CEPF SMALL GRANT FINAL PROJECT COMPLETION REPORT

Organization Legal Name:	World Wide Fund for Nature (WWF)
Project Title:	Identification of Wild Water Buffalo presence in Mondulkiri Protected Forest, eastern Cambodia
Date of Report:	31 January 2013
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CEPF Region: Indochina; Indo-Burma Biodiversity Hotspot

Strategic Direction: Strategic Direction 1, Safeguard priority globally threatened species in Indochina by mitigating major threats.

Investment Priority 1.1: Identify and secure core populations of 67 globally threatened species from overexploitation and illegal trade

Grant Amount: US$19,421

Project Dates: 22 March 2011 – 31 December 2012

Implementation Partners for this Project (please explain the level of involvement for each partner):
The Forest Administration (FA) of the Ministry of Agriculture, Forest and Fisheries, are responsible for the management of Mondulkiri Proected forest (MPF) where the research took place. The lead researcher for this work is a staff member of FA working with WWF.

Conservation Impacts

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

This project has helped raise the ecosystem profile by providing a better understanding of the distribution of wild water buffalo (*Bubalus arnee*) – WWB - in the Eastern Plains of Cambodia – the last remaining stronghold for this species in Cambodia and one of only three places where they persist in SE Asia.

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

The original objectives of the project were fourfold and results for each are detailed below:

1. Produce photographic evidence of extant wild water buffalo in MPF.

Camera trap images of WWB were available from the period 2004-2007 in MPF. These gave a first indication of where WWB were most likely to be found. Across the 2011 wet and dry seasons, fifty camera traps were deployed covering these areas as well as salt licks and water holes. After 1,831 trapping nights, no images of WWB were captured (though there were significant technical problems with 18 of the camera which made their images unusable).
In the 2012 wet and dry seasons, thirty camera traps were distributed randomly (but within areas considered to have a high probability of having WWB from previous records and from the village interviews (see below)). After 1,235 camera trap nights, there were no images of WWB. However, it should be noted that 10 of the 30 camera traps were stolen or destroyed, presumably by hunters concerned that their images would be used as evidence against them.

Across the two years, photographic evidence of 36 different species was recorded and so the absence of images of WWB is indicative of very low numbers.

2. Understand distribution and movements of wild water buffalo in MPF relative to the distribution of domestic buffalo adjacent to the protected area in order to mitigate threats from genetic swamping and disease transmission.

To complement the camera trapping activities, data was also taken from the enforcement reports (MIST) completed by the rangers working in MPF and interviews were held with community members who take their own domestic buffalo and cattle into the forest for grazing.

The MIST data showed that WWB were recorded in MPF between 2005-2009 with most sightings in the east of the protected forest. It is clear that, at one time, numbers of WWB were greater; in 2007, rangers reported 47 separate encounters and saw a total of 126 WWB. There have been no ranger sightings of WWB in MPF since 2010.

Interviews were also held with 64 community members (from 12 villages spread across two districts – Koh Nyek and Pichreada). These all regularly visited the forest with their buffalo and cattle. These villagers tend to restrict the range of their animals grazing, often to within 8km of their village for security (they reported that domestic buffalo will be stolen and/or killed by hunters looking for meat). Of the 64 interviewed, 43 said that they had seen WWB in MPF. This was both through direct observation or by seeing the tracks (WWB tracks are larger than domestic buffalo tracks). The regularity of seeing the WWB was declining markedly – in 2006 and 2007 there were 10-20 sightings; however in 2009, 2010 and 2011 there was a total of only 1,3 and 1 sighting by the community members. The interviewees, based on their long experience in the forest, estimated that the remaining population of WWB in MPF may be as low as 25-40 individuals.

Community members confirmed that domestic buffalos tend to be restricted to the western parts of the protected forest and that none had been reported to have gone feral. The likelihood of inter-mixing of domestic and wild buffalo, which are reported from the east (Annex 1) is therefore presumed to be low.

3. Raise awareness of the conservation significance of MPF for wild water buffalo in the wider conservation community.

During the community interviews the opportunity was taken to have discussions with the wider community about the importance and conservation status of the WWB in MPF.

4. Investigate genetic variation within wild water buffalo population in MPF and quantify gene introgression from domestic buffalo adjacent to the protected area. (Dependent on outcome of initial survey and intensive sample collection in second survey).

This element was not taken forward due to the absence of good data on WWB presence / absence in MPF.

Please provide the following information where relevant:

Hectares Protected: N/A
Species Conserved: indirectly, wild water buffalo (*Bubalus arnee*)
Corridors Created: N/A

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

This project has shown that, if WWB still survive in MPF, then they do so in very low numbers and, most probably, in the eastern parts of MPF.

The key challenge met by the team was the unexpected technical problems with the camera traps. The research team used Reconyx traps which have a good reputation for reliability and sturdiness but, in 2011, 18 of them showed poor image quality (so could not be used). In addition many were stolen in 2012.

Were there any unexpected impacts (positive or negative)?
Thanks mainly to the poor image quality and therefore the need to repeat the camera trapping exercise, a 4-month extension was requested (and granted) by CEPF/Birdlife for this project.

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)
This was probably an over-ambitious project. It was suspected that the population of WWB in MPF could be as low as 50 individuals spread across and area of 3,400km^2. Surveying such a small population across such a large area, with a small research team and limited number of camera traps meant that recording WWB was never going to be a certainty. In future, to be more certain of recording WWB individuals a more intensive camera trapping exercise could be undertaken – but with significantly increased costs and potential for having more cameras stolen or destroyed.

Project Implementation: (aspects of the project execution that contributed to its success/shortcomings)
The project benefited from good collaboration from the MPF authorities and ranger teams. Good relationships already existed with the communities surrounding MPF ad this was a great help in making the interview processes successful.

Other lessons learned relevant to conservation community:
Although the results are inconclusive, the project results benefitted from sourcing information from more than one source (camera traps, key informant interviews and MIST data sets).

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
WWF-Switzerland	Co-financing	US$ 22,000	
WWF-Sweden	Co-financing	US$ 25,514	

***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.
This project could be replicated as required but, as noted above, to achieve greater success this might require a greater input of both resources as well as staff numbers and time.

Summarize any unplanned sustainability or replicability achieved.
None

Safeguard Policy Assessment

Provide a summary of the implementation of any required action toward the environmental and social safeguard policies within the project.
No environmental and social safeguard activities were necessary under this project; the survey did not adversely affect the environment or indigenous peoples.

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, 2011 to June 30, 2012. (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?	No			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 indicate how many hectares.	No			
4. Did your project effectively introduce or strengthen biodiversity conservation in management practices outside protected areas? If so, please indicate how many hectares.	No			
5. If your project promotes the sustainable use of natural resources, how many local communities accrued tangible socioeconomic benefits? Please complete Table 1below.	No			

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 due to:											
	Small Landowners	Subsistence economy	Indigenous/ethnic peoples	Pastoralists/nomadic peoples	Recent migrants	Urban communities	Communities falling below the poverty rate	Other	Adoption of sustainable natural resource management practices	Ecotourism revenues	Park management activities	Payment for environmental services	Increased food security due to the adoption of sustainable fishing, h…	More secure access to water resources	Improved tenure in land or other natural resources due to titling, reduction of…	Reduced risk of natural disasters (fires, landslides, flooding, etc)	More secure source of energy	Increased access to public services, such as education, health, or credit	Improved use of traditional knowledge for environmental manag…	More participatory decision making due to strengthened civil society…	Other

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

Additional Comments/Recommendations

None

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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Annex 1 – Historical records of WWB in Mondulkiri Protected Forest