

REPORT

Priority Investments for Ecotourism Development in Cambodian Protected Areas



Submitted to:

The World Bank

**To Support the Preparation of
Sustainable Landscape and Ecotourism Project in Cardamom
Mountains and Tonle Sap Landscape**

Dr. Neth Baromey

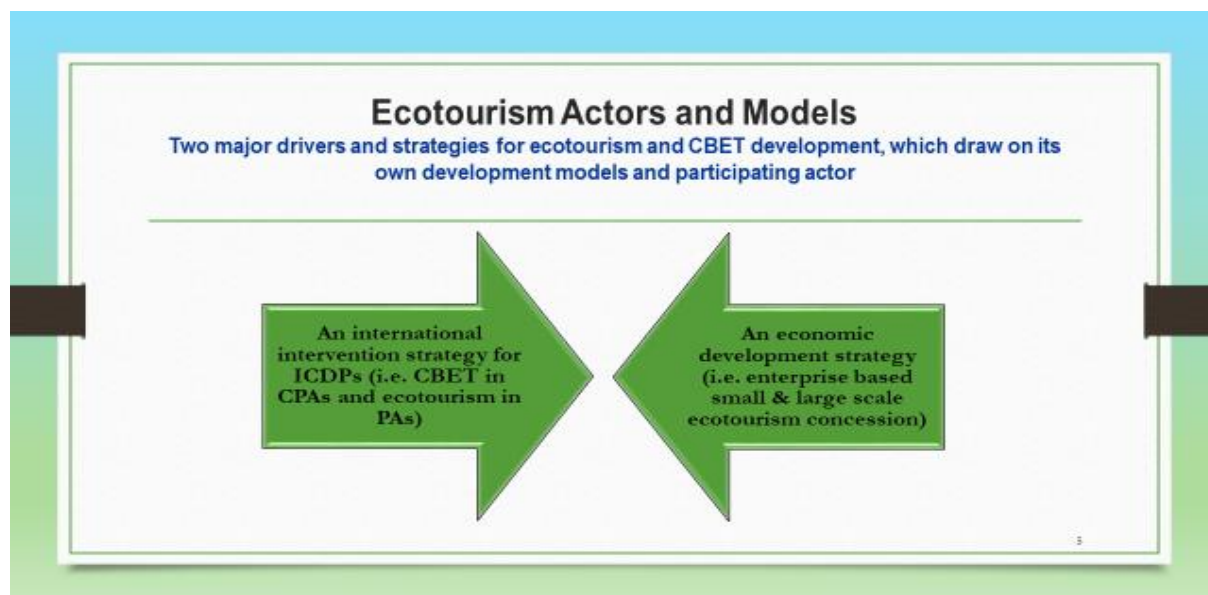
May 2019

1. Investment Needs for Ecotourism Development

1.1. Revisit of Ecotourism Landscape in Cambodia

The emergence of ecotourism in Cambodia was as early as in other developing countries around the world – mid 1990s – especially via community based natural resource management (CBNRM) programs. The earliest ecotourism projects in Cambodia, Yak Loam CBET in Ratanakiri province was founded since 1996 and the second, Chambok CBET in Kampong Speu was founded in 2000 (Rith, et al, 2009). In 2007, there were around 36 CBET and ecotourism projects in Cambodia (Men, 2007). The number triples up in the last decade; currently, there are up to 146 ecotourism and CBET project implementing in the country (MoE, 2019). Motivations behind the country's move to develop ecotourism/CBET include: 1) its commitment to Biological Diversity Convention (BDC, 1992), thus reenactment of PA system and environmental management frameworks; 2) its commitment to implement SD policies, especially democratization and resource decentralization (after the election in 1993); 3) its needs to develop national economy and install self-financing mechanism for conservation, while alleviating poverty among nearly 80% of grassroots communities, particularly those residing in and/or adjacent to PAs. Accordingly, two distinctive development models were observed: 1) an international invention strategy using integrated conservation and development program (ICDP) and co-management approach for local communities; and 2) an economic development strategy using enterprise-based large and small scale ecotourism concession for private sector.

Figure 1.1: Ecotourism Development Models in Cambodia



The two development models have included the three imperatives – environmental, social, and economic – of ecotourism in their goals and purposes, but with different emphasis on specific imperative. For instance, the

first model emphasizes the environmental aspect, while the second emphasizes the economic ones (see Table 1.1).

Table 1.1: Goals and Purposes of Ecotourism Development

Dimension of Goals and Purposes	Ecotourism as International Intervention Strategies	Ecotourism as Economic Development Strategies
Environmental	<ul style="list-style-type: none"> • Conserve pristine/ distinct NR, environment & ecosystems in PAs from illegal exploitation • Self-financing conservation via externalization of management cost • Incentivize local communities to participate in conservation 	<ul style="list-style-type: none"> • Conserve pristine/ distinct NR, environment & ecosystems in PAs from illegal exploitation • Self-financing conservation via externalization of management cost.
Social	<ul style="list-style-type: none"> • Decentralize NRM to communities • Apply community-based development (CBD) project to implement democratization 	<ul style="list-style-type: none"> • Decentralize NRM to private sector • Encourage participatory environmental governance • Socio-cultural revitalization & development
Economic	<ul style="list-style-type: none"> • Stimulate national & local economy • Provide additional/ alternative livelihood options for communities living in or adjacent to PA 	<ul style="list-style-type: none"> • Increase national revenue & foreign exchange via ecotourism development • Stimulation of local economy via employment opportunities

Literature concerning performances of private ecotourism resorts or enterprises is limited yet. There is a recent assessment conducted by the MoT, "Model Tourism Resort Award," offering 26 medals to both ecotourism and non-ecotourism resorts in Cambodia based on three broad criteria that have not entirely included ecotourism pillars / principles yet: 1) best resort management, 2) good environmental consideration, and 3) extensive information dissemination, well safety performance, and high tourist satisfaction (MoT, 2018).

Best practices concerning CBET projects is well-known nationally and recognized by some international accreditation organizations; they include: 1) Engage communities and stakeholders in conservation and endogenous development that contribute to enhance enabling frameworks, resources, capacities, community solidarity, and collective actions for both endeavors; 2) Promote partnership building and increase opportunities for income generation, livelihoods diversification which contribute to self-reliance, self-efficiency, improved welfare and local living standards; 3) Promote environmental awareness, education and conservation among communities, stakeholders and visitors that lead to changes of attitudes, more self-regulated activities and less destructive practice concerning the environment 4) Increase capacity and leadership for development and management of decentralized

institutions at either commune level and community-based organization (CBOs).

Despite, challenges concerning ecotourism practices are also abundant. Firstly, PA system is conducive to large-scale development or spontaneous and impulsive actions (e.g. large-scale infrastructures and facilities) due mainly to shortage of legal frameworks (esp. PA management plan). Second, the problems of overuse (not using ecotourism potentials appropriately) and confusion between ecotourism and nature-based mass tourism (esp. in large scale ecotourism site) due mainly to limited mechanisms to regulate use (e.g. contracts on design, product offer, energy consumption, etc.). Third, limited human capital and financial resources allocated to manage PA ecotourism appropriately. Fourth, limited coordination among different influential stakeholders / actors in ecotourism context. Fifth, donor and civil society driven initiatives (esp. CBET projects) lead to adequate support and partial involvement from relevant government agencies / stakeholders. Sixth, sudden increase in demand for diversifying ecotourism experiences and corresponding proliferation of ecotourism and CBET sites with limited quality of services and under qualified products. Seventh, quality of basic infrastructure required by visitors are minimal and often below acceptance to even down-to-earth ecotourists

To overcome challenges and enhance best practices as well as the overall performance of ecotourism in Cambodia in order to achieve the stated goals and purposes, the following development and management models were taken into consideration: 1) CBET Enterprise Model; 2) Partnership between CBET community and private enterprise; 3) Private ecotourism enterprise; 4) Partnership between CBET community and PA Management; 5) Partnership between private enterprise and PA management. Readers may find each of the suggested model's advantages and disadvantages in the previous report concerning "Ecotourism Development and Management Models" (Neth, 2019a).

1.2. Needs for Enabling Environment and Mechanisms

Suggested development and management models for ecotourism above help to minimize risks and challenges each stakeholder confronts in developing and managing sustainable ecotourism. Additionally, in order to enable implementation of these models for the stated purposes and minimize risks and challenges as much as possible, the following strategies/mechanisms were recommended to be considered thoroughly:

- Develop the guideline and M&E toolkits for the development and management of CBET sites in PAs or CBET sites (gateway community) using PA resources for their ecotourism operations;
- Encourage and facilitate the registration of CPA and CBET (as a sub-management of CPA or a sole management by itself) to operate CBET services within PAs;

- Formulate a contractual agreement between CPA/CBET community and PA management for CBET operation, resource decision-making and planning, benefit sharing based on equity considerations, and co-management;
- Develop standardization and accreditation or certification mechanisms for CBET operation in and around PAs (using PA resources as core attractions);
- Provide capacity building programs and acceptable hard ecotourism infrastructure to CPA/CBET community;
- Conduct regular trainings and M&E of CBET operation by PA authority;
- Encourage joint marketing and promotion, product development and diversification as well as joint trainings with other responsible bodies (i.e. MoT and MAFF);
- Encourage and facilitate active support and involvement from local government, especially village and commune authorities in the areas.
- Develop PA ecotourism destination or hub management office / body to improve the cooperation and coordination among all key stakeholders and with travel and tourism companies;
- Develop management frameworks in the forms of guideline, M&E mechanisms and associated supports (i.e. task force, supporting infrastructure, financing strategy, M&E toolkits, etc.) for the development, management and operation of ecotourism enterprises / services in PAs;
- Ensure regular communication and consultation with concerned private ecotourism enterprises on and enforcement of relevant legal, policy, and regulatory frameworks and advices of the MoE and PA management (and other responsible bodies, i.e. MoT and MAFF) by ecotourism concessionaires operating in PAs and by external travel and tourism companies;
- Facilitate regular information exchange between private enterprises, PA authority of MoE and other key stakeholders (including local communities and authorities and other responsible ministries / authorities) in order to help the private ecotourism industry develop more sustainable ecotourism operations and products in PAs;
- Introduce sustainable PA management awareness creation measures to ecotourism concessionaires and other travel and tourism industries as well as encourage and incentivize them to adopt sustainable procedures (including also 3Rs practice – reuse, reduce and recycle – in waste management, energy efficiency, and water resource management) for their businesses in PAs;
- Promote sustainability standardization, certification and accreditation schemes that encourage responsible and sustainable entrepreneurship among concerned enterprises;
- Raise and acknowledge the profile of socially and environmentally responsible investment issues within ecotourism concessionaires and other concerned tourism industry players;
- Provide information on and regulate development of uses of proper and responsible ecotourism infrastructure (including also sewage treatment

plants), facilities, and products (attractions, services, amenities, and activities) in PAs; and

- Facilitate multi-stakeholder engagement from other responsible agencies in joint marketing and promotion, in joint product development, and in joint planning processes.

2. Priority Investments for Ecotourism Development

The two previous sections of ecotourism expert's assignment in the Sustainable Landscape and Ecotourism Project in the Cardamom Mountains and Tonle Sap Landscape provided two major results that support the final prioritization of the investment to support ecotourism development in PAs. Review of ecotourism landscape in Cambodia enables the options concerning ecotourism models and implementing mechanisms to be supported, while participatory screening exercises (using GIS-MDCA and AHP) for ecotourism sites enable selection of the most suitable sites as sample for consideration of necessary investment supports and conduction of field assessment.

Following major participatory field assessment by ecotourism expert and officers from relevant ministries, priority investments have been identified and characterized into two categories and three levels of priority as in the following sections.

2.1. Priority Investments on Hard Infrastructures

2.1.1. Urgently Needed Hard Infrastructures

The urgently needed hard infrastructures are those that deem most important facilities that enable tourist visit and gain positive experience in the PA with minimal or no risk to themselves and natural environment, that contribute to manage unwanted negative impacts while maximize the positive ones. Without these infrastructures intended ecotourism activities and / or monitoring may not happen. Primarily, management of negative impacts, enhancement of positive ecotourism activities and experiences, as well as promotion of positive economic contribution, while minimizing risks in PA context can be enabled and at the same time regulated through the following urgently needed infrastructures: 1) suitable access roads in the forms of BTSD road and / or concrete road and boat dock; 2) visitor or information centers, 3) interpretive paths, signage and circuits; 4) pay-toll facilities at the entrance; 6) solid waste management facilities; 7) clean water supply facilities; and 8) nature-based lodging and toilet facilities.

- **Access roads and Boat Docks**

As in the case of most rural and remote areas in Cambodia, where PAs and CPAs normally located, the access routes from the main road or highways consist mostly of red soil roads/paths, which are often accessible in dry season. During this season, local roads are usually accessible by all types of vehicle

including car, van, 4-WD pick-up but they are not in very good condition due to damage caused by flood (i.e. during rainy season) and heavy transportation (i.e. of agricultural produces, charcoal or timber). This situation is intensified in the case of CPA operated and managed by the local community. Lanes or tracks to tourist attractions are mostly small soil path suitable only for hiking or mountain biking or motor biking. Both of these roads/paths become rather challenging and dangerous during the raining season, which is normally the most attractive time when natural resources are at their prime conditions (e.g. waterfalls, forest, etc.). Often, in this season these roads/paths are accessible only for heavy duty 4-WD pick up that may be driven off-road. However, such practice is considerably harmful to the natural environment as it frequently accelerates erosion and tramples on unwary flora and fauna. Conditions of roads/paths are worsened when the PAs or CPAs situated next to the watercourse (e.g. Tatai Krom, Peam Krasob, Chong Kneas, etc.) since they do not always have proper reliable docks for tourists to embark on boat. To minimize the extend of risk to both visitors and the natural resources, BTSD roads or at least proper concrete pave road should be constructed connecting the main road or highway to the main ecotourism entrance or in some cases are pay-toll. The dock's design should also be practical not luxurious but sturdy; it should be situated in the least disturbing location to the natural watercourse and marine ecosystem.

- **Pay-toll facilities at the entrance**

The main goal of PAs is the conservation of biodiversity, even though some expenses derived from public use also exist, such as the construction and maintenance of infrastructure: paths, sanitation, lodging, etc, which are added to the needs in monitoring, research, and wildlife management. Most economists working in the field of ecotourism or nature conservation-tourism advocate a pay per user system to cover the management and protection costs of natural areas. Such funds may be obtained through fees for park use or annual permits, which may be collected directly at the pay-toll at the main entrance to a PA or CPA. In some cases, they are not feasible, especially in large natural areas with few visits, since the management itself of the charging system may cost more than the income obtained. However, in a CPA or PA with more popularity this pay-toll is ideal for not only collecting fee, but also for monitoring incoming and out-going trip arrangement to ensure that unwanted facilities are not imported into the natural area and prohibited materials are not exported out of the PA or CPA. It should be kept in mind that this pay-toll is one of the monitoring mechanisms as well as a fee collecting facilities, thus its design should be very serviceably; it should not be too sturdy that its construction may negatively impact the natural area, nor should it be too shabby that visitors and outside tour operators may overlook or not seriously pay attention to its function.

- **Ecotourism information / visitor centers**

It is widely recognized that certain degree of prior education / information provided to tourists proves essential in order to produce the minimum impact possible upon the natural and cultural environments, and to guarantee the visitors the enjoyment of the planned activities. This strongly necessitates the construction of a Visitor Center at every ecotourism site. Visitor or information centers are buildings with different interpretive techniques, dedicated to motivating the visitors of a PA and encourage them to participate in the conservation as well as to enjoy the planned activities. Their thesis is usually to retain the visitors in the periphery of the PA, and make them feel they are in it, as well as to communicate some basic ideas. They normally act as the visitors' first contact with the PA, so the first thing to achieve is that the Center becomes a compulsory gateway next to pay-toll, with its entrance clearly visible and well-marked. The goal of center is not instruction but motivation. Motivating a visitor does not require large buildings nor costly audiovisual material. From this point of view, a Visitor Center cannot compete with the PA in attention or playing the main part. It is enough for it to have an adequate design and a clear idea to transmit, and to use the most impacting techniques to reach the visitors. The relevant information should be furnished by the tourism operator or local communities, since it has to be marked out for each destination.

The major goals of Visitor Center include: 1) to offer educational materials about the sites and human groups contemplated in the ecotourism activity, aside from emphasizing the importance of contributing to the conservation of the places to be visited; 2) to inform about the range of natural and cultural phenomena to be observed; 3) to inform, ahead of time, about the possible negative effects that their visit may cause to fragile sites, in order to minimize negative impacts during the trip. Therefore, by visiting Visitor Center prior to conducting actual trip in the PA, visitors will have the chance to learn about the range of existing opportunities in observing wildlife and learning about local communities. They will become aware of the personal responsibility in reducing the impacts upon the environment and the local cultures before they visit them. They will bring the clothing and utensils adequate or in tune with the ecosystems and cultures they visit. They will be ready to live the experience. Example of information to be provided in the Visitor Center may include:

- The general ethical attitudes of the trip in order to influence tourist behavior within the natural areas and with the local communities;
- Information about the most adequate equipment, clothing and personal items for the places to be visited, including the use of repellents;
- Warning about the inconvenience of carrying disposable materials that can contribute to aggravate the problem of waste overload in the region.
- Suggestion about their responsibility to take all disposable materials back out of the natural areas and dispose properly in the provided facilities;
- Warning about the purchasing of products with forbidden or illegal handling.

- Information about accidental carriage of foreign or exotic species into the ecosystems visited and how visitors may avoid that;
- **Interpretive paths, maps, circuits and signage**

Indicative maps, interpretive paths and circuits are a way of introducing a layout and significance of PA to visitors. They are very important in order to facilitate movement within the area while protecting natural resources and providing the ecotourist with an educational and exciting experience. They are tracks open to pedestrian use by visitors. They are ideal for both situation – for visitor with the company of a guide and for self-guided visit. Their installations should be minimal (including signposting). They allow visitors to have a perception of well- preserved Nature. They detain visitors from perceiving the existence of degraded areas, or of areas under too visible management actions.

The advantages of having these infrastructures include: 1) providing visitor freedom; 2) enable them to have very close up enjoyment of the area (being able to walk on, smell, see, and feel the PA); 3) facilitating an intense personal experience, with a sense of solitude, and requiring a certain physical effort. However, these infrastructures have to be constructed carefully as they are: 1) prone to risk of erosion; 2) difficult to control; 3) dependence on topography (e.g. the visitors might walk off the paths and affect other sectors of the natural area).

The goal of interpretive paths is that the tourist gets to know the site with the help of a guide, or, if they are self-guided, that they receive an explanation of the way through pamphlets and signs. In order to avoid foreseeable challenges and gain the most satisfaction possible from PA visitors, the following points should be taken into consideration when designing these infrastructures:

- What do we want to tell the visitor?
 - We must collect information about the area, endangered species, easy to-watch specimens, and security in the area.
 - We should not intend to communicate the whole PA; just developing partial aspects.
 - We need to determine the kind of path to be designed, once we know what resources and kind of terrain are available, and who it is aimed to.
 - The key points of the path will be selected. Between 12 and 30 points must be located for interpretation. It is also necessary to put up a map, on the site or in the brochure that explains the whole route, the name, the points considered, and the duration of the course.
 - The path will be completely defined: give it a name and indicate the most significant features that will be seen, and the general topic.

- How are we going to build the path?
 - The construction method will depend on the type of terrain and the path's intensity of use. For paths used by less than 10.000 visitors per year, and in areas with a smooth slope, concrete may not be necessary.
 - Auxiliary works (boardwalks, bridges, stairways, etc.) must meet the security requirements, and at the same time be as adapted to the environment as possible.
 - Instead of placing explanation placards along the path, it is recommended to just place numbers, which will correspond to those in an indicative pamphlet.
 - Design may include curves in the course, not only straight lines, to make it more fun and adventuresome.
 - We must avoid elements (wastebaskets, benches, tables, etc.) that stand out too much because of their materials, shapes, or colors.

- What are the limitations or conditionings?
 - The path must be previously studied through GIS, thus optimizing the elements to be covered, and designing layouts with minimum slopes.
 - Afterwards, it is proper to retrace the path with Global Positioning System (GPS) all along the course, in order to control the length, as well as the time it will take visitors to complete it.
 - We should bear in mind not to produce a very monotonous and long path that could bore visitors.
 - It is very important that paths are closed to vehicle transit.
 - There should be parking spaces close to the beginning of the course.
 - We must consider that, in average, people are not willing to walk more than an hour.
 - Departing intervals should be defined for different visiting groups, to avoid them meeting along the way.
 - The path should be built keeping the destruction of vegetation to the minimum.
 - We should try to make it circular, so that the ecotourists arrive at the starting point without going through the same place twice.

- **Solid Waste Management**

When operating tourism, even ecotourism, in the natural areas we will be facing a fairly complex problem of solid waste management, due to the scarce available technology and the foreseeable growth of the waste per person. There is a strong need to launch a solid waste management plan. One of the main complaints from the tourists is that of filth in places such as beaches, public facilities, in the attractions and at the lodging areas. We may not let this happen in ecotourism complex since it does not only dissatisfy tourists but also severely harm wildlife roaming in the areas and cause pollution that negatively affect both fauna and flora.

We will base solid waste management upon the 3R principles of reducing their production, reusing whatever we can, and recycling as much as possible.

- Reducing: reduce the amount of material used. Use what is necessary, and try to be more and more efficient to consume less.
- Reuse: Encourage questioning whether the product you are using can be reused, and if not, ask yourself whether others exist that could be.
- Recycle: Use recyclable products as much as you can. Look for recycled goods' buyers in the area. Join forces with other complexes if possible, to negotiate larger volumes.

To do these, we may launch a capacity building program to both local communities, employees of private ecotourism venture and PA officers. In addition, there is a need for installation of adequate waste collection equipment and facilities in essential areas in order to enable the practices effectively. For the case of private ecotourism enterprise, rules and regulations may be imposed on them directly by PA management / authorities with regular monitoring. However, imposing rules and regulations may become a challenge for local communities in CPA setting; support in terms of trash-bins for waste separation, waste collection and transport facilities, incinerators, composing facilities, etc. should be made possible.

- **Clean Water Supply and Water Management**

Local communities residing in and adjacent to the PAs or CPAs mostly rely on rain water and/ or natural water sources (waterfalls, streams, ponds, etc.) for everyday consumption, as well as for ecotourist usage. During the rainy season, water supply is not a problem. Rainwater can be captured from the building roofs with gutters, and driven to collecting tanks or locally produced earthen jars. During the rainy season, making use of this will provide locals a less expensive option; yet they do not pay much attention to mosquito proliferation and bacterial pollution that must be controlled in the tanks or jars that may severely affect their own and visitors' health.

During the dry season, clean water shortage becomes a major challenge for most communities and/ or PA officers in remote areas within or adjacent to a PA or CPA. It is possible to obtain water from natural sources, but the quality of water often becomes unacceptable for drinking or even for kitchen or domestic use. This situation is quite trying for both local communities as well as tourist accommodation operators and restaurant since water is indispensable after a long day of exploration in the natural areas for all cooking preparation etcetera. Consequently, in the context of Cambodian PAs and CPA, construction of basic water infrastructures such as wells, tub/pump wells, water storage tanks with filters, etc. for local communities running ecotourism in a CPA become priorities that should be supported to enable appropriate ecotourism development.

Additionally, encouragement to apply the following measures to reduce water consumption should be taken into consideration for both local communities and private enterprises operating ecotourism venture within the PA:

- Train employees and local communities in possible water saving measures, especially those applicable during cleaning and minimize water use in the kitchen.
 - Inform about how to reduce water consumption in the guest's rooms, and ask for the visitor's cooperation, probably via code of conduct (Dos and Don'ts), and use on-demand sheet and towel washing technique, etc.
 - Conduct regular follow-ups of the water conduction systems, to avoid leaks and losses, and repair faults immediately.
 - Sow native species in the yards or the private lodge's garden, which require as little water as possible.
- **Nature-Based Lodging and Toilet Facilities**

This specifically apply to the context of ecotourism operated by local community in the form of CBET. From the onset, we have to decide whether the lodging should be placed within or outside the boundaries of the CPA. Both possibilities have pros and cons. The main advantage of this infrastructure is the feeling of proximity the visitor gains. The main disadvantage is the distance from the local community, which will thus probably see its source of income diminished. Yet, this initiative is somehow important to diversify tourists' experience concerning mundane accommodation within the village center or to justify the various limitation that the local homestay faces in providing accommodation for ecotourists. It is crucial to avoid sources of unpleasant sounds or smells close to the lodging. It is recommendable to offer several levels of lodging. Visitors will seek the best quality service they can afford with their money. They will not necessarily seek the cheapest option.

In the case of creating lodging within the CPA, a site must be selected where environmental impact will be the minimum possible. An essential factor to be taken into account is observable landscape, which will be determinant for success. If lodgings outside the CPA are chosen, the first choice is to build them in local villages as a form of homestay, or to count on the community to arrange some outbuildings to welcome visitors. This last way is probably the one that has worked best, even though it requires training and financial support for local population to be able to undertake the improvements. Specifically, we need to emphasize sanitary installations (toilets and showers). They must be properly built, guarantee privacy, and always be in an optimum state of cleaning and attention. The choice of toilet with on-site treatment system of fecal sludge would be a plus for rural communities in a CPA without access to appropriate fecal sludge management facilities. Presently, Cambodia is following ASEAN standard for homestay. Thus, these toilet and sanitary facilities should at least adhere to this requirements and certification.

In case nature-based separated lodging is promoted, specific designs should be taken into thorough consideration. Presently, no specific and concise rules exist in Cambodia about the buildings to be set up in a PA or CPA yet, so it will be the promoter's responsibility to create an infrastructure that guarantees the minimum environmental impact. The ideal would be that relevant PA authorities would generate rules and regulations that clearly indicated the parameters within which future ecotourism installations should be designed nearby a PA's core zone or attraction or within a CPA (there is a need for zonation in the CPA management plan). We can discern several models of general design. For example, the community lodging could be looked upon as a small village, with dispersed unitary buildings following the traditional type, where vegetation connects the units, or a lodging that firstly seeks the link between visitor and nature, in a way that basically fosters harmony and solitude such as treehouse or eco-campground. The widely acceptable design rules would be the following (Herrera, J; 2011):

- Be subordinate to the ecosystem and cultural context. Respect the natural and cultural resources of the site and absolutely minimize the impacts of any development.
- When designing buildings, local construction techniques should be used (or, this lacking, finishes with local techniques) and use native cultural images when possible, and provided that their use is respectful with the conservation of natural resources.
- Use architectural shapes that are in harmony with the natural landscape, designed with environmental criteria, and avoiding the superfluous, and excessive comfort or luxury. Make use of landscape architecture; the materials should blend into and be in harmony with the environment.
- It is desirable that the buildings' style is similar to that of the local inhabitants' homes. The buildings should be spread out enough to allow the natural growth of vegetation and the wildlife's movements.
- Altering animal's transit areas should be avoided. Building should take place in the most recondite and hidden places possible. The natural ecosystem should be kept as little perturbed as possible, instead of seeking a very flashy architecture. Competition between the natural environment and the buildings should never be provoked.
- Furniture and equipment should preferably be manufactured with local products, the use of which does not affect the conservation of natural resources. It should be recalled that not all local elements are of sustainable use. Sometimes, artificial materials are more adequate and acceptable.
- It is always preferable - with the exceptions mentioned - that the building and decoration are carried out with local materials and labor force (including local artists and artisans.)
- Local decoration, goods and services should be purchased locally, so that the tourists feel a local flavor.
- Reinforce/exemplify appropriate environmental responsiveness. Educate visitors/users about the resource and appropriate built responses to that environment. Interpret how development works within

natural systems to effect resource protection and human comfort and foster less consumptive lifestyles. Use the resource as the primary experience of the site and as the primary design determinant.

- Enhance appreciation of natural environment and encourage/establish rules of conduct.
- Use the simplest technology appropriate to the functional need, and incorporate passive energy-conserving strategies responsive to the local climate.
- Avoid use of energy intensive, environmentally damaging, waste producing, and/or hazardous materials. Use cradle-to-grave analysis in decision making for materials and construction techniques.
- Strive for "smaller is better" optimizing use and flexibility of spaces so overall building size and the resources necessary for construction and operation are minimized.
- Consider "constructability" striving for minimal environmental disruption, resource consumption, and material waste, and identifying opportunities for reuse/recycling of construction debris.
- Always try to include interpretive elements for visitors in the ecotourism complex, even if they are small and modest, but make them attractive and didactic, such as scale models, diagrams, wildlife and flora photo, craft samples and others. Place discreet tags on the ground to identify trees and shrubs that are close to the lodgings, in order to gradually familiarize the tourists with the species they will find in the interpretive trails.
- We need to emphasize sanitary installations (toilets and showers). They must be properly built, guarantee privacy, and always be in an optimum state of cleaning and attention.
- Under certain circumstances, when it appears interesting to attract certain fauna to the installations for it to be observed by the visitors, the building characteristics will adapt to the needs of the fauna (openings in the buildings, supports for nests, etc.)
- If the restaurant is outdoors, and the health legislation allows it, one possibility is to attract the birds from the surroundings giving them small amounts of food in nearby, specifically arranged places.
- Design should consider the aspects necessary to minimize the entrance of insects, reptiles and rodents, and set up mosquito nets on the beds.

2.1.2. Moderately Needed Hard Infrastructures

The moderately needed hard infrastructures are those that are considered essential facilities that contribute to minimize risk to human and natural environment, that contribute to manage unwanted negative impacts while maximize the positive ones.

- **Construction of Sewage System**

Management of waste water in the natural areas is often overlooked by both private ecotourism enterprise and local community due to width and scope of

the area. Waste water is sometime poured directly into the natural watercourse or the sea. Management of sewage usually implies problems that are difficult to solve. It is recommended that at least small scale sewage system (e.g. French drainage) should be built in order to accommodate waste water discharge from both local households and tourist facilities (i.e. restaurant or campsite) to avoid pollution of surface and underground water. Water is normally poured into a set of several watertight underground containers (commonly three or four). Wastewater undergoes a digestion process, and the water obtained in the last tank can be reused for irrigation, while the organic matter mud from the two first ones can be periodically pumped out and used as crop field fertilizer. Since the digestion process is based upon bacterial activity, the use of cleaning liquids such as bleach, that can eliminate the fauna from the digesters, should be avoided. In certain occasions, the purified water (which will still hold a high content of nutrients) can be flushed through a green filter of vegetation, that can retain this excess of phosphorous and nitrogen.

- **Energy Efficiency Facilities and System**

Energy for lighting and operating of various lodging facilities is fundamental in any tourism destination, including ecotourism sites. Heavy machinery, which normally produces loud noise and large amount of smoke that highly disturb both wildlife and tourist welfare. Artificial lighting is widely used even within deep jungle or forest, which also highly destructive to wildlife sight. In addition, the practice of consuming firewood for cooking in both household and tourist facilities such as restaurant or campsite does not prove very appropriate in the ecotourism context.

It is suggested that artificial lighting of the complex should be strictly limited and controlled, in order to avoid the interruption of the nocturnal light cycles of plants and animals. Light pollution will be avoided through the use of directional lamps. In Cambodia where sunshine is plenty, it is astute to make use of solar energy for heating water with coils placed on the ceiling and keeping the water in tanks that maintain the temperature, for solar cells to convert solar energy into electricity for use in the different activities (basically lighting and small appliances). To avoid provoking of forest fire and reducing dependency on forest for firewood, especially in forest-based campsite facilities, improved cook-stove, biomass or biogas facilities are recommended to be supported to local communities in selected CBET areas.

- **2.1.3. Needed Hard Infrastructures**

The needed hard infrastructures are those that are considered essential facilities that contribute enjoyment of tourists, to minimize risk to human and natural environment, and contribute to manage unsolicited negative impacts. These infrastructures are not the least important, but deem to be not urgently needed for investment in this study due to their availability or existence as a legacy from previous ecotourism / CBET development projects; only a minimal

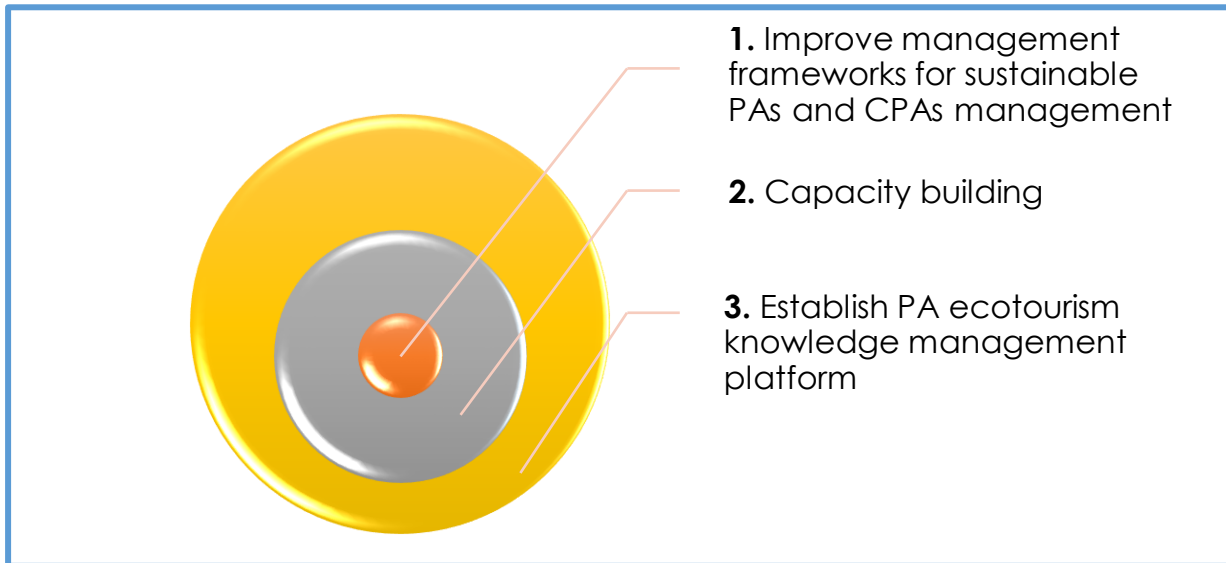
addition is needed presently. These types of infrastructure include mostly amenities for enhancing ecotourism activities and experiences, conservation equipment and infrastructure, and facilities that prevent physical risks to happen to both human and natural areas. Major risk management facilities have been suggested within each specific context of development infrastructure above, the following are additionally considered facilities that have not been included. These facilities are not required by all selected sites, but should be location specific. For example, constructing of appropriate parking facility is needed in Tatai Krom CBET site and Kulen NP, etc. in order to avoid trampling on the local vegetation by visitor vehicle.

It is observable that wildlife observation, landscape viewing, exposure to the natural attractions are some of main activities to be carried out by ecotourists. One of the issues that should be considered include visitors' tendency to see the fauna and flora from close by and touching them and/or feed them. Therefore, we must decide how to approach the problem. The priorities must be to minimize the impacts upon the fauna and flora, as well as maintaining people's safety. Ecotourism operators use the natural environment as much as it is convenient for the visitors' enjoyment, thus for instance, revegetated areas should be created in the vicinity of the Visitor Centers, seeking maximum naturalness, and with trees that make shady areas possible. During the visits, users should be allowed to eat or rest in the natural environment. In all situations where people can be close to fauna, ecotourism managers must study how to improve safety. Education and interpretation play a vital role. Ecotourism entrepreneur and communities must look for whatever might impact their visitors through education. If the visitor cannot get to see the fauna from close up, how can the experience be substituted for? Managers must also consider those features of the fauna and flora that are most attractive for people, as well as the topics of interest as a basis for interpretation, or as a suggestion to improve interpretation. Guides are the best method of interpretation. Specialized, knowledgeable and interested guides are generally the best way to convey information to the visitors. Additionally, ecotourist facilities (i.e. bird-watching or natural landscape viewing towers, camp grounds, mountain bikes, kayaks / rowing boats, leisure cottages / kiosks, etc.) – should be considered for support when it is possible.

2.2. Priority Investment on Soft Infrastructures

Provision of hard infrastructures enable the desired ecotourism activities and contribute to minimize risks and negative impacts on both human and the natural areas, while optimize positive aspects. Nonetheless, without appropriate soft infrastructures – overriding legal frameworks, properly trained human capital and catalytic enabling platforms, etc. – the desirable outcomes may not be obtained as involved stakeholders may not be so inclined to work toward such achievements, especially when it requires time and monetary expense. In this report, the following soft infrastructures are recommended in order of importance as follows:

Figure 2.1. Recommended Soft Infrastructures for Ecotourism Development



2.2.1. Urgently Needed Soft Infrastructures

The urgently needed soft infrastructures refer to those overriding legal frameworks that are most fundamental for regulating and monitoring development activities including construction of infrastructures or facilities by involved stakeholders either private entrepreneurs or local communities, and tourist activities within the boundaries of the PA and CPA. Without these legal regulatory frameworks, challenges as stated in previous section and report will definitely occur and development direction and outcomes are squarely put at the mercy of implementers. The management of biotic and abiotic resources is required in all aspects of any economy considered sustainable under an ecological perspective, and ecotourism is not an exception. The management of these resources is not easy, neither conceptually nor achieving in practice, and it require the development of national strategies and their application. Initiatives to reduce negative impacts of visitors' presence and infrastructure development in PAs and CPAs began with the introduction of the carrying capacity and move on to a more sophisticated method, Levels of Acceptable Change (LAC), by imposing of limits to the admissible number of tourists, as well as defining an acceptable level of change via product designs and service delivery, etc.

At the beginning of ecotourism programs or activities, the impacts of the projects or business venture are scarce or minimum. When data about the basic conditions, that would allow to establish a comparison, are few, or simply do not exist, it can be difficult to perceive the first symptoms of negative impacts. A study of the basic data is rarely carried out at the beginning in developing countries, since time, budgets, and technical resources are limited, and the needs are not perceived. Often, when serious impacts get exposed, questions are raised and management measures are considered necessary. However, once the negative impacts have turned outstanding, the options to

easily eliminate them diminish. It gets difficult, from a political point of view, to reduce the number of visitors or limit their activities or both. Another alternative, the hardening of environment, or making it more impact resistant, requires higher expenses in infrastructure and the consequent maintenance of it, and in some cases, the management will not reach to compensate for the losses. If the impacts would have been gradually measured from the beginning and fast measures would have been put in place to reduce them, the harm would have been smaller, or would have not existed. The establishment of a guiding legal frameworks and monitoring program at the beginning of the projects, and the collection of basic information are useful to make an early change alert available, which allows for the fitting establishment of management programs. In any case, ecotourism management is only another aspect in the management of PAs and CPAs, and as such must it be treated in zonation and overall master plans which are powerful tools to avoid or deal with impacts.

Table 2.1: Existing Policy and Regulatory Frameworks Related to Ecotourism Development and Concession in Cambodia

Existing Laws / Regulations / Frameworks	Year
Sub-Decree on the Development of Supreme Tourism Sites	2019
10 th Draft Environmental and National Resource Code of Cambodia	2018
National Ecotourism Policy	2018
Cambodia's PA Ecotourism Corridor Strategies	2018
National Protected Area Strategic Management Plan 2017-2031	2017
National Protected Area System Strategic Management Framework	2014
Guidebook on Environmental Impact Assessment in the Kingdom of Cambodia	2012
Cambodia Environment Outlook	2009
Prakas on Guideline for Conducting Environmental Impact Assessment Report	2000
Tourism Reform Plan 2015 – 2020	2015
Tourism Development Strategic Plan 2012-2020	2012
National Forest Programme 2010-2029	2010
Law on Tourism	2009
Protected Area Law	2008
Law on Concession	2007
Sub-Decree on Environmental Impact Assessment Process	1999
Tourism Master Plan Development for Mondulkiri Province as an Integrated Ecotourism Development Hub in Northeastern Cambodia	On-going
Tourism Master Plan Development for Kep Province	On-going
Master Plan for Tourism Product Development and Tourism Industry Development	On-going

Therefore, first and utmost important soft infrastructures for ecotourism development are master plans or management frameworks that provide guidance for sustainable ecotourism development initiatives. They include, but not limited to:

- PA land registration
- PA boundary demarcation and zonation

- Management plan (strategic and action plans included)
- Guidelines for ecotourism development and management in CPAs
- Guidelines for ecotourism concessions in PAs
- M&E measures and toolkits (incl. criteria, indicators, checklists, etc.) for both ecotourism development and management by CPAs and PA concessionaires
- Ecotourism handbook / blueprint in PAs and CPAs

Currently, existing laws and regulatory frameworks for ecotourism development in Cambodia consist mainly of those general laws and regulations listed in the above table. Due to limitation in specific legal and direct frameworks (esp. PA management plan or zonation), PA system is often erroneously perceived to be conducive to large-scale development or spontaneous and impulsive actions (e.g. large-scale infrastructures and facilities). As well, challenges concerning problems of overuse (not using ecotourism potentials appropriately) and confusion between ecotourism and nature-based mass tourism (esp. in large scale ecotourism site) due mainly to limited mechanisms to regulate use (e.g. contracts on design, product offer, energy consumption, etc.). Therefore, first and foremost ecotourism development endeavors urgently need at least the following legal and regulatory frameworks to guide development initiatives and visitors' activities:

- PA land registration
- PA boundary demarcation and zonation
- Management plan (strategic and action plans included)
- Guidelines for ecotourism development and management in CPAs
- Guidelines for ecotourism concessions in PAs
- M&E measures and toolkits (incl. criteria, indicators, checklists, etc.) for both ecotourism development and management by CPAs and PA concessionaires
- Ecotourism handbook / blueprint in PAs and CPAs

2.2.2. Moderately Needed Soft Infrastructures

Capable human capital, which have been educated / trained in appropriate skills and knowledge to enforce compliance of rules and regulations and implement necessary management strategies and provide quality services are next in order of importance for development of ecotourism in a PA and CPA context. To begin with, it is helpful to understand what activities human capital may conduct in the context of ecotourism in PAs / CPAs:

- Reduce the impact of visits and ecotourism development initiatives by:
 - 1) Actively participate in planning and development of ecotourism project / venture within their own vicinity;
 - 2) Monitoring activities on the paths or trails within the PAs, and being aware / alerted of the sites with an accelerated growth in visitation;
 - 3) Notifying the PA management or authorities if the number of visitors is growing in an alarming way;
 - 4) Carrying out a close monitoring of the negative environmental impacts,

including the erosion of paths, inadequate waste management, water pollution, wild species' harassment, or the presence of wild animals that have turned abnormally shy or aggressive; 5) Cooperating with the area managers in the monitoring of key and indicator species, or offering logistic help to researchers who work in projects about ecotourism impacts; 6) Designing itineraries and special offers to avoid overloading popular destinations, especially those lacking adequate management; 7) Being alert about situations of accumulated cultural impact, and working to prevent them or diminish them, etc.

- Prepare tourists for meeting the local cultures and the site's flora, fauna and ecology, facilitating the approach and optimizing the enjoyment through the following techniques: 1) Offering good quality orientation; 2) Offering good quality interpretation at all time, including the characteristics of local cultures and the description of the site's natural history and ecological information; 3) To stimulate the interaction with the local population, closely watching this contact in order to prevent cultural blunders; 4) Offering succinct explanations before each stop, that include: behavior rules, restricted practices and off-limits areas; alerts about fragile and threatened species; distances to be kept with local flora and fauna; as well as the site's regulations; and 5) Make the most of the travel and waiting times to talk objectively with tourists about the issues of local interest as well as PA/CPA management and conservation efforts.
- Reduce the impact of visits upon the natural environment through the following techniques/tools: 1) Explaining local regulations to the visitors; 2) Obtaining and distributing available rules for each natural area visited; 3) Informing the visitors about the adequate behavior on the paths, in the camps, with the wildlife, and with the threatened species, as well as the correct management of waste and activity leftovers; 4) Informing the travelers about the different levels of difficulty in each excursion, in order to prevent possible damages to the environment produced by a lack of experience or by ignorance of the procedures in little known terrains; 5) Informing the tourist about what exists; 6) Warning about the inappropriateness of collecting souvenirs from the natural areas, such as animals, their remains, or traces of their activity, even in the cases when such practices are allowed by local authorities; 7) Dissuade tourists from purchasing crafts produced with materials coming from endangered natural resources.

Consequently, in order to conduct the stated activities above, they need to have broader knowledge in relevant field. This situation has already been identified in the first report and above summary to be lacking still. Therefore, capacity development programs concerning: 1) PA and CPA management; 2) relevant legal, policy and regulatory frameworks; 3) ecotourism and hospitality skills trainings; 4) ecotourism entrepreneurship; 5) environmental management system and related skills and practices; 6) green standardization

& eco-certification; and 7) language and communication skills need to be delivered for relevant stakeholders that are involved in the development and operation of ecotourism initiatives and activities. These stakeholders include specifically: MoE/DoE officers and PA management, PA rangers, ecotourism concessionaires, and CPA and CBET's facilitating NGOs, management committees, communities. Specific capacity to be developed for certain stakeholders include:

- MoE & PA management:
 - PA and CPA management;
 - Relevant legal, policy and regulatory frameworks;
 - Environmental management system and related skills and practices;
 - Green standardization & eco-certification;
- PA rangers who are collaborating with or supporting CPAs:
 - PA and CPA management;
 - Relevant legal, policy and regulatory frameworks;
 - Environmental management system and related skills and practices;
 - Green standardization & eco-certification;
 - Language and communication skills need to be provided for relevant stakeholders that are involved in the development and operation of ecotourism initiatives and activities;
 - Ecotourism and hospitality skills trainings;
- Ecotourism concessionaires:
 - PA and CPA management;
 - Relevant legal, policy and regulatory frameworks;
 - Environmental management system and related skills and practices;
 - Green standardization & eco-certification;
- CPA & CBET management committees:
 - PA and CPA management;
 - Relevant legal, policy and regulatory frameworks;
 - Environmental management system and related skills and practices;
 - Green standardization & eco-certification;
 - Ecotourism entrepreneurship;
 - Green standardization & eco-certification;
 - Language and communication skills need to be provided for relevant stakeholders that are involved in the development and operation of ecotourism initiatives and activities;
 - Ecotourism and hospitality skills trainings;

2.2.3. Needed Soft Infrastructures

In Cambodia, a few major challenges that ecotourism's and other similar developers and practitioners face in this regard is the limitation in access to applicable and acceptable relevant legal regulatory frameworks and retaining of trained human resources. In the context of the first challenge, related documents, rules, regulations and guidelines, etc. are often made openly available digitally and in hard copies by external actors both inside and outside the country. Yet, some of these guidance, though widely provide necessary ideas for and strongly influence ecotourism practice in Cambodia so far, may not be fully trusted to be applicable to Cambodian context, nor their contents be acceptable to Cambodian government. Such hint of dissatisfaction has been indicated so far with the government's action to develop a few most recent guiding documents of their own such as: Sub-Decree on the Development of Supreme Tourism Sites, 2019; Environmental and Natural Resource Code of Cambodia, 2018 (including a Chapter about Ecotourism Code); National Protected Areas Management Plan 2017-2031; Master Plan for Tourism Product Development and Tourism Industry Development, Tourism Master Plan Development for Mondulkiri Province as an Integrated Ecotourism Development Hub in Northeastern Cambodia, etc.

Nonetheless, various versions of documents listed in the **Table 2.1** above are able to retrieve digitally without knowledge of which version is acceptable, while most others are inaccessible. Sharing of applicable documents among key development players as well as the public including academia and students are not widely practiced contemporarily in Cambodia. Usage of whatever accessible by different actors of ecotourism development lead to a lot of misunderstanding, misinterpretation and multiple development scenarios based on the actor's development agenda that may not be totally desired by the general stakeholders. Such practice, together with another challenge concerning limited coordination among development stakeholders as mentioned earlier, usually leads to the achievement of only one or two of the anticipated goals for ecotourism development and made regulation and monitoring tasks of the government agencies extremely difficult or even impossible. This line of thought strongly necessitate the establishment of an accessible knowledge management platform that enable ecotourism policy-makers, developers, practitioners, researchers, private sector, civil society and communities, etc. to access and retrieve obligatory and applicable rules, regulations, and guidelines, etc. that enable them to appropriately develop ecotourism initiated with their own chosen model and in their own site within acceptable framework.

Research must be integrated in natural resources and PA management. As mentioned, education and training should be basic components in a national strategy, strongly focused upon the interrelation between tourism training and ecological management. The stated platform does not only play roles in sharing knowledge and information, but also as sustainability hub/portal concerning ecotourism development in Cambodia that provide all types of

important information for researchers and capacity developers. It may function as an online platform that allows users to easily search, browse, and find information related to sustainable and socially responsible ecotourism. The aim of the website is to serve as the 'go-to' resource for all things related to sustainable and socially responsible ecotourism globally, regionally or in Cambodia. This site should be opened to everyone and become dynamic portal that not only offers general information on sustainability in ecotourism, but also features case studies from all over the world. This website should support the increasing efforts of the ecotourism sector by offering access to carefully selected information on the latest in ecotourism sustainability, presented in a user-friendly format. Other featured content from acceptable sources such as Know How Guides and Destination Asia Pacific Case Studies from the International Tourism Partnership / Green Hotelier, and WTTC Tourism for Tomorrow Awards Winners and Finalists, etc. may be included in the platform.

Additionally, this intended hub/platform may aim to create tangible, economic benefits to ecotourism through: 1) the provision of professional development opportunities and career advancement for unemployed and disadvantaged community members; 2) offering a communication and best-practice sharing platform and provides training and education for interested party to become owners and effective business partners; 3) enabling communities to collaborate, engage and negotiate with government and private industry as they initiate and develop sustainable CBET programs, etc. Summarily, the established PA ecotourism knowledge management platform may incorporate the following functions:

- Gather up-to-date ecotourism information (principles and concepts, orientations, legal and regulatory frameworks, research papers and case studies, destinations / sites and their histories, products, communities, ecosystems, special events, lessons learnt and best practices, contact information, etc.) in PAs and CPAs in the target provinces and across Cambodia
- Digitalize, host, and publish PA ecotourism information through interactive and proactive online platform
- Conduct marketing and coordination of PA ecotourism through online platform
- Collaborate with relevant stakeholders and development partners to innovate ecotourism products and services in PAs and CPAs through R&D
- Perform as capacity developers and accreditors of green standardization and eco-certification of ecotourism sites / destinations / investments in PAs and CPAs
- Organize PA ecotourism knowledge sharing events for all relevant stakeholders

References

- Neth, B., Rith, S. and William, P. W. (2015). "Enhancing Sustainability through the Building of Capabilities: Overview of Community-based Ecotourism Development in Cambodian Protected Area".
- Neth, B., Rith, S. and Pellini, A. (2012). Social Capital Definitions, Characteristics, and the Relevance for CBNRM (Community-based Natural Resource Management) in Cambodia. In: Pellini, A. (eds.), *Engaging for the Environment: The Contribution of Social Capital to Community-based Natural Resource Management in Cambodia*. Phnom Penh, Cambodia: The Learning Institute, pp. 14-39.
- Neth, B. (Forthcoming). Achieving Development Goals and Sustainability: Analysis of Community-based Tourism and Ecotourism (CBT/CBET) and Endogenous Development in Cambodia.
- Neth, B. (2008). Ecotourism as a Tool for Sustainable Rural Community Development and Natural Resource Management in the Tonle Sap Biosphere Reserve. Germany: Uni-Kassel (Kassel University) Press.
- MoE. (2017). National Protected Area Strategic Management Plan 2017-2031.
- MoE. (2014). National Protected Area System Strategic Management Framework. National Biodiversity Steering Committee.
- MoE. (2019). Small and large scale ecotourism enterprises invested in protected areas. Department of Ecotourism
- MoE. (2019). Community Protected Areas Profiles in 7 provinces 2018. Department of Ecotourism
- MoE. (2019). Community-Based Ecotourism in 7 provinces 2018. Department of Ecotourism
- MoT. (2012). Cambodia Tourism Strategic Development Plan 2012-2020.
- MoT. (2017). Annual Tourism Statistic report 2017. Tourism statistic department. Phnom Penh.
- Rith, S. (2010). A Social Relational Approach to Community-Based Ecotourism Development: Policy Intervention Strategies. PhD Dissertation, Simon Fraser University, BC Canada
- Rith, S. Williams, P.W. and Neth, B. (2009). Community-based ecotourism and rural livelihood diversification: Reframing the approach. In P. Beaupre, J. Taylor, T. Carson, K. Han and C. Heng (eds.) *Emerging Trends, Challenges and Innovations: CBNRM in Cambodia*, pp.471-492. Phnom Penh: CBNRMLI
- Hiwasaki, L. (2014). Community-Based Tourism: A Pathway to Sustainability for Japan's Protected Areas. *Society & Natural Resources: An International Journal*: 19:8, 675-692
- Ngo, T., Lohmann, G. and Hales, R. (2018). Collaborative marketing for the sustainable development of community-based tourism enterprise: voices from the field. *Journal of sustainable tourism*.
- Lacy, T. D., Battig, M., Moore, S. and Noakes, S. (2002). Public-Private Partnerships for Sustainable Tourism: Delivering a Sustainability Strategy for Tourism Destinations. APEC Tourism Working Group, Australia.

- ESRT Programme. (ND). Unit 15: Responsible tourism good practices for protected areas in Vietnam. European Union and Vietnam. Power point presentation.
- Calanog, A.L., Reyes, T.D and Eugenio, F.V. (2012). Making ecotourism work: A manual on establishing community-based ecotourism enterprises (CBEE) in the Philippines. JICA Philippine Office.
- Jiménez García-Herrera, J. (ND). Handbook of ecotourism in protected areas of Vietnam.

Priority Investments Resulted from Field Visits

N°	Site	Location	Priority Investment on Hard Infrastructure	Priority Investment on Soft Infrastructure
1.	Chi Phat	<ul style="list-style-type: none"> - Chiphat commune, Thmor Bang district - Southern and Middle Cardamom Mountains 	<ol style="list-style-type: none"> 1. Ecotourism supported facilities: signage, bike, kayak, backpack, mountain bikes, trekking/hiking trails) 2. Solid waste management facilities (i.e. trash-bins for waste separation, waste collection and transport facilities, incinerations, composing facilities, etc.) 3. 8 sets of toilet (1 set consists of 2 rooms) 4. Ecotourism information center / Visitor information & welcome center 5. Organic agriculture and handicraft 6. Sub-station or guard stations for PA rangers 7. Ecotourism map and circuits 8. Interpretive or pedestrian paths for ecotourists and visitors inside CPAs/PAs 9. Sewage system (e.g. using French drain) to avoid pollution of surface water and underground water 10. Energy efficiency system (i.e. improved cook stoves, solar panels, biomass and biogas) 11. Risk management facilities (including ranger facilities, i.e. patrol facilities and equipment, wooden staircases with handle, etc.) 	<p><u>Improved management frameworks for sustainable PA and CPA management:</u></p> <ul style="list-style-type: none"> • PA land registration • PA boundary demarcation and zonation • Management plan (strategic and action plans included) • Guidelines for ecotourism development and management in CPAs • Guideline for ecotourism concessions in PAs • M&E measures and toolkits (including criteria, indicators, checklists, etc.) for both ecotourism development and management by CPAs and PA concessionaries • Ecotourism handbook/blueprint in PAs and CPAs <p><u>Capacity Building:</u></p> <ul style="list-style-type: none"> • PA and CPA management • Relevant legal, policy and regulatory frameworks • Ecotourism and hospitality skills trainings • Ecotourism entrepreneurship • Environmental management system and related skills and practices • Green standardization & eco-certification • Language and communication skills

2.	Stung Areng	<ul style="list-style-type: none"> - Cover Pralay, Doun Pov, and Tonlob communes, Thmor Bang district, Koh Kong - Southern and Middle Cardamom Mountains 	<ol style="list-style-type: none"> 1. Access road in the forms of BTSD roads and/or concrete paved road (road across 3 villages) 2. Trekking trails in the forest 3. Water filtration 4. Toilet facilities with onsite treatment system 5. Ecotourism information center / Visitor information & welcome center 6. Tourism supported facilities (i.e. mountain bike, kayak, community restaurant and community station) 7. Clean water supply facilities (i.e. water pipeline from Areng river about 1.5km) 8. Solar power 9. Sub-station or guard stations for PA rangers 10. Ecotourism map and circuits 11. Ecotourism signage 12. Interpretive or pedestrian paths for ecotourists and visitors inside CPAs/PAs 13. Sewage system (e.g. using French drain) to avoid pollution of surface water and underground water 14. Risk management facilities (including ranger facilities, i.e. patrol facilities and equipment, wooden staircases with handle, etc.) 	<p><u>Improved management frameworks for sustainable PA and CPA management:</u></p> <ul style="list-style-type: none"> • PA land registration • PA boundary demarcation and zonation • Management plan (strategic and action plans included) • Guidelines for ecotourism development and management in CPAs • Guideline for ecotourism concessions in PAs • M&E measures and toolkits (including criteria, indicators, checklists, etc.) for both ecotourism development and management by CPAs and PA concessionaires • Ecotourism handbook/blueprint in PAs and CPAs <p><u>Community Needs:</u></p> <ol style="list-style-type: none"> 1. Capacity building for committee members on various skills especially on communication skill, ecotourism, and management skills. 2. Capacity building on organic agriculture 3. First aid service 4. Capacity building (language, admin and accountant management, and leadership) 5. Capacity building on market mechanism (e-marketing and e-commerce system) 6. Capacity building on establishment of small enterprise (traditional fermented alcohol), value and supply chain, processing and packaging techniques 7. Capacity building on branding 8. The public forum between FA and MoE in disseminating the current institutional arrangement
3.	Tatai Leu	<ul style="list-style-type: none"> - Tatai Leu commune, Thmor Bang district - Southern and Middle 	<ol style="list-style-type: none"> 1. Access road in the form of BTSD road/or concrete paved roads (road and bridge) to attraction sites (i.e. Chhay Thom and boat station) 	<p><u>Improved management frameworks for sustainable PA and CPA management:</u></p> <ul style="list-style-type: none"> • PA land registration • PA boundary demarcation and zonation

		Cardamom Mountains	<ol style="list-style-type: none"> 2. Toilets facilities with onsite treatment system (5 sets of toilets (1 set has two rooms). 1 at community station; 1 at CF station; other 3 at touristic sites) 3. Solar system 4. Office facilities (printer, computer...) 5. 9 bridges (2 bridges have constructed already for 12m each). So, need more 7 bridges 6. Sub-station or guard stations for PA rangers 7. Ecotourism map and circuits 8. Ecotourism signage 9. Interpretive or pedestrian paths for ecotourists and visitors inside CPAs/PAs 10. Sewage system (e.g. using French drain) to avoid pollution of surface water and underground water 11. Energy efficiency system (i.e. improved cook stoves, solar panels, biomass and biogas) 12. Risk management facilities (including ranger facilities, i.e. patrol facilities and equipment, wooden staircases with handle, etc.) 	<ul style="list-style-type: none"> • Management plan (strategic and action plans included) • Guidelines for ecotourism development and management in CPAs • Guideline for ecotourism concessions in PAs • M&E measures and toolkits (including criteria, indicators, checklists, etc.) for both ecotourism development and management by CPAs and PA concessionaires • Ecotourism handbook/blueprint in PAs and CPAs <p><u>Community Needs:</u></p> <ol style="list-style-type: none"> 1. Capacity building on English language 2. Capacity building on ecotourism products and services standard
4.	Tatai Krom	<p>- Anlong Vak village, Tatai Krom commune, Thmor Bang district, Koh Kong province</p> <p>- Connected to Tatai Wildlife Sanctuary and Peam Krasob</p>	<ol style="list-style-type: none"> 1. Community homestay (can use community land) 2. Community restaurant and souvenir shop 3. Access road in the forms of BTSD roads and/or paved roads (2km to waterfall) 4. 2-3 dug-wells 	<p><u>Improved management frameworks for sustainable PA and CPA management:</u></p> <ul style="list-style-type: none"> • PA land registration • PA boundary demarcation and zonation • Management plan (strategic and action plans included) • Guidelines for ecotourism development and management in CPAs

		Wildlife Sanctuary	<ol style="list-style-type: none"> 5. 3 sets of toilets in which 1 set consists of 5 rooms. 6. Security / safety facilities, boat pier which is larger than previous one, and garbage gear 7. Sub-station or guard stations for PA rangers 8. Ecotourism map and circuits 9. Ecotourism signage 10. Interpretive or pedestrian paths for ecotourists and visitors inside CPAs/PAs 11. Sewage system (e.g. using French drain) to avoid pollution of surface water and underground water 12. Energy efficiency system (i.e. improved cook stoves, solar panels, biomass and biogas) 13. Risk management facilities (including ranger facilities, i.e. patrol facilities and equipment, wooden staircases with handle, etc.) 	<ul style="list-style-type: none"> • Guideline for ecotourism concessions in PAs • M&E measures and toolkits (including criteria, indicators, checklists, etc.) for both ecotourism development and management by CPAs and PA concessionaires • Ecotourism handbook/blueprint in PAs and CPAs <p>Community Need:</p> <ol style="list-style-type: none"> 1. Capacity building on hospitality and other CBET business skills
5.	Peam Krasob	- Peam Krasob commune, Mondul Seima district, Koh Kong province - Peam Krasob Wildlife Sanctuary	<ol style="list-style-type: none"> 1. Watching tower for viewing dolphin at Peam Krasob beach 2. 100-200m bridge which costs more than 10,000\$ 3. Community restaurant 4. 10 Kiosks (about 1200\$/kiosk with 4x4m sizes) 5. 2 sets of toilets which are equal to 8 rooms 6. A standard community pier (7x8m) which will cost around 17,000\$ 7. Ecotourism map and circuits 8. Sewage system (e.g. using French drain) to avoid pollution of surface water and underground water 	<p><u>Improved management frameworks for sustainable PA and CPA management:</u></p> <ul style="list-style-type: none"> • PA land registration • PA boundary demarcation and zonation • Management plan (strategic and action plans included) • Guidelines for ecotourism development and management in CPAs • Guideline for ecotourism concessions in PAs • M&E measures and toolkits (including criteria, indicators, checklists, etc.) for both ecotourism development and management by CPAs and PA concessionaires

			<p>9. Tourists boat docks</p> <p>10. Energy efficiency system (i.e. improved cook stoves, solar panels, biomass and biogas)</p> <p>11. Risk management facilities (including ranger facilities, i.e. patrol facilities and equipment, wooden staircases with handle, etc.)</p> <p>12. Tourist boat dock</p>	<ul style="list-style-type: none"> • Ecotourism handbook/blueprint in PAs and CPAs <p><u>Community Needs:</u></p> <ol style="list-style-type: none"> 1. Capacity building on product development related to mangrove forests, extensive beach beauty, birds, dolphin, monkey, and other 2. Training on CBET skills and operational standards
6.	Beung Ka Chhang	- Pak Khlong commune, Mondul Seima district, Koh Kong province - Peam Krasob Wildlife Sanctuary	<ol style="list-style-type: none"> 1. Access road in the forms of BTSD road and / or concrete paved road behind the village 2. Clean water supply facilities (i.e. well/tube/pump wells, water storage tanks, water filter, etc.) 3. 10 water tanks, 1 tank costs around 600\$. Around 1800-2000\$ of budget are required (4 tanks are already helped from UNDP). 4. Crab-feeding facilities on 1ha of CPA land area (around 2-30,000\$). 5. Landfill and garbage transportation, garbage gear, and access road to waste disposal site 6. Community station / tourist information and welcome center (8x15m) 7. Community kitchen / restaurant 8. 10 leisure cottages along the canal 9. And 2-3 sets of toilets (2 rooms/set) 10. Sub-station or guard stations for PA rangers 11. Ecotourism map and circuits 12. Ecotourism signage 	<p><u>Improved management frameworks for sustainable PA and CPA management:</u></p> <ul style="list-style-type: none"> • PA land registration • PA boundary demarcation and zonation • Management plan (strategic and action plans included) • Guidelines for ecotourism development and management in CPAs • Guideline for ecotourism concessions in PAs • M&E measures and toolkits (including criteria, indicators, checklists, etc.) for both ecotourism development and management by CPAs and PA concessionaires • Ecotourism handbook/blueprint in PAs and CPAs <p><u>Community Need:</u></p> <ol style="list-style-type: none"> 1. Capacity building on language and skills related to CBET

			<p>13. Interpretive or pedestrian paths for ecotourists and visitors inside CPAs/PAs</p> <p>14. Sewage system (e.g. using French drain) to avoid pollution of surface water and underground water</p> <p>15. Energy efficiency system (i.e. improved cook stoves, solar panels, biomass and biogas)</p> <p>16. Risk management facilities (including ranger facilities, i.e. patrol facilities and equipment, wooden staircases with handle, etc.)</p>	
7.	Stung Veng	<p>- Sangkat Steung Veng, Krong Khemrak Phumin, Koh Kong province</p> <p>- Peam Krasob Wildlife Sanctuary</p>	<p>1. Ecotourism information centers / visitor information & welcome center</p> <p>2. Toilet facilities with onsite treatment system</p> <p>3. Ecotourism map and circuits</p> <p>4. Ecotourism signage</p> <p>5. Interpretive or pedestrian paths for ecotourists and visitors inside CPAs/Pas</p> <p>6. Sewage system (e.g. using French drain) to avoid pollution of surface water and underground water</p> <p>7. Energy efficiency system (i.e. improved cook stoves, solar panels, biomass and biogas)</p> <p>8. Risk management facilities (including ranger facilities, i.e. patrol facilities and equipment, wooden staircases with handle, etc.)</p>	<p><u>Improved management frameworks for sustainable PA and CPA management:</u></p> <ul style="list-style-type: none"> • PA land registration • PA boundary demarcation and zonation • Management plan (strategic and action plans included) • Guidelines for ecotourism development and management in CPAs • Guideline for ecotourism concessions in PAs • M&E measures and toolkits (including criteria, indicators, checklists, etc.) for both ecotourism development and management by CPAs and PA concessionaires • Ecotourism handbook/blueprint in PAs and CPAs <p><u>Community Need:</u></p> <p>1. The strong management structure and committee from different areas</p>
8.	Toul Kor Ki	- Toul Korki commune, Mondul Seima	<p>1. 10 leisure cottages and signpost for tourists</p>	<p><u>Improved management frameworks for sustainable PA and CPA management:</u></p>

		district, Koh Kong province - Peam Krasob Wildlife Sanctuary	<ol style="list-style-type: none"> 2. Road access to waterfall (around 1km) 3. Sub-station or guard stations for PA rangers 4. Watergate for storing freshwater 5. Homestay preparation (can be done with 10-20 houses) 6. Community boat 7. Ecotourism map and circuits 8. Interpretive or pedestrian paths for ecotourists and visitors inside CPAs/PAs 9. Sewage system (e.g. using French drain) to avoid pollution of surface water and underground water 10. Energy efficiency system (i.e. improved cook stoves, solar panels, biomass and biogas) 11. Risk management facilities (including ranger facilities, i.e. patrol facilities and equipment, wooden staircases with handle, etc.) 	<ul style="list-style-type: none"> • PA land registration • PA boundary demarcation and zonation • Management plan (strategic and action plans included) • Guidelines for ecotourism development and management in CPAs • Guideline for ecotourism concessions in PAs • M&E measures and toolkits (including criteria, indicators, checklists, etc.) for both ecotourism development and management by CPAs and PA concessionaire • Ecotourism handbook/blueprint in PAs and CPAs <p>Community Needs:</p> <ol style="list-style-type: none"> 1. Capacity building on community empowerment and ownership 2. Reelection of community member
9.	Koh Kapi	- Koh kapi Village, Koh Kapi commune, Koh kong district, Koh kong Province - Peam Krasob Wildlife Sanctuary	<ol style="list-style-type: none"> 1. 5 leisure cottages around mountain 2. Walking trails around mountain (cement trail with 1x200m) 3. Watching tower for bird viewing (but outside CPA) 4. Sub-station or guard stations for PA rangers 5. Toilet facilities with onsite treatment system 6. Community boat (can be both for patrolling and carrying tourists) 7. Ecotourism map and circuits 	<p>Improved management frameworks for sustainable PA and CPA management:</p> <ul style="list-style-type: none"> • PA land registration • PA boundary demarcation and zonation • Management plan (strategic and action plans included) • Guidelines for ecotourism development and management in CPAs • Guideline for ecotourism concessions in PAs • M&E measures and toolkits (including criteria, indicators, checklists, etc.) for both ecotourism development and management by CPAs and PA concessionaires

			<ol style="list-style-type: none"> 8. Interpretive or pedestrian paths for ecotourists and visitors inside CPAs/PAs 9. Sewage system (e.g. using French drain) to avoid pollution of surface water and underground water 10. Energy efficiency system (i.e. improved cook stoves, solar panels, biomass and biogas) 11. Risk management facilities (including ranger facilities, i.e. patrol facilities and equipment, wooden staircases with handle, etc.) 	<ul style="list-style-type: none"> • Ecotourism handbook/blueprint in PAs and CPAs <p><u>Community Need:</u></p> <ol style="list-style-type: none"> 1. Capacity building on waste management, homestay services, guiding and F&B and ecotourism operation
10.	Koh Sralaov	- Koh sraloa Village, Koh Kapi Comune, Koh kong District, Koh kong Province - Peam Krasob Wildlife Sanctuary	<ol style="list-style-type: none"> 1. 20 leisure cottage at 4 sub-areas 2. 4 sets of toilet (1set with 2 rooms for 1 sub-area) 3. Solid waste management facilities (trash-bin for waste separation, waste collection and transport facilities, incinerators, composing facilities, etc.) 4. Community boat 5. Sub-station or guard stations for PA rangers 6. Ecotourism map and circuits 7. Interpretive or pedestrian paths for ecotourists and visitors inside CPAs/PAs 8. Sewage system (e.g. using French drain) to avoid pollution of surface water and underground water 	<p><u>Improved management frameworks for sustainable PA and CPA management:</u></p> <ul style="list-style-type: none"> • PA land registration • PA boundary demarcation and zonation • Management plan (strategic and action plans included) • Guidelines for ecotourism development and management in CPAs • Guideline for ecotourism concessions in PAs • M&E measures and toolkits (including criteria, indicators, checklists, etc.) for both ecotourism development and management by CPAs and PA concessionaires • Ecotourism handbook/blueprint in PAs and CPAs <p><u>Community Need:</u></p> <ol style="list-style-type: none"> 1. Capacity building on tourism business operation
11.	Prey Thom Pospel	- Popel Village, Khnomg Phnom Commune, Svay leu District, Siem Reap Province	<ol style="list-style-type: none"> 1. Ecotourism information centers/visitor information & welcome centers 2. Sub-station or guard stations for PA rangers 	<p><u>Improved management frameworks for sustainable PA and CPA management:</u></p> <ul style="list-style-type: none"> • PA land registration • PA boundary demarcation and zonation

		- Prah Jayavaraman Norodom Phnom Kulen National Park	<ol style="list-style-type: none"> 3. Ecotourism map and circuits 4. Interpretive or pedestrian paths for ecotourists and visitors inside CPAs/PAs 5. Clean water supply facilities (i.e. wells/tube/pump wells, water storage tanks, water filter, etc.) 6. Energy efficiency system (i.e. improved cook stoves, solar panels, biomass and biogas) 7. Risk management facilities (including ranger facilities, i.e. patrol facilities and equipment, wooden staircases with handle, etc.) 	<ul style="list-style-type: none"> • Management plan (strategic and action plans included) • Guidelines for ecotourism development and management in CPAs • Guideline for ecotourism concessions in PAs • M&E measures and toolkits (including criteria, indicators, checklists, etc.) for both ecotourism development and management by CPAs and PA concessionaires • Ecotourism handbook/blueprint in PAs and CPAs <p>Community Needs:</p> <ol style="list-style-type: none"> 1. Capacity building on basic knowledge and skills, market mechanism, 2. Management structure and institutional arrangement
12.	Chub Tasok	- Khla khmom Village, Khnorng Phnom commune, Svay leu district, Siem Reap province - Prah Jayavaraman Norodom Phnom Kulen National Park	<ol style="list-style-type: none"> 8. Ecotourism information centers/visitor information & welcome centers 9. Sub-station or guard stations for PA rangers 10. Ecotourism map and circuits 11. Interpretive or pedestrian paths for ecotourists and visitors inside CPAs/PAs 12. Clean water supply facilities (i.e. wells/tube/pump wells, water storage tanks, water filter, etc.) 13. Energy efficiency system (i.e. improved cook stoves, solar panels, biomass and biogas) 14. Risk management facilities (including ranger facilities, i.e. patrol facilities and equipment, 	<p>Improved management frameworks for sustainable PA and CPA management:</p> <ul style="list-style-type: none"> • PA land registration • PA boundary demarcation and zonation • Management plan (strategic and action plans included) • Guidelines for ecotourism development and management in CPAs • Guideline for ecotourism concessions in PAs • M&E measures and toolkits (including criteria, indicators, checklists, etc.) for both ecotourism development and management by CPAs and PA concessionaires • Ecotourism handbook/blueprint in PAs and CPAs <p>Capacity Building:</p> <ul style="list-style-type: none"> • PA and CPA management • Relevant legal, policy and regulatory frameworks • Ecotourism and hospitality skills trainings • Ecotourism entrepreneurship

			wooden staircases with handle, etc.)	<ul style="list-style-type: none"> • Environmental management system and related skills and practices • Green standardization & eco-certification • Language and communication skills
13.	Anlong Thom	- Sangkae Lak village, Khnong Phnom commune, Svay Leu district - Prah Jayavaraman Norodom Phnom Kulen National Park	<ol style="list-style-type: none"> 1. Tourist information center (>20,000\$) initiated by AFD in 2019 2. Ecotourism map and circuits 3. Interpretive or pedestrian paths for ecotourists and visitors inside CPAs/PAs 4. Sewage system (e.g. using French drain) to avoid pollution of surface water and underground water 5. Clean water supply facilities (i.e. wells/tube/pump wells, water storage tanks, water filter, etc.) 6. Energy efficiency system (i.e. improved cook stoves, solar panels, biomass and biogas) 7. Risk management facilities (including ranger facilities, i.e. patrol facilities and equipment, wooden staircases with handle, etc.) 	<p><u>Improved management frameworks for sustainable PA and CPA management:</u></p> <ul style="list-style-type: none"> • PA land registration • PA boundary demarcation and zonation • Management plan (strategic and action plans included) • Guidelines for ecotourism development and management in CPAs • Guideline for ecotourism concessions in PAs • M&E measures and toolkits (including criteria, indicators, checklists, etc.) for both ecotourism development and management by CPAs and PA concessionaries • Ecotourism handbook/blueprint in PAs and CPAs <p><u>Capacity Building:</u></p> <ul style="list-style-type: none"> • PA and CPA management • Relevant legal, policy and regulatory frameworks • Ecotourism and hospitality skills trainings • Ecotourism entrepreneurship • Environmental management system and related skills and practices • Green standardization & eco-certification • Language and communication skills
14.	Prey Phnom Kdouch	- Sanker lak Village, Khnong Phnom Commune, Svay leu District, Siem Reap Province - Prah Jayavaraman Norodom Phnom	<ol style="list-style-type: none"> 1. Toilet facilities with onsite treatment system 2. Solid waste management facilities (trash-bins for waste separation, waste collection and transport facilities, incinerators, composting facilities, etc.) 3. Patrolling facilities (binocular, camera, etc.) 	<p><u>Improved management frameworks for sustainable PA and CPA management:</u></p> <ul style="list-style-type: none"> • PA land registration • PA boundary demarcation and zonation • Management plan (strategic and action plans included) • Guidelines for ecotourism development and management in CPAs • Guideline for ecotourism concessions in PAs

		Kulen National Park	<ol style="list-style-type: none"> 4. Sub-station or guard stations for PA rangers 5. Ecotourism map and circuits 6. Interpretive or pedestrian paths for ecotourists and visitors inside CPAs/PAs 7. Energy efficiency system (i.e. improved cook stoves, solar panels, biomass and biogas) 8. Risk management facilities (including ranger facilities, i.e. patrol facilities and equipment, wooden staircases with handle, etc.) 	<ul style="list-style-type: none"> • M&E measures and toolkits (including criteria, indicators, checklists, etc.) for both ecotourism development and management by CPAs and PA concessionaries • Ecotourism handbook/blueprint in PAs and CPAs <p><u>Community Needs:</u></p> <ol style="list-style-type: none"> 1. Capacity building on homestay, F&B services standards 2. Training on English language
15.	Phnom Mneas	<p>- Tapenh Village, Khnorng Phnom commune, Svay leu District, Siem Reap Province</p> <p>- Prah Jayavaraman Norodom Phnom Kulen National Park</p>	<ol style="list-style-type: none"> 1. Toilet facilities with onsite treatment system 2. Solid waste management facilities (trash-bins for waste separation, waste collection and transport facilities, incinerators, composing facilities, etc.) 3. Patrolling facilities (binocular, camera, etc.) 4. Sub-station or guard stations for PA rangers 5. Ecotourism map and circuits 6. Interpretive or pedestrian paths for ecotourists and visitors inside CPAs/PAs 7. Energy efficiency system (i.e. improved cook stoves, solar panels, biomass and biogas) 8. Risk management facilities (including ranger facilities, i.e. patrol facilities and equipment, wooden staircases with handle, etc.) 	<p><u>Improved management frameworks for sustainable PA and CPA management:</u></p> <ul style="list-style-type: none"> • PA land registration • PA boundary demarcation and zonation • Management plan (strategic and action plans included) • Guidelines for ecotourism development and management in CPAs • Guideline for ecotourism concessions in PAs • M&E measures and toolkits (including criteria, indicators, checklists, etc.) for both ecotourism development and management by CPAs and PA concessionaries • Ecotourism handbook/blueprint in PAs and CPAs <p><u>Community Needs:</u></p> <ol style="list-style-type: none"> 1. Capacity building on homestay, F&B services standards 2. Training on English language

16.	Barlot	- Balort Village, Peambang commune, Staung District, Kampong Thom Province - Beoung Tonle Chmar	<ol style="list-style-type: none"> 1. Parking lot for tourist 2. Tourist boat docks 3. Watching tower for viewing birds 4. Ecotourism information center/visitor information and welcome center 5. Sub-station or guard stations for PA rangers 6. Ecotourism map and circuits 7. Ecotourism signage 8. Energy efficiency system (i.e. improved cook stoves, solar panels, biomass and biogas) 	<p><u>Improved management frameworks for sustainable PA and CPA management:</u></p> <ul style="list-style-type: none"> • PA land registration • PA boundary demarcation and zonation • Management plan (strategic and action plans included) • Guidelines for ecotourism development and management in CPAs • Guideline for ecotourism concessions in PAs • M&E measures and toolkits (including criteria, indicators, checklists, etc.) for both ecotourism development and management by CPAs and PA concessionaries • Ecotourism handbook/blueprint in PAs and CPAs <p><u>Capacity Building:</u></p> <ul style="list-style-type: none"> • PA and CPA management • Relevant legal, policy and regulatory frameworks • Ecotourism and hospitality skills trainings • Ecotourism entrepreneurship • Environmental management system and related skills and practices • Green standardization & eco-certification • Language and communication skills
17.	Toul Neang Sav	- Toul Neang Sav village, Phat Sanday commune, Kampong Svay district, Kampong Thom province - Steung Sen Core Area	<ol style="list-style-type: none"> 1. Ecotourism information center/visitor information and welcome center 2. Sub-station or guard stations for PA rangers 3. Ecotourism map and circuits 4. Ecotourism signage 5. Energy efficiency system (i.e. improved cook stoves, solar panels, biomass and biogas) 	<p><u>Improved management frameworks for sustainable PA and CPA management:</u></p> <ul style="list-style-type: none"> • PA land registration • PA boundary demarcation and zonation • Management plan (strategic and action plans included) • Guidelines for ecotourism development and management in CPAs • Guideline for ecotourism concessions in PAs • M&E measures and toolkits (including criteria, indicators, checklists, etc.) for both ecotourism development and management by CPAs and PA concessionaries • Ecotourism handbook/blueprint in PAs and CPAs

				<p>Community Need:</p> <ol style="list-style-type: none"> Capacity building on hospitality and tourism services and its standards
18.	Beung Pearing	<p>- Sangkat Chreav, Krong Siem Reap, Siem Reap province</p> <p>- Beoung Tonle Sap Multiple Uses Area</p>	<ol style="list-style-type: none"> 4 Km accessed road Watching tower Safety hill to address DRM in rainy Tourist boat docks Ecotourism information center/visitor information and welcome center Sub-stations or guard stations for PA rangers Ecotourism map and circuits Interpretive or pedestrian paths for ecotourists and visitors inside CPAs/PAs Sewage system (e.g. using French drain) to avoid pollution of surface water Energy efficiency system (i.e. improved cook stoves, solar panels, biomass and biogas) 	<p>Improved management frameworks for sustainable PA and CPA management:</p> <ul style="list-style-type: none"> PA land registration PA boundary demarcation and zonation Management plan (strategic and action plans included) Guidelines for ecotourism development and management in CPAs Guideline for ecotourism concessions in PAs M&E measures and toolkits (including criteria, indicators, checklists, etc.) for both ecotourism development and management by CPAs and PA concessionaries Ecotourism handbook/blueprint in PAs and CPAs <p>Community Need:</p> <ol style="list-style-type: none"> skill training related to ecotourism
19.	Prek Toal	<p>- Prek Toal village, Koh Chiveang commune, Ek Phnom district, Battambang province</p> <p>- Beoung Tonle Sap Multiple Uses Area</p>	<ol style="list-style-type: none"> Infrastructure and facilities (watching tower, binoculars, toilet) Sub-station or guard stations for PA rangers Ecotourism map and circuits Ecotourism signage Sewage system (e.g. using French drain) to avoid pollution of surface water Energy efficiency system (i.e. improved cook stoves, solar panels, biomass and biogas) Clean water supply facilities (i.e. wells/tube/pump wells, water storage tanks, water filters, etc.) 	<p>Improved management frameworks for sustainable PA and CPA management:</p> <ul style="list-style-type: none"> PA land registration PA boundary demarcation and zonation Management plan (strategic and action plans included) Guidelines for ecotourism development and management in CPAs Guideline for ecotourism concessions in PAs M&E measures and toolkits (including criteria, indicators, checklists, etc.) for both ecotourism development and management by CPAs and PA concessionaries Ecotourism handbook/blueprint in PAs and CPAs <p>Community Need:</p>

				1. Training on ecotourism skill, e-booking system and other market mechanism
20.	Saray Tonle	- Prek Toal village, Koh Chiveang commune, Ek Phnom district, Battambang province - Beoung Tonle Sap Multiple Uses Area	<ol style="list-style-type: none"> 1. Infrastructure and facilities (watching tower, binoculars, toilet) 2. Sub-station or guard stations for PA rangers 3. Ecotourism map and circuits 4. Ecotourism signage 5. Sewage system (e.g. using French drain) to avoid pollution of surface water 6. Energy efficiency system (i.e. improved cook stoves, solar panels, biomass and biogas) 7. Clean water supply facilities (i.e. wells/tube/pump wells, water storage tanks, water filters, etc.) 	<p><u>Improved management frameworks for sustainable PA and CPA management:</u></p> <ul style="list-style-type: none"> • PA land registration • PA boundary demarcation and zonation • Management plan (strategic and action plans included) • Guidelines for ecotourism development and management in CPAs • Guideline for ecotourism concessions in PAs • M&E measures and toolkits (including criteria, indicators, checklists, etc.) for both ecotourism development and management by CPAs and PA concessionaries • Ecotourism handbook/blueprint in PAs and CPAs <p><u>Capacity Building:</u></p> <ul style="list-style-type: none"> • PA and CPA management • Relevant legal, policy and regulatory frameworks • Ecotourism and hospitality skills trainings • Ecotourism entrepreneurship • Environmental management system and related skills and practices • Green standardization & eco-certification • Language and communication skills
21.	O'Choam	- O Chorm Leu, O Chorm krom Village, Kampong Lpaov, Samlot District, battambanr Province - Phnom Samkos Wildlife Sanctuary	<ol style="list-style-type: none"> 1. Road length 2600meters to reach CBET site 2. Water system for community and household (need water pipe approximately 4km which costs around 17,000\$ to 20,000\$; 3. Water storage tank/reservoir and reservoir dam 4. A proper parking lot; 5. Ecotourism map and circuits 6. Ecotourism signage Tourism information center; 	<p><u>Improved management frameworks for sustainable PA and CPA management:</u></p> <ul style="list-style-type: none"> • PA land registration • PA boundary demarcation and zonation • Management plan (strategic and action plans included) • Guidelines for ecotourism development and management in CPAs • Guideline for ecotourism concessions in PAs • M&E measures and toolkits (including criteria, indicators, checklists, etc.) for both ecotourism

			<ol style="list-style-type: none"> 7. Toilet facilities with onsite treatment system 8. Ecotourism information center/visitor information & welcome center 9. Sub-station or guard stations for PA rangers 10. Interpretive or pedestrian paths for ecotourists and visitors inside CPAs/PAs 11. Energy efficiency system (i.e. improved cook stoves, solar panels, biomass and biogas) 12. Risk management facilities (including ranger facilities, i.e. patrol facilities and equipment, wooden staircases with handle, etc.) 	<p>development and management by CPAs and PA concessionaries</p> <ul style="list-style-type: none"> • Ecotourism handbook/blueprint in PAs and CPAs <p><u>Community Need:</u></p> <ol style="list-style-type: none"> 1. Capacity building on bamboo and rattan handicraft
22.	Chrok La'Eang	<p>- Chher Tom commune, Krokro district, Pursat province,</p> <p>- Phnom Samkos Wildlife Sanctuary</p>	<ol style="list-style-type: none"> 1. Underground pipe at parking lot in order to prevent soil-filtering 2. The Environment and Natural Resources Conservation Center in Samkos area, Veal Veng district (cost will be approximately 4million dollars invested in the above 30ha of land areas) 3. Clean water supply facilities (i.e. wells/tube/pump wells, water storage tanks, water filters, etc.) 4. Sub-station or guard stations for PA rangers 5. Ecotourism map and circuits 6. Interpretive or pedestrian paths for ecotourists and visitors inside CPAs/PAs 7. Solid waste management facilities (trash-bins for waste separation, waste collection and transport 	<p><u>Improved management frameworks for sustainable PA and CPA management:</u></p> <ul style="list-style-type: none"> • PA land registration • PA boundary demarcation and zonation • Management plan (strategic and action plans included) • Guidelines for ecotourism development and management in CPAs • Guideline for ecotourism concessions in PAs • M&E measures and toolkits (including criteria, indicators, checklists, etc.) for both ecotourism development and management by CPAs and PA concessionaries • Ecotourism handbook/blueprint in PAs and CPAs <p><u>Community Need:</u></p> <ol style="list-style-type: none"> 1. Capacity building on human resources development

			facilities, incinerators, composing facilities, etc.)	
23.	Phnom Cherg Leang / Thmor Kral	- Koh ktum village, Cheab commune, Teukphos District, Kampong chhnang Province - Phnom Aural Wildlife Sanctuary	<ol style="list-style-type: none"> 1. Ecotourism information center/visitor information & welcome center 2. Access road in the forms of BTSD roads and / or concrete road (~5.5km) 3. Energy efficiency system (i.e. improved cooked stoves, solar panels, biomass and biogas) 4. Ecotourism map and circuits 5. Ecotourism signage 6. Sub-station and guard station for PA ranger 7. Toilet facilities with onsite treatment system 8. Clean water supply facilities (i.e. wells/tube/pump wells, water storage tanks, water filters, etc.) 9. Tent and campground / site 10. Parking lot (roof) 11. Risk management facilities (including ranger facilities, i.e. patrol facilities and equipment, wooden staircases with handle, etc.) 	<p><u>Improved management frameworks for sustainable PA and CPA management:</u></p> <ul style="list-style-type: none"> • PA land registration • PA boundary demarcation and zonation • Management plan (strategic and action plans included) • Guidelines for ecotourism development and management in CPAs • Guideline for ecotourism concessions in PAs • M&E measures and toolkits (including criteria, indicators, checklists, etc.) for both ecotourism development and management by CPAs and PA concessionaries • Ecotourism handbook/blueprint in PAs and CPAs <p><u>Community Needs:</u></p> <ol style="list-style-type: none"> 1. Tourism skills and CPA/CBET management capacity 2. Young tree nursery (one tourist one tree) 3. Standard homestay, community restaurant, means for tourists travelling
24.	Chambok	- Chambok commune, Phnom Srouch district, Kampong Speu province - Kirirom National Park	<ol style="list-style-type: none"> 1. Ecolodge and/or tree houses for tourists to exclusively stay in the natural places within CPA boundary (example of bamboo house in Bali Resort) 2. Standard toilets and need more toilets for 3 different places (1 place with 3 rooms) 3. Tourist information center and meeting hall for convention tourism 	<p><u>Improved management frameworks for sustainable PA and CPA management:</u></p> <ul style="list-style-type: none"> • PA land registration • PA boundary demarcation and zonation • Management plan (strategic and action plans included) • Guidelines for ecotourism development and management in CPAs • Guideline for ecotourism concessions in PAs • M&E measures and toolkits (including criteria, indicators, checklists, etc.) for both ecotourism

			<ol style="list-style-type: none"> 4. Walking/trekking/hiking trails and paths includes along the waterfall areas 5. Sub-station in the area to accommodate tourist flow 6. Water pipeline (0.75-1 Tek of pipe's surface) and technology to monitor water use/consumption (water measurement machine) 7. Rebuild the dam and Watergate at tea farm 8. Zoning map and signpost 9. Add more boundary poles 10. Waste management facilities (trash bin and garbage gear) 11. Energy sources 12. Mountain bikes 13. Biking and hiking trails 14. Campground/site 15. Ecotourism map and circuits 16. Interpretive or pedestrian paths for ecotourists and visitors inside CPAs/PAs 	<p>development and management by CPAs and PA concessionaries</p> <ul style="list-style-type: none"> • Ecotourism handbook/blueprint in PAs and CPAs <p><u>Community Needs:</u></p> <ol style="list-style-type: none"> 1. New skills related to tourism entrepreneurship (e.g. make coffee, bartender, innovative F&B) for all CBET community members 2. Language trainings 3. Technological use training (how to use computer and tech facilities) 4. Knowledge of CCA/CCM, carbon sequestration
--	--	--	---	--