

CEPF FINAL PROJECT COMPLETION REPORT

Organization Legal Name:	International Union for Conservation of Nature, Lao PDR Country Programme
Project Title:	Conserving Biodiversity and Sustaining Livelihoods along the Mekong River in Luang Prabang, Xayabouri and Vientiane Provinces, Laos
Date of Report:	
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CEPF Region: Indo-Burma (Indochina)

Strategic Direction: Strategic Direction 3: Strengthen the capacity of civil society to engage key actors in reconciling biodiversity conservation and development objectives, with a particular emphasis on the priority corridors. The project also addresses some of the key objectives and Investment Priorities of Strategic Directions 1, 2.

Grant Amount: US\$248,248

Project Dates: 1 May, 2011 to 31 August, 2013

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

- Faculty of Science (FoS) from National University of Laos (NUoL): coordinated letters of authorization, faculty and researchers led Aquatic Invertebrates, Wet Season Botany, field studies, students received training in the field and supported international consultants. Liaised with government for field work authorization and export permits for collections.
- Lao Biodiversity Association (LBA): Received training and gave support by conducting interviews and assisting international consultants and project team.
- Living Aquatic Resources Research Center (LARReC): conducted fish surveys for dry and wet seasons and liaised with fisheries institutions such as the National Agriculture and Forestry Research Institution (NAFRI), Department of Livestock and Fisheries (DLF).
- FISHBIO: Conducted complementary surveys focusing on CEPF priority fish species habitat. Provided support to Fish Conservation Zone (FCZ) regulation drafting and fish and turtle related workshops.
- Provincial office of Natural Resources and Environment (PoNRE), Department of Livestock and Fisheries, and Ministry of Agriculture and Forestry (MAF) from Luang Prabang, Xayaburi, and Vientiane Provinces. District office of Natural Resources and Environment (DoNRE), Department of Livestock and Fisheries, and Ministry of Agriculture and Forestry (MAF) from Luang Prabang, Nan, Ken Thao, Xayaburi, Met,

Paklay, and Sanakham districts: supported the implementation of field work and provided informational and advice on linking policies and strategic plans. Communicated with main offices to receive feedback on all work and provide these agencies with a more clear understanding about the project.

Conservation Impacts

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

The section of the Mekong (Luangprabang to Vientiane) that this project covered suffered from significant gaps in knowledge despite being part of the region's largest and most economically important rivers. The biodiversity survey was the first inventory of biological diversity along over 400 km of the Mekong and the livelihood assessment was the first of its kind providing much more depth to the socioeconomic profile of the study area than was previously available. The information gained in these surveys bring together much needed information for a more complete CEPF ecosystem profile by identifying biodiversity conservation importance, major threats and causation to biodiversity loss, as well as the socioeconomic, policy and civil society context in which conservation does and will take place. All of these findings are compiled in scientific reports that are published and available to the scientific community and public online.

The most significant finding of the biodiversity survey was unfortunately that ecological degradation is much higher than expected and biodiversity levels much lower than expected for the study area. Despite being one of the least populated sections of the Mekong River, the botany survey found little undisturbed habitat. The vast majority of the study area had been logged or burned for agricultural expansion. Biodiversity levels were much lower than expected. Perhaps the most alarming was the findings of the fish survey where only 116 species of fish were recorded through sampling and interviews. The Mekong River has the second highest fish diversity in the world with over 850 species recorded, the low numbers found in this survey are most likely due to over fishing and local degradation of key habitat. Threats to fish biodiversity could be increased significantly with the recent approval of large hydropower development.

Fourteen CEPF Priority species were thought to possibly inhabit the study area: one mammal (Smooth-coated Otter *Lutrogale perspicillata*), four birds (Masked Finfoot *Heliopais personatus*, Greater Adjutant *Leptoptilos dubius*, Lesser Adjutant *Leptoptilos javanicus*, White-shouldered Ibis *Pseudibis davisoni*), three reptiles (Siamese Crocodile *Crocodylus siamensis*, Asiatic Softshell Turtle *Amyda cartilaginea*, Yellow-headed Temple Turtle *Heosemys annandalii*, Asiatic Giant Softshell Turtle *Pelochelys cantorii*), and five fish (Mekong Freshwater Stingray *Dasyatis laosensis*, Giant Freshwater Stingray *Himantura polylepis* [formerly *Chaophraya*], Marbled Freshwater Stingray *Himantura oxyrhynchus*], Mekong Giant Catfish *Pangasianodon gigas* and Jullien's Golden Barb *Probarbus jullieni*).

Of these fourteen species only one was found regularly and with signs of breeding, *Probarbus jullieni*. The Asiatic softshell turtle *Amyda cartilaginea* was not seen in the wild but captive specimen (a juvenile) and interview responses make it reasonable to believe that a breeding population still occurs. Two stingray species, Mekong Freshwater Stingray *Dasyatis laosensis* and Giant Freshwater Stingray *Himantura polylepis* were mentioned as being caught infrequently in certain areas of the river, which warrants further study. While not mentioned to the teams during the biodiversity survey credible information was gained from interviews in later workshops that small flocks of Lesser Adjutant *Leptoptilos javanicus* had been stopping over in rice fields in two villages over the last 2 years and had previously never been seen by those interviewed. The Smooth-coated Otter *Lutrogale perspicillata* appears to have been extirpated from much of the main channel of the Mekong but may still occur in isolated populations on tributaries, based on interviews. Because the focus of this study is on the main channel large terrestrial mammals were not a focus of the project but interviews during the livelihood assessment and subsequent workshops revealed the location of a small herd of Asian Elephants (also a CEPF priority

species). Other CEPF priority species were either not known to locals or interviews revealed that they had not been seen in decades.

The most significant species found in the Botany surveys was *Phoenix roebelenii*. This species of miniature date palm was thought to be extirpated in Laos. Unfortunately, the specimens found were in the area of the Xayaburi Dam site, and will most likely be lost. Other populations may exist in other stretches of the river but have not yet been found.

The low biodiversity findings coupled with the information found in the livelihood assessment give a much clearer understanding of the threats to biodiversity in the study area. The livelihood assessment showed the overwhelming majority of villages are heavily reliant on harvesting natural resources such as fish, birds, reptiles, and NTFPs as well as subsistence farming (relying on slash and burn techniques). The livelihood report also documented an increase of harvest of many species due to increased population as well as recent access gained to the area by outside traders. From these results the ecosystem profile is updated to list overfishing, hunting, and habitat destruction as leading causes in biodiversity declines.

Please summarize the overall results/impact of your project.

Phase one produced a report which filled gaps in knowledge and strengthened knowledge of biodiversity which is a necessary starting point for any future management plans. The Biodiversity Survey of the Mekong between the cities of Louangphabang and Vientiane Capital is the first of its kind for this area. This report was the product of several surveys conducted in both the wet and dry seasons in 2011. International consultants, Lao Government researchers and National University of Laos researchers conducted surveys on all known fish, birds, large mammals, aquatic invertebrates, reptiles and amphibians as well as a flora and habitat makeup.

Further addition to the scientific knowledge of the area was the creation of several collections of flora and fauna, the first of its kind for the area. Botany specimens were sent to the National Herbarium of Laos and Chiang Mai University in Thailand, the herpetology collection was deposited at the National University of Laos and the University of North Carolina, the fish collection is deposited at LARReC offices in Vientiane and the aquatic invertebrate collection was deposited at the Faculty of Science. This was the most comprehensive and first complete biological survey ever conducted of this approximately 450 km stretch of one of the world's largest and most important rivers. The report recorded extensive ecological degradation, much more than was expected. The contents of this report will be an incredibly valuable addition to the scientific record, and will serve as a baseline for future development plans along the Mekong and in studying impact of projects.

Phase 2 produced a livelihoods assessment. This was the product of both rapid assessments and thoroughly conducted interviews at select villages. All 97 communities along the Mekong were surveyed; a wide variety of data was collected including; population, population history, ethnic makeup, primary natural resources harvested, and concerns and goals for future development. This was the first comprehensive study of livelihoods for this area. The information greatly expanded the knowledge base of populations and livelihoods in the study area. Villages not found on official maps were identified as well as the ethnic makeup of all villages. This study was the first to collect quantifiable data on natural resource use (fish, birds, NTFPS, reptiles) over this large stretch of the Mekong and will surely serve as baseline data for many future studies of a multitude of topics.

Workshops were conducted for phase 3 planning which ended with proposed sustainable development based by looking at both of the first two reports to select where areas with high conservation needs and communities seeking sustainable education overlapped. 14 communities were selected for inclusion and an additional small community was added after the reports writing. All communities have been visited at least once and most twice by teams of IUCN, NUoL,

and consultants who facilitated participatory workshops on the topics that these communities had mentioned as priorities for development and conservation during the livelihood assessment. Following this a document was created outlining all of the results and proposing projects for phase 3 that would benefit both biodiversity and local livelihoods. Project proposals include: Community conservation areas, ecotourism, fish conservation, crab conservation, and a turtle nest protection scheme.

Considerable amount of work has been already completed on one of these phase 3 projects. During the biodiversity survey 4 new sites related to the spawning and migratory path of two IUCN Red List endangered fish species *Probarbus jullieni* (Also a CEPF priority species) and *Probarbus labeamajor*. After preliminary workshops, IUCN staff compiled their ideas and put together a proposal for their management. A workshop was held in Vientiane with over 25 participants from district, provincial, and central level officials who gave preliminary endorsement awaiting community endorsement and the final signatures from the District or Provincial governors. After follow up participatory workshops with 8 communities who regularly use these areas for fishing all 4 sites have received community endorsement as Fish Conservation Zones (FCZs) with agreed upon boundaries regulations as to their use. After final endorsement from the district office, plans will go ahead to train management and enforcement teams. When all is signed 160 ha of fish conservation zones will be have been created.

One of the objectives of this project has been to build capacity and create better opportunities for information sharing between the IUCN, local civil society, and the Faculty of Science (FoS) at National University of Laos, which has proven quite successful. NUoL researchers and staff have contributed to this project in many ways. The chapter on aquatic invertebrates in the Biodiversity Report was written by a FoS faculty member and many of the other sections were possible do to the work of many NUoL research assistances. Almost every field trip conducted brought one to three undergraduate interns from the faculty of science. They received hands on instruction on a variety of tasks and skills. Civil society needs support and capacity building in Lao PDR but members of the Lao Biodiversity Association were able to attend some field trips.

All communities have responded in favor of such organizational structures for the management of their resources. A big part of the project is to develop community conservation groups made up of representatives from village leadership, primary resources users, and women. In all partner communities, conservation management groups are in different stages of development.

Two projects are being developed with communities to develop village regulations for small community conservation areas. Both sites are already managed with customary law, but writing it into village law will protect the areas from outside users who often times don't know or respect local customary practices. One site is a "spirit forest" and due to a local customary hunting ban a large amount of reptile and amphibian diversity was found, including a large reticulated python. The other site is an island in the main channel of the Mekong which the botany survey declared as having the most intact forest in the entire study area. This site as well has customary protection but lacks written village level regulations.

Participatory workshops have been held with three neighboring communities that share in the harvest of crabs. Preliminary planning of a crab conservation zone has taken place and have been met with a lot of enthusiasm from the communities. The meetings proposed a closure of all crab harvesting during the species breeding season.

Using the successful CEPF funded turtle nest protection scheme in Northern Cambodia as an example, We have developed the framework for a similar project in a section of the study area where interviews from the biodiversity survey and livelihood assessment noted as having signs of Asiatic softshell Turtle *Amyda cartilaginea* (a CEPF Priority Species) nesting. The facilitators of the Cambodian project have been contacted and their suggestions were used in the development of the project. This proposed nest protection scheme has been discussed with communities in the area and has been met with unanimous support.

Until very recently the IUCN Lao PDR thought that it would be implementing these projects and they were designed as such. However in June of this year IUCN Asia and its national offices took over the role of Regional Implementation Team (RIT) for the CEPF in the Indo-Burma Hotspot. In response to this, IUCN Lao PDR developed these projects further with the goal of then handing them over to local partner organizations. It is the hope of the IUCN that new proposals will take advantage of the vast amount of information and planning these reports contain and build off of them.

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

VISION FOR THE STUDY AREA

(I.e. what is being striven toward and what will be promoted to communities and government during the project. This Vision is provided in accordance with CEPF comments that a Vision should be provided for the 5+ year life of the whole project as well as the objectives of the CEPF Project).

The natural resources of the Mekong River in the study area, including water, fisheries and biodiversity, are used sustainably for the benefit of current and future generations, national development, food security and traditions of local communities, and the conservation of wild species.

LONG-TERM IMPACTS

1. Populations of all CEPF Priority Species which breed in the study area (to be identified in the CEPF Project) have increased from 2011 population estimates.
2. Populations of all fish species of major economic or food security importance for local communities in the study area (to be identified in the CEPF Project) have increased from 2011 population estimates.
3. The extent and quality of high conservation value habitats (in sites identified during and after the CEPF Project) continue to be maintained and/or have improved.
4. The livelihoods of communities living around the highest-priority sites for biodiversity conservation (to be identified in the CEPF Project) are significantly improved, thereby reducing pressure on these sites and their CEPF Priority Species.
5. Impacts from dam construction in and/or near the study area are mitigated as far as possible, because a functioning planning system has been implemented which makes development and conservation decisions based on all available data (including that generated during and after the CEPF Project) and the sustainability of individual development proposals.

Actual Progress Toward Long-term Impacts at Completion:

1.) Very few CEPF priority species were found in the area. The most well documented being *Probarbus jullieni* whose management plan involving Fish Conservation Zones (FCZs) will be fully detailed in the next section. The establishment of these FCZs is scheduled by the end of 2013 and should see a swift increase in the number of adult *Probarbus* being able to successfully breed. Another CEPF Priority Species, the Asiatic Softshell Turtle, *Amyda cartilaginea* was reported as being present in the area by members of several villages. A turtle nest protection scheme has been proposed for the area it was reported to be the most abundant in.

There were some reports of both stingray species *Dasyatis laosensis* and *Himantura polylepis* occurring in the area, but not enough data was gathered to get an estimate of their population which is certainly small and localized. Planned fish conservation zones could be beneficial to these species as well. There is also the possibility that a phase 3 project will be developed which focuses more on these stingray species. The two studies provided important data on the reptile trade which included at least two CEPF priority species, the Asiatic Softshell Turtle, *Amyda cartilaginea*, and the Impressed Tortoise *Manouria impressa*.

Bird biodiversity was quite low and with the exception of recent sightings of migrating Lesser Adjutants *Lepttillos javanicus* in two communities, the study area is not believed to have important populations of CEPF priority species. The birds chapter of the biodiversity survey included recommendations for the expansion of Important Bird Areas (IBAs) but unfortunately no government partners have shown interest in this project so far.

During the livelihood assessment a small population of Asian Elephants *Elephas maximus* was found to inhabit a stretch of forest between two villages. This project focuses on main channel dependant species, so management plans for this species were not developed. Information about the small herd was given to other NGOs.

2. This information is not available because population estimates do not exist for any fish species from this section of river. Frequency of occurrence in both scientific surveys and interview responses gave a preliminary idea on the status of different fish populations.

Four Fish Conservation Zones (FCZ) have been mapped and received full community endorsement. The regulatory documents written by the IUCN and the communities are being reviewed by district and provincial level governments which are expected to give approval. The four FCZ's locations were selected based on new data on *Probarbus jullieni* and *Probarbus labeamajor* spawning and resting grounds discovered during the biological surveys. It is hoped that the closing of these areas to all fishing will benefit not only benefit the populations of these two IUCN Red List endangered species but to all fish in this section of the Mekong, especially those of income and food security importance to local communities. These four FCZs will be managed by local management groups made up of village elders, women, and fishermen from the communities who currently use the area. Local enforcement teams will be trained and patrol the FCZs throughout the dry season when the *Probarbus sp.* come to the area to rest and spawn.

3.) Two sites of relatively high conservation value relative to the study area have been identified. Communities who use the area have participated in two workshops geared towards their preservation. Management/conservation LogFrames have been drafted based on these workshops. These logframes focus on the management structure, regulating natural resource harvesting, and providing sources of alternative income. These two sites are both currently under customary protection which the project will help strengthen and maintain. Additional village rule (Statutory law) will be discussed to complement the existing practices.

4.) Income improvements which provide an alternative to unsustainable resource use practices have been planned for several of the villages targeted for phase 3 projects. A report on ecotourism development opportunities has been sent out to local ecotourism operators in hopes that these companies will develop programs in some of the target villages.

The goal of the FCZs is not only to boost the numbers of endangered species such as *Probarbus jullieni* and *Probarbus labeamajor* but also to boost the numbers of locally important species for food and sale. If the FCZ regulations are enforced, it is likely that in just one year smaller bodied "whitefish" populations could also see a marked increase, providing additional food and income for local communities.

5. Communities that were known to be scheduled for resettlement or sites judged to be severely impacted by dam development and their associated reservoirs were not included in phase 3 development strategies. Unfortunately much of the information surrounding dam development along this stretch of Mekong is hard to obtain publically and that which is released changes frequently. Given the quick pace of development in the region it must be accepted that certain sites may no longer be viable due to future development but in developing a geographically and thematically varied set of projects for phase three it is hoped that the effects of hydropower development will be minimal.

The results of the biodiversity, human population, and livelihoods studies create baselines for planners to create further indepth studies as to the affects of the dams in order to achieve more sustainable development projects on the river.

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

1. By June 2012, the first ever planning processes for biodiversity conservation and community aquatic resources in the study area are completed and approved by government. This will include a Logical Framework with specific targets for individual species and sites and approaches tailored to the study area.
2. By June 2012, support from government, communities and other stakeholders for natural resource management in the study area has been significantly strengthened due to (a) completion of a sound planning strategy (see Short-term Impact #1), (b) raised awareness of natural resouces in the study area resulting from the successful implementation of media/information campaigns.
3. By April 2013 (completion of CEPF Project), conservation actions for selected CEPF Priority Species and high-priority sites will be well underway, implemented by Local Management Groups, and guided by Site Management Plans, approved by local communities and government.
4. By April 2013 (completion of CEPF Project), the successful establishment of the project and its heightened national and global profile, including a dedicated fund-raising component, will have significantly increased the likelihood of securing of funds for the remainder of the project (Phase 3).

NOTE:

The principle objective of the CEPF Project is to provide a sound platform for natural resource planning in the study area, by undertaking the first detailed biodiversity and community surveys in the study area. This will comprise the majority of time and funds of the CEPF Project, with only a limited component for implementation of conservation actions. This highlights two points:

(a) The Short-term Impacts of the CEPF Project largely relate to planning, rather than actual changes in the status of threatened species, designation of protected areas, changes in behaviour of local communities, technical capability of government staff etc. We consider these 'planning impacts' equally important. Project planning is often rushed (in contrast sound planning processes may take a year or longer) and based on inadequate data, but the CEPF Project will provide scientific information and a participatory planning approach to ensure that subsequent conservation actions will have the greatest chance of success.

(b) It is critical the CEPF Project is immediately followed up with conservation actions, and this is why the CEPF Project forms the beginning of the 5-year project being implemented by IUCN. As described in the Lol, IUCN will implement a Planning Workshop in March 2012, in which a Logical Framework will be developed based on the data collected during the CEPF Project. At that stage the project will be able to develop specific measurable targets for species and sites and the approaches required.

Actual Progress Toward Short-term Impacts at Completion:

1. Planning phase has been supported by local communities. District, provincial, and central level government have given verbal support towards most projects. This dialogue processes has facilitated steps towards official endorsement as phase 3 work begins. Endorsement looks achievable for this phase. Three individual species have been specifically targeted for conservation: two fish species - *Probarbus julieni*, *Probarbus labeamajor* and the Asiatic softshell turtle *Amyda cartilaginea*. The two fish species conservation plan involves four Fish Conservation Zones totaling 140 ha to be managed by the communities which currently fish the area. Two specific sites have been target for conservation: Tad Jao spirit forest to be managed by Ban Thadeua and Ban Phakhone and Don Hon Island to be managed by Ban Nongkhai and Ban Donxiangam. Both sites have had site specific LogFrames drafted. Two crab conservation workshops have taken place with 2 villages who harvest from the same areas. A draft of regulations has been put forth by the communities but more expert advice is requested from consultants with a background crab fisheries management.

2. Through several field trips and workshops, government and local communities have gained more awareness of environmental issues. Due to this increased awareness, support has been significantly increased for conservation projects amongst all stakeholders. A media campaign has brought international attention to the project through a short film on the project as well as an article in Birdlife international of Indochina's publication, The Babbler. Local media/information campaign has included multiple articles in the Vientiane Times as well as conference at the National University of Laos. The conference was hosted by the Faculty of Science one of the implementation partners and featured university and partners findings from the biodiversity survey as well as future goals of CEPF as well as discussions with research assistants and interns about their experiences in the field. Over 100 people were in attendance. Awareness towards the area's natural resources in the international scientific community has been raised by the publication of the first biodiversity survey of the area as well as the publication of the livelihoods report. The IUCN Lao PDR website published webstories geared towards a general audience to give updates to the project's progress.

Several presentations of the project were given internationally. In August 2012 a presentation was given during a half day conference on hydropower development along the Mekong at the International Foreign Correspondents Club in Bangkok. The audience was composed of journalists and lower Mekong Basin, following the presentation an interview was given to Radio Free Asia. A press conference was held on the project at the World Conservation Congress in Jeju, South Korea in September 2012 and a presentation was given in March of 2013 at the final CEPF grantee workshop for phase one of the fund.

3. Communities have preliminarily endorsed conservation actions for *Probarbus julieni* and *Probarbus labeamajor* (awaiting signature from District governor's office). As part of these species conservation action four sites of high priority for the reproduction (spawning grounds and deep pools) have been designated by local communities as protected. As part of the regulations preliminarily agreed to by the communities 4 management groups have been organized but will not meet until the projects are further along in implementation. The July 4th workshop in Vientiane with representatives from district, provincial, and central level agencies made this process much more clear. The process of endorsement was slowed due to officials being wary of fish related projects in the area given the political sensitivity surrounding development in this section of the Mekong River. Furthermore endorsement has been delayed because it was felt that by creating a foundation for the project before seeking it would be far more beneficial and in the end make endorsement much more likely.

Two sites with high biodiversity levels, as recorded in the biodiversity survey, are undergoing management planning and members suitable for local management groups have been identified. Management groups would include village head and vice heads, law enforcement representatives, women, and members that represent primary users of the resource for which the management group will be responsible (fish, NTFPS, turtle eggs etc.). Management groups have not been implemented, but will once phase 3 projects begin. Site specific LogFrames have been drafted following participatory workshops.

4. Significant process has been made in the establishment of FCZs. Additional funding support has been sought through grants from the United States Fish and Wildlife Service (\$24,625) and the Mohamed bin Zayed Species Conservation Fund (\$24,500). Since IUCN Asia became Regional Implementation Team it has been decided to try and hand over projects to local partners instead of IUCN Lao PDR looking for funds independently. The national and global profile for the project has been heightened by a short film, numerous newspaper articles and public presentation. Two articles have appeared in the

Vientiane Times (Lao PDR's largest English newspaper), an article appeared in BirdLife International of Indochina's widely distributed publication "The Babbler".

Please provide the following information where relevant:

Hectares Protected: a total of 160 hectares of Fish Conservation Zones have been approved with unanimous support by communities, a final endorsement from district and provincial level is currently being acquired.

Two community conservation areas are in the process of being defined as well which should bring the total area under protection up closer to 200 ha total (including FCZs). These two sites already benefit from customary protection and now it is just a matter of clearly defining boundaries and reviving local costume as well as complementing it with village rules. This will provide enhanced protection to these sites from outside groups who currently do not respect the traditional customs of the communities which currently manage these areas.

Species Conserved: Jullien's Golden Carp *Probarbus jullieni* and Thicklipped Barb *Probarbus labiamajor* both categorized as endangered by the IUCN Red List. One turtle species *Amyda cartilaginea* is the focus of the turtle nest protection scheme.

Corridors Created: none

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

Communities proved to be more enthusiastic than intended. When engaged in workshops community members eagerly discussed what issues were effecting biodiversity and livelihoods often with surprising honesty (such as detailing local hunting practices). Community members were almost across the board driving the workshops in a manner consistent with the participatory process.

While levels of participation varied from community to community, overall, women were well represented in workshops.

Coordination with government agencies prove difficult throughout much of the project. While the project was usually supported it was often difficult to find what agency was appropriate to work with or to maintain relationships with key personnel from these agencies as different staff were often sent each field trip. A turning point in this was the July 4th workshop sponsored by the IUCN where over 20 government officials from all agencies which would be needed as partners, from all districts and provinces in which projects are proposed attended. This workshop, which in hindsight should have been held at the beginning of the project, allowed the IUCN to clearly explain the project and for officials to make it clear what steps would be needed for endorsement of projects, letters of authorization (to work in certain areas) and other bureaucratic steps that were previously misunderstood.

Finding partners for ecotourism development has proven challenging. The common response is that due to the isolated nature and of much of the study area, cost of such a trip, and lack of world class attractions, that tourists would be uninterested in taking the time to visit the area.

The project was able to gain successful media exposure. The Vientiane times (Lao PDR's national English language news paper) ran two articles on the project, these articles highlighted the importance of protecting biodiversity on this sensitive part of the river. The Faculty of Science held a large conference of the projects findings at the National University of Laos which was

attended by over 100 faculty members, researchers, and students, which is a very impressive turnout for an academic event. media highlighted the importance of protecting biodiversity on this sensitive part of the river.

Were there any unexpected impacts (positive or negative)?

Enthusiasm for FCZs and crab conservation projects was so high that locals often wanted to further toughen regulations. It was unclear to the project team whether this was due to genuine understanding and belief in the FCZ system or because of a false belief that asking for more stringent regulations would bring more financial support to the community. The locals' request for year round protection on FCZs and crab conservation could potentially impact the income improvement goal of community fisheries and in the end lead to more illegal resource use.

We were expecting the politically sensitive nature of the Xayaburi dam's construction to be a much bigger hurdle to field work. By partnering with the Faculty of Science we gained trust and credibility with local officials who might otherwise have been hesitant to engage in conservation projects in the area of dam construction and impact.

Project Components

Project Components: *Please report on results by project component. Reporting should reference specific products/deliverables from the approved project design and other relevant information.*

Component 1 Planned:

Phase 1 of the 5-year IUCN Project, "Documenting the Biological Diversity (Year 1)", is successfully completed and the status of CEPF Priority Species and other threatened species in the study area is documented.

Component 1 Actual at Completion: A report on biodiversity detailing the findings of multiple fieldtrips during the wet and dry seasons in the study area has been completed and published. The report documents all botanical, bird, large mammal, aquatic insect, fish, reptile and amphibian taxa documented during these surveys. Considering the large area of the study area and short time this report serves as a baseline rather than a full biodiversity assessment. Further monitoring based on these first findings will enable future project teams to progress towards a more comprehensive picture of biodiversity in the study area.

A short movie on the biodiversity survey (focusing on the fish survey) was produced and disseminated to the public, officials, and academics. This short film is regularly shown during meetings and presentations on a wide variety of topics.

Sites important to the reproductive cycle of CEPF priority species *Probarbus jullieni* have been identified as well as breeding habitat for another CEPF priority species the *Amyda cartilaginea*.

Several presentations given internationally: at the International Foreign Correspondents Club in Bangkok during a half day conference on hydropower development along the Mekong in August of 2012, the audience was composed of journalists and lower Mekong Basin governments development partners. After this an interview was given to Radio Free Asia. One press conference was held on this project at the World Conservation Congress in Jeju, South Korea in September 2012. The project was presented in March of 2013 Phnom Penh at the final CEPF grantee workshop for phase one of the fund.

Component 2 Planned:

Phase 2 of the 5-year IUCN Project, "Engaging Local Communities and Authorities in Planning and Action (Years 1-2)", is successfully completed.

Component 2 Actual at Completion: Two field trips were carried out during this phase. The first was a rapid assessment focusing on settlement and population dynamics as well as resource use in 97 villages between the cities of Luang Prabang and Vientiane. The second was a focused assessment of 14 target villages where more in-depth interviewing took place. IUCN, LBA, and FoS student interns participated in the field trips. Lao government officials from several district and provincial level agencies participated in and received training on the participatory workshop process. The results of these two surveys have been compiled in a report to be completed and distributed in the next period.

This livelihood assessment fills in the gaps of knowledge from previous publications such as the socio-economic atlas of Laos. The study uncovered abundant new information about human dynamics in the area as well as natural resource use. Many communities not labeled on official maps were recorded, as well as information on ethnic makeup of communities and population growth rates, all data not previously recorded is now available which will be important for any future studies or projects in the area.

Component 3 Planned:

Phase 3 of the 5-year IUCN Project, "Securing biodiversity and community river resources (Years 2-5)", is successfully initiated.

[Note: Phase 3 is 3.5 years duration, but this Component is specifically for the period of Phase 3 falling within the CEPF Project, i.e. from March 2012 (when Phase 3 begins) to April 2013 (CEPF funding ends on 31 March 2013)].

(1 Component will be the key planning elements of Phase 3: the LogFrame workshop, Formation of Local Management Groups, development of co-management strategies, development of biodiversity monitoring).

Component 3 Actual at Completion:

After several trips were taken to communities to conduct participatory workshops on future resource management and income improvement workshops were facilitated a workshop report was compiled. This report gives future project implementation partners ideas and suggestions of what the communities have identified as projects which they are interested in participating and how they would want to go about its implementation.

Proposed projects have been described above and are in summary, include 4 fish conservation zones (FCZs), Ecotourism initiatives focusing on cultural immersion, 2 Community run conservation areas, and a turtle nest protection scheme.

Communities showed strong interest in working with development partners in the subjects of fish conservation, forest conservation, turtle nest protection and ecotourism development.

A workshop report from a one day information session with government officials representing several agencies from the district, provincial, and central levels has been written and is awaiting publication. Two field trip reports documenting the outcomes of community level participatory workshops as part of Phase 3's planning stage have been written and are awaiting publication.

A report entitled "Ecotourism Development Opportunities on the Mekong River Between Luang Prabang and Vientiane" has been published and disseminated to local ecotourism operators. The report details specific areas and communities with the highest potential for ecotourism. It suggests that outside tour companies partner with local communities to train villagers to lead workshops on traditional rural Lao life such as basketmaking, farming techniques, NTFP harvesting, and cooking. The report suggested the use of homestays as well as the construction of bungalows in one community where an interest in this had been expressed.

Component 4 Planned:

SUB-GRANT. The first ever biodiversity monitoring program anywhere along the Lao Mekong is prepared and implemented in the study area. This Component is a Sub-Grant to the Laos Biodiversity Association.

Component 4 Actual at Completion:

Due to a lack of capacity with local partners, little availability of our consultants on birds and mammals, and lower than expected biodiversity rates, this component was not carried out in this phase. Monitoring is planned to be implemented within each small scale project such as for NTFPS reptiles and amphibians in the Tad Jao and Don Hon community conservation sites and for softshell turtles in the nest protection project. Monitoring for fish related to the proposed FCZs is documented in detail below. These monitoring programs will ideally be carried out by local NGOs with support and training from international consultants.

The FCZ project will include monitoring of *Probarbus* populations. Biological monitoring is a very important step for assessing fish population health and the effectiveness of Fish Conservation Zones. Monitoring studies could include assessments of juvenile and adult population size, fish movement studies, and surveys of fish spawning activity. Juvenile and adult population size and movement could be accessed through mark-recapture tagging studies. Fish would be caught, tagged and released. The number of recaptured fish could be used to estimate fish population size by using mark-capture models, and the location of fish capture could be used to infer movement. Spawning surveys could also be conducted to document spawning behavior and enumerate the adult population – such surveys might include visual fish counts in shallow habitats, hydroacoustic surveys, or underwater video monitoring. Studying fish movement can provide insight into how fish travel in relation to FCZ locations, and whether they are likely to benefit from these localized protected areas. Egg count surveys to verify and quantify fish spawning might include using egg mats to sample settled eggs or drift nets and screened egg collectors to sample buoyant eggs. Documenting evidence of spawning is important to confirm whether FCZs actually encompass fish breeding areas.

Were any components unrealized? If so, how has this affected the overall impact of the project?

See above section on monitoring. This has had no impact and can still be carried out in phase 3 under small scale projects.

Please describe and submit (electronically if possible) any tools, products, or methodologies that resulted from this project or contributed to the results.

List all documents that will be sent.

Published :

Biodiversity report

Livelihood assessment

Working documents:

Workshop report mar-apr fieldtrip

Workshop report July field trip

Workshop Report July 4th

Ecotourism Development Opportunities on the Mekong between Luang Prabang and Vientiane

Project Proposal: Turtle Nest Protection along the Mekong between Luang Phrabang and

Vientiane

Suggestions for the Expansion of Important Bird Area (IBA) on the Mekong River between

LouangPhabang and Vientiane

FCZ regulations

Management plan LogFrames on Tad Jao and Don Hon

Minutes of meeting with green discovery

Emails from green discovery

Presentations and documents from Scientific Conference of CEPF results at the Faculty of Science NUoL. August 16, 2013:

Agenda

Opening remarks by FoS chair Dr. Somchan

Presentation: Overview of the CEPF project by Souvanny Ounmany (IUCN Lao PDR)

Presentation: Aquatic Invertebrates Survey of the Mekong River in Northern Laos by Dr. Chanda Vongsombath

Presentation: Fish and Fisheries Survey in Upper Mekong River from Louangprabang to Vientiane by Doungkham Singhanouvong (LARReC)

Presentation: Fish Conservation Zones by Sinsamout Ounboundisane (FISHBIO)

Presentations of experiences by research assistants and student interns

CEPF Grant Phase 2, given by Raphael Glemet (IUCN Lao PDR)

Media

Vientiane Times. July 5, 2013 "Three provinces to benefit from Mekong biodiversity project".

Vientiane Times, August 19, 2013 "Conserving biodiversity, sustaining Mekong livelihoods"

BirdLife International in Indochina: The Babbler no.46 (April-June 2013) Project updates pg 36-37

Short Film: Mekong Citizen – Thematic shorts "Fish Biodiversity" shared on mekongcitizen.org

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.

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

The careful review and comparison of sites in the Biodiversity Report and Livelihood assessment made it much easier to identify sites for project proposals in phase 3. All sites chosen after this preliminary synthesis have so far participated above expectations in the preliminary workshops and identified many of the same problems and solutions that the review of the report had suggested. This saved valuable time for planning an ensured participation by invested communities who had resources of conservation interest.

As mentioned before the workshop with central, provincial, and district level officials held at IUCN should have been held at the beginning of the project. Through just one day of meetings issues that had gone unresolved for years turned out to have simple solutions in most cases. The project design was to meet locally with officials first but because of a lack of understanding in the project often times lower level officials attended who were unauthorized to give endorsements of the project. By starting at the top local officials would have been able to collaborate much more easily.

Phase 1 and 2 should have been conducted in parallel. By separating the two phases a lot of information had to be rerecorded, place names were confused, and information sharing was hindered. The livelihood assessment uncovered a lot of biodiversity information through its interviews that would have been very helpful for those surveys. A better design would have been for teams of biologists and livelihood specialists to go into the field and communities together so that they could build off of each others' information.

A shortcoming in the design was not investing more time for meeting with provincial and district level governments. With an ever changing organizational structure it can be hard to realize which agencies should be partnered with under which projects and who within these agencies should be notified for letters of authorizations before conducting work in the area. The logistics of finding the right officials to deal with proved difficult even for the Lao implementation partner tasked with organizing all letters of authorization.

As previously stated, there was an overestimation of the potential biodiversity in the area. Despite being one of the least populated stretches of the Mekong, the biodiversity survey found much higher levels of habitat degradation and much lower levels of biodiversity than expected. This changed the preliminary plan for future projects as many species thought to exist in the area were not found.

The scope of the project was too wide, considering the size of the project area and difficulties gaining authorizations. This considerably delayed the project and led to far too many loose ends which put a strain on the IUCNs resources. In the future a tighter work plan with more simplified goals would have more success being completed.

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

In the beginning of the project on the advice of local officials, participants were paid a very small stipend to attend workshops. This became problematic as this became an expected part of future workshops, but luckily this was changed to providing lunch and money to cover local ceremonies which gave blessings to the project which we deemed as being more in line with the participatory process.

The participatory workshop process allowed the IUCN team to get honest feedback and opinions from all stakeholders. By tailoring projects to these findings the IUCN and other implementing partners can be assured that the community supports the methods and projects being carried out, which is the most important step for their successful implementation.

National consultants should have been provided with more support by international consultants by creating paired survey teams, rather than separate ones. This would have been very costly.

LBA needed more support for biomonitoring. The IUCN had planned to only act as support for this project but it soon became apparent that the role would need to be much more active and include much more capacity building. Resources for this level of involvement were not available at this time.

The inclusion of the Faculty of Science as a partner was instrumental in the success of the project. The partnership with this nationally respected institution opened many doors during all phases of this project and made the process of authorization from government partners much more efficient. The dean of FoS opened the government workshop and Presentation at FoS and this gave these events much more credibility with official and academic attendees. Their connection with national media outlets was also invaluable for the project getting attention in the press.

Other lessons learned relevant to conservation community:

As noted above its important to make sure that villagers understand that stricter regulations do not necessarily mean increased funding for the project. A project can suffer from over enthusiasm and therefore lead to mistrust if outputs don't meet their aim. It is very important to have

communities understand the challenges of project implementation so as to not build false expectations.

Despite compiling a comprehensive report on ecotourism potentials for several villages and locales within the project area local ecotourism operators did not see much in the way of feasibility. The reasons given were firstly that the sites were too far away from main tourism destinations and secondly that the type of tours proposed would be attractive only to more adventurous travelers who usually are not willing to spend the amount of money that would be needed to make these projects sustainable. Emails and minutes from meetings have been included as attachments to this report explaining these viewpoints further.

Additional Funding

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 the CEPF investment in this project.

Donor	Type of Funding*	Amount	Notes
Ministry of Foreign Affairs of Finland through the Mekong Water Dialogue project	A	10 000	The MWD supported the media campaign through the realization of a short movie about the biodiversity survey as well as supporting the printing of copies of the biodiversity survey

***Additional funding should be reported using the following categories:**

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

Sustainability/Replicability

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

Sustainability has been taken into consideration on all proposed projects. The proposed projects with the most apparent sustainability and replicability are the FCZs and ecotourism funded community conservation areas. FCZ management and enforcement groups will be funded through revenue from fines from offenders which will provide further incentive to enforce the laws. As time goes on and the overall fish catch improves this money as well could help support these groups and their tasks. It is hoped that any development of the crab conservation proposals will also sustain funding in this regard.

The two community conservation zones include plans for ecotourism development. By replacing natural resource harvesting related income with ecotourism revenues we hope to not only increase local income but create a sense of that many natural resources retain a higher value when conserved for this purpose.

The turtle nest protection scheme currently has more work to be done in this manner. The current proposal calls for local people to be paid per turtle which hatches but how to keep this financially sustainable for the long term remains questionable. This project was based off of work supported by CEPF in Cambodia. IUCN liaised with the Mekong Turtle Conservation Center and learned about their project design and problems they had had with their project including people dividing eggs to claim more nests were found in order to gain more money but damaging eggs in the process. Part of the sustainability of the Cambodia project is their conservation center which

receives donations from visitors. Unfortunately our project is located in an area rarely visited by tourists and talks with local ecotourism operators said that a turtle center was unlikely to draw people to the area. That being said road infrastructure in the area is rapidly improving and with time these communities could see more tourists.

All project proposals produced by the IUCN used existing projects as framework. The success of these previous projects assures us that both sustainability and replicability are possible if local issues and limitations are addressed in the project implementation.

Summarize any unplanned sustainability or replicability achieved.

Not Relevant

Safeguard Policy Assessment

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

During the development of the full proposal, no ethnic minorities were identified to occur in the study area and since the project does not involve involuntary resettlement of communities, nor removal/alteration of physical cultural resources, the preparation of a Social Assessment was not required. During project implementation, in the surveys for phase 1 and mainly phase 2 the presence of ethnic minorities within the study area was revealed. IUCN informed the CEPF and designed surveys and studies in order to collect more information on ethnic minorities in the study area.

The methodology of the livelihood and resource management survey was designed in a manner to be sensitive to gender and ethnic minorities (official GoL wording is “ethnic groups”). This means that we gathered quantitative data on how many villages are populated by ethnic groups and what the proportion of ethnic groups is in mixed villages. Further we compiled qualitative data on the differences of natural resource use patterns of major and minor ethnic groups and how these are or might be impacted by current and future resource management initiatives through follow-up projects or other drivers impacting resource management in the region, such as resettlement.

Results indicated that the major ethnic group residing in the area is Lao Loum with a total population of 56,370 people, followed by Khmu with 8,509 and Hmong with 194 people. Resource use patterns of other ethnic groups (43 people), such as Chinese and Vietnamese were not studied, since these groups are better-off and not involved in resource management. Thus they do not fall under the definition of a CEPF ethnic minority which is mostly poor or at least prone to many livelihoods risks as well as being heavily resource dependent.

In 8 out of the 92 villages the majority of the population is Khmu, in 23 villages a considerable Khmu population is present. Hmong were found to reside in 2 mixed ethnicity villages. The vast majority of ethnic minorities migrated to the study area due to forced settlement led by the state, while others came voluntarily mainly due to access of infrastructure and natural resources.

Traditionally Khmu and Hmong are more involved in upland farming and hunting than in fishing and other lowland/ Mekong River related NTFP gathering, such as harvesting of aquatic species. However during the survey this difference regarding resource use could not be confirmed. All

ethnic groups are involved in the harvesting and trading of almost all natural resources. This calls for community-centered approaches regarding future management initiatives. Future project teams need to ensure that in mixed villages, Khmu and Hmong populations have the same access to alternative livelihoods as Lao Loum residents. This is a challenging task since informal exclusion mechanisms from project opportunities usually exist and are not easy to identify.

A clear distinction could be drawn regarding the access to land. Most leaders of ethnic groups complained that the land they had been promised by the GoL for use after resettlement was not there or that they had been only entitled to use land not very suitable for their agricultural purposes. Area centred management approaches in the future need to ensure that ethnic groups will not be further disadvantaged by future land management projects aiming at biodiversity conservation.

All information is available in the report "Livelihoods and Resource Management Survey on the Mekong between Louangphabang and Vientiane City, Lao PDR".

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.

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*****If your grant has an end date other than JUNE 30, please complete the tables on the following pages*****

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 May 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.	no			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?	yes	160		Preliminary community agreements have been given by 8 villages for 4 FCZs. Official endorsement has not yet been received but is expected to pass without problem. Enforcement strategies have been drafted along with regulations. Other implementation partners are currently leading this effort.
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 indicate how many hectares.	yes	160		The project study area is located entirely within the Luangprabang to Vientiane Mekong River stretch, a key biodiversity area as defined by the CEPF ecosystem profile. 160 hectares has been designated as FCZs awaiting final endorsement. Beyond this preliminary management LogFrames for 2 other sites have been drafted, and awareness and management practices which will strengthen both biodiversity conservation and natural resources management
4. Did your project effectively introduce or strengthen biodiversity conservation in management practices outside protected areas? If so, please indicate how many hectares.	yes	160		Preliminary agreements with 8 communities for 4 FCZs have been gained and are awaiting endorsement of the District governors' offices, which is expected.
5. If your project promotes the sustainable use of natural resources, how many local communities accrued tangible socioeconomic benefits? Please complete Table 1 below.				This project has been designed as a 5 year project. While tangible socioeconomic benefits have not yet been realized it is the goal of this project to have this take place by 2015.

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

