

REPORT THREE

Payment for Ecosystem Services (PES)

Structure for the Ecotourism Activities in Lampi Marine National Park, Myanmar



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INTRODUCTION

This report articulates the PES structure for the ecotourism products discussed in the carrying capacity, plus the Moken Experience that is currently under development. The market prices mentioned in this report are and cannot be definitive but are as close to reality as possible. Market price has to be developed in a participative manner with the community members that are involved as service providers (e.g. how much do the Bo Cho Discovery Leaders expect to earn for one hour of their time to run the village tour?) – same for the benefit sharing mechanism. For instance, it is common to set 10 to 15% out of the profit for the CBT Fund, but this must be discussed with the CBT group and the service provider. Every CBT development has its own dynamics, and these should be understood. Therefore, while the report aims to provide a realistic base, the *structure* in this report is perhaps the most important message.

Based on the results of the EcCC (Ecotourism Carrying Capacity), the report will articulate how each product is likely to benefit a variety of actors within the community. To conclude, a table will be provided for all products with assumed benefit sharing mechanisms that can be adapted to reality as the project develops (e.g. after the development costs and operational costs for each product are clearly articulated, and after these are discussed with TOs and the community members involved). This benefit sharing structure, that is likely to touch different communities in Lampi Marine National Park (LMNP), is embedded within the concept of PES (Payment for Ecosystem Services).

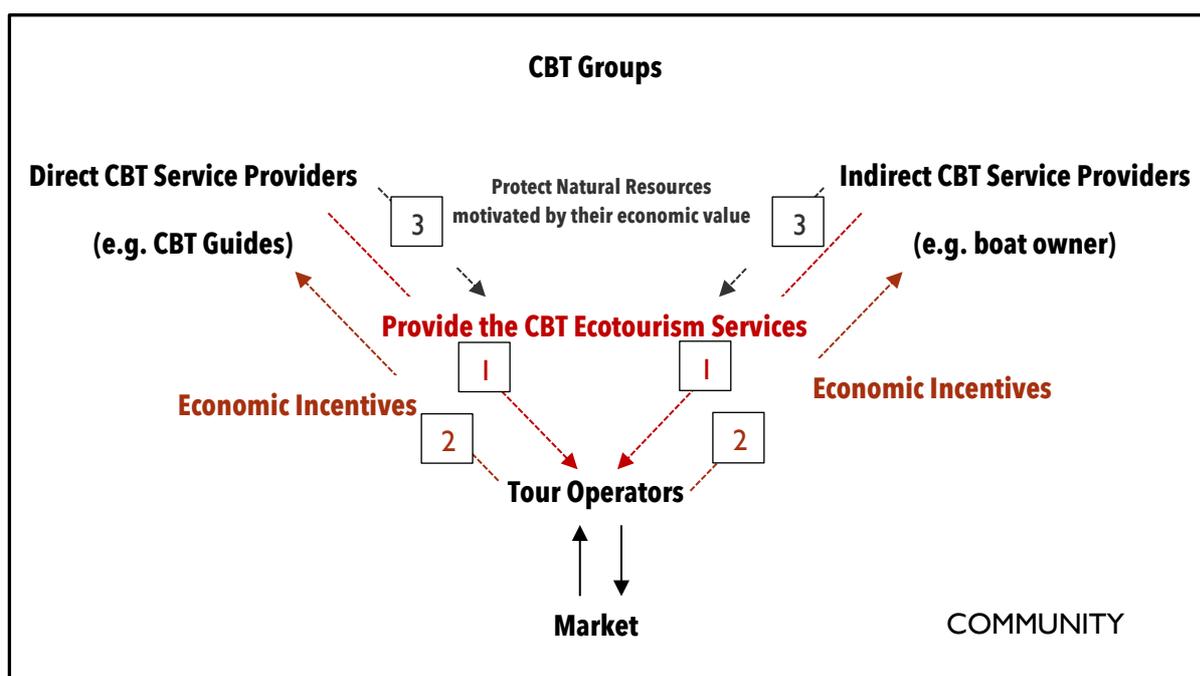
WHY A PES STRUCTURE?

In brief, Payment for Ecosystems Services (or Payment for Environmental Services), here referred as PES, is simply a *market-based* mechanism, similar to subsidies to encourage the conservation of natural resources. This approach recognises the important role that the environment plays in contributing to our wellbeing as well as the potential of market-based approaches to promote conservation. In short, PES are economic incentives to farmers, fisherman and landowners who agreed to take certain actions to manage their land, watersheds etc. In LMNP, these economic incentives are expected to be provided by ecotourism

activities, an approach widely used nowadays in several countries to promote *community-based conservation* of natural resources, especially in protected areas.

At this stage, in the context of LMNP, it is essential to structure this system. The PES should then be discussed with the communities and other stakeholders involved, in order to be fully participative.

The main actors involved in this PES structure are:



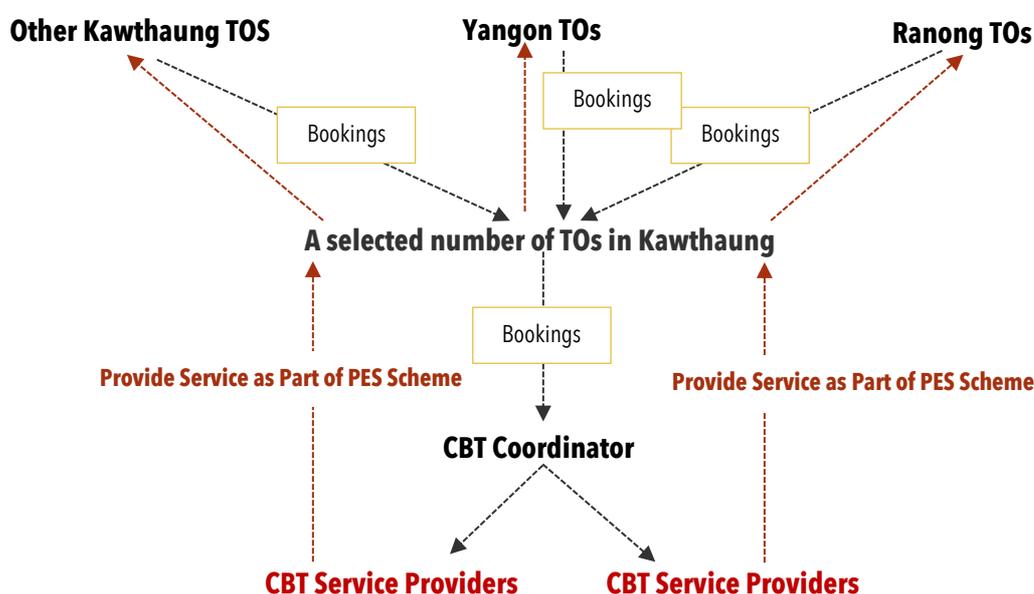
HOW TO READ THIS REPORT

While the PES structure should be supported by a booking system which ensures the market link between the CBT group/s and the TOs, this report, based on the EcCC, only articulates the PES structure at the community level. However, it must be mentioned that the Booking System should be created in a way that it can, with time, function without the support of external organisations.

A SHORT NOTE ON BOOKING SYSTEM

Various Booking System methods can be adopted depending on the market that it is established. For instance, if working with TOs in Yangon and Kawthaung, it is necessary to select a small number of TOs in Kawthaung that are in direct contact with the CBT, as it is very unlikely to create this direct connection between Yangon and the CBT Coordinator in Lampi. It is always better, then, to select a limited number of TOs (e.g. 2-3 or 4) that work with the CBT in Lampi, because this ensures a better coordination of the activities at the CBT level. If I run a tour operator in Yangon and I want to promote the CBT ecotourism packages in Lampi, I may have to get in touch with a selected TO in Kawthaung who has a connection with the CBT in Lampi. Some examples are the CBT in Kayah State (ITC), the one close to Bagan, and in Samkar Lake, as they follow this system. Discussing a booking system at this stage, therefore, is critical for the future functioning of the CBT.

This idea of Booking System is graphically illustrated below:



Moving away from the Booking System, which is not the core focus here, but only a suggestion, we will try to build an ecotourism model at the park level. This report should be read in structural terms rather than detailed numerical economic benefits. As mentioned above, these will be the result of a participative process with the community and discussions with the tour operators interested in the Lampi ecotourism offer.

FUTURE STEPS

Ideally, this report should provide with the needed structure model that can be adjusted while working with the community. Therefore, this is not a definite model, but a model to be used and adapted as the project develops.

To support this process, *mini business plans* can be created, which look at the market and financial aspects of each product, helping the definition of the expected market, the fixed and variable operational costs (even if small MMK amounts), as well as the development costs. It is true that the ecotourism products in question are small-scale, but business plan building exercises can only benefit the development of such products.

As a future step, it is important to open/continue the discussion with the CBT groups/services providers, in order to:

- 1)** Ensure that the all CBT ecotourism products are assigned to a specific group (currently it is unclear who will be responsible for the Sitta Galet Mangrove-Jungle Trail, Kayaking the Crocodile River etc.);
- 2)** Diversify the products by providing at least 2 *food-based experiences*. Arranging traditional *family lunches* or supporting existing food stations/restaurants in the villages are two ideas to explore further. Moreover, traditional food, especially lunch with family, is an attractive experience for tourists (also locals, given the diversity of ethnic groups in Myanmar) and for the TOs that will be approached;
- 3)** Evaluate the economic expectations of service providers. These expectations should be discussed, especially when “not realistic” (e.g. too high for the market). However, meeting the expectations of the CBT members is likely to ensure continuation of the activities, motivation and greater involvement;
- 4)** Discuss with the CBT the gradual development of products, starting from those that are surely feasible to develop and launch in the market (here comes the need to meet the TOs and discuss their views on the products that are currently under development or at the idea stage). It is suggested to refrain from stating to the CBT the development of certain products in case it is not sure if they are viable, as this can potentially disappoint the community.

ECOTOURISM PRODUCTS AND CURRENT CBT GROUPS

During the visit to Lampi there was the opportunity to inspect all the products that are expected to be developed. Two CBT groups are currently formed: the Bo Cho Discovery Leaders (*2 currently active members*) and the Moken Groups (*15 currently active members*). Below are the CBT products and the associated groups:

- 1) Moken Experience – Moken Group from Makyone Galet Village
- 2) Makyone Galet Village Tour – Bo Cho Discovery Leaders
- 3) Bo Cho Jungle Trail – not defined yet
- 4) Kayaking in the Tourist River Mangrove – Moken Group from Makyone Galet
- 5) Mangrove Walking Tour in the Tourist River – Moken Groups from Makyone Galet
- 6) Kayaking in the Crocodile River – not defined yet
- 7) Waterfall Jungle Trekking – not defined yet
- 8) Sitta Galet Mangrove Jungle Trail – not defined yet
- 9) Sunset Hornbill Experience in Bo Cho Island – not defined yet
- 10) Gregories Tour – not defined yet

Some of the products, as they are on the early stage, have not yet been assigned to any group. Here are some suggestions to start associating an existing CBT Group or a potential new group to the products, as a means of identifying the service providers who will be in charge of them.

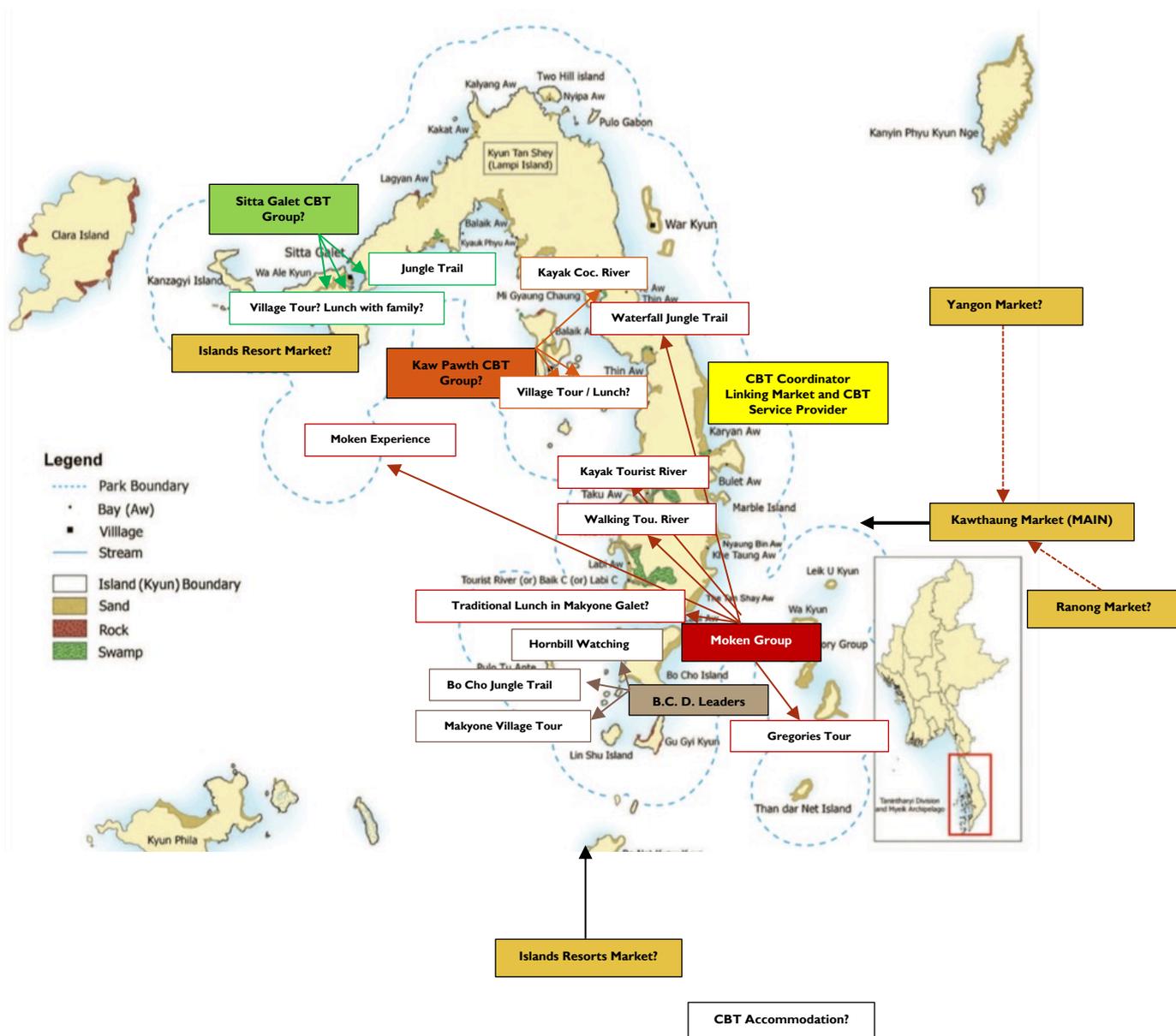
- 1) The **Bo Cho Jungle Trail** could potentially be run by the Bo Cho Discovery Leaders (2 girls); however, it has been communicated to me that the two girls feel uncomfortable to leave the village to guide the tour inside the jungle. An idea would be to try to involve 3 men from the Burmese community, who, in the context of the village, may be more comfortable to run the tour inside the jungle. According to the carrying capacity, it is *ideal* to have at least 3 people as service providers for this specific product, but even 2 CBT guides specialised in this product would be enough, as they could tour the visitors more than once in a day, if this is the case.

- 2) **Kayaking the Crocodile River** – this product seems to be involved in the Moken Experience, therefore run by the Moken Groups of Makyone Galet. However, it is still unclear which groups will take care of the activity if it is promoted as a solo experience. It would be good to involve other communities of the park, if this is feasible. Considering the proximity, it could be possible to create a small CBT group in the village of Kaw Pawth and perhaps develop a short village tour with a traditional lunch. Having strategic food-sites helps running the tours.
- 3) **Waterfall Jungle Trek** – given the location, perhaps this product could be discussed with the Moken Groups of Makyone Galet.
- 4) **Sitta Galet Mangrove Jungle Trail** – here there is the potential of creating a small CBT group in Sitta Galet as well as organising a village tour and a food experience.
- 5) **Sunset Hornbill Experience** – given the location, 1 of the 2 groups from Makyone Galet could be involved in this product. I suggest the Discovery Leaders from Bo Cho, if they are willing.
- 6) **Gregories Tour** – Moken group from Makyone Galet would be the most suitable for this experience.

It is suggested to specify precisely which members of the group are responsible for each product. For instance, if there are 6 Bo Cho Discovery Leaders, 3 of them can be trained for the village tour and 3 of them for the jungle trail. Therefore, 3 CBT guides from Bo Cho Discovery Leaders group will cover a Cultural Guide role and the other 3, a Nature Guide role. The same approach can be applied to the other groups.

SUGGESTED ECOTOURISM MODEL

This model is in accordance to products' potential identified by the organisation as well as food-based product suggestions. The model shows two CBT Groups already formed (Moken Groups and Bo Cho D. Leader) and two suggested groups to be formed in order to better manage all products and spread the benefits. In Report 1, however, it is highlighted the need to prioritise certain products that will enter the market soon. Project duration and community dynamics should help establish the degree of feasibility of this model through prioritisation where it is needed. Report 1 suggests some general packages based on this model.



Expected community involvement based on the suggested ecotourism products and on daily EcCC will be described in the following subsection. It is important to mention, however, that within a group, one guide can be trained for different products if there is shortage of community involvement. It will be shown, then, what each product needs to function based on the maximum daily capacity. It is an indicative of the CBT *Labour Force* needed for each product and how many people can potentially benefit directly from the PES scheme.

MOKEN GROUPS FROM MAKYONE GALET

(Likely to work in rotation - capacity needed based on max. daily visitors)

- Waterfall Trail (2 CBT Nature Guides) + (2 boat drivers)
- Kayaking in the Tourist River (4 CBT Nature Guides) + (2 boat drivers)
- Mangrove Walking in the Tourist River (2 CBT Nature Guides) + (2 boat drivers)
- Gregories Tour with Birdwatching/Snorkelling (3 CBNT Nature Guides) + (3 boat drivers)
- + Moken Experience (3 CBT Cultural Guides) + (1 boat driver)
- + Traditional Lunch in Makyone Galet?

BO CHO DISCOVERY LEADERS

(Likely to work in rotation - capacity needed based on max. daily visitors)

- Bo Cho Jungle Trail (3 CBT Nature Guides)
- Village Tour in Makyone Galet (3 CBT Cultural Guides)
- Hornbill Watching (4 CBT Nature Guides) + (2 boats drivers or more)

SITTA GALET GROUP (NOT FORMED)

(Likely to work in rotation - capacity needed based on max. daily visitors)

- Sitta Galet Jungle Trail (3 CBT Nature Guides)
- + Traditional Lunch? + Village Tour?

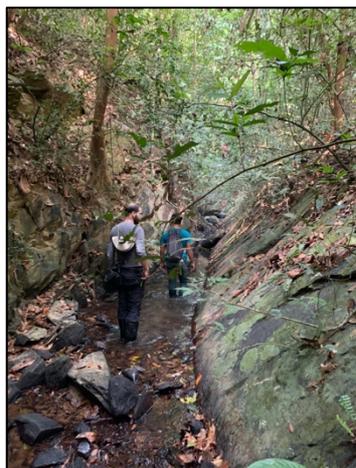
KAW PAWTH GROUP (NOT FORMED)

(Likely to work in rotation - capacity needed based on max daily possible visitors)

- Kayaking in the Crocodile River (4 CBT Nature Guides) + (2 boat drivers)
- + Traditional Lunch? Village Tour?

PES - WATERFALL JUNGLE TRAIL

The Waterfall Jungle Trail is located in the eastern part of Lampi Island. Following the computation of the EcCC, it is estimated that the acceptable maximum number of daily visitors is 24. Given the fact that this is a long trail and one CBT can potentially run the tour only once a day, it is estimated that the needed



management capacity of this trail is of at least 2 CBT guides that need to be trained for this specific product. Therefore, the trekking has the potential of benefiting directly 2 individuals that act as service providers. They work in rotation or based on availability.

At this stage, the estimated market price per visitor could be set to 25.000 MMK for the 2.5 hours *experience* (tour packages prices should be formed based on development/operational costs and CBT expectation, and through discussions with TOs). At this stage, it can be estimated about 200.000 MMK of development costs related to trail signages (covered initially by the supporting org., but by the CBT in the long-term). Here, it is assumed that the life span of signages is approximately 3 years. Other development expenses related to trail maintenance are not considered, as this can be done by the CBT.

Operational costs include the depreciation of the development costs (it is important to forecast visitors' numbers to how much to depreciate) and the boat hire. Benefits are then shared between the service providers and the CBT Fund, in addition to a contribution to the park management.

To depreciate the development costs, it is essential to estimate the life span of the depreciated equipment and to forecast how many tours/activities are expected to be run during the tourist season. Here, we estimate a 5-months tourist season. We can also estimate 2 Waterfall Jungle Trail tours in a week (a business plan would give a more trustable forecast). The life span of the signages to depreciate is set at 3 years as an example, according to how long they can last. Sometimes, equipment has different life spans, and these should be taken into consideration.

Depreciation of the development costs in order to ensure CBT financial empowerment:

	Amount	Months
Total amount to depreciate	200.000 MMK	
Life span in months (3 years)		36
Active tourist months (3 years)		15
Estimated n. of Waterfall Tours in 15 months (2 per week)		120
Total amount to depreciate from each tour (as a cost for each sold activity – money to put aside from each tour sold)	1.600 MMK	

The depreciation can either be kept by the CBT group as a separate fund or included in the CBT Fund. I suggest a separate fund, as the depreciation fund is very important for the long-term ongoing activities. For instance, the Moken Group can gather the depreciation of each activity, keep the money in one depreciation fund and use this money for any of the activities. Simply, if the Moken Group runs 3 ecotourism activities, it will not have 3 depreciation funds, but only one and use the money for the product that needs it first.

The PES system for this product is broken down by including the benefit sharing based on 4 paying visitors (which I assume to be the break-even). Benefit sharing in % can vary from product to product and should be discussed with the CBT groups in detail. Moreover, a salary-base system should be set for one CBT coordinator. Ideally, 1 CBT coordinator is enough to coordinate the whole destination (after appropriate IT and other trainings). Is her/him to be in contact with the TOs. A fixed amount should be set for this person, therefore, to ensure long-term commitment, and also because this will be a full-time position during high season. A contribution should come from each product, based on estimated sold tours (according to the business plan).

This should be considered a fixed operational cost. As I do not know how much the CBT coordinator will cost monthly for the entire park, I assume, based on past experience, that at least 300.000 MMK monthly during the tourist season (approximately 5 months a year). These 300.000 MMK monthly should be covered by the contribution from each product sold. At the moment, 10 products are listed, and we can assume that 30.000 MMK monthly from each product sold need to be channelled into the salary of the CBT Coordinator (this is the most important person of the CBT, marketwise). Again, a business plan would give trustable

forecasting and inform how much should be put aside from each activity in order to have the needed amount as a collective contribution to the salary of the CBT Coordinator. Here, for the Waterfall Trail, we assume that at least 2 tours per week during the 5 months of high season are run. Of course, if more products will be developed (e.g. lunch with family), the contribution for each activity will be lower, or higher if products are less than 10.

	IN	OUT
Visitors (Break-Even) or 1 – 2 – 3 tourists paying the equal to Break-Even	4	
Income	100.000 MMK	
OPERATIONAL COSTS		
Boat (Inc. Fuel and Driver)		60.000 MMK
Depreciation of the development cost (managed by the CBT group separately from the CBT Fund)		1.600 MMK
Contribution to CBT Coordinator Salary (managed by the CBT group separately from the CBT Fund) (based on expected monthly tours and assumed salary)		3.750 MMK
Refreshment provided on boat (e.g. water, juice) (est. 1.000 MMK per person)		4.000 MMK
PROFIT	29.400 MMK	
BENEFIT SHARING AS PART OF PES		
Service Provider (1 CBT guide) (70%)	20.580 MMK	
CBT Fund (25%)	7.350 MMK	
Contribution to Park Man. (5%)	1.470 MMK	

In rotation, two CBT guides are likely to benefit from this product. Moreover, this could also become a regular revenue for a selected number of boat drivers. In this case, it is fair that the service provider is substantially rewarded for the time and effort invested in this trekking, which is quite challenging. In my opinion, 25.000 MMK is a fair price for one tourist. Given this possible market price (to be discussed with TOs and to see how it matches with the total prices of packages), the possible costs and the earning amount that may be expected by the CBT guides, it would suitable to establish a minimum number of participants to 4 in order to meet the break-even. However, the minimum number of tourists should be reviewed following a breakdown of real development and operational costs.

To summarise, the beneficiaries from this product as part of the PES scheme are:

- At least 2 CBT guides working in rotation;
- At least 2 boat drivers and owner/s regularly involved in this activity.

The benefit for the CBT increases as the number of visitors in a group increases, as they are rewarded on a % basis. Instead, the boat drivers (which ideally own the boat as well) are paid on a fixed amount basis.

Indirect beneficiaries:

- Makyone Galet community
- Fuel providers
- CBT Coordinator
- Provider of refreshments (e.g. water, traditional juice) from Makyone Galet community

A NOTE ON FINANCIAL RECORDING

The CBT group should be able to record all entrances and costs, as well as benefit sharing. Simple *financial recoding sheets* can be prepared, and trainings on financial administration can be provided. Although 1 or 2 treasures or CBT accountant are likely to be responsible for this task, it is useful that the whole CBT group is aware of the financial recording mechanism to ensure transparency.

A NOTE ON CBT FUND

The CBT Fund is managed by the CBT group in charge of a certain number of ecotourism activities. The fund is useful to deliver benefits behind the service providers. However, the CBT fund should be used for two main reasons:

- 1) Contribute to costs related to the general management of the CBT (e.g. adm.);
- 2) Support local social and environmental work.

The CBT will inevitably have administrative expenses for which money is needed, as communication and travel. The CBT fund can also be used for supporting community development activities: scholarships, welfare of elders, village infrastructures etc. The CBT Group/Committee can propose how these funds could be used and discuss with the community.

A NOTE ON PARK FUND

The 5% contribution to the Park was decided on the basis of:

- 1) Conversation with the staff in loco;
- 2) Extent to which it can provide a reasonable contribution to the Park.

The contribution can be used for covering essential expenses that may be related to key infrastructure of the park for tourism and beyond. For instance, with the time it could cover equipment replacement, conservation work, sponsor basic amenities of the park. It should therefore, support what is not expected to be supported by the CBT Fund or Depreciation Fund in order to work towards the ideal situation where ecotourism activities do contribute **directly** to the conservation of the park.

The Management of this Fund should be of a neutral entity (that is not involved in the tourism activities) – thus, it may be suggested to explore the idea of having the Park Management Committee managing the Fund. But, of course, a transparent system should be in place. A system that is transparent for the CBTs as well.

PES – SITTA GALET MANGROVE-JUNGLE TRAIL

The Sitta Galet Mangrove-Jungle Trail is located in the northwest of Lampi Island, in front of Sitta Galet Village. Following the computation of the EcCC, it is estimated that the acceptable maximum number of daily visitors is 37. Consequently, it is suggested at least 3 CBT Nature Guides to be involved in rotation. It



is also recommended that these CBT guides are part of a *new group based in Sitta Galet*. Therefore, the trail has the potential of benefiting directly at least 3 individuals that act as service providers. They work in rotation or based on availability.

At this stage, the estimated market price per visitor could be set to 12.000 MMK for the 1-hour

experience (tour packages prices should be formed based on the individual product price and after discussions with TOs). For instance, in the case of a half-day tour including this trail plus Sitta Galet Village Tour, we should firstly consider each product separately, in terms of costs, profit and benefit sharing – as we are doing now while building the PES model. Operational costs include the depreciation of the development costs (it is important to forecast visitors' numbers to how much to depreciate) and it is suggested to include boat coats, if this will be part of half-day tour. Benefits are then shared among the service providers, the CBT Fund and the park management.

Here, we estimate a 5-months tourist season and 3 tours in a week (more than the Waterfall Trail, as this is better located and has more market accessibility – since a collaboration could be established with the nearby W.R.). The life span of the equipment to depreciate is set at 3 years as an example, according to how long the trail signages can last. Here, the amount to depreciate is estimated at 150.000 MMK because it is a short trail and any development, such as signages, is expected to cost less than in the Waterfall Trail. The community should be, in the long-term, responsible for paying any replacement/fixing of the signages, and the depreciation fund becomes critical to ensure financial empowerment of the CBT.

Depreciation of the development costs in order to ensure CBT financial empowerment:

	Amount	Months
Total amount to depreciate	150.000 MMK	
Life span in months (3 years)		36
Active tourist months (3 years)		15
Estimated n. of Sitta Jungle Tours in 15 months (est. 3 per week)		180
Total amount to depreciate (money to put as a cost for each sold activity - money to put aside from each tour sold)	850 MMK	

For the Sitta Galet Jungle Trail, we assume at least 3 tours running per week during the 5 months of high season. In accordance to the individual price suggested, the product can be offered also to only one visitor, as this, based on a 12.000 MMK received by the CBT, can provide an excellent profit for the service provider. In case the product in Sitta Galet is included in a half-day (or longer) package tour, costs related to boat may need to be spread to all products taking place in the area. For instance, a half-day tour from the

nearby resort may involve the Sitta Galet Jungle Trail and Village Tour. The boat cost should be added to the individual cost calculated for each product in order to form the package cost for each tourist.

For other products, such as the Tourist River, Gregories and Hornbill Watching, the estimated boat costs (see later in the report) are already included, as these products can also be promoted as solo experiences or they are likely to have high boat costs. Therefore, calculating them in this report gives an idea of the possible market price for each of these activities.

In packages tours, one boat might be involved in different products (e.g. from Bo Cho to Tourist River and then Sitta Galet). For this reason, its costs should be spread to 2 or more ecotourism activities involved in the tour.

Here is the potential breakdown of the Sitta Galet Jungle Tour:

	IN	OUT
Visitors	1	
Income	12.000 MMK	
OPERATIONAL COSTS		
Depreciation of the development cost (managed by the CBT group separately from the CBT Fund)		850 MMK
Contribution to CBT Coordinator Salary (managed by the CBT group separately from the CBT Fund) (based on expected monthly tours and assumed salary)		2.500 MMK
PROFIT	8.650 MMK	
BENEFIT SHARING AS PART OF PES		
Service Provider (1 CBT guide) (80%)	6.900 MMK	
CBT Fund (15%)	1.300 MMK	
Contribution to Park Man. (5%)	430 MMK	

To summarise, the beneficiaries from this product as part of the PES scheme are:

1. At least 3 CBT guides working in rotation for the village of Sitta Galet

Indirect beneficiaries:

- 3) Sitta Galet Community
- 4) CBT Coordinator

PES - KAYAKING THE CROCODILE RIVER



The Crocodile River Trail is located in the west of Lampi Island. Following the computation of the EcCC, it is estimated that the acceptable maximum number of daily visitors is 30. According to the need of having at least 1 guide per 3 kayaks (due to long-tailed boat capacity in transporting the kayaks), it can be assumed

that this CBT product has the potential to benefit 5 CBT guides, working in rotation, and at least to 2 boat drivers that can be involved in the product. This product can also include a new CBT Group from the village of Kaw Pawth (if feasible), in addition of potentially being part of the 2-days Moken Experience, which is run by the Moken Group of Makyone Village. Therefore, the trail has the potential of benefiting directly at least 7 individuals that act as service providers. They work in rotation or based on availability.

At this stage, the estimated market price per visitor to participate in the 1-hour mangrove kayaking tour could be assumed to be about 18.000 MMK for each participant. According to an estimated total capacity of 6 people per boat/per 1 guide, this amounts to maximum 108.000 MMK per tour. Here, it is important to consider the development costs (e.g. price of kayaks). For each activity sold, a contribution to the depreciation of the development costs should be made.

It is possible to estimate:

1. 3 kayaks – life span of 3 years (maybe more?). Each costs 300.000 MMK (depending on the quality or if traditional canoes will be used instead). Possibly it will be necessary to add life jackets, life ring or any other equipment – for each equipment, different life spans can be calculated.
2. Active tourist season – in 3 years: 15 months.
3. Expected weekly tours sold in 5 months within the tourist season – 3 tours weekly = (12 monthly).

Depreciation of the development costs in order to ensure CBT financial empowerment:

	Amount	Months
Total amount to depreciate	900.000 MMK	
Life span in months (3 years)		36
Active tourist months (3 years)		15
Estimated n. of kayaking activities in 15 months (est. 3 per week)		180
Total amount to depreciate – to put aside from each tour sold (as a cost for each sold activity)	5.000 MMK	

It is possible to assume at least 3 tours per week during the 5 months of high season. We can estimate a total of 25.000 MMK boat costs per tour, assuming that it will be developed from Kaw Pawth Village (increase boat price if tour is sold from Makyone Galet and increase individual price if needed). Therefore, a break-even related to the visitors' number needs to be set *or* the product can be proposed to only one person, given the fact that that she/he will pay a fixed cost to meet the break-even.

Here, we will set a break-even:

	IN	OUT
Visitors (break-even) or 1 – 2 visitors paying equal to break-even	3	
Income	54.000 MMK	
OPERATIONAL COSTS		
Depreciation of the development cost (managed by the CBT group separately from the CBT Fund)		5.000 MMK
Contribution to CBT Coordinator Salary (managed by the CBT group separately from the CBT Fund) (based on expected monthly tours and assumed salary)		2.500 MMK
Boat costs (Inc. fuel) (assuming from Kaw Pawth)		25.000 MMK
Refreshment on boat (e.g. water) (est. 1.000 per person)		3.000 MMK
PROFIT	18.500 MMK	
BENEFIT SHARING AS PART OF PES		
Service provider (1 CBT guide) (70%)	12.950 MMK	
CBT Fund (25%)	4.600 MMK	
Contribution to park man. (5%)	900 MMK	

In rotation, 3 CBT guides are likely to benefit from this product. Moreover, this could also become a regular revenue for a selected number of boat drivers.

To summarise, the likely beneficiaries from this product as part of the PES scheme are:

1. At least 5 CBT guides working in rotation for the village of Kaw Pawth
2. At least 2 boat drivers and owner regularly involved in this activity

Indirect beneficiaries:

3. Kaw Pawth Community?
4. Fuel providers
5. CBT Coordinator
6. Providers of refreshments from Kaw Pawth Village?

PES - KAYAKING THE TOURIST RIVER



The Tourist River Trail is located in the west of Lampi Island. Following the computation of the EcCC, it is estimated that the acceptable maximum number of daily visitors is 20. According to the need of having at least 1 guide per 3 kayaks (due to long-tailed boat capacity to transport the kayaks), it can be assumed that this CBT product has the potential to benefit 4 CBT guides, working

in rotation, and at least 2 boat drivers that can be involved in the product. This product is likely to be managed by the Moken Group from Makyone Galet. Therefore, we can assume that there is a need to provide different equipment than the Crocodile River (assuming that the kayaks at the Crocodile River are not run by the Moken Groups but by a potential new group in Kaw Pawth). Therefore, the trail has the potential of benefiting directly at least 6 individuals that act as service providers. They work in rotation or based on availability.

At this stage, the estimated market price per visitor to participate in 1-or 1 ½ hour mangrove kayaking tour can be assumed to be about 25.000 MMK for each participant. According to an estimated total

capacity of 6 people per boat/per 1 guide, this amounts to maximum 150.000 MMK per tour. A higher price than the Crocodile River is suggested because this experience is longer and far more enriching.

Here, it is important to consider the development cost (e.g. price of kayaks). For each activity sold, a contribution to the depreciation of the development costs should be made.

We can estimate:

1. 3 kayaks – life span of 3 years – each costs 300.000 MMK (traditional canoes?)
2. Active tourist season – in 2 years: 15 months
3. Expected weekly tours sold in the months within the tourist season – 4 = (16 monthly)

This is likely to be a more popular activity in the CBT. Therefore, for now, 4 weekly tours are expected, but this number can be adjusted with time.

Depreciation of the development costs in order to ensure CBT financial empowerment:

	Amount	Months
Total amount to depreciate	900.000 MMK	
Life span in months (3 years)		36
Active tourist months (3 years)		15
Estimated n. of Tourist River Kay. Tours in 15 months (est. 4 per week)		240
Total amount to depreciate (as a cost for each sold activity)	3.750 MMK	

It is assumed at least 4 tours per week during the 5 months of high season. We can estimate a total of 40.000 MMK boat costs per tour, as this site is much more accessible and requires less fuel and time.

	IN	OUT
Visitors (break-even) or 1 or 2 paying the break-even	3	
Income	75.000 MMK	
OPERATIONAL COSTS		
Depreciation of the development cost (managed by the CBT group separately from the CBT Fund)		3.750 MMK

Contribution to CBT Coordinator Salary (managed by the CBT group separately from the CBT Fund) (based on expected monthly tours and assumed salary)		1.800 MMK
Boat costs (Inc. fuel)		40.000 MMK
Refreshment on boat (e.g. water) (est. 1.000 per person)		3.000 MMK
PROFIT	26.450 MMK	
BENEFIT SHARING AS PART OF PES		
Service provider (1 CBT guide) (60%)	15.900 MMK	
CBT Fund (35%)	9.250 MMK	
Contribution to park man. (5%)	1.300 MMK	

In rotation, 4 CBT guides are likely to benefit from this product. Moreover, this could also become a regular revenue for a selected number of boat drivers.

To summarise, the beneficiaries from this product as part of the PES scheme are:

1. At least 4 CBT guides working in rotation for Makyone Galet Village
2. At least 2 boat drivers and owner regularly involved in this activity

Indirect beneficiaries:

3. Makyone Galet
4. Fuel providers
5. CBT Coordinator
- 6. Provider of refreshment from Makyone Galet Community**

PES - WALKING TOUR AT THE TOURIST RIVER



The Tourist River offers the opportunity of an additional product, the walking tour through the mangrove. Following the computation of the EcCC, it is estimated that the acceptable maximum number of daily visitors is 30. It is expected that this product is managed by the Moken Group from Makyone Galet. According to the carrying capacity, at least 2 CBT guides should be trained for this product, running this experience only during the low tide. In addition to the boat driver/owner, it has the potential to benefit a total of 4 people from the community as part of the PES scheme. At this stage, the estimated market price per visitor to participate in 1 or 1 ½ hours mangrove tours is of about 22.000 MMK per participant.

Here, we can estimate:

1. Equipment (e.g. walking boots for mangroves etc.) – lifespan of 2 years – appx. 200.000 MMK
2. Active tourist season – in 2 years: 10 months
3. Expected weekly tours sold in the months within the tourist season – 4 = (16 monthly)

Depreciation of the development costs in order to ensure CBT financial empowerment:

	Amount	Months
Total amount to depreciate	200.000 MMK	
Life span in months (2 years)		24
Active tourist months (2 years)		10
Estimated n. mangrove tours in 15 months (est. 3 per week)		160
Total amount to depreciate (as a cost for each sold activity)	1.250 MMK	

It is assumed at least 4 tours per week during the 5 months of high season. We can estimate a total of 40.000 MMK boat costs per tour.

	IN	OUT
Visitors (break-even) or 1 – 2 visitors paying equal to break-even	3	
Income	66.000 MMK	
OPERATIONAL COSTS		
Depreciation of the development cost (managed by the CBT group separately from the CBT Fund)		1.250 MMK
Contribution to CBT Coordinator Salary (managed by the CBT group separately from the CBT Fund) (based on expected monthly tours and assumed salary)		1.900 MMK
Boat costs (Inc. fuel)		40.000 MMK
Refreshment on boat (e.g. water) (est. 1.000 per person)		3.000 MMK
PROFIT	19.850 MMK	
BENEFIT SHARING AS PART OF PES		
Service provider (1 CBT guide) (75%)	14.900 MMK	
CBT Fund (20%)	4.000 MMK	
Contribution to Park Man. (5%)	1.000 MMK	

In rotation, 2 CBT guides are likely to benefit from this product. Moreover, this could also become a regular revenue for a selected number of boat drivers.

To summarise, the likely beneficiaries from this product as part of the PES scheme are:

1. At least 2 CBT guides working in rotation for Makyone Galet Village
2. At least 2 boat drivers and owner regularly involved in this activity

Indirect beneficiaries:

3. Makyone Galet Village Community
4. Fuel providers
5. CBT Coordinator
- 6. Providers of refreshments from Makyone Galet Village**

PES – SNORKELLING THE GREGORIES



Following the computation of the EcCC for the Gregories Tour based on the snorkelling activities, it is suggested a maximum of 30 daily visitors in the site (each day in a different area tract). It is suggested that these 30 visitors are split into 3 or more groups, therefore without exceeding 10 Pax/boat in order to enrich the experience and safety. A total of 4 CBT guides can

be trained for this product in order to always have availability, as this product has the potential of being highly successful. Moreover, 4 boat drivers can be involved in the activities in rotation, to maximise the spreading of the benefits (at least 2 boat drivers should be involved). For an afternoon tour, that includes on-board island hopping, snorkelling and flying foxes watching over the sunset (4-hours tour), a market price of about 45.000 MMK per participant could be established. The experience is diverse, rich and unique; therefore this price is appropriate to the experience (and perhaps even more).

Here, we can estimate:

1. Equipment (e.g. snorkelling, birdwatching equipment etc.) – lifespan of 3 years: appx. 1.500.000 MMK (just estimation)
2. Active tourist season – in 3 years: 15 months
3. Expected weekly tours sold in the months within the tourist season – (4 weekly) = (16 monthly)

Consider estimating the depreciation separately if equipment are expected to have a different life span.

Depreciation of the development costs in order to ensure CBT financial empowerment:

	Amount	Months
Total amount to depreciate	1.500.000 MMK	
Life span in months (3 years)		36

Active tourist months (3 years)		15
Estimated n. of Tours at the Gregories in 15 months (est. 3 per week)		240
Total amount to depreciate (as a cost for each sold activity)	6.250 MMK	

It is assumed at least 4 tours per week during the 5 months of high season. We can estimate a total of 100.000 MMK boat costs per tour.

	IN	OUT
Visitors (break-even) or 1 – 2 visitors paying equal to break-even	3	
Income	135.000 MMK	
OPERATIONAL COSTS		
Depreciation of the development cost (managed by the CBT group separately from the CBT Fund)		6.250 MMK
Contribution to CBT Coordinator Salary (managed by the CBT group separately from the CBT Fund) (based on expected monthly tours and assumed salary)		1.900 MMK
Boat costs (Inc. fuel)		100.000 MMK
Refreshment on boat (est. 1.000 per person)		3.000 MMK
PROFIT	23.850 MMK	
BENEFIT SHARING AS PART OF PES		
Service provider (1 CBT guide) (70%)	16.700 MMK	
CBT Fund (25%)	6.000 MMK	
Contribution to park man. (5%)	1.200 MMK	

In rotation, at least 3 CBT guides are likely to benefit from this product. Moreover, this could also become a regular revenue for a selected number of boat drivers.

To summarise, the likely beneficiaries from this product as part of the PES scheme are:

1. At least 3 CBT guides working in rotation for Makyone Galet Village
2. At least 3 boat drivers and owner regularly involved in this activity

Indirect beneficiaries:

3. Makyone Galet Village Community
4. Fuel providers
5. CBT Coordinator

6. Providers of refreshments from Makyone Galet Village

PES - BO CHO JUNGLE TRAIL



The Bo Cho Jungle Trail is located in Bo Cho Island, and it is still not defined which group will manage

this product. This report suggests that the Bo Cho Discovery Leader group is suitable for managing the experience, by involving at least 3 CBT guides (men) willing to join the group. Three CBT guides are needed given that the maximum EcCC was calculated to be 34 visitors in a day.

At this stage, the estimated market price per visitor could be set to 15.000 MMK per 1 ½ hours trail (the rubber workshop involvement should be considered and established as an operational cost if it is the case). Easily accessible, it is possible to forecast that this tour may be run at least 4 times in a week during the tourist season. Development costs include signages (every 3 years) and yearly trail maintenance – this is considered a cost because it may involve considerable work following the raining season. Maintenance can be accounted to 200.000 MMK a year, including cleaning the path, re-vegetation etc., while signage can be amounted to 150.000 every 3 years.

Note: the trail maintenance was not considered for other hiking trails because these take place in rocky riverbeds that hardly will need specific maintenance, while in Bo Cho the trail is usually very narrow and very sensitive to trampling.

Depreciation of the development costs in order to ensure CBT financial empowerment:

Yearly Trail Maintenance	Amount	Months
Total amount to depreciate	200.000 MMK	
Life span in months (1 year)		12
Active tourist months (1 year)		5

Estimated n. of Bo Cho Jungle Tours in 5 months (4 per week)		80
Total amount to depreciate (as a cost for each sold activity)	2.500 MMK	

Signages	Amount	Months
Total amount to depreciate	150.000 MMK	
Life span in months (3 year)		36
Active tourist months (3 year)		15
Estimated n. of Bo Cho Jungle Tours in 15 months (4 per week)		240
Total amount to depreciate (as a cost for each sold activity)	600 MMK	

The total depreciation of each run activity is 3.100 MMK.

The benefit sharing is broken-down as follows:

	IN	OUT
Visitors (e.g. break-even)	1	
Income	15.000 MMK	
OPERATIONAL COSTS		
Depreciation of the development cost (managed by the CBT group separately from the CBT Fund)		3.100 MMK
Contribution to CBT Coordinator Salary (managed by the CBT group separately from the CBT Fund) (based on expected monthly tours and assumed salary)		1.875 MMK
PROFIT	10.000 MMK	
BENEFIT SHARING AS PART OF PES		
Service Provider (1 CBT guide) (75%)	7.500 MMK	
CBT Fund (20%)	2.000 MMK	
Contribution to park manag. (5%)	500 MMK	

In rotation, 3 CBT guides are likely to benefit from this product.

To summarise, the likely beneficiaries from this product as part of the PES scheme are:

1. At least 3 CBT guides working in rotation from the Discovery Leaders Group of Makyone Galet

The benefit for the CBT increases as the number of visitors in a group also increases, as they are rewarded on a % basis.

Indirect beneficiaries:

2. Makyone Galet Community
3. CBT Coordinator

It is suggested to add a boat pickup from the beach back to the village. In this case, 1 boat driver can actively be involved, and the individual price for the experience can be increased.

PES - MAKYONE GALET VILLAGE TOUR



In the Village Tour run by the Bo Cho Discovery Leaders group of Makyone Galet, at least 3 CBT guides should be involved in rotation. The current price is 10.000 MMK per visitor, and a minimum of 4 tours in a week is expected (likely to be more, but it is suggested to slightly underestimate the real expectation).

	IN	OUT
Visitors (e.g. break-even)	1	
Income	10.000 MMK	
OPERATIONAL COSTS		
Depreciation of the development cost (managed by the CBT group separately from the CBT Fund)		/
Contribution to CBT Coordinator Salary (managed by the CBT group separately from the CBT Fund) (based on expected monthly tours and assumed salary)		1.875 MMK
PROFIT	8.125 MMK	
BENEFIT SHARING AS PART OF PES		
Service provider (1 CBT guide) (75%)	6.100 MMK	
CBT Fund (20%)	1.625 MMK	
Contribution to park man. (5%)	400 MMK	

In rotation, 3 CBT guides are likely to benefit from this product.

The likely beneficiaries from this product as part of the PES scheme are:

1. At least 3 CBT guides working in rotation from the Discovery Leaders group of Makyone Galet

Indirect beneficiaries:

2. Makyone Galet Community
3. CBT Coordinator

PES - HORNBILL WATCHING IN BO CHO ISLAND



Hornbill watching in Bo Cho is suggested to be run by the Bo Cho Discovery Leaders group if they are willing to spread the benefits more widely. According to the EcCC, 4 CBT guides can be trained to run this product. 4 boats can also be considered, with a maximum of 6 Pax per boat to ensure visitors' satisfaction. This experience can only be run during sunset.

At this stage, the estimated market price per visitor could be set to 15.000 for 1-hour experience, and 4 tours a week can be expected. Development costs may include birdwatching equipment (800.000 MMK – lifespan of about 3 years) and operational costs may include boat (20.000 MMK) and refreshments (1.000 MMK per person).

Depreciation of the development costs in order to ensure CBT financial empowerment:

	Amount	Months
Total amount to depreciate	800.000 MMK	
Life span in months (3 year)		36
Active tourist months (3 year)		15
Estimated tours (4 per week)		240
Total amount to depreciate (as a cost for each sold activity)	3.350 MMK	

	IN	OUT
Visitors (e.g. break-even) 1 or 2 visitors paying the break-even	3	
Income	45.000 MMK	
OPERATIONAL COSTS		
Depreciation of the development cost (managed by the CBT group separately from the CBT Fund)		3.350 MMK
Boat (Inc. fuel)		20.000 MMK
Contribution to CBT Coordinator Salary (managed by the CBT group separately from the CBT Fund) (based on expected monthly tours and assumed salary)		1.875 MMK
Refreshments (1.000 MMK per person)		3.000 MMK
PROFIT	16.775 MMK	
BENEFIT SHARING AS PART OF PES		
Service Provider (1 CBT guide) (60%)	10.000 MMK	
CBT Fund (35%)	5.900 MMK	
Contribution to park man. (5%)	800 MMK	

In rotation, 4 CBT guides are likely to benefit from this product.

To summarise, the likely beneficiaries from this product as part of the PES scheme are:

1. At least 4 CBT guides working in rotation from the Discovery Leaders Group of Makyone Galet
2. A number of boat drivers (e.g. 2)

Indirect beneficiaries:

3. Makyone Galet Community
4. CBT Coordinator
5. Refreshment providers from Makyone Galet Village

PES - MOKEN EXPERIENCE (4-HOURS TOUR)



The Moken Experience is a 4-hours tour showcasing and involving participants in the Moken fishing and cooking. During a meeting, the cost for this experience was broken-down as follows:

6. Boat total of 230.000 MMK

Development costs include fishing, cooking and lunch traditional equipment: estimated to 150.000 MMK with a 2-years life span. In addition to the boat driver, 1 CBT guide should be on board for the experience.

There is a full capacity of 5 visitors, with possible individual price set to 55.000 MMK. We can assume that this tour may take place 3 times a week during the tourist season.

	Amount	Months
Total amount to depreciate	150.000 MMK	
Life span in months (2 year)		24
Active tourist months (2 year)		10
Estimated tours (3 per week)		120
Total amount to depreciate (as a cost for each sold activity)	1.250 MMK	

	IN	OUT
Visitors (e.g. Break-Even) 1 or 2 visitors paying the break-even	5	
Income	275.000 MMK	
OPERATIONAL COSTS		
Depreciation of the development cost (managed by the CBT group separately from the CBT Fund)		1.250 MMK
Boat (Inc. fuel)		230.000 MMK
Contribution to CBT Coordinator Salary (managed by the CBT group separately from the CBT Fund) (based on expected monthly tours and assumed salary)		2.500 MMK
Refreshments (1.000 MMK per person)		5000 MMK
PROFIT	36.250 MMK	
BENEFIT SHARING AS PART OF PES		

Service provider (1 CBT guide) (70%)	25.400 MMK	
CBT Fund (25%)	9.100 MMK	
Contribution to park man. (5%)	1.800 MMK	