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Jari Hietaranta

# TOURISM DEVELOPMENT IN CAT BA ISLAND IN NORTHERN VIETNAM



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TURKU UNIVERSITY OF APPLIED SCIENCES

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REPORTS FROM TURKU UNIVERSITY OF APPLIED SCIENCES 159

Turku University of Applied Sciences  
Turku 2013

ISBN 978-952-216-367-7 (printed)

ISSN 1457-7925 (printed)

Printed by Suomen yliopistopaino – Juvenes Print Oy, Tampere 2013

ISBN 978-952-216-368-4 (PDF)

ISSN 1459-7764 (electronic)

Distribution: <http://loki.turkuamk.fi>



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# ACKNOWLEDGEMENTS

I would like to thank the following students and lecturers of Haiphong University (HPU), Turku University of Applied Sciences (TUAS) and Lahti University of Applied Sciences (LUAS) for their valuable work during the intensive course in October 2010. Especially, I would like to thank Project Coordinator BSc Essi Hillgren from Turku University of Applied Sciences and Mr Nguyen Van Hach, the Manager of Cat Ba National Park (Deputy Director of the Center for Travel Services Ecotourism and Environmental Education), for course arrangements and for their valuable support during the field course.

Hoang Quoc Dung (Lecturer, HPU)  
Hoang Thi Hong Lien (Lecturer, HPU)  
Arto Huhta (Lecturer, TUAS)  
Ngo Thi Thu Trang  
Doan Thi Thanh Xuan  
Vu Thi Kim Anh  
Luong Thi Thu Ly  
Tran Le Thuy  
Pham Van Thang  
Luong Thi Binh  
Pham Thanh Ha  
Tran Thi Mai Phuong  
Nguyen Viet Cong  
Nguyen Thi Nhung  
Ngo Thi Ngoc Hien  
Pham Thi Thanh  
Pasi Seppälä (TUAS)  
Tapani Järvinen (TUAS)  
Joni Viljanen (TUAS)  
Elina Kallio (LUAS)  
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# I INTRODUCTION

Environmental issues have always been in the background in Vietnam because of the Vietnam War and the complicated political system since. The Vietnam War divided the country both economically and politically, and that dichotomy is still there even though the war ended already in 1975. During the last decades, Vietnam has confronted a rapid population increase with a growing demand for economic changes as well as a growing interest in resources. The country's location next to China is affecting its economic and political climate. There has been a lot of scientific research literature concerning flora and fauna of the coastal areas of Northern Vietnam, but not so much concerning tourism or tourism development and its linkage with the environment.

The purpose of this research is not only to list negative or positive changes that may result from tourism development on a local scale on Cat Ba Island. Instead, we try to focus on important questions, such as whom or what is being affected, what are the consequences, and what are the possibilities to change the evitable. If local inhabitants living in tourism development agglomerations confront limited access to their livelihood resources, tourism development does not benefit them at all, or the benefits are very few. (Todaro 1994 cit. Mustelin 2007). As far as we can see, this kind of imbalance between tourism development and local involvement is going to happen on Cat Ba Island.

## 1.1 CONCEPT OF TOURISM DEVELOPMENT

Recently, tourism has been one of the most popular development topics in developing countries – also in Vietnam. So far, however, there has been a lack of information regarding the tourism development in the Northern Vietnam coastline and the Halong archipelago, or regarding tourism influences on a local scale, such as local involvement, hotel area expansions, land use changes and sociological changes. As Viet and Lin (2001) point out, this may be caused by a general lack of suitable natural zoning management as well as inadequate understanding of natural resources and socio-economic systems by primary stakeholders. Besides, an inefficient authority or a lack of participatory management may be involved.

Nevertheless, within all societies, power structures, which may be new or old, determine who is involved in decision-making (Burns & Holden 1995). For example on Cat Ba Island, the critical question is who is making decisions

concerning the utilisation of Cat Ba Island's resources and archipelago. Those who lack the means to influence decisions will use the existing resources intensively and sometimes illegally (Mustelin 2007). This can, as Driver & Chapman (1996) point out, turn into spiral of changes affecting the environment, social reality and economic opportunities far into the future. Since tourism is extremely dependent on resources and attractiveness of places (Burns & Holden 1995 cit Mustelin 2007), changes will determine if a certain pace remains on the tourism industry's calendar.

Tourism brings change, because it is tied to the movement of money, people and resources in time and space, and thus it affects infrastructures, social traditions and habits (Ashworth & Dietworst 1995). Tulin (2004) points out that tourism is very complex in nature and interests may vary from one stakeholder to another. In addition, Burns (2004) states that interests create changes on local, national and global scale. These changes have varied natures, because they combine positive and negative aspects simultaneously. Further, societies do change and adapt to changes as they are not static (Dodgshon 1988).

## 2 CAT BA ISLAND

### 2.1 LOCATION AND ADMINISTRATION

The Cat Ba Archipelago is located in the western Gulf of Tonkin. The archipelago is situated close to three major population centres (Hanoi, Haiphong and Quang Ninh), and therefore tourism potential is high. In 1986, the Cat Ba islands were established as a National Park by the Vietnamese Government including the islands and adjacent marine areas, and in 2004, the Cat Ba Archipelago was recognised as a World Biosphere Reserve by UNESCO. The Cat Ba Biosphere Reserve covers an area of 26,241 ha altogether, and its largest island is Cat Ba Island. The island is located between  $20^{\circ} 42' - 20^{\circ} 54' \text{N}$  and  $106^{\circ} 54' - 107^{\circ} 09' \text{E}$ . The biosphere area of the island is divided into 3 functional zones: core area, buffer zone and transition area. Outside the UNESCO area, there is a so-called economic zone where the most intensive economic development, such as tourism development input, will concentrate in future (Figure 1.).



**FIGURE 1.** *Cat Ba Island is situated in Northern Vietnam, about 200 km to the south of the Chinese border. The sea journey from the continent takes around 30–45 min. (Unesco / World Biosphere Areas, 2012)*



Cat Ba Island actions are administrated by the Haiphong People's Committee. Cat Ba Island is administratively divided into 8 communes including Cat Ba National Park, which was designated as an independent group. The communes are: Cat Ba town, Tran Chau, Xuan Dam, Hien Hoa, Gia Luan, Viet Hai, Phu Long and Cat Ba National Park. These communes have quite limited possibilities to influence decisions concerning their own land use and development. Decision-making is concentrated in Haiphong.



**FIGURE 2.** An information board at the entrance gate of Cat Ba National Park. The information provided to tourists is old and limited. (Photo: Jari Hietaranta)

There is a specific Cat Ba Biosphere Programme Management Unit which makes the decisions that deal with the world heritage area, including Cat Ba National Park, and areas outside National Park. Biosphere reserves are sites established by countries and recognised under UNESCO Man and the Biosphere Programme (MAB) to promote sustainable development based on local community efforts and sound science. As places that seek to reconcile conservation of the biological and cultural diversity as well as economic and social development through partnerships between people and nature, Biosphere areas are ideal to test and to demonstrate innovative approaches of sustainable development from local to international scales. ([www.unesco.org](http://www.unesco.org)).



**FIGURE 3.** *A village inside the National Park boundaries. Even though villagers are living in a traditional way, tourists are welcome to visit there. The village can provide small scale accommodation. (Photo: Jari Hietaranta)*

The management unit's activities are to instruct, evaluate and approve projects that are important to the Cat Ba Biosphere area and to restructure production and consumption activities. The management unit is in charge of building up rehabilitation models and developing the quality of the economy. The management unit is also building up supporting policies to strengthen the development.

## 2.2 HISTORY

Inhabitants appeared on Cat Ba Island 18,000–10,000 BP at a time when the island had not been split from the inland. 77 archaeological sites on the island have been discovered and excavated, including many famous ones like Cai Beo, Bai Ben and Cat Don, and others like Tung Goi, Mieu Goi, Lang Cu and Mac dynasty's Ancient Citadel. Stone tools and bones found at the sites indicate that primitive man was living in the caves on the island between 6,000 and 7,000 years ago.

The name, Cat Ba Island, is derived from temples built to commemorate a group of accidentally deceased women. The name "Cat Ba" comes from "Cac Ba", which means, symbolically, the island of ladies. A long time ago, a boat

carrying women from the Thai Binh province came to Do Son to join a festival. Unfortunately, there was a storm, and as the boat capsized, all the passengers drowned. One body was found floating at Cang Ca port where a temple named Cac Ba (Ladies) was constructed later. The temples on Cat Ba Island are closely related to fishing and fishermen's lives.

At the moment, the population of Cat Ba Island is approximately 14,000 habitants, and it is increasing rapidly. There are mainly two ethnic groups: Kinh and Chinese-born Vietnamese. Fishing and aquaculture are the most important occupations.

## 2.3 NATURE

The total area of the Cat Ba Archipelago is 26,241 ha, and it is constituted by 366 islands. The Cat Ba area is located in a tropical monsoon region at the north coast of Vietnam. The climate of the Cat Ba Archipelago is coastal tropical monsoon with pronounced wet and dry seasons. The wet or rainy season lasts from May to September, and the dry or cold season from November to March. The mean annual temperature ranges from 23°C to 28°C, mean annual rainfall from 1,900 to 2,100 mm, and mean annual relative humidity is 82%. During the wintertime, temperatures may fall as low as 10°C. Typhoons and tropical storms are frequent in the rainy season.

Cat Ba Island is composed mostly of Carboniferous-Permian limestone and dolomite. The limestone is about 500–600 m thick and well-bedded. It has been strongly folded and faulted and, in some places, shows near-vertical dipping. Limestone mountains are the main types of relief on Cat Ba Island. There are several high peaks, such as Cao Vong (331 m), Hien Hao (302 m), Tran Chau (230 m) and Viet Hai (254 m). Narrow valleys have developed between mountainous ranges with an elevation of 20–100 m. The principal streams on Cat Ba Island are small, such as the Thuong Luong, Treo Com, Hai Trung Trang and Viet Hai streams. Most streams are seasonal, forming after tropical storms, but others, in the higher valleys, such as Thuong Luong and Viet Hai, are perennial. Most of the rainwater flows into caves, grottoes, and then follows the underground water stream into the sea. This often leads to an acute shortage of fresh water during the dry season.

Sandy beaches have developed in sheltered areas along the coastline of the islands, and mostly they are distributed in the southern and south-eastern parts of the island (e.g. Cat Co, Cat Xanh Quyt, Cat Tien Ong, Cat Van Hoi and Cat Quyen).

Cat Ba Island has a high level of biodiversity with five main ecosystems:

1. tropical rainforest on limestone hills
2. mangrove ecosystems
3. coral reef ecosystems
4. wetland ecosystems
5. man-made agricultural ecosystems.

Cat Ba is an area with abundant and diverse fauna and flora, including 896 plant and 548 animal species found in the National Park, but some of the species are becoming rare and are considered as endangered species. Based on geological characteristics, the limestones have been weathered by water and wind, and together with deposition processes they have created some types of soils in different areas on the island. The tops of bald hills have soils that are being weathered by ferralitic processes on the clayed schist. Alluvia are deposited into rivers, and mangrove forests with evergreen forest types of *Rhizophora* spp., *Avicennia* spp. and *Bruguiera* spp. have developed in wetland areas. Rare and endangered tree species on the island are e.g. *Caryota bacsonensis*, *Chukrasia tabularis*, *Podocarpus fleuryi* and *Salix tetrasperma*. Cat Ba National Park is a home to 2,320 species of fauna and flora including 741 land species, 282 forest species and 23 species of wetland plants. As many as 60 species of fauna and flora are endemic species and listed in Vietnam's Red Book. Sea areas surrounding Cat Ba Island sustain 196 species of fish, 538 zoobenthos, 75 species of seaweed, 199 phytoplankton, 89 zooplankton, 177 corals and 23 wetland plants. There is also an endemic primate called Cat Ba langur (*Trachypithecus poliocephalus*). It is one of the world's 25 most endangered primates.



**FIGURE 4.** *As many as 60 species of fauna and flora found in the Cat Ba Archipelago are endemic species and listed in Vietnam's Red Book. (Photo: Jari Hietaranta)*

There is a high biodiversity in the archipelago which has high potential in the area of ecotourism. Biological resources of the island have been declined and are continuously reducing. The environment has been polluted and species have disappeared, and some species, especially reptiles, are threatened. Alien species, like Eucalyptus and Acacia, are appearing. Major ecosystem types in the archipelago are tropical humid forest, wetlands, mangrove forest and coral reefs. In addition to 65 forestry polices in the Cat Ba Archipelago, the local government tries to put a lot of effort to ensure that the natural environment is well-protected.

To get some idea about the biodiversity of the tropical rainforest, some data concerning dominant deciduous trees growing near the National Park has been collected. The area studied is also affected by human activity. Three areas of 10 x 10 m<sup>2</sup> each were studied. (Table 1).

**TABLE 1.** List of dominant trees from three study areas.**Square 1**

No	Species	Diameter (m)	Height (m)
1	<i>Endospermum chinense</i>	0.85	30
2	<i>Peltophorum tonkinense</i>	0.75	25
3	<i>Castanopsis chrysophylla (sp)</i>	0.85	15
4	sp	0.32	15
5	<i>Peltophorum tonkinense</i>	0.30	10
6	<i>Castanopsis chrysophylla (sp)</i>	0.20	08

**Square 2**

No	Species	Diameter (m)	Height (m)
1	sp (phay)	5.2	30
2	<i>Castanopsis chrysophylla (sp)</i>	1.47	25
3	<i>Peltophorum tonkinense</i>	0.51	23
4	<i>Dracontomelum duperreanum</i> Pierre.	0.80	20
5	Sp (mang)	0.86	16
6	<i>Castanopsis chrysophylla (sp)</i>	0.20	08

**Square 3**

No	Species	Diameter (m)	Height (m)
1	<i>Burretiodendron tonkinense</i>	0.35	40
2	<i>Dracontomelum duperreanum</i> Pierre	0.44	37
3	<i>Averrhoa carambola</i> L	1.1	20
4	<i>Peltophorum tonkinense</i>	0.40	20
5	<i>Endospermum chinense</i>	1.4	18

**TABLE 2.** Number of dominant trees in areas studied.

Square	Number of species	Dominant trees
1	12	<i>Peltophorum tonkinense (sp)</i>
2	14	<i>Calamus tetradactylus</i>
3	12	<i>Endospermum chinense</i>

## 2.4 SOCIAL AND ECONOMIC ASPECTS

Cat Ba Island is a top tourist destination for both domestic and international visitors in Vietnam. In fact, tourism has been developed from one motel in 1994 into 107 hotels in 2009. The tourism industry of Cat Ba is growing rapidly (Figure 2). The hotel capacity is still increasing. There are a few huge new housing resorts under construction at the economic zone, which means that the Cat Ba town area is expanding in the near future. Increasingly, the new housing areas are planned to be constructed on bays by conquering new housing land by landfilling. During the last decade, the number of tourists has been increasing in rapid pace from about 100,000 tourists a year to about 1,000,000 tourists in 2010. About 30% of the tourists are foreigners. Tourism takes place more or less on a daily basis – visitors arrive in the morning with boats and ferries and leave in the evening. In the future, the strategy is to attract tourists to spend more time on the island.

The tourism of the archipelago is a multi-million dollar industry already and an increasing source of employment and income at the local and regional level. The tourist sector accounts 60% of the economic output of the island. To fulfil the call for increasing workforce, the immigration from the continent to Cat Ba Island has been very intensive in the last 10 years, and the new arrivals are dealing with tourism and other private businesses. On the other hand, the economic value of the traditional sectors, such as agriculture and fishing, is declining.

Most of the hotels are owned by companies from the continent. Haiphong and local authorities have decided that a tourism centre operating in accordance with national and international standards will be located in Cat Ba, and in addition to that, Cat Ba will become the economic spearhead of the Cat Hai district. This progress is seen as an analogy between the nationwide strategy and the tourism industry. The cause of the illegal exploitation of natural resources is adversely affecting the environment today mainly because the living standard of locals is low, their perception on the environment is not high and their motivation to participate in nature protection is limited.



**FIGURE 5.** *Tourism industry is growing fast in Cat Ba town. New hotels at the east end of the town (Photo: Jari Hietaranta)*



### 3 AIMS OF THE RESEARCH

Our research on Cat Ba Island mainly focuses on 1) how tourism should be developed in a sustainable and more detailed way; 2) how local people can participate in tourism development and 3) what kind of influences this development may have on the local communities and on the environment of the island. The critical question is 4) how will this development affect the rest of the island. So far, the research has been focused on collecting basic information concerning the island.

In October 2010, we made a two-week fieldwork studying the concepts and opinions of local people about the tourism development on Cat Ba Island covering both the environment and the infrastructure of the island. In addition, we analysed a lot of previous research papers and management plans that deal with the future planning of the island. During the fieldwork, we concentrated on the following aspects: 1) the environment of the island; 2) the opinions and perceptions of local people about tourism development and 3) the state of the island's infrastructure with reference on tourism development. During the summer 2011, two sustainable development students continued data collecting in the field.

The beginning of this research goes back until late 90's when the decision of tourism development was made in Haiphong and the tourism industry on coastal areas was taking its first steps. As does Wall (1997a), it should be pointed out that tourism generates change continuously, and the impacts seen and recognised today might already have another form when viewed, for instance, twenty years from now. When talking about sustainable tourism and development in Vietnam, the next 10–15 years will be very critical.

On the other hand, tourism as a mass phenomenon is quite new on Cat Ba Island; tourism has been here for long time, but mostly for domestic needs and on a small scale. While the present perception is important, we should be aware what changes have happened already and what might happen in the future. Although this research cannot provide the complete picture of different processes in tourism development, from an ecological and sociological point of view the island cannot support massive tourism input, and strategic planning needs to be re-evaluated. This research is being realised together with Haiphong University, People's Committee of Haiphong City and Cat Ba National Park.

This report comprises basic information and data concerning physical and socio-economical patterns of Cat Ba Island. In the coming years a complete picture

of tourism development in a sustainable way will be established. The work will result in Integrated Sustainable Tourism Development Plan of Cat Ba Island and Coastal Zone of Northern Vietnam. The research and management will be realised together with Haiphong University and Cat Ba National Park Reserve.

### 3.1 LOCAL PERSPECTIVES ON TOURISM AND DEVELOPMENT

The fieldwork period in 2010 was too limited to proceed with interviews on a larger scale, but the smaller interviews provided a good general look into tourism from the locals' point of view. Our aim was to study knowledge and attitudes of local people about tourism, ecotourism and local people's resources and possibilities to participate in the economic development procedures based on tourism in the area. With the help of the interviews, we tried to look closer at the island and its surroundings, and discuss about how tourism will influence Cat Ba Island. At the beginning of each interview, we shortly described the purpose of the interview and the future aspects of tourism development. Generally, we tried to keep the interviews quite free of form and informal.

## 4 AREAL PLANNING AND INFRASTRUCTURE

During the fieldwork 2010, we studied how the areal planning is being made, and how well the present infrastructure is established and prepared for an intensive tourism growth. The fieldwork was carried out with interviews of local business owners, local village leaders, some private persons, and with own observations. The idea was to find out how the interviewees saw the future tourism development and how they were involved in this process. We interviewed 15 persons altogether. The amount of interviewees was limited so the results should be regarded as tentative only.

The general development plan (2010–2020) for Cat Ba Island states that Cat Ba Island will be a famous tourist centre both locally and internationally, and that the local authorities and people have decided to focus on improvement of the infrastructure, and especially on bathing beaches, water supply and waste treatment, high-class hotels, tourist ports and channels in Gia Luan and Viet Hai, hot spring and resorts as well as ecotourism and recreation centres. The construction of hotels and entertainment complexes with accompanying housing areas has also been contributed to the pollution on Cat Ba Island. The development plan, however, does not pay any serious attention to the recognition that this development should be sustainable with special reference on economic, ecological and social contexts.

The fieldwork revealed that there is not any proper land use planning in Cat Ba, except this very general management plan. Hotels and restaurants are being built mostly on private lands for private business purposes without any environmental and landscape impact consideration or holistic approach. Corruption with legal construction permits is common. Almost everyone we interviewed pointed out that the local public transportation is not convenient, and practically it is very lacking. Also, the roads have very limited capacity to cope with increasing traffic.

Quite many of those interviewed mentioned that, at the moment, the National Park and beaches of the island are the only tourist attractions in Cat Ba. They also mentioned that the island does not have any entertainment complexes or a good shopping centre. The Cat Ba central market is mainly seen matching the local needs, besides being old, dirty and badly organised. One interviewee mentioned that tourists come there just for cheap seafood, but not for Cat Ba culture or nature. It became clear too that the locals are not largely involved in the tourism business. The workers and business owners of the tourism sector on the island are from the continent.

## 4.1 ZONES OF THE CAT BA NATIONAL PARK

Cat Ba National Park is divided into core, buffer and transition zones. The core zone in south-east and north-west covers 8,500 ha and is free from direct human impacts except for research activities. This area consists of valuable ecosystems and landscapes. The buffer zone covering 7,741 ha has great potential for economic development, studies, education and entertainment. In the transition zones, which cover 10,000 ha, there are many rural villages with people of traditional linkages to agriculture and fishing. Buffer and transition zones are the most favourable for community-based development projects, particularly aquaculture and tourism services. These areas should be evaluated very critically when planning future tourism development. Cat Ba town is situated in the economic zone where many big developing projects are under consideration. There have been several master and general planning projects in the National Park area, but because of scantiness of economic and human resources, they have never been materialised. All the new construction is realised more or less without any proper planning.

## 4.2 VILLAGES OF GIA LUAN AND XUAN DAN

Contrary to other villages, Gia Luan commune is located in the west of Cat Ba Island. Tourists from Halong Bay usually take a ferry to Gia Luan to get to Cat Ba Island, and this gives some possibilities in the future. Economics of the Gia Luan commune are not very developed – in fact, the commune is the poorest one on the island. Today, there is no real industrial activity in this area. Local people get their income from agriculture, or they seek work in Cat Ba town to serve the tourism industry. Also, some locals make their living by poaching in the National Park and selling their catch to restaurants in Cat Ba town.

Waste management is at a very poor level in Gia Luan, especially when talking about the future tourism development. In the village, households mainly use rainwater. Waste water is poured around garden since no sewage system is provided. Solid waste is not separated at all, and it is being burned on home yards. Even though there is a landfill area near the village, there is no further processing of the waste. Only bottles are recycled. Since 2001, bottles and waste are being collected by a so-called hygiene team, and little money is paid for each bottle. The team collects bottles twice a week. In general, each household has to pay 5,000 VND per month for this service. No education or information about the waste management is available.

Xuan Dan is a small commune of 168 households and 660 inhabitants. The commune receives most of its income through traditional agriculture but tourism activities are gradually increasing in importance in this area. The services are mainly like small scale bed & breakfast accommodation and guiding services.

The Xuan Dam commune has also its own hygiene team. The team collects the waste also twice a week. In this village, the residents do not have to pay for this service. The commune has provided some common education on waste issues, and for instance slogans are used. High school students usually clean roads of rubbish twice a month. Solid waste is dumped in a landfill near the village or burned.

**TABLE 3.** *Results of the interviews realised in two villages are shown in the table below.*

	3-4 November 2010	3-4 November 2010
<b>general</b>	Gia Luan commune	Xuan Dan commune
households	130	168
population	app. 580 - 620	app. 660
source of income	agriculture	mainly agriculture
<b>waste</b>		
origin of waste	human activity	human activity
waste separation	no	no
recycling, reuse	bottles	bottles
fresh water	pipeline, rain water (main source)	pipeline, rain water (main source)
sewage system available	no	no
dumping site in village	yes (near village)	yes (near village)
garbage disposal & collection	no	no
hygiene team	yes (since 2001)	yes
sum payable for waste management	5000 VND / month / household	free of charge
environmental training of population	no	yes (slogans, campaigns)

### 4.3 CAT BA TOWN

In Cat Ba town, we interviewed two hotel representatives and one restaurant owner, and the information obtained can be summarised as follows. In Cat Ba town, there are many hotels and restaurants, and the number is increasing in not-so-systematic way. All interviewed persons mentioned that hotels separate waste into two categories: solid waste and liquid waste. Solid waste contains bottles, cardboard, cans and plastic. Solid waste is collected for recycling. Some of the solid waste, like bottles and cans, are sold. Each hotel has to pay 500,000 VND per month for the waste management (2010).

Liquid waste includes for instance cooking oil and leftovers, and it is collected into septic tanks and poured into a landfill area near the town. The quantities of the waste depend on the amount of tourists but during the high tourist season, i.e. in the summer, the waste amounts reach their peak. Each hotel has 1–2 bins, and the hygiene team of Cat Ba town collects the waste twice a day. Each hotel has to pay 300,000 VND per month (2010) for this service.

Generally, the waste collecting system in Cat Ba town is more developed than in villages, so the streets are relatively clean. However, the clean areas are restricted only to few streets along the coastline. Awareness of waste issues is generally better than in smaller villages, but our fieldwork revealed clearly that, in practise, the waste collecting system does not work properly all the time. We were informed unofficially that the septic tanks are not emptied regularly, and the waste water may be discharged into the sea.

Hotels use fresh water from a public water company. According to the interview of a company representative, there is enough of fresh water to use both now and in the future on the island. The cost of water is around 5,000 VND for one m<sup>3</sup> (2010). The interviews in the villages gave us a different picture of the availability of fresh water; three families mentioned that there are regular outbreaks in the water availability. The reason for that is to ensure that there is enough water to match the needs of hotels and restaurants. This confirmed our concept that the infrastructure of the island is not capable of confronting a massive tourist invasion.

Hotels get electricity from the local government. Cost of the electricity varies: in the middle of the tourism season (2010), the cost might be 7,000,000–10,000,000 for a small hotel and during the wintertime 1,000,000–3,000,000 VND respectively. Each hotel has a generator to use in case of a power failure. Hotels are not yet using natural energy sources, such as wind or solar energy, and

there is no general plan for an increase in reusable energy use. Now the electricity is being produced from coal.

**TABLE 4.** Results of the interviews realised in Cat Ba town are shown in the table below.

4th November 2010			
	<i>Noble House Restaurant</i>	<i>Gieng Ngoc Hotel</i>	<i>Doc Tuan Hotel</i>
<b>energy use</b> <sup>1</sup>	normal electricity	normal electricity	normal electricity
<b>compressor (extra energy)</b>	yes	yes	yes
<b>rooms</b>	5	59	14
<b>bar &amp; restaurant</b>	yes	yes	yes
<b>origin of waste</b> <sup>2</sup>	tourism industry	tourism industry	tourism industry
<b>separation of waste</b> <sup>3</sup>	yes	yes	yes
<b>recycling</b>	only bottles	only bottles	only bottles
<b>origin of fresh water</b>	local water company	local water company	local water company
<b>sewage system</b> <sup>4</sup>	yes	yes	yes
<b>waste water collection system</b>	twice a day	twice a day	twice a day
<b>waste expenses / month</b>	100,000 VDN	300,000 VDN	100,000 VDN

Our preliminary results revealed that in many ways the infrastructure and service facilities, especially in villages, are poorly developed to receive an increasing amount of tourists. The situation in Cat Ba town is little bit better but still not at a reasonable level.

- 
1. Provided by a government-run company. Source of electricity is not known.
  2. As announced by the interviewed persons; in practise mixed waste.
  3. Read critically; generally no separation, except bottles, is realised.
  4. Each hotel has to have a septic tank that is being emptied twice a day, but it does not always work properly.

## 5 CONCLUSIONS

Our short preliminary study on tourism business and its linkages to local capacities revealed for instance the following alarming observations:

- No systematic environmental impact assessment system; or the method is not used properly in development projects.
- Tourism seems to increase rapidly without any guarantee that natural and human resources are adequate to match the increasing needs.
- Transport system and other infrastructure, e.g. waste management, roads and water supply, are not sustainable, and they are poorly developed.
- Cat Ba National Park is not in the centre of decision-making, and generally all the management and decision-making is widespread.
- No local involvement in decision-making; decision-making is concentrated in Haiphong.

After 10 years of tourism development, Cat Ba is now more attractive as a tourist area, but it is still struggling with poor infrastructure and facing severe problems. From the interviews, it can be concluded that the increase in tourism has not had positive effects on the local environment. The natural landscape is changing, and the number of locals who take part in tourist activities has decreased. The illegal use of natural resources is common and widely accepted. Therefore, promoting the participation of locals has a crucial role in the success of the management and in the sustainable development of natural resources. In the near future, profound discussions about the directions and the basis of tourism should take place and conclude what kind of tourism business is possible and sustainable on Cat Ba Island, and who actually will have the access and rights to use the resources.

### 5.1 RECOMMENDATION AND FUTURE RESEARCH

We recommend that Haiphong city should focus on long-term environmental protection programmes to restrict the reserve from human impacts due to tourism services. The city should decentralise power to the local administration for protecting and developing the reserve while raising awareness of environmental protection among local people and tourists. This would mean that the local



villagers would be empowered to get to know the advantages and disadvantages of the development.

The tourism development process should be based on:

- Conservation of biodiversity, especially critical habitats of threatened species should be given top priority in the developing planning.
- Protection of attractive habitats and species, on which sustainable tourism can be based.
- Contribution to increased knowledge of science through information on functional linkages, implementation of the precautionary principle, provision of control sites for research and ecological benchmarks against which to measure human-induced change.
- Protection of cultural diversity, e.g. sacred places, wrecks, and lighthouses. The main reason is that the locals, who are the true owners of the tourist business, have not been provided with the knowledge or skills needed to protect their environment when they take over as managers.
- The local administration should encourage locals more to take part in tourist activities. The locals know Cat Ba Island thoroughly and they still have a lively linkage for the island.
- If the villages want to increase the amount of tourists, they have to encourage the locals to preserve their own culture and habits. Tourists want to see culture and how people really live. So villages need to offer more services but at the same time protect their own culture and environment.
- Local involvement in decision-making. Local people living in villages favour tourism increase in Cat Ba in the hope of making additional income. However, there is a lack of proper knowledge concerning mass tourism.
- The public transport should be reorganised in a sustainable way. The present infrastructure and logistics do not encourage the use of public transport system. The whole network, including sea transport, links to continent, inland transport, both private and public, should be developed together.
- In villages and in Cat Ba town, the infrastructure of villages and the knowledge of people should be improved. Some people have never been outside the village. The administration should establish a right kind of investment and a whole new development policy.

- Training courses on tourism development for all people living in villages to empower them; also training on environmental and cultural issues is needed.
- A small-scale tourism (“home stay”) model should be established, because it is more environmentally and socially sustainable, and it improves the standard of living of the relatively poor people in the villages.
- In the buffer zone of Cat Ba National Park, a project with a target to encourage people to participate and create opportunities for improving their own livelihood has been started. The community working with forest land is gradually raising the participation in the local communities and the awareness of the links between tourism and forest land management.
- The role of the National Park of Cat Ba should be strengthened; it should take a leading role when new developing projects are planned. Environmental and social sustainability should be given first priority in respect to all development actions.
- The local administration should start campaigns to promote sustainable development. It should start in a very simple way, like with installing signs to guide and remind guests to put waste in the right place, adding garbage collection bins and having good waste treatment methods. Secondly, enhanced information to guide customers to make provisions for environmental protection, to alert them on the status of the environment, and to emphasise the responsibility of each individual should be established.
- The local administration should fine for littering and limit untreated pollutants discharged into the environment; it should also have remedies for coastal construction projects, tourism activities, services and entertainment.
- The local environment law and permit system should be developed so that harmful inputs to environment are heavily punished. However, the activities of the authorities still need a couple of new means to prevent and handle violations and to promote positive behaviour all around the local community.
- Determination to promote people’s participation plays a crucial role in succeeding in the management of forest resources. The local community must create incentives, physical or spiritual benefits, to encourage people to participate.

More focus on sustainability is needed especially when critical decisions for future development are made, and actions, such as artificial beaches, filling the bays, water supply and waste treatment systems, high-class hotels, golf courses, hot springs or all-inclusive resorts and shopping centres, are being planned. In general, there are lot of potential and possibilities to develop tourism in Cat Ba in a more sustainable direction, but it needs more empowerment, participation, co-operation and knowledge regarding each participant.

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