.** **Please respond to only those questions that are relevant to your project.**				
Project Results	**Is this question relevant?**	**If yes, provide your numerical response for results achieved during the annual period.**	**Provide your numerical response for project from inception of CEPF support to date.**	**Describe the principal results achieved from July 1, 2012 to June 30, 2013. (Attach annexes if necessary)**
1. Did your project strengthen management of a protected area guided by a sustainable management plan? Please indicate number of hectares improved.				Please also include name of the protected area(s). If more than one, please include the number of hectares strengthened for each one.
2. How many hectares of new and/or expanded protected areas did your project help establish through a legal declaration or community agreement?				Please also include name of the protected area. If more than one, please include the number of hectares strengthened for each one.
3. Did your project strengthen biodiversity conservation and/or natural resources management inside a key biodiversity area identified in the CEPF ecosystem profile? If so, please	yes	64ha	64ha	Islands/pools in Seim Pang/Sekong River

indicate how many hectares.				
4. Did your project effectively introduce or strengthen biodiversity conservation in management practices outside protected areas? If so, please indicate how many hectares.				
5. If your project promotes the sustainable use of natural resources, how many local communities accrued tangible socioeconomic benefits? Please complete Table 1below.				

If you answered yes to question 5, please complete the following table.

Table 1: Socioeconomic Benefits to Target Communities

Please complete this table if your project provided concrete socioeconomic benefits to local communities. List the name of each community in column one. In the subsequent columns under Community Characteristics and Nature of Socioeconomic Benefit, place an X in all relevant boxes. In the bottom row, provide the totals of the Xs for each column

Name of Community	Community Characteristics								Nature of Socioeconomic Benefit											
									Increased Income											
	Small Landowners	Subsistence economy	Indigenous/ethnic peoples	Pastoralists/nomadic peoples	Recent migrants	Urban communities	Communities falling below the poverty line	Other	Adoption of sustainable natural resource harvesting practices	Ecotourism revenues	Park management activities	Payment for environmental services	Increased food security due to the	More secure access to water resources	Improved tenure in land or other	Reduced risk of natural disaster	More secure source of energy	Increased access to public service	Improved use of traditional knowledge	More participatory decision making	Other

Total																					
If you marked “Other”, please provide detail on the nature of the Community Characteristic and Socioeconomic Benefit:																					

Additional Comments/Recommendations

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.

Please include your full contact details below:

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