

CHAPTER 4

RESULTS

This chapter focuses on the results obtained from the qualitative survey. This study investigated the visitors traveled to the Virachey National Park, local community in Kok Lak commune, and the officer group of Biodiversity and Protected Areas Management Project (BPAMP) for the Virachey National Park. The officer group of Biodiversity and Protected Areas Management Project were asked to determine the environmental impacts including waste treatment system, the quality of drinking water, destination planning and control, visitors' health and safety and the existing tourism development plan and management strategy of Virachey National Park. The visitors traveled to the park were asked to determine their satisfaction with the park in order to check the indicators for visitor satisfaction. The local communities were also asked to express their thinking regard to the park tourism as well as tourism in their community.

In this chapter, the three sections were addressed and compared the results of the survey.

Section 1: SWOT analysis of current situation for sustainable tourism planning and management

To meet the objective of studying the existing situation of tourism development in Virachey National Park, the primary type of information was collected from the review of literature and on-site observation.

• Strengths

1. Abundance of Natural Resources

From the secondary data (Virachey National Park, Management Plan: (2003-2007), and on-site observation, the Virachey National Park has a rich supply in natural and cultural resources, covering an area of 3,325km². The core zone covers 38% of the Protected Areas (PAs).

Besides, it is important to note that Cambodia has ratified several international conventions, which relate to VNP's approach to protecting and conserving the natural environment. The Royal Decree on the creation and Designation of protected areas (November 1993) provides the statutory framework to guide the management of all protected areas mentioned in this Decree. The proposed protected area law will make the development of management plans for Protected Areas (PAs) a statutory Requirement. The management plan for Virachey National park is therefore very timely and can be used as an example for other Protected Areas (PAs) to emulate.

2. Watershed/ Catchment Area Values:

From the secondary data (Virachey National Park, Management Plan: 2003-2007), Virachey National Park is of major important as a watershed and catchment area. The water from the Protected Areas (PAs) flow into two rivers, the Sesan river and the Sekong river, and together with Srepok river system, accounts for more than 20% of the Mekong river's flow (Ashwell, 1998).

Virachey National Park has great value as a source of water for local residents, not only for agricultural purpose (rice cultivation), but also for the fish resources it supports. The important of Virachey National Park as a water catchment area, therefore, is of great value both at a regional and national level.

3. Biological Values:

From the secondary data (Virachey National Park, Management Plan: 2003-2007). The ecosystems of VNP sustain a considerable diversity of plant and animals. Although the flora and fauna of VNP have not been adequately studied, it is clear that some of its species and animal occur in the area. These species have value with respect to considerations such as biodiversity, gene pools, traditional medicines, and aesthetics. (Aswell, 1998) maintained that VNP is of high national conservation significant due to its harboring 75% of Cambodia's humid medium elevation habitats. In addition, he concluded that it holds promise for the conservation of a unique medium

elevation flora of international significance and that these attributes may prove worthy of listing under the World Heritage Convention. He suggested that the proposal to seek World Heritage Site (WHS) status would be strengthened by VNP having additional distinctive flora on the mountain summits and any future discovery of fossil deposits within the sediments. Key “flagship” animal species found in VNP include elephant, tiger, gaur, banteng, sun bear, black bear and gibbons. Forty-three mammal species, 100 bird species, and 10 reptile species found in VNP are of international conservation significance.

4. Aesthetic and tourist values

According to the on-site observation, the flora and fauna of VNP has meaningful aesthetic value, and as such constitute important resources that are the basis of a small but rapidly growing tourism industry. Plant and animals that have biological value because they are rare and unusual also have tourism value for the same reasons. The spectacular relatively unspoilt vistas that VNP offers from vantage points have both aesthetic and tourist value. However, perhaps arguably the biggest aesthetic and tourist value is the remoteness and wilderness feel of Protected Areas (PAs). Adventure tourism is one of the fastest growing sectors of the tourism industry and VNP has a high potential of developing this type of eco-tourism without negatively affecting the natural and cultural environment.

5. Cultural resource values

According to the on-site observation, it is imperative to acknowledge that VNP is of great significance for the local communities, especially the Broa and Kavet communities whose former territory occupied areas of the present VNP. This is in part related to the value associated with traditional food and medicine obtain from the forest mountain. There is great importance attached to the harvesting and consumption of bamboo. Other plant and animals are also used for cultural practices associated with cultural ceremonies and rites.

Aside from the cultural importance attached to traditional products extracted from the VNP, there is considerable cultural significance afforded by local neighboring minority groups to certain specific sites in the Protected Areas (PAs). It is important to realize that for visitors from other countries and cultures, cultural values associated with VNP have the potential to add immeasurably to the interest and value of their visit to, and experience of Virachey National Park.

6. Natural beauty, cultural tourism resources and advantage

According to the Management Plan for Virachey National Park identifies the park's unique flora and fauna, waterfalls and landscapes as having aesthetic value for tourism, and rates the park's remoteness and wilderness' values as having the high potential for developing adventure tourism. It acknowledges the indigenous cultural values associated with the park as having potential to add immeasurably to the visitor experiences.

Virachey National Park has the right ingredients and assets to become a major attraction in the region. It has "flagship" attraction including large mammals (such as elephant, tigers, leopards and gaur) as well as spectacular mountain scenery, waterfall, and associated with traditional food and medicines obtained from consumption of bamboo, other plants and animal are also used for cultural practices associated with cultural ceremonies. The park contains historic remnants and artifacts, which tell a fascinating story of troubled recent history of the region including Khmer Rouge camps and section of the Ho Chi Minh trail.

7. Educational values

According to the Royal Decree of Cambodia (1993). One of the original purposes for Virachey National Park was its significant educational values. These values will be developed

and will be manifested in the future management of the area by VNP staff.

8. Regional setting

From the secondary data, MOE, (2004): Eco-tourism strategy for Virachey National Park (2005-2009). International boundaries border Virachey National Park on the northern and eastern sides. North of VNP lies Lao P.D.R. and to the east lies Vietnam. In both countries, protected areas have been established adjacent to VNP and all these areas should be considered as one protected area within the primary objective of conserving biodiversity. The total area including VNP that is under protection is approximately 820, 000 hectares, making it the biggest protected areas in Asia. In Lao P.D.R. the Dong Ampham Protected.

9. Location and tourist attraction

According to the on-site observation and Master plan Ratanakiri and Mondolkiri provinces (2001), the Virachey National Park is situated in northeast Cambodia include spectacular natural attractions such as waterfalls, rivers and volcanic lake and secondary forest (supplementary forest), couple with the fascinating and diverse collection of indigenous minority group cultures who still practice traditional agriculture and animist religion. The natural assets have been developed and enhanced with small-scale tourism infrastructure where they are in situated close to the provincial capital. On the other hand Virachey National Park is situated near a lot of famous places for visiting in the Ratanakiri provinces as follows:

Figure 4.1: The famous places for visiting in the Ratanakiri province

Item No	Name of Tourist Sites	Attraction	Type	Location
1	Yak Lom Lake	Lake	Nature	O'Chum district
2	Chaung Waterfall	Waterfalls	Nature	Kon Mom district
3	Pattamak	Monastery	Religious	Banlung district
4	Essay	Volcano	Nature	Banlung district
5	VealRumplan	Village	Culture	O'Chum district
6	Volcano	Forest	Nature	O'Chum district
7	Voeun Sai village	Border market	Culture	Voeun Sai district
8	Tum Puon	Gems	Culture	AndaungMeas district
9	Village	Village	Nature	AndaungMeas district
10	Norngkabat	Rapids	Nature	Voeun Sai district
11	Forest	Waterfalls	Nature	Voeun Sai district
12	Border Check Point	Waterfalls	Culture	O'Ya Da district
13	Bar Keo Gems Mine	Coffee Garden	Nature	O'Ya Da district
14	Charay Village	Wildlife Sanctuary		Bar Keo district
15	O'Chaloy Islet			Andaung Meas district
	Katieng Waterfall			Lum Phat district
	Kachang Waterfall			Kon Mum district
	Coffee Filed			Lum Phat district
	Lum Phat Wildlife Sanctuary			Lum Phat and Kon Mum districts

10. Clean environment:

According to self-assessment during the on-site observation, Virachey National Park and the communities surrounding the park do not have any industry that makes pollution.

11. Safety:

According to self-assessment during the on-site observation, Virachey National Park as well Rattanakiri province is a peaceful province because from the statistics we know Rattanakiri province has the lowest crime rate in northeast Cambodia. In fact, there has never been any crime related to tourists. Moreover, from the past until now, there has been no violent natural disaster and no border problems neither. People coming here are guaranteed to receive a genuinely warm welcome.

12. Generosity of society

According to self-assessment during the on-site observation, people in and around the park are friendly. In addition, the mix of culture and tradition from each group of minority does not prevent them from getting along, which is great. Moreover, Virachey National Park is in a unique position of having indigenous Brao and Kavet minority group communities in and around the park, which are still practicing traditional culture and living in much the same way that they have been for centuries.

13. Promotion

From the review of Eco-tourism strategy for Virachey National Park (2005-2009), the park offers some unique natural and cultural products and experiences and its position as major unspoilt forested landscape in the region will strengthen as population growth and development pressure grow. Currently the VNP experience is marketed as an extreme adventure. Remote trekking destination for young fit and adventurous backpackers.

This strategy outlines a shift towards promoting a “soft adventure” with a range of more comfortable walking and boating experiences and eco-lodge accommodation. Park interpretation programs will focus on forest diversity, ethnology and minority group culture themes and away from pure wildlife themes that currently dominate the literature. World Heritage listing is seen as a critical long-term marketing tool, as is a unique park logo. Park pre-visit information will rely on the VNP website which will be reduced at visitor center displays at MOE offices and airport in Banlung and Steung Treng.

14. Good management system

From the on-site observation and secondary data (The Cambodian National tourism Development Plan 2001-2005), the government desires to promote eco-tourism in northeast Cambodia as a mean of alleviating poverty and ensures the equitable distribution of benefits of tourism revenues to local communities. Moreover, VNP has a small population in and around the park therefore, it is easy for the government to manage and have well organized for tourism.

• Weaknesses

1. Poor accessibility

According to self-assessment during on-site observation, the roads from Rattanakiri province to Virachey National Park and almost all the roads within Rattanakiri province and route transportation for distribution of tourist to national park are in poor condition being, small, narrow and inconvenient for transportation related to tourism. (remoteness, difficult access, impenetrable jungle, elusive wildlife).

2. Lack of water treatment systems and garbage management system

According to the on-site observation, lack of water treatment and garbage management systems (there is no garbage

bin in the park) may cause an environmental problem in Virachey National Park.

3. Lack of Infrastructure and staff

According to self-assessment during on-site observation, Virachey National Park lacks of infrastructure such as road or other transportation, water supply, energy, tourist accommodation, trail, and trained staff such as village guide (there is only 9 village guide), guide ranger (there is only 2 guide ranger) and park ranger (from the interview and observation, there are only 59 park rangers, but recently, there are 8 park rangers were fired from work).

4. Local communities' lack of education and awareness

Virachey National Park has a lack of specialization in term of sustainable tourism knowledge in the local community. Therefore, local community unawareness does not help sustainable tourism planning and management; As a result, lifestyle activities may directly affect the environment.

5. Lack of information communication for tourism

Guideboard communication for tourism takes very important part in supporting tourism because it creates imagination and value of places directly to the public. It helps the visitors to imagine, impress, and understand the places especially for foreigners. But nowadays most ancient remains and cultural tourism related to traditional culture and history of indigenous minority groups are short of guideboard system especially, the guides with good knowledge of traditional culture, attraction places, and experiences and abilities in speaking proper languages.

6. No carrying capacity

There is no any organization in Virachey National Park to study the number of tourists and activities that best suit its carrying capacity in each attraction of the park and

community when considered in term of physical, social, cultural and ecological aspects.

7. Lack of human resource development

Discussing with Mr. Nimit, Warden Tourism of Biodiversity and Protected Areas Management Project (BPAMP) on January 07, 2006 at Visitor Information Office of Virachey National Park, Bunlung, Ratanakiri provincial town indicated that:

1. Foreign language skills (especially English) are limited.
2. Travel operation lack organizational, networking and product development skills;
3. Village guides and guide rangers lack the knowledge and interpretative technique needed to explain the natural and cultural heritage value of indigenous minority group in an informative and interesting way.

8. Lack of research and monitoring

Virachey National Park does not have adequate data and information on which to base sustainable tourism planning and management decision. In addition to regular data collection by ranger patrols, the park will need information from applied research.

9. Unclear the park's boundary

Discussing with Mr. Pheng, Warden Park Ranger of Biodiversity and Protected Areas Management Project (BPAMP) on January 07, 2006 at Visitor Information Office of Virachey National Park, Bunlung, Ratanakiri provincial town indicated that Virachey National Park's boundary is unclear (Virachey National Park, Management Plan: 2003-2007), leading to difficulties in enforcing the law especially in preventing decreases in populations of endangered species. The need to properly survey and mark the boundary and maintain it regularly is therefore imperative.

10. Illegal activities

From the secondary data (various reports including MOE, 2004. the state of environment report and newspapers) and observation point out that the biodiversity in and adjacent to VNP has undergone depletion. The largest impact has been in the areas surrounding the park. Inside the park the causes of depletion are the result of several factors including illegal activities e.g. poaching of tigers, and other rare species, the extraction of scarce timber species, unsustainable resource utilization.

11. Illegal logging (Weaknesses internal)

From the secondary data including Cambodia daily newspaper and local newspapers revealed that the bribery and destruction of the environment over a massive illegal logging operation in the Virachey National Park has anarchy occurred in 2004, the illegal logging operation was discovered during a scheduled monitoring flight over Virachey National Park in the Dragon's Tail on may 12, 2004 that included World Bank and Environment Ministry officials. Some senior Ratanakiri provincial officials (governor, provincial police chief, commander of the Rattanakiri military sub-region and the director of the park) and other officials dogged in recent months by accusation of involvement in a massive illegal logging operation in Virachey National Park in which approximately 500 truck loads of trees worth an estimated \$ 15 million were logged and transported out of the country to Vietnam through Laos (The Cambodia daily, Tuesday, Wednesday January 24, 25, 2006).

12. Fire

From the secondary data (MOE, 2003) and observation, the degradation of the natural environment in VNP may be caused through uncontrolled fire. Annual burning could easily lead to the reduction of biodiversity in the park. However, fire could be a prime factor in shaping the vegetation composition, which it effects. Long-term damage could be inflicted on some of the forest patches. Particularly, the fragile

ecosystems of Virachey National Park. Although there is a different opinion regarding the threat of fire and the influence it has on the natural resources. It was felt that uncontrolled fires are a management problem.

• **Opportunities (External Factor Positive)**

1. Economic opportunity

Virachey National Park has the potential of providing a range of employment opportunities for people living in and around Virachey National Park. These include opportunities to be employed as Protected Areas' staff, village guides, and porters as tourism develops. At present, member of the local communities are recruited and trained as rangers, drivers, cleaners, etc. for Virachey National Park.

2. Product and market opportunity: Emerging future opportunities

From the secondary data (Virachey National Park, Eco-tourism Strategy, Final draft 2005-2009), Northeast Cambodia's tourism industry and Protected Areas management, along with the rest of Southeast Asia, is undergoing rapid change with massive tourism infrastructure programs, foreign investment and aid, and access to new technologies which are changing the political, economic and social landscapes and affecting the way people travel through the region. This change is also creating opportunities and issues for future eco-tourism in Virachey National Park and the surrounding region which are summarized below.

- The processes driving deforestation, wildlife hunting and rural development in the Northeast Cambodia will continue and before long Virachey National Park and other Protected Areas (Pas) will become islands of natural landscapes and biodiversity refuges in an otherwise highly modified rural landscape. This will increase the appeal of Virachey National Park as an eco-tourism destination. It will also increase private sector pressures to develop the park in unsustainable ways to meet high volume nature-based tourism demand.

- International aid programs will see the upgrading of airports, highways and border crossings in the region. These developments will change the way that people enter and travel through the region. Increased demand will mean that visitors will pay higher prices for limited places on quality tours and increase the economic viability of VNP operations and partnerships.

- There is strong competition from hill-tribe and village based tourism elsewhere in the Greater Mekong Sub-region (GMS). Visitors are seeking more ‘authentic’ cultural tourism experience as others in the region start to become too commercialized. Local minority group cultures in Northeast Cambodia lack the spectacular and exotic flavors often seen elsewhere in the Greater Mekong Sub-region (GMS), however they are authentic and easily observed within the normal routines of life and travel.

- Ethno-ecology is a feature of local cultures that is of considerable interest to international visitors, and often a growing expectation of quality eco-tours.

- Virachey National Park has very rich and visible bird and insect (particularly butterflies) populations. Specialist bird watching eco-tourism enterprises around Tonle Sap are already tapping into these niche markets. In Virachey National Park there is enormous bird-watching potential in places like the Sekong River, seasonal pools around Siem Pang and the extensive river systems inside Virachey National Park. These have the potential to be developed and marketed independently through niche market inbound operators, or, more effectively packaged either with the Mekong RAMSAR site and Sekong River at a regional level, with the Tonle Sap sites at a national level, or with other Greater Mekong Sub-region (GMS) sites at the international level.

- Birdlife International has been conducting a series of artificial vulture feeding ‘restaurants’ in Siem Pang and Lumphat districts as part of a long-term research program and acknowledge the potential for them to be used in Northeast Cambodia under certain conditions.

- Elephant-based tourism operates at very low and local levels in the region, but there is considerable potential for expanding this industry.

- There is some potential for future captive breeding or wildlife rehabilitation programs associated with future Virachey National Park eco-tourism development.

- The Ho Chi Minh Trail has huge potential to become a star attraction in Virachey National Park and a major international and GMS marketing tool. It links three Greater Mekong Sub-region (GMS) countries, it is constructed in places and makes for easy comfortable walking through an often impenetrable jungle, it links existing and proposed ranger outposts, and it has an international reputation associated with extreme adventure.

- Scientific tourism is emerging as a new niche market in Southeast Asia, where institutions pay for access to Protected Areas (PAs) to conduct research and take along paying customers to offset their costs. Non-Government Organizations (NGOs) could take on the management of this niche market in Virachey National Park.

- As airports and air services improve and small charter services emerge, so too do opportunities for flights over the park and fly-in eco-camps on Phnom Viel Thom.

- The Lumphat Wildlife Sanctuary, the buffer zone between the Sekong River and the western boundary of the park, and remote and largely inaccessible parts of the Andong Meas district inside Virachey National Park have been identified as having the potential to contribute to regional eco-tourism. Ministry of Environment (MOE) needs to be ready to take up opportunities and put in place mechanisms to ensure conservation and sustainable use of these areas.

- A rough, 'dry-season-only' track currently links Virachey National Park ranger stations at Siem Pang and Veunsai has potential to be marketed as an 'adventure corridor' linking visitor experiences at two key destinations in VNP as well as an alternative route between Stung Treng and Banlung. (Virachey National Park, Eco-tourism Strategy, 2005-2006).

3. A world of treasures

From the secondary data (Cambodia National Tourism Development Plan, 2001), the Ministry of Tourism (MOT) is responsible and looks after the country tourism by launching not only marketing policies to attract local and international visitors to travel in Cambodia but also having a project to expand tourism to rural areas and improve all kinds of tourism facilities and services to meet the need of tourists as the world standard. In fact, the Government has tried to promote tourism by launching the campaign of “A world of Treasures ” for attracting international visitors. Rattanakiri province as well as Virachey National Park is one province that has been promoted by “A world of Treasures” campaign. The result has made both local and international visitors recognize Rattanakiri province and Virachey National Park as a tourist attraction and has increase the number of both local and international visitors sin Rattanakiri and Steung Treng provinces as well as Virachey National Park.

4. Road expansion project

Transport network that can be reached to Rattanakiri and Steung Treng provinces are developing under Asian highway project. Moreover, the government is now studying how to expand and develop the route of Rattanakiri and Steung Treng provinces. This mean in the near future the road of Phnom Penh – Rattanakiri and Steung Treng will be more convenient for tourists and good for tourism business as well.

5. Overcrowded tourism in the cities

According to the secondary data (MOE, 2004: The state of environmental report), Siem Reap province, and Sihanouk ville seem to be over exposed by tourism. Tourist attraction in Siem Reap province and coastal zone in Sihanouk ville are facing over crowding. Also they have faced environmental crises. The time would seem ripe for tourism in Rattanakiri and Stueng Treng province as well as Virachey National Park to take this opportunity to attract both domestic and international visitor come to visit Virachey National Park

because it has purely of natural and cultural resources, the indigenous cultural values associated with the park as having potential to add immeasurably to the visitors experiences. The environment is in a good condition and not to crowd as with Seam Reap province and Sihanouk ville.

6. Cost of living

According to self-assessment during on site observation, Virachey National Park is considered as being one of the best choices for tourism in term of cost of living. Visitors can enjoy life economically well in Rattanakiri and Steung Treng as well as Virachey National Park because the price of accommodation, transportation, the food services and all other tourist activities are at the reasonable price. When compare with major tourist destination in Cambodia like Siem Reap province and Sihanouk ville as well.

• Threats (External/Negatives)

1. Environmental impacts

According to assessment during the on-site observation, in certain localized areas of VNP, human settlement occurred in the past. agricultural activities of these settlements have been largely responsible for the most of the vegetation changes and introduction of exotic (alien) species found in the park, Furthermore, the history of VNP points to past timber and agricultural activities. The park is a major watershed and unless erosion is prevented or reduced. There is a great danger of damage to the landscape.

2. Cultural degradation

Traditional cultures have absolutely changed such as traditional dress. Moreover local communities have quarreled with visitors during the villager hold their traditional culture ceremony. The visitors do not pay respect to their local culture when they came to visit.

3. Bad image of place

In the former times, it was said that Virachey National Park as well as Rattanakiri province was the dangerous places, inaccessibility and remoteness especially, lack of safety and security, no tourist police, malaria and other mosquito borne disease. This makes the tourist afraid that there will be no security for their lives and properties. The government tries to solve the problem by producing public relations and creating good image to the public, and also facilitating the tourist in every important tourist attractions.

Section 2: Data Analysis of local communities' perception with regard to tourism development in the park as well as in the community

To fulfill the objective concerning the study stakeholders' perceptions on tourism development in Virachey National Park, the primary types of information were collected from interviewing local communities including head of commune, commune council committee, heads or deputy heads of villages, tribal chief (Chas Tom Phum) and Village rangers (local people with tourism involvement).

The statistic used in this research was the descriptive statistics. It involves arranging, summarizing, and presenting a set of data in such a way that the meaningful essentials of the data can be extracted easily.

This research is aimed at studying the local community satisfaction indicator through the examination the level of local communities' thinking regard to the tourism development in the park as well as in their community for finding their thinking how they satisfy or dissatisfy with park tourism. The researcher conducted is the 28 interview questionnaires with the local community including head of commune, commune council committee, head or deputy head of village, tribal chief and local community with tourism involvement.

4.2.1 Demographic profile of respondents

The demographic profiles of respondents were analyzed into frequency and percentage. There was gender, age, education and position. From the study, demographic profiles of respondents were described as follows:

1) Gender: The majority of the respondents were 24 males (85.70%) and the rest of 4 persons (14.30%) were females. This result is compatible with the general information of Kok Lak commune, that the majority of commune council committee, tribal chiefs, heads or deputy heads of village is male.

2) Age: Thirteen respondents (46.3%) were in the range of 41-55 years old, nine respondents (32.14%) were in 26-40 years old and six respondents (21.43%) were more than 55 years old.

3) Educational level: Twenty-one (75.00%) of twenty-eight respondents were non-education. Seven respondents (25.00%) were having education in primary school.

4) Position: Of the total number of respondents of commune council committee, tribal chiefs, heads or deputy heads of village in Kok Lak commune. Eight respondents (28.57%) were heads or deputy heads of villages. Five respondents (17.86%) were Kok Lak commune council committee. Eight respondents (28.57%) were tribal chiefs (Chas Tum Phum) of villages of Kok Lak commune, and seven respondents (25.00%) were village rangers, local communities with tourism involvement.

Table 4.1 Demographic profile of respondents

Personal characteristic		Frequency	Percentage
Gender	1. Male	24	85.70
	2. Female	4	14.30
Total		28	100.00
Age	1. 18-25 years old	-	-
	2. 26-40 years old	9	32.14
	3. 41-55 years old	13	46.43

	4. More than 55 years old	6	21.43
Total		28	100.00
Education	1. Non-education	21	75.00
	2. Primary school	7	25.00
	3. High school	-	-
	4. College	-	-
Total		28	100.00
Position	1. Head of commune or commune council committee	5	17.86
	2. Tribal chief of minority group (Chas Tum Phum)	8	28.57
	3. Head or deputy head of villages	8	28.57
	4. Village rangers	7	25.00
Total		28	100.00

4.2.2 Overall local communities' opinion on park tourism development

In regard to the feature of tourism development in the park and the community, the main distribution of respondents (67.86%) expected that tourism is good for their community (mean=3.75) while the others considered that the tourism development is fair for their society (28.57%). There is only one respondent (3.57%) who strongly trusted that the tourism would be good for their community. Though the majority of respondents viewed that tourism is good, only 46.40% (mean=3.61) do agreed that the community benefit from park tourism while the other 46.40% do not neither agree nor disagree on the benefit from park tourism. Similarly, the majority of respondents 64.28% believed that tourism will create jobs for local residents (mean=3.71). Only 10.72% do agreed that local people will be employed in park tourism and the community while the others 14.28% do not neither agree nor disagree on tourism makes significant direct contribution to the employment, only two respondents 7.15% who disagreed with the tourism will create jobs for local residents. Meanwhile, the

main distribution of respondents 67.86% viewed that tourism is an engine to stimulate the employment of local youth (mean=3.86) while the others 10.72% who strongly trusted that tourism could employ local youth, only 17.85% do not neither agree nor disagree on the employment opportunity for local youth in their society. There is only one respondent 3.57% who disagreed that tourism could create more job for local youth.

The majority of respondents, 50.00% do not neither agree nor disagree that community could obtain the basic infrastructure and services through tourism development in their community (mean=3.21). 25.00% expected that tourism could help the community obtain services while the others 17.85% who have no confidence in the tourism could improve public infrastructure and services in their community. There are only two respondents 7.15% who strongly trusted that the community development will be promoted through tourism development.

The main distribution of respondents 67.86% expected that tourism helps Stimulate local culture and crafts (mean=3.71) while the others 25.00% do not neither agree nor disagree on local cultures and crafts will be preserved and promoted by tourism development in their society, only 3.57% who strongly believed that local culture and crafts were promoted by tourism and another one respondent 3.57% who disagreed on tourism can stimulate local culture and crafts.

The main distribution of respondents 39.30% do not neither agree nor disagree on the local empowerment to control over tourism and the community will be participated in tourism planning in their community (mean=3.11). 25.00% expected that the community has control over tourism while the others 14.28% who disagreed on the community will have empowerment to control over tourism in their community, There are three respondents 10.71% who strongly trusted that the community will has empowerment to control over tourism while the others 10.71% who strongly disagreed on the community will be participated in tourism development project in their society.

The main distribution of respondents 42.85% do not neither agree nor disagree on the money spent by visitors could remain in the community (mean=2.89). 32.15% expected that the money spent by visitors could not remain in the community while the others 14.28% viewed that tourism will contribute benefits to local people though local participation in tourism planning, There are two respondents 7.15% who strongly agreed that the benefits from tourism will contribute to local people. There is only one respondent 3.57% who do disagreed that the tourism benefits will remain in their society.

In regard to the overall feature of tourism development in the park and the community, the main distribution of respondents 64.28% satisfy with the tourism development in their community (mean=3.71) while another one respondent 3.57% who strongly satisfied with tourism development, only 32.15% do not neither satisfy nor dissatisfy with the tourism development in the park and the community.

Moreover, in regard to the negative indicators for tourism development in the park and the community, the main distribution of respondents 75.00% expected that tourism raises price for goods (mean=4.04) while the others 14.29% strongly agreed on the price of goods will be increased by tourism, only three respondents 10.71% do not neither agree nor disagree on price of goods.

The majority of respondents 53.58% do not neither agree nor disagree on the crime rate affected by the development of tourism (mean=3.46). 35.71% expected that tourism will cause rise in crime rate while the others 7.14% who strongly agreed that tourism will bring the negative impacts on socio-cultural to their community, especially crime and drugs. There is only one respondent (3.57%) who disagreed on tourism causes rise in crime rate in their society.

The main distribution of respondents 64.30% strongly agreed that tourism stops local from park access (mean=4.46) while the other five respondents 17.85% who also agreed that local residents have difficult access to the park, only 17.85% do not neither agree nor disagree on park access.

The majority of respondents 42.86% do not neither agree nor disagree on negative impacts on moral standards (mean=3.14). 35.71% expected that tourism harms moral standards while the others 21.43% viewed that tourism has no adverse impacts on moral standards.

Meanwhile, the main distribution of respondents 39.29% believed that tourism harms the environment (mean=3.29), while the other five respondents 17.85% agreed that tourism has no adverse impacts on the environment, only 39.29% do not neither agree nor disagree on adverse impacts of the environment. There is only one respondent 3.57% who strongly trusted that tourism harms the environment.

The majority of respondents 35.72% do not neither agree nor disagree on tourism disruption on local activities (mean=3.00). 32.14% expected that tourism disrupts local activities while the other respondents 32.14% viewed that tourism could not disturb local activities.

The main distribution of respondents 53.58% concerned that tourism development in their community will consume natural resources needed by local residents (mean=4.25) while the others 35.71% who strongly agreed that natural resources using will be increased for facilitating and serving visitors, only three respondents 10.71% do not neither agree nor disagree on tourism using natural resources.

Table 4.2: Overall local people opinion on park tourism development

Local communities' thinking regarding to tourism development in the park as well as in their community	Level of expectations		
	Frequency	Percent of total	Mean Scores
Positive indicators			
1.Tourism is good for my community			
Strongly agree	1	3.57%	
Agree	19	67.86%	

Neutral	8	28.57%	
Disagree	-	-	
Strongly disagree	-	-	
Total	28	100%	3.75
2. I personally benefit from park tourism			
Strongly agree	2	7.20%	
Agree	13	46.40%	
Neutral	13	46.40%	
Disagree	-	-	
Strongly disagree	-	-	
Total	28	100%	3.61
3. Creates job for local residents			
Strongly agree	3	10.72%	
Agree	18	64.28%	
Neutral	4	14.28%	
Disagree	2	7.15%	
Strongly disagree	1	3.57%	
Total	28	100%	3.71

Table 4.2: (Continued)

Local communities' thinking regarding to tourism development in the park as well as in their community	Level of expectations		
	Frequency	Percent of total	Mean Scores
4. Employs local youth			
Strongly agree	3	10.72%	
Agree	19	67.86%	
Neutral	5	17.85%	
Disagree	1	3.57%	
Strongly disagree	-	-	
Total	28	100%	3.86
5. Helps the community obtain services			

Strongly agree	2	7.15%	
Agree	7	25.00%	
Neutral	14	50.00%	
Disagree	5	17.85%	
Strongly disagree	-	-	
Total	28	100%	3.21
6. Helps stimulate local culture and crafts			
Strongly agree	1	3.57%	
Agree	19	67.86%	
Neutral	7	25.00%	
Disagree	1	3.57%	
Strongly disagree	-	-	
Total	28	100%	3.71

Table 4.2: (Continued)

Local communities' thinking regarding to tourism development in the park as well as in their community	Level of expectations		
	Frequency	Percent of total	Mean Scores
7. The community has control over tourism			
Strongly agree	3	10.71%	
Agree	7	25.00%	
Neutral	11	39.30%	
Disagree	4	14.28%	
Strongly disagree	3	10.71%	
Total	28	100%	3.11
8. The money spent by tourists remain in the community			
Strongly agree	2	7.15%	
Agree	4	14.28%	
Neutral	12	42.85%	
Disagree	9	32.15%	

Strongly disagree	1	3.57%	
Total	28	100%	2.89
9. Level of local people satisfy with park tourism as well as tourism in their community			
Strongly satisfy	1	3.57%	
Satisfy	18	64.28%	
Neutral	9	32.15%	
Dissatisfy	-	-	
Strongly dissatisfy	-	-	
Total	28	100%	3.71

Table 4.2: (Continued)

Local communities' thinking regarding to tourism development in the park as well as in their community	Level of expectations		
	Frequency	Percent of total	Mean Scores
Negative indicators			
1. Raises price for goods			
Strongly agree	4	14.29%	
Agree	21	75.00%	
Neutral	3	10.71%	
Disagree	-	-	
Strongly disagree	-	-	
Total	28	100%	4.04
2. Causes rise in crime rate			
Strongly agree	2	7.14%	
Agree	10	35.71%	
Neutral	15	53.58%	
Disagree	1	3.57%	
Strongly disagree	-	-	
Total	28	100%	3.46
3. Stops local from park			

access			
Strongly agree	18	64.30%	
Agree	5	17.85%	
Neutral	5	17.85%	
Disagree	-	-	
Strongly disagree	-	-	
Total	28	100%	4.46

Table 4.2: (Continued)

Local community' thinking regarding to tourism development in the park as well as in their community	Level of expectations		
	Frequency	Percent of total	Mean Scores
4. Harms moral standard			
Strongly agree	-	-	
Agree	10	35.71%	
Neutral	12	42.86%	
Disagree	6	21.43%	
Strongly disagree	-	-	
Total	28	100%	3.14
5. Harms the environment			
Strongly agree	1	3.57%	
Agree	11	39.29%	
Neutral	11	39.29%	
Disagree	5	17.85%	
Strongly disagree	-	-	
Total	28	100%	3.29
6. Disrupts local activities			
Strongly agree	-	-	
Agree	9	32.14%	
Neutral	10	35.72%	
Disagree	9	32.14%	
Strongly disagree	-	-	
Total	28	100%	3.00

Table 4.2: (Continued)

Local community' thinking regarding to tourism development in the park as well as in their community	Level of expectations		
	Frequenc y	Percent of total	Mean Scores
7. Uses natural resources needed by local residents			
Strongly agree	10	35.71%	
Agree	15	53.58%	
Neutral	3	10.71	
Disagree	-	-	
Strongly disagree	-	-	
Total	28	100%	4.25

The researcher also prepared open-ended questionnaires to ask local people about the main concerns regarding to tourism development in the park as well as in their community, the local communities expressed their main concerns regard to the park tourism development as well as their community as follows:

Respondents	Main concerns of tourism development in the park as well as in their community
Commune Council Committee	<ul style="list-style-type: none"> - Cut down natural resources use (local people heavily depend upon natural resources in the park). - Increase the use of natural resources needed by local community - The conflict between local people and visitors because most of visitors do not pay more respects to the traditional culture of local people - Outsiders come to get benefits from tourism in their community - Local people have no knowledge about tourism especially lack of

	English language
Tribal Chiefs (Chas Tum Phun)	<ul style="list-style-type: none"> - Visitors' activities effected the spirit forest (Prey Arak). According to traditional culture of local community, no body will be permitted to access to the spirit forest. Local people pay more respects to spirit forest because they believed that spirit of their ancestors or people who died were in this forest. - Cultural changes
Heads or deputy heads of village	<ul style="list-style-type: none"> - Stop local community from park access - Small number of local people have been employed in park tourism - Local people get noting from tourism development in the park as well as in their community.

The head of commune, commune council committee, tribal chiefs and heads or deputy heads of villages were asked on how local people would like the government to develop sustainable tourism development planning and management in the park as well as in their community. The local communities also suggested the government or non-government organizations (NGOs) to develop infrastructure and services in their community as the follows:

Respondents	Local communities' suggestions for the government or Non-Government Organizations (NGOs)
Commune Council Committee, Tribal Chiefs (Chas Tum Phun) and Heads or deputy heads	To develop the basic infrastructure for their community as follows: <ul style="list-style-type: none"> - Toilet, well and pump well - Health center (medicine, nurse and doctor). There

of villages	<p>are only 3 nurses in the Kok Lak commune</p> <ul style="list-style-type: none"> - Road (from provincial town to the community used in community) - School (primary and secondary school.) For instant, there is only one primary school with two classrooms in La Meouy village for Kok Lak commune and this school is too far from the villages. Some students have studied under the tree. - Dam, agricultural hydraulics (lack of water for agriculture) - Market
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The researcher examined the points of view of respondents on benefits from sustainable tourism development in Virachey National park for their community. The local communities expressed their opinions on this matter as follows:

Respondents	Local communities' perception on benefits from sustainable tourism development in Virachey National park for their community
Commune Council Committee	<ul style="list-style-type: none"> - Reduce the rate of illiterate local residents - Training English language for local people - Capacity building of local communities - Training local people on how to perform cultural show - Alleviate poverty and ensure the equitable distribution of benefits of tourism revenue to local communities.

Tribal Chiefs (Chas Tum Phun)	<ul style="list-style-type: none"> - Increase community participation in tourism development and management - Support local communities to take part in the direct sale of handicrafts, supply goods and services to visitors. - Encourage people to participate in traditional entertainment and activities.
Heads or deputy heads of village	<ul style="list-style-type: none"> - Increase the number of local employments in park tourism - Capacity building of local communities

Section 3: Analysis of visitor satisfaction with the park

4.3.1 The results and data analysis of the survey questionnaires with visitors to the park

To fulfill the objective concerning the study of stakeholders' perceptions on tourism development in Virachey National Park, the primary types of information were collected from the survey questionnaire with international visitors to Virachey National Park. This research aimed to study the visitors' satisfaction of park tourism. The researcher conducted the 28 survey questionnaires with the international visitors to the park. In this chapter, researcher presented the results as follows:

The demographic profiles of respondents were analyzed into frequency and percentage. There were gender, nationality, occupation, age and education. From the study, the demographic profiles of respondents were described as follows:

1. Gender: The majority of the respondents were 23 males (82.10%) and the rest of 17.90% were females.

2. Nationality: Twenty-six international visitors (92.90%) to Virachey National Park of the total twenty-eight respondents were western. There are only two respondents (7.10%) came from Asian.

3. Occupation: Nine respondents (32.19%) were government officers. Five respondents (17.90%) were

students and two respondents (7.14%) were unemployed or retired.

4. Age: Thirteen respondents (46.3%) were the visitors between 41-55 years old. Twelve respondents (42.90%) were between 15-25 years old. There were two respondents (7.10%) were between 41-55 years old. Only one respondent (3.60) was more than 56 years old.

5. Education level: Thirteen respondents (46.43%) were bachelor degree. Twelve respondents (42.86%) were higher than bachelor degree. Only three respondents (10.71%) were college.

4.3.2 Demographic profiles of respondents

Table 4.3: Demographic profile of respondents

Personal characteristics		Frequency	Percentage
Gender	1. Male	23	82.10
	2. Female	5	17.90
Total		28	100.00
Nationality	1. Western	26	92.90
	2. Asian	-	-
	3. Cambodian	-	-
	4. Other	2	7.10
Total		28	100.00
Occupation	1. Government officer	9	32.14
	2. Student	5	17.90
	3. Unemployed/retired	2	7.14
	4. Other	12	42.82
Total		28	100.00
Age	1. 15-25 years old	12	42.90
	2. 26-40 years old	13	46.40
	3. 41-55 years old	2	7.10
	4. More than 56 years old	1	3.60
Total		28	100.00
Education	1. High school	-	-
	2. College	3	10.71

	3. Bachelor degree	13	46.43
	4. Higher than Bachelor degree	12	42.86
Total		28	100.00

4.3.3 Visitors' behavior and activities to the park

Table 4.4: Visitors' motivation for visiting the park

Visitors' motivation for visiting the park		Male	Female	Total
Diversity of vegetation such as certain kind of ferns	Respondents Percentage	11 47.83	1 20.00	12 42.85
Short rainforest	Respondents Percentage	3 13.04	- -	3 10.71
National park sightseeing, natural park landscape, environment	Respondents Percentage	17 73.91	5 100.00	22 78.57
Rainforest day trips	Respondents Percentage	4 17.39	2 40.00	6 21.42
Wildlife viewing such as bird watching, large mammals	Respondents Percentage	9 39.13	2 40.00	11 39.28
Waterfall, streams	Respondents Percentage	14 60.86	3 60.00	17 60.71
Spectacular mountain scenery	Respondents Percentage	5 21.73	3 60.00	8 28.57
Cultural activities	Respondents Percentage	5 21.73	1 20.00	6 21.42
New kind of tourism	Respondents Percentage	6 26.08	- -	6 21.42
Khmer rouge camp and Ho Chi Minh trail	Respondents Percentage	2 8.69	- -	2 7.14

According to the results from Table 4.4 showed that of the 28 respondents, twenty-two respondents (78.57%) including seventeen male respondents (73.91%) and five female respondents (100.00%) replied that their ultimate motivations to visit the Virachey National Park were to view the national park sightseeing, national landscapes and the environment. The second reason for visiting the park was waterfalls and streams, chosen by seventeen respondents (60.71%) including fourteen male respondents (60.86%) and three female respondents (60.00%). The third ranking was for diversity of vegetations such as certain kind of ferns and also for wildlife viewing such as bird watching and large mammals, chosen by twelve respondents (42.85%) including eleven male respondents (47.83%) and one female respondent (20.00%).

Table 4.5: The visitors like the most about the park

The visitors like the most about the park		Male	Female	Total
Landscapes, geographic location, mountain	Respondents	12	3	15
	Percentage	52.17	60.00	53.57
Natural beauty, waterfalls, streams	Respondents	18	4	22
	Percentage	78.26	80.00	78.57
Climate or whether	Respondents	4	-	4
	Percentage	17.39	-	14.28
Native wild animal	Respondents	4	-	4
	Percentage	17.39	-	14.28
Minority group culture	Respondents	9	3	12
	Percentage	39.13	60.00	42.85
Cultural activities	Respondents	1	1	2
	Percentage	4.34	20.00	7.14
Native wild plants, unknown and unseen vegetation	Respondents	7	3	10
	Percentage	30.43	60.00	35.71
Other	Respondents	2	-	2
	Percentage	8.64	-	7.14

According to the results from Table 4.5, twenty-two respondents (78.57%) including eighteen male respondents (78.26%) and four female respondents (80.00%) selected their predominant likes of natural beauty, waterfalls and streams. Preference for landscapes, geographic location and mountain were rated second by fifteen respondents (53.57%) including twelve male respondents (52.17%) and three female respondents (60.00%). Preference for minority group culture was chosen by twelve respondents (42.85%) including nine male respondents (39.13%) and three female respondents (60.00%). There are two male respondents (8.64%) choosing the item “Other” which characterized their predominant preferences for walking, bird watching and camping.

Table 4.6: Kind of services should be available in the park

Kind of services would be available in the park		Male	Female	Total
Book and other printed material about the park	Respondents	17	2	19
	Percentage	73.91	40.00	67.85
Knowledge tour guides	Respondents	7	4	11
	Percentage	30.43	80.00	39.28
Local and long distance telephone	Respondents	2	1	3
	Percentage	8.69	20.00	10.71
Gifts and souvenir	Respondents	3	1	4
	Percentage	13.04	20.00	14.28
Hospital center	Respondents	3	1	4
	Percentage	13.04	20.00	14.28
Food services	Respondents	3	-	3
	Percentage	13.04	-	10.71
Accommodation	Respondents	1	-	1
	Percentage	4.34	-	3.57
Trails	Respondents	6	3	9
	Percentage	26.08	60.00	32.14
Other	Respondents	3	-	3
	Percentage	13.04	-	10.71

The researcher also prepared an open-ended question to ask the visitors about what types of services should be available in the park. According to the results from Table 4.6, nineteen respondents (67.85%) including seventeen male respondents (73.91%) and two female respondents (40.00%) would like to have books and other printed material about the park be available in the park. Eleven respondents (39.28%) including seven male respondents (30.43%) and four female respondents (80.00%) preferred to have knowledgeable tour guides. Nine respondents (32.14%) including six male respondents (26.08%) and three female respondents (60.00%) would like to have trails in the park. There were three male respondents (13,04%) chosen item “Other” which was classified into fresh drinking water, litter disposal, and maps of the park. There is one respondent who would not prefer to have anything else in the park.

Table 4.7: Types of accommodation should be available in the park

Types of accommodations should be available in the park		Male	Female	Total
Camping	Respondents Percentage	17 73.91	4 80.00	21 75.00
Eco-lodge	Respondents Percentage	2 8.69	- -	2 7.14
Resort complex	Respondents Percentage	- -	- -	- -
Hotel/Motel	Respondents Percentage	- -	- -	- -

Caravan	Respondents Percentage	- -	- -	- -
Cottage	Respondents Percentage	- -	- -	- -
Home stay	Respondents Percentage	9 39.13	2 40.00	11 39.28
Other	Respondents Percentage	2 8.69	- -	2 7.14

According to the results from Table 4.7, the majority of respondents suggested types of accommodation to be available in the park were camping by twenty-one respondents (75.00%), including seventeen male respondents (73.91%) and four female respondents (80.00%). Home stay by eleven respondents (39.28%) including nine male respondents (39.13%) and two female respondents (40.00%). There are two male respondents (8.69%) who would like to have eco-lodge available in the park. There were two male respondents (8.69%) chosen item “Other” which characterized their predominant preferences just in the forest. They would not like to have accommodation available in the park.

Table 4.8: Visitors’ expectation about the trips to the park

Visitors’ expectations about the trips to the park		Male	Female	Total
True relaxation	Respondents Percentage	4 17.39	2 40.00	6 21.42
Being close to nature	Respondents	20	4	24

	nts Percentage	86.95	80.00	85.71
Learning about the way of life and culture	Responde nts Percentage	13 56.52	5 100.0 0	18 64.28
Meeting new people	Responde nts Percentage	4 17.39	1 20.00	5 17.85
Viewing new landscapes	Responde nts Percentage	19 82.60	5 100.0 0	24 85.71
Cottage	Responde nts Percentage	- -	- -	- -
Other	Responde nts Percentage	2 8.69	- -	2 7.14

According to the results from Table 4.8, twenty-four of 28 respondents (85.71%) including twenty male respondents (86.95%) and four female respondents (80.00%) selected being close to nature and viewing new landscapes as their highest expectation of visiting the Virachey national Park. Eighteen respondents (64.28%) including thirteen male respondents (56.52%) and five female respondents (100.00%) expected to learn about the way of life and culture of indigenous minority groups. There are two male respondents (8.69%) select items “Other” which characterized their expectations to see rare wild animals, experience rain forest day trips and sport activities.

Table 4.9: Local guides’ ability

Local guides’ ability		Male	Female	Total
Knowledgeable about ecology and environment	Respondents	10	1	11
	Percentage	43.47	20.00	39.28
Knowledgeable about plants and animals	Respondents	11	2	13
	Percentage	47.82	40.00	46.42

Knowledgeable about local culture	Respondents	8	1	9
	Percentage	34.78	20.00	32.14
Friendly	Respondents	22	3	25
	Percentage	95.65	60.00	89.28
Helpful	Respondents	18	3	21
	Percentage	78.26	60.00	75.00
Other	Respondents	1	-	1
	Percentage	4.34	-	3.57

According to the results from Table 4.9, it described the local guides' ability. Twenty-five respondents (89.28%) including twenty-two male respondents (95.65%) and three female respondents (60.00%) and twenty-one respondents (75.00%) including eighteen male respondents (78.26%) and three female respondents (60.00%) found that the local guides were friendly and helpful respectively. Thirteen respondents (46.42%) including eleven male respondents (47.82%) and two female respondents (40.00%) believed that the local guides have knowledge about the plants and animals. There was only one male respondent (4.34%) selected "Other" which characterized local guides have the knowledge about the routes in the areas.

Table 4.10: Visitors' average length of stay in the park

Visitors' length of stay in the park		Male	Female	Total
1 day	Respondents	2	1	3
	Percentage	8.69	20.00	10.71
2 days	Respondents	5	1	6
	Percentage	21.73	20.00	21.42
3 -5 days	Respondents	16	1	17
	Percentage	69.56	20.00	60,71
1 week	Respondents	-	2	2
	Percentage	-	40.00	7.14
More than one week	Respondents	-	-	-
	Percentage	-	-	-

Table 4.10 was an indicator of the visitors' length of stay in the park. Seventeen respondents (60.71%) including sixteen male respondents (69.56%) and one female respondent (20.00%) spent three to five days on an overnight stay. Six respondents (21.42%) including five male respondents (21.73%) and one female respondent (20.00%) spent two days (equaled one night and one day) in the park. Three respondents (10.71%) including two male respondents (8.69%) and one female respondent (20.00%) spent their whole day (from dusk to dawn). There were two female respondents (40.00%) spent one week in the park.

4.3.4 Overall visitors' satisfaction with the park

From Table 4.11, the questions are based on a model questionnaire undertaken in several destination in a number of countries from (WTO Guidebook 2004, p. 492) and are designed to quantify and clarify the components of visitors' satisfaction, including access, tourist information, quality of services, safety and security, variety of experiences/site/activities, attitude of/relation with local, destination environment, overall satisfaction, intent to repeat visit or advise destination for friends. etc.

According to the results of investigation, fourteen respondents (50.00%) strongly agreed with their satisfaction and rewarding experiences of the park visit (mean=4.39). Twelve respondents (42.86%) were also satisfied with their trips to the park. Only one respondent felt unhappy with experiences because during trekking, his guide was bitten by snake.

Eight respondents (28.58%) disagreed that the state of roads and signage made travel easy (mean = 2.46) while the other five respondents (17.85%) strongly disagreed with the transportation and signage to the park, only twelve respondents (42.86%) do not neither agree nor disagree on the state of roads and signage. There are only three respondents (10.71%) who agreed that the state of roads and signage were good for travel to the park.

The majority of respondents (50.00%) strongly agreed with the park is clean (mean = 4.36). Eleven respondents (39.28%) also found the park to be clean, only two respondents (7.15%) do not neither agree nor disagree on the environment of the park. There is only one respondent (3.57%) who found the park not to be clean.

The main distribution of respondents (46.43%) agreed that the park provided a good variety of experiences (mean = 3.79). Six respondents (21.43%) were also strongly satisfied with the rewarding experiences during visiting the park, only seven respondents (25.00%) do not neither agree nor disagree on the variety of experiences. There is only one respondent (3.57%) who strongly disagreed that the park provided the visitors with rewarding experiences.

Eleven respondents (39.29%) agreed that they had good experience involving local culture (mean = 3.64). Five respondents (17.86%) also strongly satisfied with their experiences learning about local culture and the way of living, only nine respondents (32.14%) do not neither agree nor disagree on rewarding experiences of local culture. There are three respondents (10.71%) who had no good experiences involving the culture of minority groups in and near the park.

Fifteen respondents (53.58%) agreed that the state of natural environment was good (mean = 4.21). Ten respondents (35.71%) also found that the state of natural environment was very good. Only two respondents (7.14%) do not neither agree nor disagree on the natural environment of the park. There is only one respondent (3.57%) who disagreed with the state of good natural environment.

The main distribution of respondents (53.58%) strongly agreed that the service guides were competent and helpful (mean = 4.39). Ten respondents (35.71%) were also satisfied with the service guides. Only two respondents (7.14%) do not neither agree nor disagree on the service guides. There is only one respondent (3.57%) who disagreed with the service guide provided by the park.

The majority of respondents (42.86%) agreed that the level of service provided was high (mean = 4.93). Eight

respondents (28.57%) also strongly satisfied with the level of service provided by the park. Only five respondents (17.86%) do not neither agree nor disagree on the level of services. There is only one respondent who strongly disagreed that the level of service provided by the park was high.

Five respondents (17.85%) agreed that it was easy to get to the park for their visits. Four respondents (14.29%) also do agreed with the ease to get to the park while the others (32.16%) do not neither agree nor disagree on how easy to get to the park (mean = 2.93%). There are five respondents (17.85%) who strongly dissatisfied with their trips to the park.

Nine respondents (32.14%) do agreed that they felt safe and secure during their visits (mean = 3.86). Other nine respondents (32.14%) also felt peaceful during visiting the park, only 8 respondents (28.58%) do not neither agree nor disagree on safety and security. There are two respondents (7.14%) felt very unsafe and secure during visiting the park.

Thirteen respondents (46.43%) strongly recommend the park to their friends (mean = 4.39). Other thirteen respondents (46.43%) also agreed to recommend their friends about the park that is good or suitable for visiting while other two respondents (7.14%) who hesitated to recommend the park to their friends.

Ten respondents (35.71%) strongly agreed that they would visit the park again (mean = 3.79). Six respondents (21.43%) also agreed on re-visiting the park again, only eight respondents (28.57%) who hesitated to decide whether they would come for re-visit the park again or not. There are four respondents (14.29%) who will not come for re-visiting the park.

Fifteen respondents (53.58%) strongly agreed that local people were friendly during their visits to the park and the community (mean = 4.50). Other twelve respondents (42.85%) also agreed that local people is one element of tourism products which could attract tourist to visit their community because they were friendly. Only one respondent (3.57%) do not neither agree nor disagree on the friendliness of local people during visiting the park.

Twelve respondents (42.85%) agreed that the park is unique in culture (mean = 3.93). Other eight respondents (28.56%) strongly agreed that the park is unique in culture, only six respondents (21.45%) do not neither agree nor disagree on the local culture in and near the park. There are two respondents (7.14%) who disagreed that the park is unique in culture.

Fifteen respondents (53.56%) agreed that the quality of transportation was good from Phnom Penh city to Bnlung, Ratanakiri province (mean = 2.89). Six respondents (21.45%) strongly agreed with the quality of transportation from Phnom Penh to Rattanakiri province. They also indicated that the quality of road now is better if compare to the last time. They took 24 hours from Phnom Penh to the provincial town but now they only took 12 to 13 hours. Only five respondents (17.85%) do not neither agree nor disagree on the quality of transportation from Phnom Penh to Ratanakiri province. There are two respondents (7.14%) who dissatisfied with the quality of transportation. Similarly, Eight respondents (28.58%) disagreed that the quality of transportation from Banlung to the park were good (mean = 2.50). Other four respondents (14.28%) also strongly dissatisfied with the quality of the transportation while others (50.00%) do not neither agree nor disagree on the quality of road from Banlung to the park was good. There are only two respondents (7.14%) who agreed with the quality of transportation was good. Moreover, according to the result of investigation, twelve respondents (42.86%) agreed that the quality of water body was good (mean = 3.36). Four respondents (14.28%) disagreed with the good quality of water body. Eleven respondents (39.29%) do not neither agree nor disagree on the quality of water body. There is only one respondent (3.57%) who strongly agreed that the quality of water body was good.

Table 4.11: Overall visitors' satisfaction with the park

Visitors satisfaction opinion	Level of perception		
	Frequency	Percent of total	Mean Scores
1. I enjoyed my experience			

in the park			
Strongly agree	14	50.00%	
Agree	12	42.86%	
Neutral	1	3.57%	
Disagree	1	3.57%	
Strongly disagree	-	-	
Total	28	100%	4.39
2. The state of roads and signage made travel easy			
Strongly agree	-	-	
Agree	3	10.71%	
Neutral	12	42.86%	
Disagree	8	28.58%	
Strongly disagree	5	17.85%	
Total	28	100%	2.46
3. I found the park to be clean			
Strongly agree	14	50.00%	
Agree	11	39.28%	
Neutral	2	7.15%	
Disagree	1	3.57%	
Strongly disagree	-	-	
Total	28	100%	4.36

Table 4.11 (Continued)

Visitors satisfaction opinion	Level of perception		
	Frequency	Percent of total	Mean Scores
4. The park provided a good variety of experience			
Strongly agree	6	21.43%	
Agree	13	46.43%	
Neutral	7	25.00%	
Disagree	1	3.57%	
Strongly disagree	1	3.57%	
Total	28	100%	3.79

5. I have good experience involving the local culture			
Strongly agree	5	17.86%	
Agree	11	39.29%	
Neutral	9	32.14%	
Disagree	3	10.71%	
Strongly disagree	-	-	
Total	28	100%	3.64
6. The state of natural environment was good			
Strongly agree	10	35.71%	
Agree	15	53.58%	
Neutral	2	7.14%	
Disagree	1	3.57%	
Strongly disagree	-	-	
Total	28	100%	4.21

Table 4.11 (Continued)

Visitors satisfaction opinion	Level of perception		
	Frequency	Percent of total	Mean Scores
7. Service guides were competent and helpful			
Strongly agree	15	53.58%	
Agree	10	35.71%	
Neutral	2	7.14%	
Disagree	1	3.57%	
Strongly disagree	-	-	
Total	28	100%	4.39
8. The level of service provided was high			
Strongly agree	8	28.57%	
Agree	12	42.86%	
Neutral	5	17.86%	
Disagree	2	7.14%	
Strongly disagree	1	3.57%	

Total	28	100%	4.93
9. It was easy to get to the park for my visit			
Strongly agree	4	14.29%	
Agree	5	17.85%	
Neutral	9	32.16%	
Disagree	5	17.85%	
Strongly disagree	5	17.85%	
Total	28	100%	2.93

Table 4.11 (Continued)

Visitors satisfaction opinion	Level of perception		
	Frequency	Percent of total	Mean Scores
10. I felt safe and secure during my visit			
Strongly agree	9	32.14%	
Agree	9	32.14%	
Neutral	8	28.58%	
Disagree	1	3.57%	
Strongly disagree	1	3.57%	
Total	28	100%	3.86
11. I would recommend the park to my friends			
Strongly agree	13	46.43%	
Agree	13	46.43%	
Neutral	2	7.14%	
Disagree	-	-	
Strongly disagree	-	-	
Total	28	100%	4.39
12. I would visit the park again			
Strongly agree	10	35.71%	
Agree	6	21.43%	
Neutral	8	28.57%	
Disagree	4	14.29%	

Strongly disagree	-	-	
Total	28	100%	3.79

Table 4.11 (Continued)

Visitors satisfaction opinion	Level of perception		
	Frequency	Percent of total	Mean Scores
13. Local people were friendly during my visit			
Strongly agree	15	53.58%	
Agree	12	42.85%	
Neutral	1	3.57%	
Disagree	-	-	
Strongly disagree	-	-	
Total	28	100%	4.50
14. The park is a unique in culture			
Strongly agree	8	28.56%	
Agree	12	42.85%	
Neutral	6	21.45%	
Disagree	2	7.14%	
Strongly disagree	-	-	
Total	28	100%	3.93
15. The quality of transportation was good from Phnom Penh city to Ratanakiri province			
Strongly agree	6	21.45%	
Agree	15	53.56%	
Neutral	5	17.85%	
Disagree	2	7.14%	
Strongly disagree	-	-	
Total	28	100%	2.89

Table 4.11 (Continued)

Visitors satisfaction opinion	Level of perception		
	Frequency	Percent of total	Mean Scores
16. The quality of transportation was good from Ban Lung to the park			
Strongly agree	-	-	
Agree	2	7.14%	
Neutral	14	50.00%	
Disagree	8	28.58%	
Strongly disagree	4	14.28	
Total	28	100%	2.50
17. The quality of water bodies was good			
Strongly agree	1	3.57%	
Agree	12	42.86%	
Neutral	11	39.29%	
Disagree	4	14.28%	
Strongly disagree	-	-	
Total	28	100%	3.36

Section 4: The existing situation of current tourism development plan and management in Virachey National Park

4.4.1 The potentiality and existing situation of tourism development plan and management in Virachey National Park

To fulfill the objective concerning the study of existing tourism development plan and management strategy in Virachey National Park. The primary types of information were collected from the official group of Biodiversity and Protected Areas Management Project.

The focus group interview was used with the official group of BPAMP for the qualitative side of this study. The interview consisted of 4 components, namely physical conditions, management in the park, operation of natural and cultural tourism and organization and participation of local community which divided into 28 sub-component factors and the opinion on each factor were used to identify the potentiality of sustainable tourism development in the Virachey National Park as mentioned in chapter 3. The potential of sustainable tourism planning and management was summarized in Table 4.12

Table 4.12 Analysis of the potentiality and existing situation of tourism planning and management in Virachey National Park

Factors	Potential Scores		
	High	Moderate	Low
Factor 1: Physical conditions			
1. Identify or uniqueness of Natural attraction	X		
2. Biodiversity of fauna and flora	X		
3. Uniqueness of culture and attraction	X		
4. Variety of Cultural activities and lifestyles			X
5. Tourist tradition and festival attraction	X		
6. Ability in accepting the change of culture		X	
7. Ease of accessibility to tourist attraction			X
8. Accessibility in various season			X
9. Appropriate area for tourism activities	X		
Factor 2: Management in the park			
10. Waste disposal	X		

11. Management of noise quality		X	
12. Management of water quality			X
13. Tourist attractions' facilities management			X
14. Life and safety management			X
15. Appropriation of area management to a type of tourist attraction			X
16. Consideration to limitation of carrying capacity	X		
17. Environmental impact prevention system			X
18. Adequate measure to prevent the deterioration of cultural heritage value			X
19. Area management		X	

Table 4.12 (Continued)

Factors	Potential Scores		
	High	Moderate	Low
Factor 3: Operation of natural and cultural tourism			
20. Quality of information services		X	
21. The creation for tourists' impressiveness of park ranger relevant people.		X	
22. Advantage and value of learning	X		
23. Type and method of communication to tourist		X	
24. Diversity of tourism activities in the park	X		
Factor 4: Organization and participation of local community			
25. Advantage of local communities to preserve cultural identity			X

26. Economic benefit for local communities			X
27. The opportunity from government and the private sector to support tourism development			X
28. Local community acceptance and participation			X

Factor 1: Physical conditions

The potential of sustainable tourism planning and management was summarized in Table 4.12.

1. Identify/ unique nature of attraction

From the secondary data and interview with the warden tourism, Virachey National Park is a name to remember with a unique nature of tourist attraction. No systematic appraisal of Virachey National Park tourist attraction has been conducted. According to Tourist Asset Information of Virachey National Park and many tourist attractions, this park possesses unique characteristics including 9 waterfalls, ancient well, ancient foot print and elephant rock. In 30%-40% of park area and the forest areas comprise:

Forest Dense

Evergreen forest

Bamboo forest

A bended swedden

Water body

Elephant areas

Veal Thum mountain

Highest mountain (elevation range 1333m-1500m)

Then, Virachey National Park has high potential for tourist development with diversity of tourist attraction.

2. Biodiversity of fauna and flora

The fauna of Virachey National Park has not been studied to any significant

level and no systematic survey has been conducted. Based on studies to date, Ashwell (1998) described the vertebrate fauna and covers mammals, birds, reptile, and fish from available sources in the literature. He also documents species of international conservation significant in these group, indicating that a significant number of threatened and endanger species occurred in Virachey National Park. There may be as many as 156 vertebrate species In Virachey National Park, of which 43 are of international significant. Although birds have not been studied systematically, it is thought that as many as 100 species that are of international significant may occur in Virachey National park. In Virachey National Park's aquatic environment, Siamese crocodile, otters, freshwater turtles, and some fish species are of conservation significance.

Connecting to the flora in the park, Ashwell (1998) breaks the vegetation formations of Virachey National Park into seven landscapes, each with predominant vegetation:

- Medium elevation landscapes
 - i. Montane slopes, and
 - ii. Montane peneplain
- Low elevation landscapes
 - i. Middle valley research
 - ii. Valley floors
 - iii. Western lowlands
 - iv. Isolate granite outcrops, and
 - v. Wetlands

From the interview with warden tourism of Virachey National Park, the systematic appraisal of Virachey National Park vegetation is still conducting. There may be more than 150 species of flora than can be found in Virachey National Park. Hence, Virachey National Park processes high potential in terms of fauna and flora.

3. Uniqueness of culture and attraction

From the review of secondary data, interview with head of village, tribal chief and observation in term of dressing, traditional activities art handicraft and food, the researcher

found that indigenous Broa and Kavet minority group communities in and around Virachey National Park only are still practicing traditional culture and way of living does not change from what they used to be for centuries. These cultures are strong authentic and attractive to visitors. Therefore, uniqueness of culture and attraction in and around the park has high potential to be promoted as tourist attraction.

4. Variety of Cultural activities and lifestyles

Most of Visitors were interested in the traditional culture of Broa and Kavet minority group communities in and around the park. However, the visitors could not join the villages' cultural activities, leisure and entertainment culture, product culture or taste the food of the villages because there is no restaurant or places to sell the indigenous minority group's food for tourists. Visitors have to buy food from Banlung districts, Ratanakiri provincial town (60Km from the park) as a meal box before traveling to the park Moreover, some families were not able to follow their traditional culture like killing buffalo for drinking wine and other traditional culture related to their agriculture because of poor living conditions. This reason led the villages to cut down some traditional cultural activities. Therefore, variety of culture activities and lifestyles has low potential to be promoted as tourist attraction.

5. Tourist tradition and festival attraction

The researcher found that the area has high potential in terms of unique traditional festival that could not be found in other areas of Cambodia, for example, killing buffalo for drinking wine (Kab Krabey Phek Sra). Another interesting example is when the people got sick, the tribal chief pray for god at the spirit forest. After that, the patient would get better. On the other hand, they mostly hold the traditional festival related to their wedden agriculture every month from clearing up forest for growing rice (starting to grow the rice) until harvesting.

6. Ability in accepting the change of culture

From the observation and interview with the local communities, head of villages and observation. The researcher found that tourism introduced undesirable impact to the community. The culture of the community is moderately changed. Obviously, the traditional dress of local community has already changed.

7. Ease of accessibility to tourist attraction

This factor is the most important for visitors and supply side of tourism for supporting the sustainable tourism planning and management. From surveying the road, researcher found that all the ways. All the ways to tourist attraction of Virachey National Park are very poor conditions. The safety from the journey and the clarity of direction sign are needed to be urgently improved. The distance from major cities to the tourism site is a prime obstacle. For example:

- From Phnom Penh to Ratanakiri (588 km) are under construction, it take 15hour by taxi
- From Bnlung district (Ratanakiri provincial town) to Taveng District (60 km), it takes 2 hours by motor.
- From Taveng district to park border/ranger post (30 km), it takes 2 hours by boat.
- From Banlung district (Ratanakiri provincial town) to Veunsai District (60 km), it takes 2 hours by motor.
- From Veunsai district to Kok lak communities (7 km) it takes 1 hour by motor and boat across Sesan river, then walk to the park boundary.
- From the park boundary to tourist attraction inside the park, visitors have to walk along the natural trail and off-road.

Obviously seen, potential of accessibility to Virachey National Park is low.

8. Accessibility in various seasons

The tropical climate of the area depends upon Southwest and Northwest monsoons. Cool climate is influence by pressure from Siberia and China starting from mid of October to mid of March with the temperature ranging from 23

to 29 degree Celsius. The transition climate period (summer) is from mid of March to mid of May with the highest temperature between 27 to 31 degree Celsius. Heavy raining is influenced by the southwest monsoon starting from mid of May to mid of October. This effects the tourism of the area. Geographically, the Virachey National Park has medium rainy period of about 6 months. Therefore, the weather becomes an obstacle for tourism because during the rainy season, it is difficult to travel to the park and inside the park. On the other hand, the distances to tourist attractions are very far about more than 10 or 20 km from the ranger post. This factor has low potential for sustainable tourism development.

9. Appropriate area for tourism activities

Virachey National Park holds the high potential for tourism activities. The park is appropriate for an expansion in the future. The Sustainable Use Zone (50% of Protected Area) that most tourism infrastructure and activities will be concentrated has been designed. The zone includes Community Protected Area (CPAs) (currently under negotiation) which allows for Memorandum of Agreement (MOA) to establish Community Based-Eco-Tourism (CBET) in partnership with local communities. On the other hand the park has designed the viewing platform, overnight sleeping area with the bamboo sleeping platform, and wildlife and bird viewing platform.

Factor 2: Management in the park

10. Waste disposal

Surprisingly to note that there is no garbage bin in the Virachey National Park. However, there is a code of visitors to control the management of waste disposal. The visitors will not be allowed to leave their waste disposal or garbage (box of food and other waste disposal) in the park. They have to take it to their accommodation in Bunlung, Rattanakiri provincial town. Otherwise, they will be fined. Hence, Virachey National Park has high potential to control the waste disposal.

11. Management of noise quality

From interview and observation, the researcher found that there is no warning sign of noise usage at appropriate place in the park. But, the guide rangers gave the advice to the visitors before trekking and warned visitors who are making the noise during travel. Then the potential to manage noise quality in the park is moderate.

12. Management of water quality

From interview with warden tourism in Virachey National Park, the researcher found that the potential to manage water quality is critical and low. There is no water treatment system, no hygienic place for waste water treatment. The officers of the park never check the water quality, underground water, and river, though rainy water is the main sources of water supply in the area. However, the visitors have to buy drinking water from Banlung, Ratanakiri provincial town before traveling to the park.

13. Tourist attractions' facilities management

From the interview and observation, the facilities management in the park is low. There is no arrangement of sign communication, public utilities such as electricity, telephone line, accommodation, food and public construction such as road, trail and toilet. Visitors have to stay with park rangers at ranger post.

14. Life and safety management

From interview, the researcher found that life and safety management is low. There are inadequate park rangers in the park. It is very risk for both visitors and hosts when there are no policemen, and no health center in the park and the villages of communities. There is only one health center in every district that is too far from the park. Increase number of doctors and nurse is very much essential.

15. Appropriation of area management to a type of tourist attraction

Regarding the appropriation of area management to a type of tourist attraction, the potential of management is low. There is no signboard to guide the visitors for the appropriate activities of the areas and type of tourist sites. On the other hand, there is a lack of arrangement of signboard for appropriate action and warning of the area.

16. Consideration to limitation of carrying capacity

It is worthy to note that the park has high attention on the impacts from over limitation of carrying capacity. The park has set the rules to determine the number of visitors that each group would comprise 8 visitors including village guide and guide ranger by considering physical, social and ecological implication.

17. Environmental impact prevention systems

From interview with director of the park and warden tourism, researcher found that the environmental consideration system and natural resources prevention have yet to be provided in the park and there is no systematic appraisal on tourism activities and number of tourists which could lead the negative impact on the environmental and natural resources. Therefore, the prevention system of environmental impacts in the park is still low.

18. Adequate measure to prevent the deterioration of cultural heritage value

The researcher found that there is no research on the tourism activities and amount of tourists in concerning the effect of cultural heritage value, cultural heritage value protection in preventing the destruction of cultural resources but the park has code of conduct for visitors to respect cultural and traditions when visiting local community. So, this factor has low potential for sustainable tourism and management.

19. Area management

The area management is moderately arranged. There is no activity sign provided in the park. Just only Do and Don't signs are provided (e.g Do not pick or destroy native plants or interfere with native animals in the park or community).

Factor 3: Operation of natural and cultural tourism

20. Quality of information services

Generally, the visitors could widespread explore the information of Virachey National Park through Internet, lonely planet, private sectors, CCBEN, BPAMR-VNP, and word of mouth. The park has the visitor information office at Banlung, Rattanakiri provincial town for visitors to contact before traveling to the park and there are ranger offices at Ta Veng, Veun Sai and Siem Pang district. However, there is no guide book and map of the Virachey National Park to facilitate the visitors before and during their visit. This quality of information service is in moderate level.

21. The creation for tourist impressiveness of park ranger and relevant people

From interview with park officers, park rangers, and head of village, the researcher found that the park rangers, guide ranger and village guides have created high impression and good human relationship with the visitors. However, some local communities felt dislike the visitors. The visitors sometimes have disturbed their routine activities while they are holding their traditional cultural ceremonies. According to their traditional culture, some ceremonies were strictly prohibited for the new comers or outsiders come into their ceremonies. In overall, the creation for tourists' impressiveness is in moderate level.

22. Advantage and value of learning

From interview and observation, tourists have high benefit and value of learning from the park and memorable experience of natural environment and cultural heritage value of local communities.

23. Type and method of communication to tourist

From interview with the warden park, there is no arrangement of sign communication, but have the arrangement of village guides, ranger guide and the arrangement of visitors' orientation, before touring to the park. Then, the park provide moderate potential of communication to tourists.

24. Diversity of tourism activities in the park

According to the results of the study, the park provides high potential of diversity of tourism activities. Visitors have enjoyed their experiences with many forms of tourism activities in the park such as natural tourism, ecotourism, traditional and cultural tourism, and having the way of life tourism.

Factor 4: Organization and Participation of local community

25. Advantage of local communities to preserve cultural identity

From secondary data and interview, the result indicated that the community has gained benefit from the park tourism at low level. The park will share benefit from the fee to the community by mainly focusing on the first 2 days of the visitors' visit in the area: USD 2 for international visitor per day and USD 1 for Cambodian visitor per day. The park makes an assumption that the visitors will spend their time in the Community Protected Areas (CPAs) within the park. The money will be retained by Virachey National Park in trust for allocation by respective commune committee. However, from interview with the head of commune, tribal chief and local communities, they feel dissatisfy with the amount of money that

community has gained from the park tourism because of small number of tourists. Moreover, the local community did not get the benefit from park tourism through cultural performance and handicraft sales to protect and preserve the cultural identity of local community.

26. Economic benefit for local communities

In terms of this aspect, the researcher found that all the park rangers, village guides and ranger guides who employed in the park were the local communities living and around the park. However, the number of employment is still limited with only 18 village guides, 2 ranger guides and 45 park rangers. The local communities have no more the opportunity to gain more jobs from the park tourism through selling crafts, food, accommodation, and transportation. Then, this provided that economic benefit for local communities in Virachey National Park is low.

27. The opportunity from government and the private sector to support tourism development

Though Virachey National park is the target area for Cambodia to promote eco-tourism activities and the government has already had the tourism development plan for northeast Cambodia (Ratanakiri and Mondolkiri province), the support from government and the private sector to develop tourism is low. Nothing is to be developed in the area. There is no private sectors which have the plan to support and develop small or medium scale tourism industry in the community.

28. Local community acceptance and participation

As occurred in many countries, there is a lack of local community participation in the process of making decision and control of policy on tourism development in the park as well as in the communities. The local community expressed their opinion not to support tourism planning and management if they can not get benefit from the park tourism. The result indicated

that local community participation is low and this would cause difficulty if the sustainable tourism is to be achieved. Therefore, this factor has low potential for sustainable tourism planning and management.

4.4.2 The results and data analysis of interviews with officer group of Biodiversity and Protected Areas Management Project (BPAMP)

4.4.2.1 Visitors' health and safety

Discussing with Mr. Nimit, Warden tourism of Biodiversity and Protected Areas Management Project on January 07, 2006 at Ratanakiri Environmental Department, the researcher found that the number of illness cases of visitors (malarial and mosquito born disease) was unclear recorded. So, it is poorly indicated about the number of visitors who went to see the local doctor, and the number of visitor got sick from mosquito bite in the park. However, the park has the good performances of visitors' health and safety because there is no visitor get lost, no accident or crime involving visitors, no injury on short and long walks, no motor accident en route to the park, and no animal attack and snake bite. Particularly, all of eco-tourism ranger guides (100%) have been trained about the first aid. In contrast, visitors still have some problems with boat accidents, but not serious. Visitors thought that it is just fund and they also like this activity.

4.4.2.2. Negative impacts of the environment

Discussing with the Director of Virachey National Park at Visitor Information Center of the park on January 15, 2006 and self-observation in the park, the visitors use bottled water and water from the guest house or hotel purification. Visitors still have the problem with bottled water including getting stomach upset. However, the data generated from the park of oil entering water bodies through inspection of boat

motors was not clear. It is unclear about the negative impacts of the environment on the water bodies in the park. This is the weak point of park management on the environmental impacts caused by motor boat for facilitating and serving visitors during their visiting the park. Regarding to the waste treatment in the park, there is no waste disposal in the park because the park has the regulation of the waste disposal. The visitors could not allow to leave their waste disposal in the park. They have to take it to their guest house or hotel where they stayed and all of visitors used of toilet supplied.

4.4.2.3 Destination planning and control

Discussing with the Director of Virachey National Park at Visitor Information Center of the park on January 15, 2006 regarding to park planning and control, Virachey National Park has created four zones based on the draft Protected Areas Law as follows:

1. Core Zone: No access with the exception of park staff and researches (require clearance from Park Director).

2. Conservation Zone: Access would require a permit. Strictly regulate, low intensity, low impact, subsistence use of resources by permit for local communities, but no cultivation will be allowed.

3. Sustainable Use Zone: Memorandum of Agreement (MOA) will allow resource use. This zone may contain the following:

- Eco-tourism areas
- Community protected areas (CPA)
- Conservation of natural culture heritage areas.
- Botanic garden, and
- Special use areas: Infrastructure, trails. etc.

4. Community Zone: In this zone, local communities and individuals will be able to obtain land title and Protected

Area (PA) management will have no direct responsibilities after it has been awarded this status by the government of Cambodia.

A zoning scheme for the park protects core conservation values with no visitors access to the core zone (38% of the Protected Area). Access to core conservation zone (12% of the Protected Area) is restricted to permit only trekking in the company of rangers with very simple infrastructure such as campsites and trail signage to support remote wilderness experiences. It is within the Sustainable Use Zone (50% of the Protected Area) that most eco-tourism infrastructure and activities will be concentrated. This zone also concludes Community Protected Areas (CPAs) (currently under negotiation) which allow for formal agreements (Memorandum of Agreement) to establish eco-tourism enterprises in partnership with local communities. Permanent structure to support eco-tourism enterprises are only allowed inside Community Protected Areas (CPAs). The clear intent of the plan in relation to eco-tourism is for strong community participation in and benefit from tourism. The management plan identifies the development of an eco-tourism strategy for Virachey National Park as a high priority management action.

Moreover, the park has already set the rules to regulate construction such as major eco-tourism lodges and accommodation structure will also conform to international best practice standards for design and construction and will maximize involvement and benefits to local communities. They will subject to full Environmental Impact Assessment (EIA) which will guarantee minimizing impacts and ensure on going monitoring. In accordance with these guidelines, development will consider appropriate location and design of structure and building materials sourced from outside the park, appropriate technology including energy minimization and use of renewable energy for power, water conservation measure, appropriate waste water treatment, construction staff to be briefed to minimize local environmental and culture impacts during construction, landscaping and vegetation screening to use indigenous species and incorporate ethnic-ecological interpretive features, and colors to blend with the local

environment. Access to major eco-tourism infrastructure must be primarily by water via major park waterways with environmentally sound vessels and practices.