



Livestock Management Protocol
for Co-owned Cattle Herd in Western Siem Pang

Assessment Report

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Introduction

Cow bank or co-cow herd management is a part of sustainable vulture restaurant mechanism that can contribute to the medium term and long-term vulture conservation in Cambodia. The project was started since October 2013 under the small grant funding from CEPF implemented by Pannasatra University Cambodia and handed over this process to BirdLife International, Western Siem Pang team to take responsible on this where the cow herd contract agreement with co-cow herd keepers end in December 2016. This was a pilot project to test a new mechanism whether co-cow herd management tool by providing local community (selected families) the herd, techniques and some tools to keep the cow herd and produce offspring for 50%-50% sharing scheme. Livestock management protocol has been produced as a guidance document for responsible staff to coordinate and oversee this process.

The project loaned between four cows and one bull to each selected community member. The project had provided technical training on basic captive management and how to keep breeding records, vaccinations against Foot and Mouth (FMD) and Hemorrhagic Septicemia, and parasite treatment. The Project was also covered any additional veterinary treatment of the herd, at its discretion. The Project managed a captive management database for these herds. This was used to help guide breeding efforts to ensure reproductive potential is maximized, for the benefit of both parties. This report is intended to evaluate this management progress and draw conclusion where the scheme was highly success or there's issues need to be solved to meet overall expectation.

a. Goals

- To establish a sustainable source of cattle for 'Vulture Restaurants' that has broad livelihood benefits to members of Western Siem Pang's local community, thereby strengthening their role and commitment to biodiversity conservation in Western Siem Pang

Methods

a. Roles and responsibilities

- Field Monitoring Team assisted in finding cows for sale in the local area.
- Field Monitoring Team assisted in monitoring the management of the co-owned cattle herd
- Community Outreach Officer (CO) was responsible for selecting beneficiaries of the project and for seeking broad community approval of beneficiaries
- CO was responsible for final selection of cows and bulls for the herd, vaccinations, ear tagging and training of herd owners. CO will be responsible for regular and frequent monitoring of herd owner performance and training needs, and for management of the breeding/herd database.
- Beneficiaries will be responsible for building their fenced cow paddocks, with oversight from CO and financial support from Project

b. The selection of beneficiaries or herd caretakers

- Must be a member of the local community and interested in the project target area
- Must not currently own cows Must strongly express their interest involve with project and take care the herd.
- Must have enough land to build a fenced paddock
- Must agree to manage and maintain cow herd for a minimum of three years
- Must have enough labour to properly manage cow herd
- Selection must be supported by the rest of the Local Conservation Groups (LCGs) and other local stakeholders
- MUST have some experience in keeping or breeding domestic livestock

c. Number of cows

- A total of 15 cattle were bought and handled to three selected family based on project protocol. One community member was selected from Pha Bang Village (Mr. Mann Boukeo), Pong Kreal Village (Mr. Mork Thouk) and Khe Krom Village (Mr. Sok Dina), and each of these community members received 5 cows (four females and one male)
- Selected cow recipient farmer base on existing criteria
- Bought cow from local farmers base on cow selecting criteria handle to selected famers
- The offspring after contracted ended shared with the project 50/50 and give them to other farmers.
- Old, weak and serious sick cow was withdraw and place for vultures, the project will buy young and strong to replace that if the herd is still too small.

Results and discussion

There years co-cow herds contract period the result shown that there are only six cows increased since the project started until contract end in December 2016. It's high mortality rate on the newborn calves and pregnancy period. The data up to December 2017, revealed that those three herds produced 17 calves with 7 died with approximately mortality rate of 41%. There were at least 5 adults (died during contracting period) equivalent to 25% of mortality rate (table 1 and table 2). By adding together, total cow deaths (adults and calves) are 11 individuals. Thus, there are only six cows increased this project performance period.

Table 1: Co-cow herd keeping result for each thee selected family

Deposited/Parents					Total offspring	Total died	Gross total	Comment	
F	M	Calf (M)	Calf (F)	Total					
4	1	0	0	5	5	5	5	Two female are pregnancy	
3	1	0	1	5	6	3	8		
4	0	1	0	6	6	3	9		
Total					15	17	11	21	

Table 2: Mortality rate

Started (Dec2013)	Operation (2016)		Mortality		Remain	
Total parent	16	Total parent died	5	Parent mortality rate	25%	12
Total calf	17	Total calf died	7	Calf mortality rate	41%	10

There's so many factors that limit the success rate of this cow bank process including, extremely drought with longer dry season in 2015 have led to the loss of some offspring and adult due food and water shortage and over heat, limit knowledge and technique on animal keeping and staff skill was also one the reasons. Bellow is some reasons responded by co-cow herd keepers.

- Lake of food and water in the pick dry season (March to May)
- Poor vaccination service; the vaccination somehow could not supply for the whole project period. The farmers themselves were also careless while busy with some other family businesses.
- Low techniques: otherwise, they were still keeping their herd by traditional way with very little or non-improvement.
- Calves raising skill and knowledge: farmers responded that the mortality rate mostly happened during pregnancy period while mother prepared to delivery babies and after delivery. They haven't got skill to help animals giving birth, event how to raise newborn babies when mothers were unable to produce milks for the calves.
- Seasonal diseases: livestock was still harmful from catching any seasonal diseases that let animal to weaken down and died rapidly. The diseases were happened at the same time with season drought.

- Paddock Construction wasn't mean for proper cow keeping tool. The famers failed to keep their livestock in the enclosure. They were most depended on traditional livestock management tool by allowing them to do free ranging in the forest with less take care.

Recommendation

We learn a lot from this initiative idea and these will give us more solid mechanism to improve this activity for better success that will contribute more greatly on vulture conservation in the medium term and long-term period. Bellow is some recommendation for improving this practices.

- Need at least one vet expert to regularly check up, provide treatment recommendation, vaccination and other alternative drugs.
- Provide specific training on cattle keeping skill to target farmers
- Maintain year round water sources for cattle herd (dry season)
- Closely facilitate and advise farmers to stick to their role and responsibility to make sure the protocol is well adapted and deliverable.
- Farmers have very limited knowledge and resources to healthy survey their livestock during dry season. The project shall be aware about the risks and give them more support and resources.
- Integrate traditional and modern animal raising techniques to increase the surviving rates.
- The highest mortality rate were occurred during pregnancy period. The farmer shall receive training on how to assist their livestock to have safe calves delivery. And report to responsible project staff to provide support if needed.