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Birgit Gruebler & Wilhelm Steingrube

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*“Sustainable Tourism & Leisure Development in Quang Binh Province –
Feasibility Study”*

Authors: **Ms Birgit Gruebler**
 Prof. Dr. Wilhelm Steingrube
University of Greifswald
Department of Geography and Geology
Makarenkostr. 22
17487 Greifswald
Germany
Email:
gruebler@uni-greifswald.de
steingru@uni-greifswald.de

Co-author: **Ms Nguyen Thi Thu Thuy** **(Chapter 3.1 – 3.7)**
Hanoi University of Science, Vietnam
334 – Nguyen Trai – Thanh Xuan
Hanoi, Vietnam
Email:
sallynguyen1309@gmail.com

Cover picture: Ms Birgit Gruebler

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Foreword

The document on hand is to be seen as groundwork outlining the present situation in Quang Binh province (North Central Vietnam). As regards content main focus lies on tourism relevant aspects to enhance future projects on ‘Sustainable Tourism & Leisure Development in Quang Binh province’.

This so called ‘feasibility study’ was done in the first half of 2006 including a two month working period (field work) in Hanoi and Quang Binh province. The whole purpose is a description of the province including information to population, economy and natural resources. In detail a complete stock-taking of the existing tourism situation with its management, infrastructure, and supply was done.

What we aim at with this writing is to outline the strengths and weaknesses of the present tourism situation in Quang Binh Province (in the following abbreviated with ‘QB’). Different types of tourism such as beach tourism, eco tourism, adventure tourism etc. – already existing and not (yet) existing in QB – shall be valuated to find out their effectiveness or potentials for the province benefit. The results out off this study shall give a basis for further projects in form of recommendations. The study will be a ‘ground paper’ for additional and specialized work.

Accordingly these targets the consideration of already existing materials (documents, books, personal knowledge etc.) and the involvement of different stakeholders or participants were necessary. Slightly problematic and in some cases unsuccessful was the search for and receipt of actual and useful data. Some material was supplied and promised by project partners, departments and private organisation but they were not handed in till now. Nevertheless – and inevitable for the successful work – the project management was supported by many people and departments. At this the following institutions with its members will be mentioned to thank for their support.

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 - Dr. Martina Forster

Furthermore some other private and public people and organisations assisted to undertake the project work. Sincere thanks are given to them all.

Prof. Dr. Wilhelm Steingrube
Project Leader

Birgit Gruebler
Project Management

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1 Introduction

1.1 Background of the study

The involvement of the German University of Greifswald, Department of Geography and Geology, in projects in Quang Binh belongs to a long year existing cooperation to the Hanoi University of Science (Vietnam) and its contact to the Quang Binh Teacher's Training College (Dong hoi / Vietnam).

Basis of the university cooperation (Greifswald – Hanoi) is the Joint Educational Training Centre (JETC) which offers Vietnamese students the possibility to get inside exchange programs e.g. to reach their PhD. Since Hanoi University students have already researched in Quang Binh Province and because of the good relation and friendship the College developed the idea of further common projects. Main focus on the project shall be the sustainable tourism development of Quang Binh province which is also in the prior economical interest of Quang Binh Province (managed by the Provincial People's Committee).

On this foundation the University of Greifswald has planned to support the Sustainable Tourism Development of Quang Binh Province in partnership with both Hanoi University of Science and the Teacher's Trainings College in Dong hoi.

Main task of this study is a first overview of the existing tourism situation with valuation of the different tourism forms established in Quang Binh Province. This work also includes the analysis of strengths and weaknesses of tourism types and a further selection of relevant tourism forms suitable for implementation. The idea is to give a realistic overview of the present situation and to outline further convenient projects. Doing this the aspect of 'sustainability' has a position of importance which means to carry out everything in an ecological, economical and socio-cultural manner. Quang Binh province is wealthy in natural resources which need to be preserved, in particular if it shall be "used" for the sustainable tourism development. Managed carefully tourism can increase the growth rate in the economic sector. From the socio-cultural view the sustainable process only works if every decision will be made in the public interest. Therefore the tourism development process needs to be a bottom-up approach.

Beside the extensive field work and research in investigation area by the Project Management, some content of this study belongs to already existing



data obtained by Hanoi University and Quang Binh Teacher's Trainings College as well as by different departments of the province mentioned above. Some parts of this study can be therefore seen as a continuation of current projects like it is the study of Phong Nha – Ke Bang National Park (PNKB) by Prof. Nghi (Hanoi University of Science), the carrying capacity study in Phong Nha Cave done by Mr Thai (at that time student at Hanoi University of Science) etc.

Beside this already planned projects within Quang Binh province (independently of the responsible person, department and organisation etc. of the project) will be considered.

The results of this study will be used to discuss future projects like it could be the establishment of a Tourism Development Master Plan to support the sustainable tourism development of Quang Binh province and therefore of Vietnam. For this future plans the University of Greifswald, the Hanoi University of Science and the Quang Binh Teacher's Training College will decide individually about project applications to the government or other possible "financial backer" in Germany and Vietnam.

1.2 Introduction to the investigation area

Quang Binh Province is one of the 64 existing provinces in whole Vietnam, located in the north-central coast region – around 500 km south of Hanoi Capital and about 170 km north of Hué Capital. The province covers an area of 8.051,8 square kilometres with a total population of 818.600 habitants (year 2004 statistics) and is divided into Dong Hoi Town and six districts which are Tuyen Hoa, Minh Hoa, Quang Trach, Bo Trach, Quang Ninh and Le Thuy as well as 10 wards. Quang Binh is surrounded by Ha Tinh Province on the north, East Sea on the east, democratic republic of Laos on the west and Quang Tri Province on the south. The border lines' length of 129 km, 116 km, 201 km and 83 km respectively.

Quang Binh province is connected to north and south by the National Highway No.1 as well as by the 'North-South Express Train' going from Hanoi to Ho Chi Minh City. Further roads and routes will be mentioned in depth in chapter 3.12 (traffic).

From the seaside Quang Binh province can be reached at two ports – named Gianh and Nhat Le – along the 116 km coastline.



The province belongs to the monsoon-tropical zone and the climate is divided into the rainy and dry season. From April to August (dry season) the temperature is very high and rise up to 40°C degrees and more. Very dry seasons limit agricultural activities and cultivation. The rainy season lasts from September to March next year with heavy rainfalls in September, October and November. During this time many regions in the province are affected by high water and flood. The weather is changeable and cold. The annual average rainfall is 2.000 to 2.300 mm. The average annual degree is 24°C – 26°C degree.

The topography is narrow and sloping from the west (mountains) to the east (coastline). The variety of landscapes – mountainous, hilly and midland, coastal sandy area – characterize the province and its uniqueness.

(cf. Dung, 2004)

As one of the poorest provinces in Vietnam, Quang Binh suffers from extreme weather conditions and low political and managing structure. Decisions are generally made by the Public People's Committee (PPC) consisting of committee members of each district.

Basic infrastructure such as water supply and waste water systems are still less developed. More than two-thirds of the rural areas have no waste water system in or in front their houses, water will be mainly obtained by wells. Power (electricity) is already widespread in both rural and urban areas.

Main economic sectors are agriculture, fishery and forestry. Tourism is one of the fastest growing sectors in Quang Binh but so far dominated by domestic tourists. The coast line and the Phong Nha – Ke Bang National Park are in prior interest of Vietnamese visitors and are generally the main attractive of the province. Further tourism potential will be outlined within this study.



Quang Binh province



<http://www.angelfire.com/co/hongnam/vnmap/quangbinh.html>

Fig. 1: Map Quang Bing province



2 Methodology

The methods mentioned below were used to achieve correct and complete data for this study. First, a general and detailed

- literature review

to analyse the already existing data to and of Quang Binh province had to be done. Second, the field work took place in April 2006 and included

- interviews with stakeholders, project partners and members of other organisations,
- interviews with tour operators offering trips to Quang Binh province, as well as
- an inspection of the investigation area, including visits of some tourist sites, mapping and photo analysis.

All methods listed above were needed

- to outline the present situation of tourism in Quang Binh Province
- to describe the different tourism (already implemented or planned) activities and projects and
- for a SWOT analysis (analysis of strengths, weaknesses, opportunities and threats) of existing and possible tourism forms within the region incl. the consideration of Quang Binh's resources

Please note, that the contents of the study on hand is restricted on the short time available in the investigation area and on the defective availability of information and data collection. Furthermore, especially statistical data is published by different departments and organisations with often various results. There is no reliable source and therefore no guarantee of correctness.

2.1 Literature review / Data analysis

Basis for the study was a broad stock-taking of all relevant factors recorded in different books, publications and statistics. The data outlines the past, present and future situation in Quang Binh province; including thematically the status quo of tourism (development) situation, further economic and industrial sectors, climate and scores of statistical data. A complete list of the used paper based references is listed below. Some information provided



by the departments or organisations is also mentioned in the list of references but can only be obtained on special request.

Engaged maps were bought in Vietnam or provided from the departments of Natural Resources and Environment and of Planning and Investment in Dong Hoi city (QB).

2.2 Interviews

Main results and outcomes for the study got off several interviews and conferences in Quang Binh province. This data was generally more useful because of its actuality and the completion of important background information not mentioned in the books and papers.

Dependent on necessary and useful information the project manager had appointments with the heads or directors of relevant departments such as

- Department of Trade and Tourism (DoTT)
- Department of Planning and Investment (DPI)
- Department of Natural Resources and Environment
- Department of Statistics
- Department of Science and Technology
- Phong Nha – Ke Bang National Park Administrative Board
- Phong Nha – Ke Bang National Park Science Research and Rescue Center
- Phong Nha – Ke Bang National Park Tourism & Guide Department
- German Technical Cooperation (GTZ)

A standardised questionnaire for all conversational partners is not prepared. Only individual guidelines were prepared in advance. All results of the meetings are completely integrated in the study according to demand of each chapter.

2.3 Inspection of investigation area

The inspection of investigation area took place in April 2006 and was the most effective methodology to outline strengths and weaknesses of QB province. Restricted on the available time positioned in the province and on the low transportation possibilities the field work was only done in some chosen parts of the whole province. Basis and starting point was Dong Hoi – capital of QB province where from tourist sites so called ‘hot spots’ (like



National Park, coastline, hot springs, museum village, handy craft village and other), tourist infrastructure (such as QB airport which is presently under reconstruction) and several (tourism) investigation areas were visited. The stock-taking out of literature was checked and completed with samples in Dong Hoi and its surroundings. Here the focus lied also on tourism sites and tourism relevant infrastructure to value the present situation. Questions for existing decal information, accommodations, restaurants etc. could be answered that way (generally, not area-wide).

This work showed obviously the lacks essential requirements for an ‘efficient tourism’ and a successful tourism process, as there is e.g.

- low information available for tourists
- low accommodation and gastronomy standard
- low development of tourist sites, in some cases with the consequence of danger as e.g. in case of the Hot springs where nothing protect for the 105° C water

Detailed information are given in the study and later summarised as strengths and weaknesses (s. chapter 4).



3 Stock-taking

In this chapter the focus lies on the detailed stock-taking of tourism relevant data. It outlines the present situation of nature based data, economy (incl. tourism), infrastructure, socio-culture as well as of security, health system and legal framework. Further, more detailed / in depth going information of the current tourism situation – including the actual and outstanding plans as well as the organisational structure – will be given in chapter 5.

The chosen order of the following points has no relevance and is independently of further reports or valuations.

3.1 Climate

Lying in the central part of Viet Nam, Quang Binh's climate is the tropical monsoon climate with the mixture of the north and the south climate.

Radiation:

The annual average radiation in Quang Binh is about 110 - 125 kcal/cm² (table 2). The annual radiation balance is about 70 kcal/cm². The radiation balance in hot months makes up 65 - 68% of total radiation balance in a year (table 3).

Real radiation (kcal/cm²)

Places	Months												Whole year
	I	II	III	IV	V	VI	VII	VIII	IX	X	XI	XII	
Tuyen Hoa	5.64	6.60	7.72	11.94	13.38	10.78	13.43	11.75	9.28	8.20	6.31	5.45	110.48
Ba Don	6.82	6.92	9.26	13.64	14.70	12.54	14.06	11.04	10.76	8.68	7.66	5.78	122.66
Dong Hoi	6.34	6.46	9.75	13.67	14.66	13.02	14.30	11.46	10.73	3.75	7.33	6.25	122.72

Fig. 2: Real radiation

(Binh 1995: 11)

Radiation balance (kcal/cm²)

Places	Months												Whole year
	I	II	III	IV	V	VI	VII	VIII	IX	X	XI	XII	
Tuyen Hoa	2.53	3.40	4.45	7.82	9.07	7.08	8.98	7.81	5.90	4.89	3.21	1.87	67.01
Ba Don	3.27	3.53	5.59	9.10	9.09	7.43	8.50	7.66	6.00	5.96	4.15	3.20	73.48
Dong Hoi	3.08	3.22	6.21	8.79	9.48	7.46	8.34	7.06	6.43	5.73	4.17	3.07	73.04

Fig. 3: Radiation balance

(Binh 1995: 12)



Sunshine

The average yearly sunshine hour is 1,700 - 2,000 hours (table 4). This value may vary due to the difference between the north and the south of the province and between high land and low land area.

Average sunshine hours

Places	Months												Whole year
	I	II	III	IV	V	VI	VII	VIII	IX	X	XI	XII	
Tuyen Hoa	72	82	127	148	214	222	249	173	112	140	62	86	1689
Ba Don	93	72	85	201	252	249	270	179	171	148	80	80	1880
Dong Hoi	96	64	94	170	243	224	289	186	157	144	92	78	1786
Le Thuy	90	88	105	172	257	230	247	179	180	112	80	69	1809

Fig. 4: Average sunshine hours

(Binh 1996: 13)

Temperature

The average temperature in Quang Binh is over 23 – 25°C. The two hottest months are June and July with average temperature of 33.8 - 34.3°C. The absolutely maximum temperature is 42.2°C occurring in July [7]. In this season, the weather seems to be hotter due to the dry and hot west wind (usually called Laos wind). The West Wind usually occurs for periods of time from March to August, especially strong in July. Each period usually lasts for 10 days. In these periods, the weather is very hot, dry with high evaporation rate which causes severe droughts. In winter, usually from November to February, the temperature goes down to around 20°C and usually gets the minimum in January with the average temperature of 18°C. The temperature amplitude in a day is about 5 – 7°C. It is higher in hot season than in cold season.

Rainfall

There are two distinctive seasons: dry season and rainy season. The dry season usually lasts for 8 months (from January to August) and rainy season usually lasts for four months (from September to December). The average rainfall in Quang Binh is about 2,200 - 2,300 mm per year. The rainy season in Quang Binh occurs later than that in the North provinces. The rain concentrates in 3 months (September, October, November) and usually gets the maximum in October, which causes floods during this time of the year.



Monthly average rainfall (mm)

Places	Months												Whole year
	I	II	III	IV	V	VI	VII	VIII	IX	X	XI	XII	
Huong Hoa	48	32	43	87	164	131	140	268	545	563	215	95	2331
Dong Tam	50	33	45	90	171	136	146	279	568	587	224	99	2428
Tuyen Hoa	52	37	44	70	125	113	137	231	261	501	224	86	2181
Roon	49	35	40	45	114	77	81	142	463	491	238	84	1859
Ba Don	53	38	43	48	120	84	88	154	501	532	257	91	2009
Dong Hoi	54	50	49	54	106	80	80	163	188	644	360	133	2261
Le Thuy	71	48	44	46	102	96	90	150	502	668	356	149	2322

Fig. 5: Monthly average rainfall

(Binh 1996: 93)

Humidity

The most humid period in a year is in winter, from November to February with monthly average humidity about 85 - 90%. The maximum is usually in January and February with drizzling rain everywhere. In summer, especially from April to August, the humidity reduces to around 75%. The weather gets really dry during this time.

Monthly average humidity (%)

Places	Months												Whole year
	I	II	III	IV	V	VI	VII	VIII	IX	X	XI	XII	
Tuyen Hoa	90	90	90	86	80	76	72	79	88	90	90	89	85
Ba Don	88	89	90	88	81	77	74	78	85	88	94	83	85
Dong Hoi	88	85	90	87	79	73	72	76	85	87	88	87	83
Le Thuy	90	90	92	89	82	76	73	78	86	87	87	89	85

Fig. 6: Monthly average humidity

(Binh 1996: 107)

Wind

There are two wind seasons in Quang Binh: northeast monsoon and southwest monsoon. In winter, the dominated wind direction is northeast and north. The directions may change into northwest in some places (for example in Ba Don) due to mountain relief. In summer, the dominated wind direction is southwest. This wind originates from the Indian Ocean, flows to the land, bringing large amount of water vapour. When it passes Truong Son mountain range and enters Quang Binh, it changes into dry and hot wind,



usually called Laos wind, due to brize effect. Within the periods of these two dominated winds, there are also east and southeast winds flowing from the ocean.

The average wind velocity is about 2 - 4 m/s (table 7). The maximum average velocity is about 10 - 15 m/s. In winter, the maximum may reach 17 - 18 m/s, even 20 m/s due to strong northeast monsoon. The maximum value of wind velocity may reach 40 m/s in storms and hurricanes in the sea.

Monthly average wind velocity (m/s)

Places	Months												Whole year
	I	II	III	IV	V	VI	VII	VIII	IX	X	XI	XII	
Tuyen Hoa	2.4	2.4	2.3	2.4	2.3	2.4	2.8	2.1	2.0	2.2	2.6	2.4	2.4
Ba Don	2.5	2.3	2.0	2.0	2.1	2.4	2.6	2.2	2.3	2.6	2.7	2.8	2.4
Dong Hoi	3.2	2.9	2.5	2.4	2.5	2.7	3.1	2.5	2.5	3.2	3.5	3.1	2.8
Le Thuy	3.1	2.9	2.4	2.2	2.3	2.2	2.8	2.4	2.3	3.8	4.1	3.6	2.8

Fig. 7: Monthly average velocity (m/s)

(Binh 1996: 32)

Storms and hurricanes

The Central Part of Viet Nam is the region of storms and hurricanes. The storm period is the same to the rainy season. It is estimated that there are usually 5 - 6 storms reaching Viet Nam each year. The storms together with hard rain occurring at the same time in a narrow region with high slope usually causes floods, which strongly affect producing and living activities.

Storms reaching Vietnam each month (1956 – 1995) (%)

Months	I	II	III	IV	V	VI	VII	VIII	IX	X	XI	XII	Whole period
Number of storms	0	1	2	2	3	25	26	45	53	62	39	4	262
Numbers of storms per year	0	0.03	0.05	0.05	0.08	0.62	0.65	1.13	1.32	1.55	0.97	0.10	6.55

Fig. 8: Storm reaching Vietnam

(Vietnam Head office of Meteorology and Hydrology 2000: 262)



Storms distribution to latitudes in Vietnam (1956 – 1995) (%)

North latitude (°)	Number of storms	Numbers of storms per year	Rate (%)
21 - 22	34	0.85	12.98
20 - 21	33	0.83	12.59
19 - 20	30	0.75	11.45
18 - 19	22	0.55	8.40
17 - 18	32	0.80	12.21
16 - 17	21	0.53	8.01
15 - 16	15	0.38	5.73
14 - 15	13	0.32	4.96
13 - 14	15	0.38	5.73
12 - 13	17	0.43	6.49
11 - 12	14	0.35	5.34
10 - 11	2	0.05	0.76
9 - 10	5	0.12	1.91
8 - 9	9	0.22	3.44
Total	262	6.55	100.00

Fig. 9: Storms distribution to latitude in Vietnam

(Vietnam Head office of Meteorology and Hydrology 2000: 262)

3.2 Topography and Morphology

Quang Binh's topography is a part of the east side of Truong Son mountain range.

Mountains and hills make up about 85% of the province's total area. Plains are small, narrow

and are intersected by mountains and rivers. Along the coast is the sand dune chain with the length of several kilometres.

From the north to the south, there's a differentiation in the elevation, it gets lower. In the north, Hoanh Son mountain lies horizontal, extending to the coast, creating the border between Ha Tinh province and Quang Binh province. This northern most part of Quang Binh is Minh Hoa area with the elevation of 2,000m. To the south, in Quang Ninh district, the highest mountain is 1,600m and at the southern most part in Le Thuy district, the highest point is 1,237m. From the west to the east, the elevation also gets lower, except the sand dunes. And four chains of relief are created:



mountains and hills → plains → sand dunes → beaches and coastline. These differentiations influence on material and energy distribution, on climate (temperature, humidity), on vegetation and finally create typical and diverse ecological landscapes in Quang Binh.

Mountains and hills

There are 3 levels in the mountainous area.

- Average high mountains with elevation of 1,500 - 2,000m cover 1.05% of Quang Binh's total area, mainly distributed in the north - west of the province (in Minh Hoa and Bo Trach districts). The highest point is the Phicopi top with the elevation of 2,017m. The composition of the mountains is sedimentary rock (from coarse to fine) with sharp ridge and 20° - 30° slope. The dividing density is about 700m. This area is very difficult for transportation; the only way to Laos is through Mu Gia pass.
- Average low mountains with elevation of 800 - 1,500m cover 19.4% of total area, distributing in Tuyen Hoa, Quang Trach, Bo Trach and Loc Ninh districts. The mountains are composed of acidic igneous rock, metamorphic rock, coarse sedimentary rock and carbonate rock. The mountain ridge has a serrated shape. The dividing density is 250 - 500m and the slope is about 20° - 25°.
- Low mountains have the elevation of 250 - 800m, covering 33% of total area. They are composed of acidic and mafic igneous rock and coarse to fine sedimentary rock. The slope is less than 20°. Transportation in this area is much easier than in high mountains. Hills distribute in larger area, covering about 30% of total area. The surface of this area is almost flat or weakly divided. Erosion is the dominated process in this area.

Plains

Plains cover 15% of total area and are the main areas for crops and residence.

- Hilly plains at the elevation of 50 - 100m cover 5% of total area. The plains are originated from strongly weathered sedimentary rocks under leveling processes.
- Plains at the elevation of 25 - 50m are relatively flat, covering 8% of total area, mainly in Le Ninh, Quang Trach and Dong Hoi. They are composed of alluvial and marine sediment.





Fig. 10: Plain view from top of the high sand dune (Thu Thuy, 2006)

- Low plains at the elevation less than 25m cover 2% of total area, mainly composed of marine sediment and sand dunes under marine and wind processes.

Sand dunes



Fig. 11: Sand dune surface towards the sea (Thu Thuy, 2006)

Sand dune is a special and typical feature of Quang Binh. The sand dunes mass up to make chains along the coastline with the length of several



kilometres. There are two sand dune levels. The lower level is at the elevation of 2 - 4m, lying beside the beach. The width of this chain is about 1km. Its surface is rather flat.

The higher level is about 8 - 10m high, lying closely to the lower one. In some places, the sand dunes are higher, about 20 - 25m, even 30 - 40m, mainly in the south of the province. The sand has the grain size varying from medium to fine and the colour varying from light yellow to grey white and white. The origin of the sand dunes are still under debates and the age of it is estimated in Quaternary.

The sand dune is a special feature that makes the scenery in the beach become more beautiful. There, people are able to enjoy walking in the sand, under the shadow of trees with light winds from the ocean. That may be the potential tourism sites in the future. But the sand also carries some problems. That's the moving sand towards the land, which is covering more and more land using for crops, reducing the small coastal plains. This problem can be partly solved by planting casuarinas - tree, the kind of tree that is the most suitable and is able to grow on the sand. The trees will work as a protective wall to prevent the sand from moving under wind effect.

Beaches and coastline

Quang Binh has a long coastline of about 116 km. The coastline is rather straight with northwest to southeast direction. The beach lies along the coastline with white and fine sand. It is rather flat and has the width of about tens meters (less than 100m). Behind the beach to the land are the lower sand dunes. In the north of the province, where Hoanh Son mountain extends to the sea, there's some small bays between the capes. The coastline there has an arc shape and small beautiful beaches are created. These areas with weaker wave and peaceful environment are able to become attractive tourism sites in the near future.

Limestone and karst

Phong Nha - Ke Bang limestone region, located in the west of Quang Binh province, near the border between Laos and Viet Nam, is one of the world's two largest limestone regions. It is also the last large limestone block in the north of Viet Nam. In this area, there are specific feature of limestone - karst relief: surface karst relief, caves and grottos, disappearing streams and springs, and stalactites, stalagmites, helictites, flowstone... in caves and grottos.



The UK Association of Caves and Grottos in cooperation with Faculty of Geography, Hanoi University of Science has taken explorations on the cave and grotto system. They have found many long, large and beautiful caves at different elevation with total length of about 80km. The caves can be divided into 3 systems: Phong Nha cave system (40 km long), Hang Vom (Vom cave) system (30 km long) and Ruc Mon cave system. The main entrances to these cave systems are at the elevation of 300 - 400m. The height of the caves is about 50 - 100m and the width is about 150 - 170m [5]. The streams enter the caves, flow through them, then appear and join together into Son river. These cave systems are considered the largest systems found in Asia at present.

3.3 Soil and land use

Soil

Quang Binh has the total area of 8,052 sq km and the territorial waters of about 20,000 sq km (about 2.6 times larger than the main land). There are also 5 islands belonging to Quang Binh: Hon La (La island), Hon Gio (Wind island), Hon Nom (Nom island), Hon Co (Co island) and Hon Chua (or Bird Island) with total area of 185 ha.

The soil in Quang Binh is divided into 10 groups and 22 land units (following the FAO - UNESCO classification).

Arenosols: 37,243 ha, making up 4.63% of total area, including 3 units:

- Luvic Arenosols: distributing along the coast, coarse texture, less fertile, mostly used for protective forest.
- Molli Eutric Arenosols: distribute in lower elevation and further from the sea. Soil texture is almost loamy sand. It has been cultivated for crops.
- Histi Eutric Arenosols: distribute in some communes in Quang Trach district. This type of soil has a peat layer with high volume of organic material which has been used as organic fertilizer.

Salic Fluvisols: 5,427 ha, making up 0.68% of total area, incl. 2 units:

- Hapli - Salic Fluvisols: distribute in Gianh mouth and Roon mouth. This area is usually inundated by tide, which makes the amount of chloride in soil become high. The soil is partly used for fishery or salt producing.



- **Molli - Salic Fluvisols:** distribute in the river mouth area but almost out of tide influence. Soil texture is from medium to light. Now, it is used for paddy crops but needs water irrigation.

Thionic Fluvisols: 4,700 ha, making up 0.58% of total area, including only 1 unit. This type of soil distributes mainly in Quang Ninh and Le Thuy districts. Soil texture is loam.

It is used for paddy crops with only one crop per year because it is low land, rather flat and easily get inundated.

Fluvisols: 34,791 ha, making up 4.33% of total area, distribute in coastal plains and along the rivers, including 4 units

- **Eutric Fluvisols:** distribute in Quang Trach, Bo Trach, Quang Ninh and Le Thuy districts. The soil is suitable for crops.
- **Dystric Fluvisols:** Soil texture is from loamy sand to silty loam. This type of soil is used for short - term crops in higher land and paddy with two crops per year.
- **Gleyic Fluvisols:** distribute in low and rather flat area. Soil texture is loam, suitable for paddy with 2 crops per year with good productivity.
- **Cambic Fluvisols:** distribute in Duong Thuy (Le Thuy district). Soil texture is silty loam. The soil is used for paddy with 2 crops per year or 1 paddy crop and 1 farm with medium productivity.

Gleysols: 2,592 ha, making up 0.32% of total area, including only 1 unit. This soil distributes in Quang Phu, Phuc Trach, Hoa Trach communes. Soil texture is loamy, fertile. As the soil is in low area, it's difficult for water drainage and it is mainly used for paddy crops.

Cambisols: 6,215 ha, making up 0.77% of total area, including only 1 unit. This type of soil distributes in Minh Hoa, Quang Trach, Quang Ninh and Le Thuy districts. Soil texture is loamy, suitable for paddy and short - term crops.

Plinthisols: 896 ha, making up 0.11% of total area, including only 1 unit. This type of soil distributes in Hoa Phuc, Hoa Thanh and Hoa Thuy communes. The soil is affected strongly by human activities. Soil texture is light, easy to cultivate.



Acrisols: 515,781 ha, making up 64.04% of total area, including 7 units.

- Lithic Acrisols: distribute mainly in granite and steep area with low vegetation cover density. There are pieces of rock in soil profile.
- Arenni Haplic Acrisols: originates from sandy rock. The soil is less fertile, dry and is partly used for planting cassavas, pine trees. The other area is covered by bushes.
- Haplic Acrisols: less fertile but suitable for agriculture because most of the area is rather flat, easy for water drainage and for cultivating, suitable for many kinds of short term plants.
- Ferralit Acrisols: distribute widely and varies in soil characteristic, based on geographical position and parent materials. It is usually used for planting rubber trees, sugar - cane trees, pineapple and other fruits.
- Ferric Acrisols: this type of soil has thin soil layer. It is less fertile, contains pieces of laterite and mainly covered by natural bushes.
- Plinthic Acrisols: light textured soil and is used for paddy crops or short – term plants in different areas.
- Humic Acrisols: distribute in high mountains with elevation higher than 900m, close to the border area between Laos and Viet Nam. The soil is medium loam textured, suitable for medical trees and forest.

Ferrasols: 3,431 ha, making up 0.43% of total area, suitable for perennial crops with high economic value such as rubber and coffee trees, fruits...; including only 1 unit.

Leptosols: 24,274 ha, making up 3.02% of total area, distribute mainly in hilly areas. This type of soil has thin layer with rock pieces and laterites, less fertile due to strong erosion. It is mainly used for forests, planting fast growing trees in order to cover and protect the surface. It includes only 1 soil unit.

Under hard climate and human activities, soil quality in Quang Binh is being degraded for many reasons: erosion, moving sand, salinization and pollution. Among them, the moving sand is the most serious because 75% of this area is hilly without vegetation cover which makes sand move more easily under wind effect.



Soil degeneration

Under hard climate and human activities, soil quality in Quang Binh is being degraded for many reasons: erosion, moving sand, salinization and pollution.

- Erosion: There are 24,274 ha of thin layer soil with cultivated layer thickness of about <30cm. The reason for erosion is the cultivation in steep slope without taking anti - erosion methods.
- Reduced fertility: Organic fertilizer is the most important nutrient support to plants, especially the humus. But in Quang Binh, the organic fertilizer taken from breeding can only meet 50% of the needs for it.
- Moving sand: Among the reasons for soil degeneration, the moving sand is the most serious because 75% of this area is hilly without vegetation cover which makes sand move more easily under wind effect.
- Salinization: mainly occurs in the river mouth areas, the place which is affected by tide that leads to salinization in dry season or in heavy storms.
- Waste pollution: only occurs in local scale by hard waste and waste water in some areas near factories or resident areas. According to statistic number in 2000, about 71.3% of rural households have latrines (about 46% of which is in hygienic conditions), 20% of breeding facilities are hygienic. The others have waste come directly into the environment. Besides, pesticide using is not under good management. Workers are usually use pesticide without instructions.

Soil quality in some sites in Quang Bing in 2005

Order	Analysis criteria	Unit	Result		
			M1*	M2*	M3*
1	pH _{KCl}		3.790	4.960	7.230
2	Total P	%	0.046	0.100	0.054
3	Humus	%	3.630	3.630	2.000
4	SO ₄	%	0.700	0.600	0.900
5	NH ₄ ⁺	%	0.054	0.045	0.032
6	Na	%	0.075	0.085	0.480
7	NO ₃	%	0.033	0.033	0.375



8	Mg	%	0.145	0.205	0.255
9	Ca	%	0.075	0.085	0.105
10	Cd	mg/kg	0.094	0.123	0.246
11	Pb	mg/kg	0.025	0.440	1.825

Fig. 12: Soil quality in QB

(PPC, 2005)

*Notes: - M1: Hilly area in the west of Dong Hoi

- M2: Dai Phong plain in Phong Thuy, Le Thuy district

- M3: Salinized area in Vo Ninh, Quang Ninh district

Land use

85% of Quang Binh's total area is mountains and hills. Most of them is covered with forest. In the state of land use in 2003 (table 1), forestry land makes up the largest amount: 62.49% of total area. Among them, natural forest makes up 89.55%. The others are planted forest (10.44%) and land for breeding of trees (0.01%).

Agricultural land, water surface for fishery, homestead land and special used land make up a small amount in land use structure. According to the state of land use in 2003, the total of them is only 95,118 ha, making up 11.8% of the province's total area. This number may rise in the near future due to the increasing need for socio - economic activities, especially homestead and special used land.

Unused land has the area of 206,481ha, making up 2.71% of total area. Among this, the unused mountainous land has the largest area: 118,386 ha, making up 57.34% of unused land and 14.70% of total area, a larger number than the total of agricultural land, water surface for fishery, homestead land and special used land (11.8%). This area is suitable for planting trees to increase forest coverage rate. There is still large area of unused land, particularly the other unused land with 69,640 ha (33.44%) that are able to change land use purposes in order to support people's increasing need for land, especially homestead and special used land.



State of land use in Quang Binh province in 2003

Order	Land use	Area (ha)	Percentage (%)
1.	Agricultural land: - Annual crops land - Miscellaneous gardens - Perennial crops land - Weed land for animal rising	65,079 45,589 8,789 7,414 3,287	8.08
2.	Forestry land - Natural forest - Planted forest - Land for breeding of trees	503,227 450,656 52,543 28	62.49
3.	Water surface land for fishery	1,767	0.22
4.	Special used land - Construction land - Transportation land - Irrigation land - Other special used land	23,980 1,672 7,019 8,782 6,416	2.97
5.	Homestead land - Urban - Rural	4,292 432 3,860	0.53
6.	Unused land - Unused flat land - Unused mountainous land - Unused water surface land - Other unused land	206,481 17,050 118,386 2,365 69,040	25.71
Total		805,186	100

Fig. 13: State of land use in 2003 (QB Dep. of Nat. Resources & Environm., 2005: 43)

3.4 Mineral resources

Quang Binh is one of some provinces that rich in mineral resources. The mineral resources are scattered in the whole province, from mountainous area to coastal area.

- Metal group: there are iron ore in Phu Thiet (Le Thuy district), manganese in Tuyen Hoa district, lead and zinc in My Duc (Le Thuy district), titanium and zircon in coastal area.
- Chemical materials and fertilizer: there are pyrite in Quang Trach district, phosphorite in Bo Trach, Quang Ninh, Tuyen Hoa, Minh Hoa districts, peat and dolomite...



- Construction materials: limestone with the quantity of 5,400 mi. ton in Tuyen Hoa, Quang Trach, Bo Trach, Quang Ninh districts, clay for bricks with the quantity of more than 7 mi. ton, granite...
- Glass materials: white fine sand and quazts in the north of Ba Don (Quang Trach district) with the quantity of about mi. ton.
- Mineral and hot springs: there are 5 sources in Quang Binh, among which 4 are listed in “Viet Nam’ mineral and hot spring list”. They are
 - Thanh Lam (No Bo) source in No Bo village, Ngu Hoa commune, Tuyen Hoa district. Water temperature is 66°C and water discharge is about 0.2 l/s.
 - Trooc source in Vuc Tron, Trooc village and Dong Nghen source in Dong Nghen village, Phuc Trach commune, Bo Trach district. Water temperature is 43 – 45°C and water discharge is about 0.2 - 0.5 l/s.
 - Thach Ban source in Phuc Thuy commune, Le Thuy district.
 - Bang source in Bang village, Kim Thuy commune, Le Thuy district. The water temperature here at the output is 105°C with water discharge of about 0.2 - 0.5 l/s. The water has been taken out to produce mineral water. This is also a tourism site but still under construction.



Fig. 14: Bang Hot Spring

(Thu Thuy, 2006)

- Hot Water source (Khe Nuoc Sot) in Quang Luu commune, Quang Trach district. The water temperature is about 60°C. This source is now lying in the bottom of an irrigation lake with a depth of 5 m. In dry season, when water level goes down very low, the water source may appear.

3.5 Hydrology

Rivers

The river system in Quang Binh is rather dense. The average density is 0.8 - 1.1 km/km². In mountainous area, it's a bit higher, about 1 km/km² and in coastal area, it's a bit lower, about 0.6 - 0.8 km/km².

As Quang Binh is narrow and the relief is steep, most rivers are short with high slope. The rivers usually originate from the mountainous areas, and then go into the sea through river mouths, which causes flow direction usually from west to east. The average quantity of the river system is rather rich, about 57 l/s/km² (about 4 billion m³ per year). There are two water seasons: dry season and rainy season. In rainy season, water can be concentrated really fast, but flood doesn't last for long time because of good water drainage. Water gets high concentration in October, November and December, making up 60 - 80% of total amount of water each year. In dry season, the water level goes down very low and the tide easily runs far towards the land in the river mouth area. In dry season, it's still raining and "tieu man" flood, a type of flood only occurs in the Central Part of Viet Nam, is usually in May or June. In the flood, the water level rises to reach the second peak in a year, which is a bit lower than the main peak flood occurring in rainy season.

There are five main rivers in Quang Binh: Roon river, Gianh river, Ly Hoa river, Dinh river and Nhat Le river. The characteristics of the rivers are shown in table 10.



River and River systems in Quang Binh province

Order	Name	Length (m)		Basin area (km ²)	Average elevation (m)	Numbers of first level tributary	Average density (km/km ²)
		River	River basin				
1.	Gianh river system	158	212	4680	360	13	1.04
2.	Kien Giang river system	96	59	2650	234	8	0.84
3.	Roon river	30	21	261	138	3	0.88
4.	Ly Hoa river	22	16	177	130	3	0.7
5.	Dinh river	37	25	212	203	0	0.93

Fig. 15: Rivers and River systems in Quang Binh

(QB Department of Natural Resources and Environment, 2005: 21)

Rivers play an important role in both producing and living activities, particularly for irrigation and transportation. In the rivers, it is possible for boats and ships carrying goods about 50 - 100 tons to travel. Moreover, tourism is possible to develop with sightseeing tours along the rivers, especially Nhat Le and Gianh rivers - the two beautiful and high historical valued rivers. There are also other traditional activities which take place in the rivers and are able to join sightseeing tours to make these tours more attractive such as the traditional boat racing in Nhat Le and Kien Giang rivers.

Lakes

There are many lakes in Quang Binh, both natural and man - made lakes. Most of the lakes are used for irrigation and water supply to producing and living activities. The special lake in Quang Binh is Bau Tro, a natural lake with fresh water in sandy area. The lake has the surface area of 43.6 ha and the volume of 2 mi. m³. Now, Bau Tro is the main water source to supply to all activities in Dong Hoi city. Bau Tro is also possible for tourism because of beautiful scenery of a lake in sandy area.



3.6 Oceanography

Temperature

Water temperature in the surface is rather high, about 20 – 27°C. From May to October, water temperature is usually higher, above 25°C, but still lower than 30°C. From November to April next year, water temperature is a bit lower, about 20 – 25°C. The amplitude of water temperature between months is smaller than that of temperature in land. In winter, the water is warmer and in summer, the water is cooler.

Salinity

In the near shore area, the salinity is lower and its seasonal change within a year is more complex. In rainy season, the salinity reduces due to large amount of water coming into the sea through river mouths. The salinity value during this time is about 25 - 30 ‰, sometimes below 25 ‰. In dry season, the dry and hot west wind increases the evaporation rate and leads to salinity increasing to over 30 ‰, especially in June and July.

Wave

Wave direction in South China Sea depends on the monsoon direction. In winter, the dominated northeast wind causes dominated east and northeast wave with the average height of about 0.5 - 0.75m. It can reach the highest point of 3.0 - 4.0m. In summer, the dominated direction is southwest with the average height of about 0.5 - 0.75m. The highest wave height may be 3.0 - 4.0 m. During the time between winter and summer (usually April), the dominated direction changes into southeast due to the southeast wind flowing from the sea to land.

Tide

Tide in the coast of Quang Binh is semidiurnal. About half a month, there are 2 high tides and 2 neap tides in a day. Tidal amplitude in Cua Gianh (Gianh river mouth) is 1.4 m and the maximum may reach 2.5 m. The highest tidal level from August to December is usually higher than that in other months.

Currents

In the near shore area, currents' direction is strongly affected by monsoon winds (northeast and southwest) and is also affected by sea floor relief. As near shore currents in the coast of Quang Binh are affected by the cyclone



existing in Gulf of Tonkin in the whole year, they have the north to south direction. The flow direction changes to northwest – southeast due to the coastline direction. The average velocity of the currents is about 20 - 25 cm/s.

Surface currents in South China Sea in January (a) and July (b)

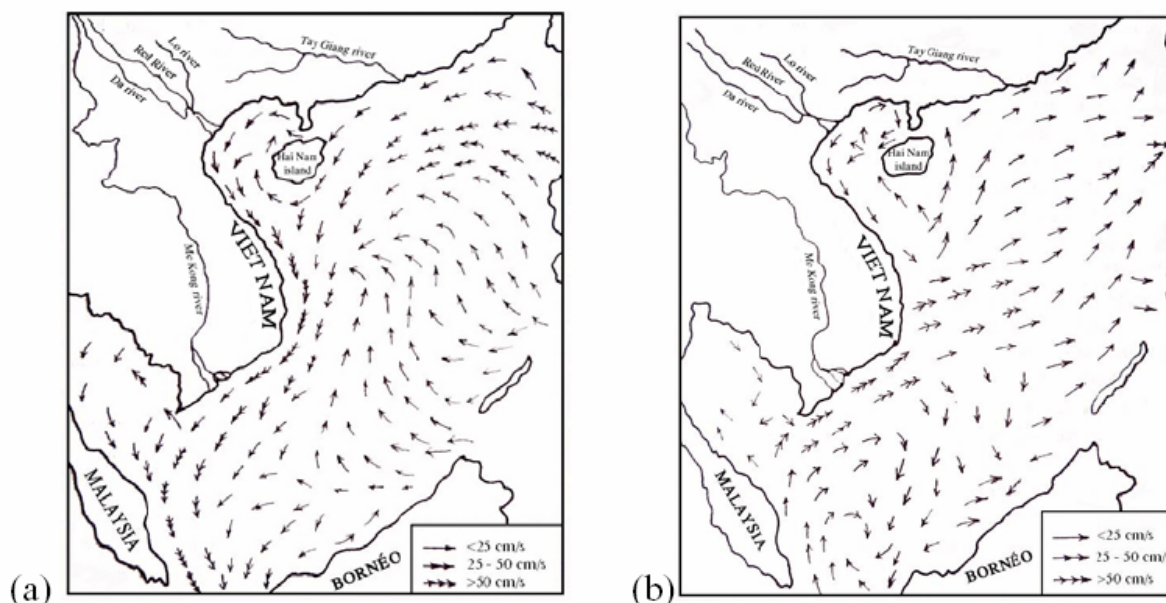


Fig. 16: Surface currents in South China Sea

(Au, 2002: 144f)

3.7 Flora and Fauna

Quang Binh is located in the diversified biological zone of North Truong Son region - the meeting region of two vegetation trends, one from the north and one from the south, with unique and diversified fauna and flora of many rare and precious genes. As estimated in December, 31, 1999, forest area in Quang Binh is 486,700 ha, of which natural forest area is 447,800 ha (92%) and planted forest area is 38,900 ha (8%). The total wood reserve is 31 mi. m³, of which rich forest's wood reserve is 13.4 mi. m³, mainly distributes in high mountain area. The flora is diversified and divided into 138 families, 401 branches and 640 different species, making up half species in North Truong Son region. There are many rare and precious species as ironwood, *sindora vietnamiensis*, ebony, fragrant wood, pine, rattan and others.

The fauna includes 38 animal species, 34 reptile species and 120 bird species. There are many rare and precious species namely: Ha Tinh langur, bear, tiger, Saola, Giant muntjact, lopura with white tail, lopura with black cock's comb and pheasants... There's also an island of birds called Bird



Island (Dao Yen). Phong Nha - Ke Bang, a natural conservation area in Bo Trach district, has an area of 41,132 ha, of which 28,437 ha (69%) is strict conservation area. The flora in this area is really rich with unique, rare and precious species such as erythrophloeum fordii, striped ebony, fragrant wood, pedocarpus fleurgi... There are also some forests with only one species such as an 80 ha area of textured wood. The fauna is also very rich with wild unique, rare and precious species of primate (monkeys, gibbons), carnivora (bear...).

Quang Binh has a sea - food source rich in species and with large quantity, which is estimated about 200,000 ton. Some species have high economic value. Estimating only in shallow area (from the depth of 100m towards the land), there are sea shrimp with 1.6 - 2.0 thousand ton, lobster with 200 - 300 ton, cuttle fish with 4.6 - 6.0 thousand ton, fish of all species: 60,000 - 70,000 ton... The rich sea - food source may be a good food source supplying to tourists and will be an advantage to develop tourism.

3.8 History

Adequate material and information is not available yet!

3.9 Settlement

Available information about settlement in Quang Binh province is quite low and restricted on some data received from several persons living and working there; data out of personal discussions.

In Vietnam are several distinct settlement patterns. Especially in the centre the traditional internal orientation of houses and community buildings was influenced by geomantic principles. Buildings along the coast line often face the sea, while those along rivers and roads often abut each other, forming an elongated settlement. On the central coastal plain Vietnamese villages are characteristically tight-knit groups of farmsteads near streams.

Settlers generally do not own land, only the buildings are in possession of private people. Land is leased or the use is tolerated but it is managed by government. That means in terms of tourism development that people can be evicted when land will be used for new infrastructure, hotels etc. The government is not bounded to pay them compensations but generally new land will be offered. Along QB coast line – in ‘first class positions’! – several private houses are to be found. In worst case they will be all ejected



for tourism projects. But that would not be the meaning of ‘sustainable tourism development’. For those projects QB province has still enough free space.

It has to turn one’s attention to the settlement of the ethnic minorities especially within Phong Nha – Ke Bang National Park. As land shall be used for tourism development, complete villages were settled from one to another place. And although it is a move of “only” about two km for the ethnic minorities it is an enormous – and for them not acceptable – trench in their traditional life.

Constructing new buildings does not mean automatically that they are connected to water and waste water systems or powered by electricity. Even if new hotels will be constructed and connected to those services, nearby private houses will generally not be included in the plans.

3.10 Population

The following tables outline information to the population in Quang Binh province from 2000 to 2004, divided in the total number, males and females as well as in urban and rural population (Fig. 17). The last row in the same figure describes the population density. Further the fertility rate, mortality rate and the natural growth rate can be seen, respectively divided in urban and rural areas.

Average population in Quang Binh province 2000 – 2004

Population	2000	2001	2002	2003	2004
Totally	801.600	812.600	825.500	818.300	831.583
Male	396.300	401.700	408.100	403.200	411.299
Female	405.300	410.900	417.400	415.100	429.284
Urban	100.500	104.100	107.400	105.300	115.159
Rural	701.100	708.500	718.100	713.000	716.424
Density (p/km²)	100	101	103	102	103

Fig. 17: Average population (General Statistics Office 2005b/ QB Statistic 2005)



Fertility, Mortality and Natural Growth rate (%)

	2000	2001	2002	2003	2004
Fertility rate	18,0	16,66	15,67	17,04	16,33
Urban	11,20	12,14	11,71	13,50	14,39
Rural	19,00	17,31	16,23	17,54	16,64
Mortality rate	3,80	3,95	4,16	3,94	4,56
Urban	3,30	3,14	2,67	3,50	3,79
Rural	3,90	4,07	4,37	3,99	4,69
Nat. growth rate	14,2	12,71	11,51	13,10	11,77
Urban	7,90	9,00	9,04	10,00	10,59
Rural	15,10	13,24	11,86	13,55	

Fig. 18: Fertility, Mortality and Natural Growth rate
(General Statistics Office 2005b/ QB Statistic 2005)

3.11 Cultures

As the ethnic minorities (still existing) in Quang Binh are basically seen as “flash-point” for one possible tourism form – home stay tourism – they will be mentioned within this study.

Vietnam is a multi-ethnic country unequally distributed. The majority of the population belongs to the ‘Kinh’ group while all others are officially combined and called as ‘ethnic minorities’.

Conducted by the Institute of Ethnology ethnic groups (Vietnamese: ‘dan toc’) were defined as “a stable or relatively stable group of people formed over a historical period with common territorial ties, economic activities and cultural characteristics (...)”. (ADB, 2002). Therefore the group has specific lingual characteristics, a specific socio-economic activity, and consciousness of a share ethnic identity and a name of its own. (ADB, 2002). These criteria are among others good preconditions for the development of authentic home stay tourism (see also chapter 5.3: tourism form).

As result of the ADB’s work the first official recognition of ethnic classification in Vietnam could be done. Since that time it has been used for administration, development and research purposes. The Vietnamese population was divided in 54 ethnic groups (see fig. above) of which the Kinh accounted for about 86 % (in 1999) while the remaining almost 14 % are made up by the 53 ethnic minority groups. (cf. ADB, 2002)



Ethnic groups in Quang Binh province

<i>In and around Phong Nha – Ke Bang National Park</i>			
District	Commune	Village	Ethnic Minorities
Bô Trach	Son Trach	Son Trach	Bru Van Kieu (132 people in 27 households)
	?	D. Doong	Bru Van Kieu (12 households)
	Tân Trach	1 village Arem No. 39	Arem (203 people in 46 households, resettled in March 2004)
	Thuong Trach	18 villages	Van Kieu (3800 people) Ma Coong (200 people)
Minh Hoa	Thuong Hoa (2 schools, elementary & primary)		Ruc (480 people) Sach (247 people)
	Hoa Son (2 schools, elementary & primary)		Sach (324 people)
<i>Outside the National Park</i>			
Minh Hoa	Dan Hoa and Trang Hoa		May Kua Sach
Quang Ninh	Truong Son		Bru Van Kieu
	Truong Xuan		
Tuyen Hoa	Tan Hoa		Malieng
	Lam Hoa		Sach Malieng
Le Thuy	Kim Thuy		Bru Van Kieu
	Ngan Thuy		
	Lam Thuy		

Fig. 19: Ethnic groups in Quang Binh province

(Hoan, 2006)

In further studies more detailed classifications are aspired because of differences within the main ethnic groups. Even a lot people belong to e.g.



the Bru Van Kieu, they are divided in several small groups with different historical background and traditions.

Ethnic minorities are mainly influenced by the following:

- *Poverty*

Ethnic minorities are disproportional poor. Based on the definition of poverty by an average monthly income under 200.000 VND per Person, about 90 % of the people belonging to ethnic minorities in Quang Binh province are recognized as poor. (cf. Institute of Ethnology, 2006)

Several poverty reduction programs have been implemented and investments on infrastructures etc. could increase the living conditions over the past years. Nevertheless the standard is not like it could be because of – I will say – ‘conflicts of interest’ and because of political decisions.

The national government as well as international organisations invest in a way as it is “usual” in Vietnam but without considering the people’s interest. Offered houses e.g. were not accepted by the minorities because of their tradition living in caves as they do since a long time ago. An example for a political decision is the establishment of Phong Nha – Ke Bang as National Park categorized by IUCN. This decision – generally without any doubts – constrains the locals in using land and forest. They still can “(...) *use land and forest as much as they need for their own disposal*” (Ninh, 2006) but not for commercial use. And since more tourists coming to the area the minorities saw chance in producing and selling handicraft products made from wood. In fact, ethnic minorities are dependent from governmental decisions and it is expected that they accept them graceful.

- *Environmental degradation*

The majority of ethnic minorities live apart of urban areas. The accesses are generally arduous because of not or in bad condition existing roads / ways. In the past years the populations suffered from forest degradation coming along with the loss of forest land for agriculture and lead to environmental consequences such as water resource and soil degradation. In (socio-economic) consequence limited access to timber and other forest products as well as limitations in fertile cultivation areas strained the indigenous people. These land use conflicts also cause of extensive nationwide migrations forced by governmental resettlement policies. The demographic trends and resulting pressure on land and natural resources are obvious in the Central Highlands where the growth rate of the population was 58 % in the decade 1990 until 2000.



Ethnic minorities and Kinh people have been resettled from northern regions and the Red River Delta to the Central Highland with significant changes in the population composition. (cf. ADB, 2002; Hoan, 2006)

- *Changes in ownership of land*

Primarily the ownership of land (incl. forests) was regulated by effective customary laws and traditional rules in the communities. Private ownership did not exist; land always belonged to the community and had no monetary value.

Since the 1960s the ownership changed to the state and all land and forests were managed by state agencies and state enterprises or agricultural cooperatives.

As mentioned in chapter 3.3 still today land is not owned by private person. They have only land use rights but it is inherently owned by state.

To deal with forest degradation – up from the 1980s until now – the state started to allocate land to private households. This way former common property of the community was transformed to individual possessions. In consequence many people of ethnic minority groups in mountainous areas are faced with reduced forest land and restricted access to their traditional resources. Insufficient access to land and cultivation areas lead to environmental degradation, hunger and migration.

(cf. ADB, 2002; Hoan 2006; De 2006)

- *Impact of development interventions*

Changes in social structures and traditional cultural patterns of communities sever are impacts of development interventions. They are often implemented without sufficient resources, incorrect guidelines, poor management strategies, and lacks in terms of monitoring and insufficient knowledge about ethnic communities. It is inevitable to consider these “lessons” as well as good practices for the tourism development (home stays, cultural visits etc.). Tourism is also a complex cause of degradation of cultural patterns. Inside indigenous groups tourism development benefits to the locals when they get chance to participate in planning and control processes.

(cf. ADB, 2002)

The history of all existing ethnic minorities in Quang Binh province goes back to long-year traditions which are imperative to adhere. To loose Vietnam’s traditions means also a loss of (tourism) development potentials.



Also important for tourism development – and for that reason further discussed – are socio-cultural traditions such as festivals (still taking place in Quang Binh).

- *Bao Ninh Festival: 14th – 16th of the 4th lunar month (11.-13. Mai)*

This festival – held in the Communal House in Dong Hoi – is unique of people in Quang Binh province, dedicating the two saints and Ong Voi Fish. The festival starts with a procession of Duc Ong to the Communal House including several rites and cultural activities such as singing or dancing.

The second day people hold the ceremony to go out to the sea with rites like releasing paper boats and fish.

Aim of the festival is to pray for a bumper crop.

- *Cau Ngu Festival: 14th day of the 4th lunar day*

The festival takes place in Dong Hoi City and worship the whale (Ca Ong). It is a procession of Ong's bone from the village to the Communal House.

- *Canh Duong Festival: 3rd of the 1st lunar month*

The Can Duong festival includes rituals called as cau ngu and ky yen. It is a contest of rice-cooking in various mixed group. They have to cook rice while preventing a toad out of a circle.

- *Boat Race: Vietnam Independence Day 2nd September*

- *Ho khoan (Alternate singing between rowers) Festival: 29th of the 2nd lunar month*

At night of the festival, boys and girls singing alternate songs with 9 tunes, each tune symbolizes a kind of work.

- *The worshipping ceremony of the beginning crop of cultivating rice seedlings in Le Son Village: 1st day of the 11th lunar month*

It is a festival of worshipping to tutelary god (10 trays of steamed glutinous rice, 10 cocks), after that a couple which is good at work and has both son and daughter, is chosen to cultivate rice seedlings in the field which is in front of the Communal House. (cf. www.vietnamtourism.com)



3.12 Traffic

The traffic system has to be divided into two sections:

- Traffic (possibilities) coming to and going out of Quang Binh province including the way by land, by air and by water. (Provincial border crossed traffic)
- Traffic (possibilities) within the province including train connections, bus service, taxi and “xe om” (motorcycle taxi service). (Inner-provincial traffic)

Provincial border crossed traffic – by land

Quang Binh province has a well developed route system. The National Highway No.1A runs length through the province which facilitates good connections to both the north and the south. With this strategic location the province has potential for the socio-economic development as well as for tourists visiting Vietnam state-wide.

The distance from Hanoi to Dong hoi is about 500 km.

Parallel to the main highway the Ho Chi Minh Road enables the connection from north to south and is also crossing the province. Unique in Vietnam is the division of the Ho Chi Minh Road in Quang Binh province. North from the Phong Nha – Ke Bang National Park the road splitted up into the Ho Chi Minh Road ‘east’ and ‘west’. The western route is going through the National Park while the eastern street goes along the highway and coastline. South of the province the roads coming together and only one road goes south to Ho Chi Minh City.

From East to West Quang Binh and Laos are linked by Road No.12. This connection enables tourists the possibility to cross the border coming to another country. In future times a harbour shall be constructed in Nat Le Bay which is north-east of Quang Binh province. From there tourists can go straight to Road No.12 and reach Laos and also Thailand in a short time. That means that people can visit three countries in one day.

To Thailand there shall be already a bus going every three days. But there are some people telling that the bus is not going regularly and reliable (this has to be checked).

As the Highway No.1 goes through the province also the rail network crosses the area. Within the centre of Vietnam there are only a few main train stations where the trains – going from north to south and reverse – stop



(North-South Express Train). One is in Dong hoi Town, the capital of Quang Binh province, from where tourists can easily come to PNKB in particular and to other tourist sights like the Hot Springs, Handicraft Villages, and Sand Dunes etc.

The Vietnam Railway (VNR) offers different types of trains distinguished by quality standard and connections. It takes about 8 hours by train from Hanoi to Dong hoi. Going to Hanoi the train – coming from Ho Chi Minh City - can be late approximately one hour. The trains going from north to south and reverse offer travellers three categories within the train: hart seats, soft seats and beds. The price varies while the service is similar in all compartments. Food and Beverage will be served on place and in the board restaurant. Some meals (depending on the travel route) are included in the ticket price. The service is generally good.



Fig. 20: Food serving in the train

(Gruebler, 2006)

Also from north to south and reverse people can go by bus. The main bus station in Quang Binh province is also in Dong hoi City. About the arrival and departure times no comment can be made. Normally busses leave from Hanoi or Ho Chi Minh City when all seats are sold. It is difficult to say and depending on various influences when the bus stops in Dong hoi.

Provincial border crossed traffic – by air

By air Quang Binh Province is actually unattainable; the closest airport is in Hue City which is about 200 km away from Dong hoi town. But the (re)construction of the Quang Binh airport (an earlier military airfield) has started two years ago and is expected to be operational in July 2007. Quang Binh will be then more attractive for tourism because of its direct accessibility. Further opens the airport an important step for other socio-economic development.

A second (so called) airport is mentioned in some maps. But it is no airport for economic or other use but should be constructed as a historical side. Later on it can be a museum airfield with exhibitions of war relics etc.

Provincial border crossed traffic – by water

The location of Quang Binh province at the sea offers various possibilities to open up the region for sea (cruise) tourism. There are two large ports (Gianh and Nhat Le) existing, but they are both not used for tourism. The water is presently only used for fishery and economical transportations.

Inner-provincial traffic

The inner-provincial traffic is restricted on traffic by land.

There is the Highway No1 going through the province but also the further route system could be increased in the last few years. There are still surrounded areas not good attainable. The improvements of the infrastructure need to go on constantly.

Quang Binh province can also explored by local trains. The timetables of the train are available at the local train stations. But this information (time schedule) is supplied without liability. Often trains are late, some are not going anyway.

People can also use one of the various taxis available in and coming from Dong hoi City. The prices are depended on the distance – a taxi meter is provided in the “official” taxis.

Further ‘Xe Om’s’ (Motorbike taxis) can be find everywhere in the province and bring people to the places they ask for. This kind of transportation is generally cheaper than taxi; the prices will be discussed in advance. Both local people and tourists can use them but only and always by their own risk. Helmets are normally not used and offered by and for driver and passenger although it is regulated by law.



3.13 Economy

Quang Binh's economy is to be seen in comparison with the nation wide development. The introduction outlines Vietnam's economy with in depth information to QB province. Furthermore specific economic sectors will be discussed in detail.

3.13.1 Draft of Vietnam's economy

Since 1986 Vietnam's economy tends to result from a planned economy to a free market orientated economy. According to Vietnam's basic law from 1992 various types of enterprises are approved and a guarantee for property and authorized capital consists.

Big success could be achieved with privatization of agriculture, anyhow the most important employ- and socio-political sector in Vietnam's economy. Today Vietnam is the second largest rice exporter world wide. The industry still has some difficulties while changing its focus from the governmental to private sector. Until the end of 2000 only 400 out of 6000 state-owned enterprises could be privatized. The gross domestic product growth rate (GDP) could reach the mark of about 6 %.

New foundations of private businesses are concentrated predominantly on trade, small trade and the informal branch of trade. Primarily the lack of capital, underdeveloped infrastructure and legal formalities hinder the synthesis of a powerful economy. Especially foreign investors are restricted in their action by the legislation. In 1999 the total foreign investment fell off dramatically. (cf. <http://www.photius.com>)

Nevertheless, over the past years Vietnam has become one of the fastest-growing countries in the world. The economic performance place emphasis on the so called 'five-year Socio-Economic Development Plan for 2001-2005' with main purpose to reach an average growth rate of 7,5 – 8 % per year. The socio-economic achievements in 2004 were significant and attained a GDP of 7,7 % although Vietnam suffered from several problems:

- socio-political instabilities in the world sparking out negative impacts on production and business in Vietnam
- avian flu covered almost the whole country
- chilly weather conditions decreased agricultural success especially in the North



- widely spread droughts in Central and South Vietnam reduced crop yields highly

In consequence of these influences the rate of the agriculture, fishery and forestry GDP decreased, low incomes were unavoidable and especially the anyway poorest areas were affected.

But beside the attained GDP several other macro-economic indicators could hit their planned targets. In particular the foreign investment rate increased and recovered since 2000. Furthermore the growth rate of the export sector doubled the aimed target rate. In the service scope (including tourism!) a positive development could also finally be noticed. Tourism together with transportation and post achieved in 2004 a growth rate of 8,1 % (5,5 % in 2003).

Responsible for the (generally) relatively high growth rate in 2004 are the world economy (Vietnam's international partners attained high growth rates) as well as the effort to develop the private sector (e.g. more active in trade and investment, strong promotion activities...). Even so some limitations are to be mentioned and critically considered for future years:

- the average growth rate in other East Asia developing countries is generally higher than in Vietnam
- the political system (communist party of Vietnam) slowed down various programs like the commercial banking system
- the production costs are still higher than in other countries
- the technology level is low
- management activities were slow and often influenced by corruption
- slow continue of the administration reform progress

Vietnam's important matters for this and the following years are derived from the restrictions mentioned above. The focus of activity lies on the macroeconomic stabilization, secure efficient investment programs, investment environment improvement, and breakthrough in the administrative reform and in the fight against corruption. Further, Vietnam strives for the WTO (World Trade Organisation) accession. This step should have passed already in 2005 but were hindered by political decisions. Now the access is planned for the end of 2006. (cf. Hai, 2005)



3.13.2 General structure of economy in QB

In the same period – from 2001-2005 – Quang Binh province could note down remarkable changes in the economic development. The GDP increased to an average of 8,8% per year in which the industrial, construction and service sector made huge processes while the effort of the agriculture, forestry and fishery sector could be keep. (cf. QB Statistical Yearbook, 2005)

Gross Domestic Product (GDP) in area at constant price in 2004 in QB

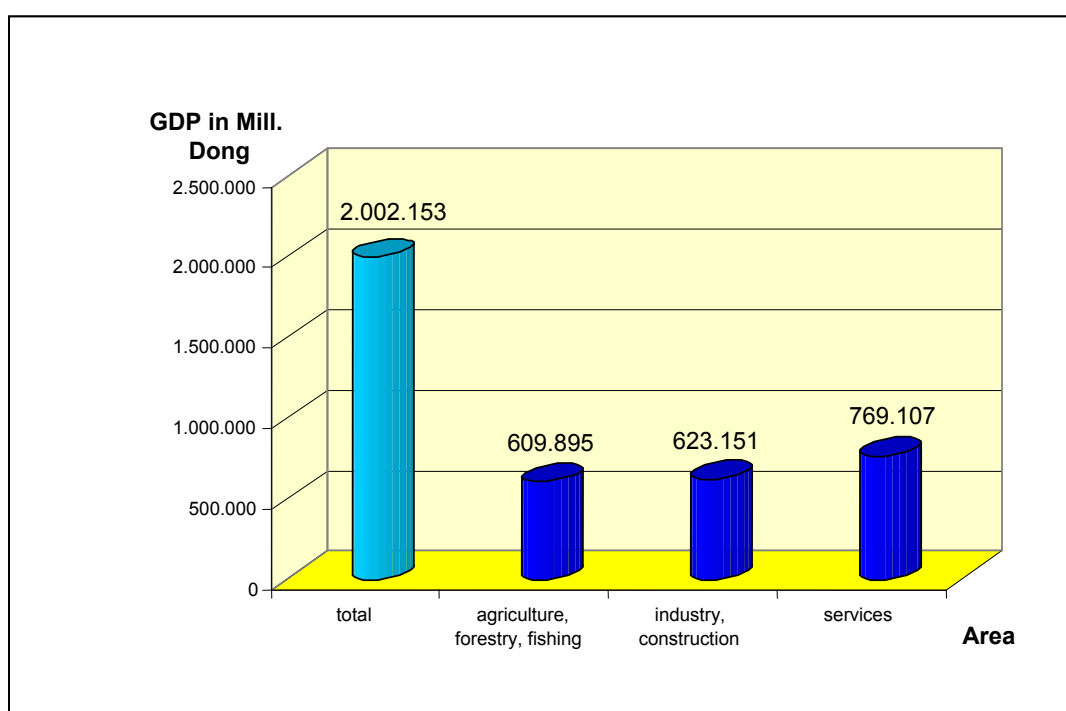


Fig. 21: GDP 2004 in QB (QB Statistical Yearbook, 2005: 29)

That agriculture, forestry, fishery and tourism are the main economic sectors can also be measured by the numbers of employees.

Number of persons working in economic activities in QB				
Kind of economic activity	year			
	2001	2002	2003	2004
Total	389.380	395.023	399.440	405.937
Agriculture and forestry	281.180	275.920	271.358	269.707
Fishing	20.500	22.732	23.787	25.271
Mining and Quarrying	3.398	3.734	4.235	3.858
Manufacturing	35.101	35.718	36.767	38.532
Electricity, Gas, Water supply	532	601	600	608



Construction	5.618	9.289	9.503	11.325
Trade, repair of motor vehicles	11.949	13.303	16.750	17.417
Hotels and Restaurants	3.336	4.228	5.755	5.616
Transport, Storage, Communication	7.300	8.221	8.283	8.539
Financial Intermediation	718	756	805	896
Scientific and Technology	23	19	28	30
Real estate, Renting business activity	289	360	350	345
Defence compulsory social security	3.735	3.663	4.145	4.605
Education and Training	10.812	11.693	11.830	12.865
Health and Social work	2.217	2.260	2.324	2.454
Culture and Sporting activities	335	458	380	385
Activities of Party & Membership Org.	1.305	1.025	1.160	1.267
Community, Social & Personal activity	1.032	1.043	1.380	2.217

Fig 22: Employment structure (QB Statistical Yearbook, 2005: 19)

With 269.707 employees in agriculture and forestry this sectors dominate the labour market in Quang Binh province. Farming is the most popular and widespread activity often based on a long-year family tradition. The young people growing up with cultivation of rice or any other product, they learn their trade over years. The whole family, also children, generally participate in and support the farm to secure the family income. Although the law in Vietnam prescribe compulsory education children often reach only low educational level. Especially in rural areas farming often goes for school attendance. Nevertheless is the rate of illiterate with 10 % (Tu, 11.04.06) low.

Different from the agriculture sector, where knowledge will be imparted by the families, is the tourism economy (with obviously less employees). This branch of economic activity is in the first step of development, knowledge has to be obtained by externals. The number of qualified people appropriate to further studies or apprenticeships in tourism is low as well as the possibilities. Training possibilities are still rare, the preparing of educational structures are still in progress. In Quang Binh province the offer of training courses etc. is reduced to a few short-time courses to get inside the history of Quang Binh and some special topics like the famous provincial food, ethnic minorities etc. The courses are targeted to increase the knowledge to and about the province. These are surely very important cognitions for people working in the tourism sector but it is not enough. There are still no courses qualifying people in tourism services, tourism management etc. The staff e.g. from the Sun Spa Resort is totally skilled by professional schools in Hue.

(cf. Thai, 19.04.06b)



Quang Binh province has to make a point of the tourism education especially if this economic sector will grow rapidly during the next years. The tourism development has to come along with the qualification of staff. Education can reduce the unemployment rate.

Similar statements could be made for other economic sectors but considering the content of this study it will be passed on.

3.13.3 Forestry

Forestry production has been changed obviously in the last years prior because of a better understanding and the knowledge that protection is better than exploitation. Forest resource conservation has now high importance, the focus lies on protection, tendering and nursery. 503.227 ha forestry land is (2003) divided into 450.656 ha natural forest (forest not planted by people, including production forest, protective forest and specially utilized forest), 52.543 ha planted forest and 28 ha nursery garden. (cf. QB Statistic, 2005)

The natural forest area also includes the Phong Nha – Ke Bang National Park which will be discussed in detail later (see chapter 3.16). About 94 % of the total area of 89.000 ha is primary forest and under protection by IUCN (The World Conservation Union).

The output value of forestry at constant 1994 prices in Quang Binh Province was about 93 Bill. VND in 2004.

The gross output of wood decreased from 48,3 Bill. VND in 2003 to 36,3 Bill. VND in 2004. (cf. General Statistics Office, 2005a)

3.13.4 Agriculture

Depended on e.g. sources, possibilities and weather conditions Vietnam's – and also Quang Binh's – economy is dominated by the agricultural sector. In the last decades the agricultural production changed significantly. Problems with obvious lacks of food could be solved and Vietnam is nowadays a large exporter of quite a few products. Behind rice, coffee is in terms of export value Vietnam's second largest export good (Duong, 2002) and is – with a rate of 15 percent of global coffee trade – also ranked as the "N° 2" of coffee exporters worldwide.

(cf. Nguyen Thu Duyen In: Buurman et.al., 2004)



But for sure rice and coffee is not only produced in Quang Binh, the province offers a small amount of different products; all often restricted on climate. Nevertheless, the province could enlarge the agricultural sector within the past years to join the market (product export). 65.079 ha of the total amount of land (805.186 ha) are used for agriculture. The continuously increased food production enabled a total gross output in 2004 of 770.744 Mio VND of which the main part (506.273 Mill. Dong) results from cultivation, 258.057 from animal husbandry and only 6.414 Mill Dong from agricultural services (cf. QB Statistic, 2005).

The three mentioned parts of agriculture in Quang Binh include (mainly) the following activities:

Agriculture	“Activity”	Gross output in 2004
Cultivation	Paddy	439.389 Mill. Dong
	Other cereals	37.282 Mill. Dong
	Plant with tubers used as food	66.848 Mill. Dong
	Industrial crops	104.016,8 Mill. Dong
	Fruits	56.615,8 Mill. Dong
	Vegetable, bean and spices	91.247 Mill. Dong
Animal husbandry	Livestock	303.381 Mill. Dong
	Poultry	57.063 Mill. Dong
	Other	53.107 Mill. Dong
Services	For animal cultivation and husbandry	11.469 Mill. Dong

Fig. 23: Agriculture in QB (QB Statistic, 2005)

Further, coffee, sugar cane, peanut, cashew and corn are growing parts of agricultural activities in Quang Binh. Also well developed are industrial trees, including India rubber and pine trees (over 30.000 ha provide more than 4.000 tons of dried resin). (cf. www.quangbinh.gov.vn)

The production of plant oil is still in the beginning. First trials are made within the province and as the Department of Natural Resources (in Dong Hoi) said it is a future and promising market. But there are no significant results obtained yet.



In terms of future activities the agricultural development orientation should

- ensure food security
- achieve changes in the system associated with, and appropriate to ecological necessities
- effort the commodity production and
- consider the industrialisation and modernisation (advanced technology)

(cf. www.quangbinh.gov.vn)

3.13.5 Fishery

Beside agricultural and forestry economy sea products explicitly enable high export values. The total gross output of fishery in 2004 was 434.151,6 Mill. Vietnam Dong from which 128.067 came from cultivation and breeding, 293.179,4 from exploitation and 12.905,2 from services. (cf. QB Statistic, 2005)

In the province scores of shrimp and fish nursery stations are in use supplying several million tiger baby shrimps, baby fish and fingerlings.

Three factories of processing frozen sea products and four factories to make dried products for exportation are presently established in Quang Binh.

In the service sector, including the construction and reconstruction of ships, purchasing, providing technical assistance and maintenance of fishing infrastructure, increases constantly as well. (cf. www.quangbinh.gov.vn)

The main fishery products with a total number of 29.361 tons in 2004 can be divided in marine catch products, inland water products and products of cultivation and breeding fishery.

Main fishery product in 2004	Outcome in tons
<i>Marine catch</i>	<i>23.606</i>
Fish	18.295
Shrimp	811
Cuttle	3.004
<i>Inland water production</i>	<i>1.529</i>
Fish	993
Shrimp	286
<i>Production of cultivated and breded fishery</i>	<i>4.226</i>
Fish	2.511
Shrimp	1.558

Fig. 24: Fishery production in 2004

(QB Statistic, 2005)



All-round Quang Binh province fishery is also – similar to agriculture – private business. Because of the province's location along the coast line various families have their own small fisher boat to provide themselves and to sell fish at the markets and to restaurants.



Fig. 25: Private fisher boat in QB

(Gruebler, 2006)

3.13.6 Industry

The industrial sector in Quang Binh province is – beside agriculture, forestry and fishery – dominated by production of mineral water (6.621.000 litre in 2004), beer (2.779 litre in 2004), bricks (137.622.000 pieces in 2004), medicinal ampoules (4.725.000 pipes in 2004 – high decrease: half of 2003) and ice (61.007 tons in 2004).

The increased manufacture of garment, leather shoes, microbiological fertilizer (72.889 tons in 2004), traditional handicraft as well as other products made from wood, kaolin, bamboo, rattan and rubber is aspired presently. (cf. QB Statistic 2005)

Focus for this study lies on the mineral water production: Source of the water is the 'Cosevco Bang Hot Spring', the main source of apply and at same time one of Quang Binh (future) tourist attractions. Therefore Quang Binh possesses of an export good eligible used as a marketing instrument.



The widely distribution of the mineral water (from the hot spring) can profile the province and be an image factor (in best case) nation wide. It can be also one and the first step of the implementation of health tourism in the province. This is another example for pointing out the importance of common activities.

The expenditure of industrial fields is indicated for future years, especially high technology factories such as companies producing cement, aluminium bars or motorbikes offer chances to keep up with the fast growing development in Vietnam. At the same time it is necessary to train the local staff in special technical skills to ensure a long term and effective development. (cf. www.quangbinh.gov.vn)

3.13.7 Trade

The exported value increased in 2004 – compared to the year before – about 25 % to 24.432 US Dollar of which 15.946 US Dollar emanate from agricultural goods, 4.510 US Dollar from heavy industrial products and materials, 3.213 US Dollar from aquatic products, 535 US Dollar from forest products and 228 US Dollar from light industrial and handicraft goods.

The imported value in 2004 was 16.450 US Dollar, almost 1.000 US Dollar less than one year before and about 14.000 US Dollar less than 2003. While the imported value of old equipment and machinery equipment accessory increased lowly, the value of fuels raw material and consumer goods decreased.

The main imported goods were sawn timber (12.656 m³), enamel bricks (3.749 x 1000 pieces) and aluminium (3.089 tons). In 2004 totally 17.417 persons worked in the trade sector. (cf. QB Statistic, 2005)

3.13.8 Tourism

Tourism in Quang Binh province is a constantly growing economic sector, dominated by domestic tourists. The province, with its beaches along the east coast and mountainous landscape in the west is a favoured destination for national tourists. To “rank” QB’s position in the domestic tourism market the following table (cp. Fig. 26) with the average expenditure per domestic visitor (in 2003 / by some provinces) is given. The highest average amount per visitor was obtained in the main cities and “top-provinces” like



Hanoi, Ho chi Minh, and Da Nang. Quang Binh ranks (within this list) with a much lower average amount per visitor (only) in the midfield and is comparable with a lot other provinces.

Average expenditure per domestic visitor in 2003 (by provinces) <i>(In Thousand Dong)</i>			
	Average amount per visitor	Average amount per day / visitor	Ranking
Average amount	1522,,3	439,5	1-21
<i>By some provinces</i>			
Ha Noi	2128,8	641,2	3
Hai Phong	1148,3	333,1	10
Lao Cai	1029,5	266,5	15
Lang Son	1212,4	493,3	9
Quang Ninh	1036,7	384,6	14
Thanh Hoa	696,4	292,6	20
Nghe An	1084,3	326,0	13
Quang Binh	1277,6	319,3	8
Quang Tri	866,7	463,7	19
Thua Thien – Hue	1609,6	430,5	7
Da Nang	2434,4	517,3	1
Quang Nam	2192,0	458,6	2
Binh Dinh	1884,8	326,3	6
Khanh Hoa	2030,0	533,7	5
Gia Lai	1115,0	286,6	11
Lam Dong	1085,7	379,3	12
Dinh Thuan	1022,7	370,1	16
Tay Ninh	678,3	338,8	21
Ho Chi Minh	2094,4	550,2	4
An Giang	902,5	245,0	18
Can Tho	957,1	404,7	17

Fig. ??: Expenditure in 2003 (Statistical Yearbook, 2004)

As mentioned in the beginning of this study (cp. chapter 2) not all necessary data – such as to e.g. domestic tourist arrivals – is available. It is therefore not possible to rank QB's position as tourist destination on the domestic tourism market in detail.



Beside the uniqueness of the region Vietnamese people find there appropriate accommodation and price levels – adequately to their income and living standard. Therefore the domestic tourism increased about 50 % in merely two years (2002 – 2004) and reached the peak in 2004 with 608.640 visitors (cp. Fig. 26). The estimated number of national tourists in 2005 is about 498.000 (presented by DoTT).

While the domestic tourism market increased obviously the number of international tourists stagnated (cp. Fig. 26). QB, its beaches etc. are not overcrowded by international tourists, demand and supply of accommodation, restaurants and other services are not yet influenced by the generally nationwide distinctive tourism development. However, the lower development status is cause of the small number of international visitors in Quang Binh province.

Main proportion of international tourists in 2004 came from China (26 %), Taiwan (9 %), United States (9 %), Japan (8 %) and Taiwan (8 %).

(cf. General Statistics Office, 2005a)

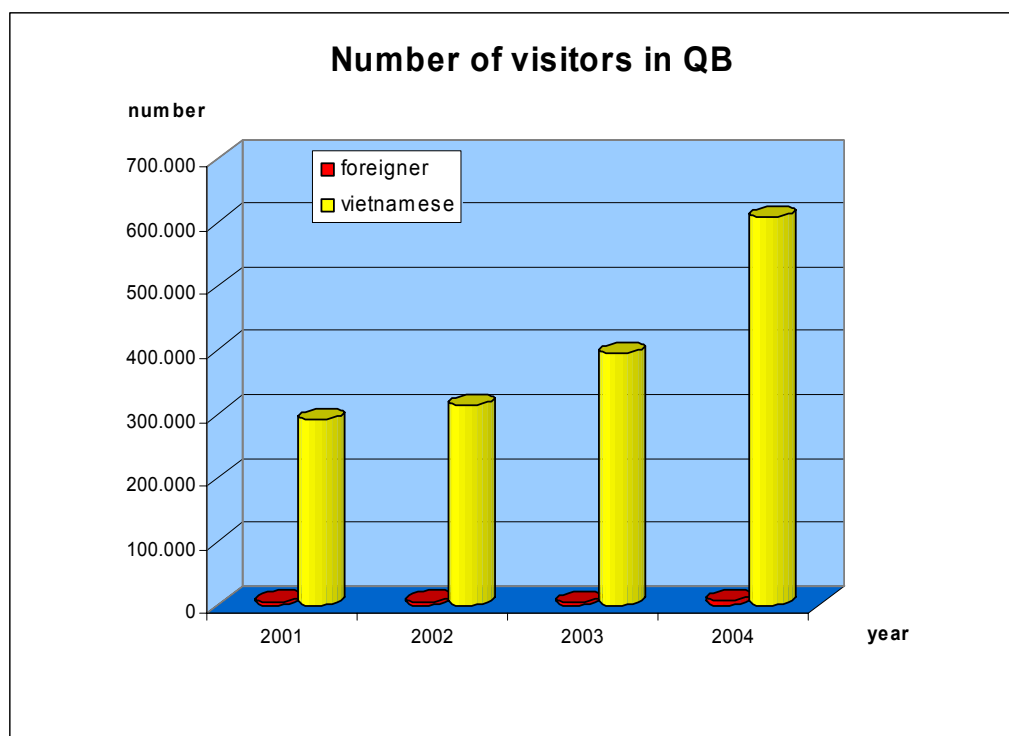


Fig. 27: Visitors in QB province

(DoTT statistic, 2005)

Related to visitor numbers, main attention lies also on the Phong Nha – Ke Bang National Park (PNKB) and the recognition as a World Heritage site by UNESCO in 2003. Because the National Park has the distinction of a



protected area, detailed information will be given in chapter 3.16 dealing with ‘protected areas’. But from the economical view it should be mentioned already that PNKB and especially the nomination as one of five Vietnams World Heritage sites increased the province’s attractiveness.

Tourist arrivals in Phong Nha – Ke Bang National Park

Year	Domestic	International	Increase	Profit
2001	115.161	1.015	36,31 %	2.617.200 VND
2002	157.712	1.427	39,9 %	3.889.415 VND
2003	196.227	1.291	21,4 %	4.848.795 VND
6/2004	158.334	900		3.980.295 VND

Fig. 28: Tourist arrival in PNKB (Hanoi University of Science)

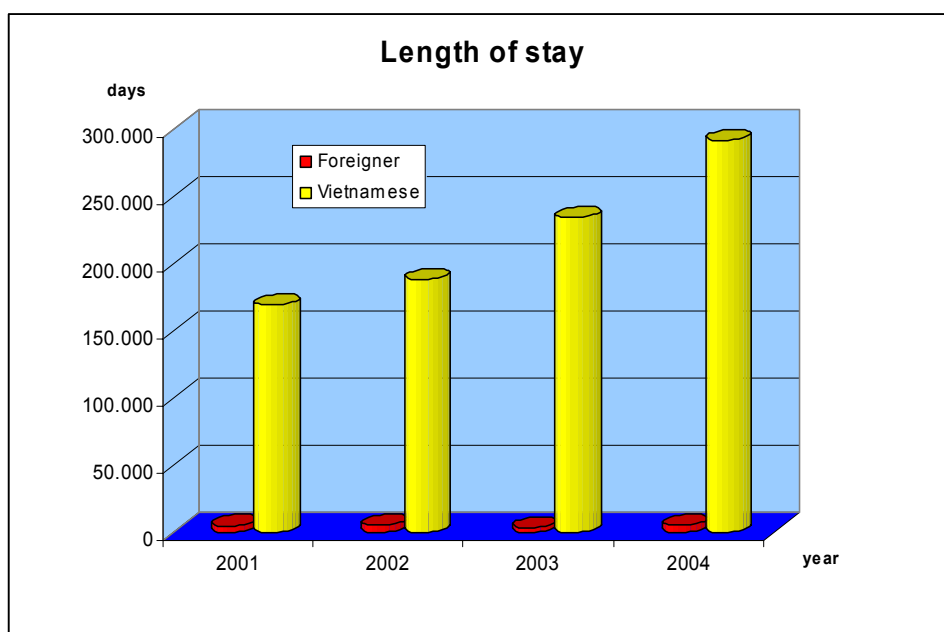


Fig. 29: Length of visitor stays (QB Statistic, 2005)

The total length of stay (in days) of Quang Binh visitors (domestically) increased from 2001 to 2004 from about 160.000 days to almost 300.000 days. By contrast the length of stay of foreign tourists did not change noteworthy. The average length of stay is 1,2 days.

For international tourists Quang Binh province is, if at all, a ‘short-term-destination’ to visit the National Park and the caves.

In the following productive capacity and activities result of tourism in Quang Binh province will be shown.



Accommodation	2001	2002	2003	2004
Total of establishments	33	43	50	62
Total of rooms	657	738	966	1.233
Total of beds	1.467	1.670	2.070	2.540

Fig. 30: Productive capacity of tourism (QB Statistic, 2005)

Mean	2001	2002	2003	2004
Coefficient used room	57,0 %	57,2 %	57,7 %	57,6 %
Coefficient used bed	51,6 %	51,9 %	51,4 %	51,6 %

Fig. 31: Activities result of tourism (QB Statistic, 2005)

Unlike the data from QB's Statistic 2005 (listed above), the Department of Trade and Tourism (DoTT) handed out variant information, supplemented with results for 2005. The DoTT numeralized the accommodation facilities at the end of 2005 with 125, including about 2.000 rooms with about 4.000 beds. Compared to statistical data of 2004 (1.233 rooms and 2.540 beds) this means an unusually high increase of accommodation facilities. This statement – referring its correctness – must be therefore seen critically.

One hotel (Sun Spa Resort in Dong Hoi) is categorized and ranked as a 4 star hotel. Further seven 2 star hotels and seven 1 star hotels offer adequate standards for relatively low prices. (cf. DoTT, 2006)

Exact data of existing restaurants and bars is not available, especially if all facilities – independent of size, quality, supply, standard, food etc. – shall be considered.

The average expenditure per day of domestic visitors will be outlined by

- item of expenditure
- means of transport
- tourist purpose and
- profession and age

of which accommodation, food, transport, sightseeing, shopping, entertainment, health and other should be considered.

Dates of the average expenditure of foreign visitors are not available in the province.



Item	Total	Of which								Unit: 1000 VND
		Accom.	Food	Transp.	Sights.	Shop.	Entert.	Health	Others	
Average	470,7	135,4	108,2	88,1	18,1	74,2	30,1	6,1	10,3	
Mean of transport										
By air	1026,7	463,1	221,7	125,6	30,7	119,6	65,2	0,8	0,0	
By car	430,9	121,1	101,4	86,2	18,6	63,8	22,8	5,5	11,4	
By train	549,3	143,6	119,9	96,1	17,1	107,0	47,8	8,8	9,2	
By ship	No data available!									
Others	276,4	108,3	72,5	32,5	3,1	19,1	34,0	4,8	2,1	
Tourist purpose										
Travel, relaxation	492,5	126,6	115,2	95,8	21,2	87,2	31,7	7,2	7,6	
Visit relatives	426,2	138,0	101,3	75,7	16,1	54,7	30,4	3,8	6,1	
Press	343,0	120,0	65,0	52,0	10,0	41,0	20,0	0,0	35,0	
Trade affairs	No data available!									
Conferences	446,7	157,0	92,2	78,7	13,2	63,8	18,6	4,6	18,7	
Others	448,1	148,5	113,0	75,2	9,8	28,9	52,5	6,2	14,0	
Profession										
Official	463,9	128,7	101,8	91,7	18,5	77,5	29,1	6,1	10,5	
Public servant	604,5	186,8	160,5	98,3	15,5	86,7	40,6	5,9	10,1	
Businessman	395,4	103,6	83,1	85,7	28,2	60,4	19,5	5,5	9,5	
Worker	No data available!									
Retired	401,2	118,8	89,5	66,6	11,7	67,4	26,5	7,0	13,8	
Others	573,4	204,4	139,7	76,7	18,5	63,2	46,9	9,1	15,0	
Age										
15 – 24 years	283,8	70,0	58,9	59,9	15,2	50,9	17,4	6,1	5,4	
25 – 34 years	479,2	141,6	113,1	95,9	16,9	69,5	31,6	6,0	4,7	
35 – 44 years	497,7	151,7	121,7	89,6	20,7	73,0	22,6	5,4	13,0	
45 – 54 years	450,1	101,8	81,5	76,3	17,5	96,9	50,9	7,8	17,5	
55 – 64 years	583,7	152,5	140,6	105,8	18,1	117,3	28,4	6,8	14,1	
Over 64 years	472,8	169,6	94,4	71,7	12,6	47,8	38,5	8,9	29,4	
Sex										
Male	466,8	135,0	102,9	89,4	16,9	75,4	30,1	5,6	11,7	
Female	479,1	136,3	119,9	85,3	20,9	71,7	30,1	7,4	7,4	

Fig. 32: Average expenditure of tourists in QB (Department of Statistics, 2006)

3.14 Security

Quang Binh province has several police stations equally distributed to Dong Hoi town and the six provinces. Different departments within the whole security system are implemented and divided in (eg.) traffic, public security,



crime and some other. There is no special system belonging to the security of tourists.

Within the hotels, especially in the upper class hotels like it is the Sun Spa Resort, private companies and security person are responsible for “their” tourists. This staff, paid by the hotel, takes care to the tourists along the beach and within the hotel area / ground.

There are no organisations or companies in Quang Binh province offering security staff to the hotels or other tourist sights. They are all directly employed by the private or public hotels, institutions etc.

Information about the education or special training of the security staff could not be received.

There is also no information existing (or available) about crime acts concerned to tourism or especially tourists. But the situation must be seen critically, and some points (mentioned below) coming together can trigger a chain of problems:

- Quang Binh province is one of the poorest regions in Vietnam.
- Some people living in Quang Binh are not used to the influences coming from tourism.
- Especially children cannot understand the differences and become influenced by new life styles and products. Their families are not in the position to fulfil the wishes and requirements of the children coming up from the mentioned tourism influence.
- and other

As a result (for example) people and especially children ask for money to reach the same standard as they learn from the people coming in their country. Begging and annoyance of tourists are the consequences of social distinctions and already widespread.

The manager of the Department of tourism in Phong Nha – Ke Bang National Park told about a survey done in 2005. Visitors were asked about the feeling of their safety within the park. The results outlined that tourists feel safe in the region. (Nguyen, 2006)



3.15 Education (level)

The educational level in Quang Binh province is – compared with other regions in Vietnam – relatively low. Implemented ‘anti illiteracy and education universality programs’ could decrease the number of illiterate people but particularly in rural areas (specifically within the minority groups) the standard of qualification is low. The nation wide illiterate rate amounts about 10 % while in Quang Binh province one quarter cannot read or write. Within the families it is more important (from their view) to teach the children in the families trade than in educational basic skills. Moreover many people do not have enough money to pay for school fees, uniforms, books etc. Meantime (and because of the illiterate programs) all young children generally get the possibility to go to school for at least four years; for this time school attendance is compulsory.

Education in Vietnam starts in the Kindergarten whereof 44 existed in 2004 in the province. In the next step pupils go to primary school (240 in 2004), then to middle school (144) and finally to secondary school (26). Afterwards further education is offered by firms etc. in form of apprenticeships or at colleges and universities.

In addition special qualification programs are offered by state or private institutions like it is a tourism seminar developed and provided by the Department of Science and Technology. But, the qualification level of tourism staff and the supply of appropriate schools and courses is completely insufficient in Quang Bing province. The knowledge to guide tourists, to offer adequate services as well as language skills is very low. People working in tourism in Quang Binh are absolutely friendly and willed to do their best and to bestow their guests nice holidays, but the skills are “learned by doing”. Only the Sun Spa Resort – the only four star hotel in the province – employs qualified staff. All people working there were educated in the tourism school in Hue before starting their career in the hotel.

3.16 Protected areas

In Vietnam, protected areas were first understood to be ‘prohibited forests’ before the expression changed to ‘special-used forests’. The term ‘protected areas’ (PA) is still acknowledged as ‘special-used forest’ (SUF) although they do not include cultural and historical sites, grasslands or freshwater lakes.



SUFs are one out of three principal forest management categories classified by Ministry of Agriculture and Rural Development. Defined by Article 31 of the Forest Protection and Development Law “...forests mainly planned for forest development aiming at conservation of natural, standard specimens of the national forest ecosystem, forest botanical and animal gene resource, scientific research, protection of historical / cultural relics and landscapes, and tourism [sic]” (ICEM 2002).

Two more forest categories in Vietnam are protection forests, mainly for watershed protection and reforestation, as well as production forests.

SUFs are subdivided in National Parks, Nature Reserves (also known as Nature conservation Areas) and Cultural-Historic-Environmental Sites (or landscape protected), which contain historical relics and scenes with aesthetic interest but generally little ecological value. Therefore they were proposed to be removed from the PA system.

Protected area categories in Vietnam in 2002

Category	Number (as of 12/2002)	Equivalent IUCN category *
National Park	25 ^a	II
Nature Conservation Area (a.k.a. Nature Reserves)	60	I and IV
Cultural-Historic-Environmental Site	37	III
Marine Protected Area	– ^b	–
Total	122	

* IUCN. 1994. Guidelines for Protected Areas Management Categories

Fig. 33: Protected area categories (a)

(ICEM 2003)

The regulations for SUF extend only to the terrestrial forestry component of marine areas, for example, to the forests on island sites or to coastal mangroves. Therefore the Ministry of Fisheries is in charge with the development of a system of Marine Protected Areas in Vietnam. It has not yet been decided who will manage these areas once they are established.

(cf. ICEM 2003)

Vietnam has a very high population density also of the rural population which is depending on agriculture and direct use of natural resources, forced through migration and high growth rates. Rarely park management plans specifically address these populations. Therefore it is important to include management forms, which emphasize the role of local communities and the sustainable use of resources, like the IUCN categories V (Protected



Landscapes/ Seascapes) and VI (Managed Resource Use Areas); also in the PA system.

PA's are often simply closed off human use and prohibiting their use of customary and usually traditional resources. But in practice people live inside the boundaries of most PA's or use them legally or illegally because most parks in Vietnam are surrounded by resident populations of up to some hundred thousands of people. (cf. ICEM 2003; McElwee 2002)

More management plans for PA's in Vietnam *“have to address the difficult question of how to properly manage degraded landscapes or landscapes that have been under human use for decades”* (McElwee 2002).

Other protected areas categories

“Labels such as Ramsar reserves, World Heritage sites and Man and Biosphere Reserves are viewed as international designations and not as management categories” (ICEM 2002). They are not included in the PA or SUF system.

Further protected area categories in Vietnam in 2006

<i>Category</i>	<i>Number in 2006</i>
Ramsar Wetlands	2
UNESCO Natural World Heritage Site	2
UNESCO Man and Biosphere Reserve	3

Fig. 34: Protected area categories (b) (UNESCO, Wetland international)

Vietnam ratified the Convention on Biological Diversity in 1994 and was the first country in South East Asia that became a contracting party to the Convention on Wetlands (Ramsar). Xuan Thuy Nature Wetland Reserve became the first party of Vietnam (ICEM 2003), followed by the Bau Sau Wetlands and Seasonal Floodplains. But this still means a big gap in the protection of wetlands as these PA's are insufficient to represent the full range of wetland biodiversity.

There are currently three Biosphere Reserves in Vietnam:

Can Gio Mangrove near Ho Chi Minh City was designated as Vietnam's first Biosphere Reserve in 2000, Cat Tien Biosphere reserve and Cat Ba Biosphere Reserve followed. Both include a National Park in the core zone.



In 2006 there are two UNESCO Natural World Heritage Sites in Vietnam including Ha Long Bay in Quang Ninh province and Phong Nha - Ke Bang in Quang Binh province.

Key government agencies for protected area policies

The management of PAs is divided among several agencies and therefore often complicated.

The Ministry of Agriculture and Rural Development and its provincial departments are responsible for all Special-use Forests. Protection and Special-use Forests are administered by management boards. In most cases, these boards are staffed by officials assigned by the relevant provincial Forest Department (often the Forest Protection Departments). The current management board structure does not include representatives from other sectors or stakeholders.

Government agencies at the national level:

- **The Ministry of Planning and Investment (MPI)**, through the annual budgeting process, is responsible for setting funding levels and negotiating budget allocations including budget for protected areas.
- **The Ministry of Agriculture and Rural Development (MARD)** has overall responsibility for managing the system of Special-use Forests, reviews budget allocations for Special-use Forest management boards, oversees implementation of the 5 Million Hectares Reforestation Program¹ (661 Program), which supports Special-use Forest management through protection contracts and reforestation activities. It carries out surveys, plans and develops investment projects for establishing Special-use Forests. **The Forest Protection Department and the Forest Development Department** are part of MARD.
- **The Ministry of Fisheries (MOFI)** is responsible for natural resource Management of all seawater, brackish water and freshwater including aquaculture areas and for developing a system of Marine PA's.

¹ The 5 Million Hectares Reforestation or 661 Program was launched in 1997 by the government with the ambitious goal to re-establish forest cover of 43%. The program aims to protect environment and biodiversity through sustainable forest management, reduce poverty of people in forest dependent areas and enhance the contribution of forest land. Up to the 1940s Vietnam had a forest cover of 43%. Decades of warfare, logging, over-exploitation for fuel wood and timber and conversion of forest into agricultural land reduced the forest cover to about 30% nationwide. In the central highlands the forest cover declined in this time from 93% to 57%.
(cf. European Tropical Forest Research Network 2006)



-
- **The Ministry of Natural Resources and Environment (MONRE)** is responsible for the Ramsar Convention, the Convention on Biological Diversity and coordinating the implementation of Vietnam's Biodiversity Action Plan.
 - **The Ministry of Culture and Information** together with MARD is responsible to manage the cultural-historic-environmental sites
 - **The Vietnam National Administration of Tourism (VNAT)** is responsible for developing the country's tourism strategy and promoting tourism in national parks and cultural-historic-environmental sites.

(cf. ICEM 2003)

- At local level the provincial departments have the management functions of their ministries listed above. The **Provincial People's Committees (PPC)** and their management boards of SUFs are responsible for managing the National Parks and all conservation areas whose boundaries are only within the province.

(cf. ICEM 2003)

The Phong Nha – Ke Bang National Park is presently the only protected area in Quang Binh province. While the implementation of more protected areas is not indicated, the extension of PNKB in north (Minh Hoa District) is planned. (Department of Natural Resources and Environment 2006)



Protected areas in Quang Binh Province

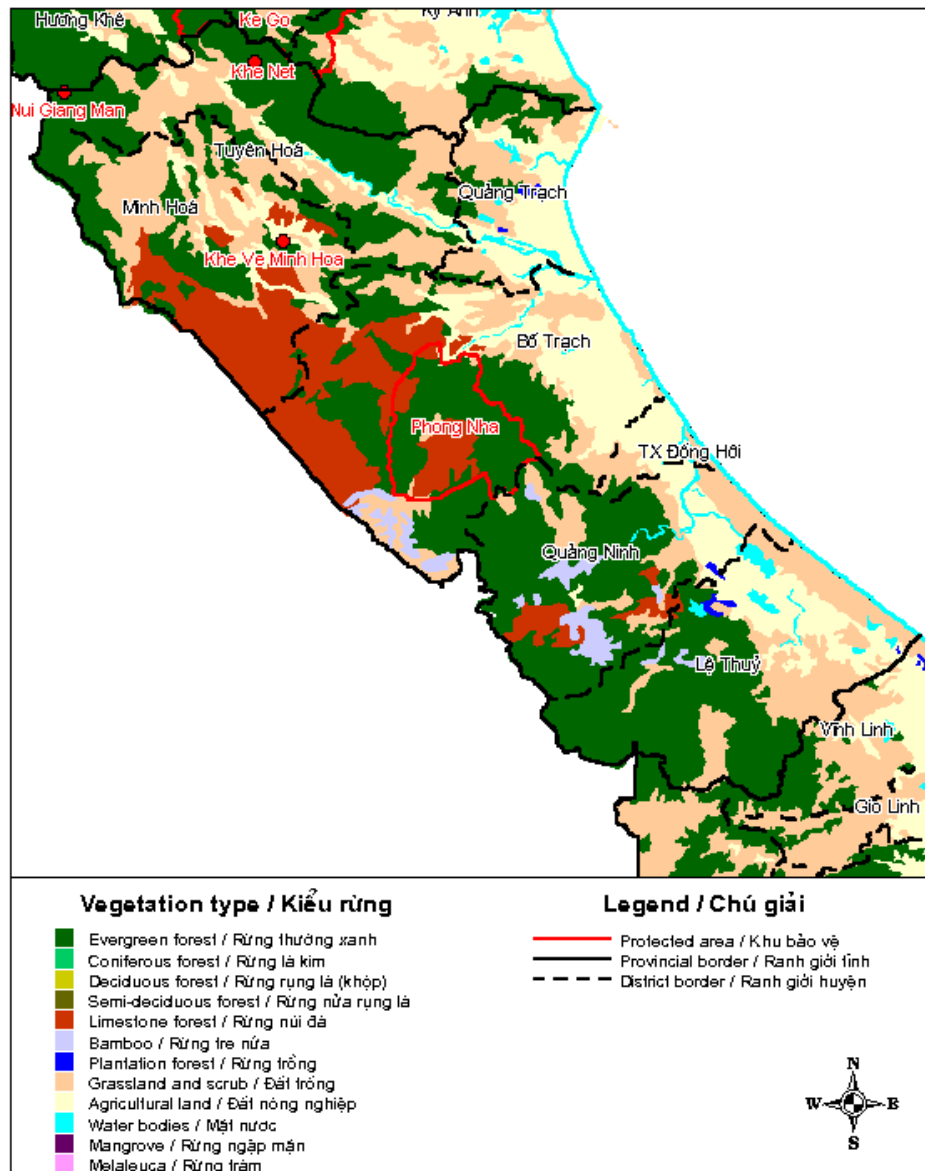


Fig. 35: Existing and proposed protected areas (Bird Life 2006)

Proposed protected areas

The following list of potential PA's results of the descriptions of the sourcebook for existing and proposed PA's by Birdlife Indochina. All sites are situated in the Annamete Mountains (Vietnamese Giai Truong Son) or the Annamese Lowlands².

² The Annamite Mountains (in Vietnamese *Giai Truong Son*) is a principal mountain range of Indochina and the watershed between the Mekong River and the South China Sea. It extends parallel to the coast for about 1,100 km, forming the boundary between Laos and Vietnam.



The Khe Net area, located in the Annamese lowlands in Tuyen Hoa, is proposed for a Nature Reserve and characterized by low hills at elevations below 400 m. It is contiguous with Ke Go Nature Reserve in Ha Tinh province to the north. Most of the forest has been heavily degraded by commercial logging activities, although significant areas of relatively undisturbed lowland evergreen forest in remote and inaccessible areas and on steep slopes are remained there. In addition there are some small patches of limestone forest in the south-west and south-east.

In 2000 the BirdLife and the Forest Inventory and Planning Institute FIPI conducted a biodiversity survey and socio-economic assessment of Khe Net and proposed then the establishment of a 23.524 ha nature reserve.

“A total of 566 vascular plant species have been identified at the site, including eight globally threatened species” (BirdLife Indochina 2004).

Six bird species that are threatened by restricted range have been recorded at the Khe Net area. *“Most notably, the Khe Net-Ke Go area is the only area in the world, known to support a population of the globally endangered Vietnamese Pheasant (*Lophura hatinhensis*)”* (Birdlife Indochina 2004).

Several globally threatened mammal species are recorded at the site and are believed to occur at very low densities as a result of high hunting pressure. There is a population of the Annamese Leaf Monkey (*Trachypithecus hatinhens*) reported, what is of *“great conservation significance, as it is the first time in Vietnam that this species has been recorded away from the Phong Nha - Ke Bang limestone area. In addition, the BirdLife/FIPI survey recorded the recently described large mammal, Large-antlered Muntjac (*Muntiacus vuquangensis*), at the proposed nature reserve”* (BirdLife Indochina 2004).

The forest at Khe Net is also important watershed protection function for the Gianh River and an source of non timber forest products for local communities, particularly palm leaves, which are a major source of income for many households in the surrounding area.

Khe Net is not included on any government decision or official set of proposals regarding the Special-use Forests. The future establishment of a Nature Reserve at the site is dependent on an investment plan being prepared, and being approved by Quang Binh Provincial People's Committee and MARD. (cf. Birdlife Indochina 2004, MARD)



The **Ve - Minh Hoa** area in Minh Hoa district is proposed for a Nature Reserve. The establishment of a 10.000 ha nature reserve at the site was proposed by Quang Binh Provincial People's Committee in 1995.

“To date, however, it appears that the establishment of a nature reserve at Khe Ve - Minh Hoa has not been approved by MARD. Furthermore, the site is not included on any government decree or official proposal at the central level“ (BirdLife Indochina 2004).

Nui Giang Man is situated in the northern Annamite Mountains on the border between Ha Tinh and Quang Binh provinces. The conservation values are areas of lowland evergreen forest, lower montane evergreen forest and upper montane evergreen forest.

Nui Giang Man *“was included on a proposed list of Special-use Forests at a national conference on Special-use Forests held at Cuc Phuong National Park in November 1997. The proposed area given on this list was 60.000 ha, and the Special-use Forest category given was nature reserve. “To date, however, an investment plan has not been prepared for Nui Giang Man, a management board has not been established, and the site is not included on a list of Special-use Forests to be established by the year 2010, prepared by the FPD of MARD”* (BirdLife Indochina 2004, FPD 2003).

An *Important Bird Area*³ named **Truong Son** is situated in western Le Thuy and Quang Ninh districts in the Annamese lowlands. A large proportion of Le Thuy district is covered by natural forest, and significant areas of relatively undisturbed lowland evergreen forest remain in the south of the district. Forests in the north and east of the district are more disturbed, with large areas of secondary vegetation present. (cf. Birdlife Indochina 2004)

Phong Nha – Ke Bang National Park (PNKB NP)

PNKB NP is situated in Bo Trach and Minh Hoa districts in the Northern Mountain or Truong Son range. In west the Park area is contiguous with Him Namno Biodiversity Conservation Area in Laos.

The NP (category II by IUCN) was established in 2001 comprising Phong Nha Nature Reserve and part of the Ke Bang limestone forest. At this time the surface area of the park was defined as 85.758 hectares in the core zone and 188.865 hectares in the buffer zone.

³ *Important Bird Area* is a category used by the nature conservation organization Birdlife describes an international important site for bird conservation, based on its importance for threatened species, restricted range, habitat-restricted and/or congregatory bird species. (BirdLife Indochina 2004)



In addition it was declared as a UNESCO World Heritage Site in 2003 for its geological and geomorphology values.



Fig. 36: PNKB NP

(Gruebler, 2006)

(Bio-)Diversity values

Geomorphologic and geologic diversity: Of geomorphologic value is especially the karst topography⁴ of the PNKB landscape. There occurs old tropical karst, evolved from the Mezozoic, and karst from the Cenozoic that dominates most parts of the area. Karst ridges rise have elevations up to 400 meters. The limestone is not continuous and demonstrates complex interbedding with shales and sandstones together with capping of schist's and apparent granites.

The karst formation process created underground rivers with extensive cave systems. Today there are 17 caves described of which 9 belong to the *Phong Nha* cave system and 8 of the *Vom* cave system.

There is evidence of at least one period of hydrothermal activity in the evolution of this ancient nature karst system (UNESCO).

⁴ Karst topography occurs in landscapes where dissolution patterns dominate and are often characterized by underground drainages and caves. Typically these karst landscapes are in areas where carbonate rocks like limestone or dolomite dominate the bedrock, but also occur in other soluble bedrocks like gypsum and salt layers.



Vegetation: Together with the contiguous Him Namno Biodiversity Conservation Area in Laos the PNKB area forms one of the largest areas of forests on limestone karst in Indochina. Remote Sensing showed that in 1995 was 96.2% of the park area covered with forest of which 92.2% was primary forest. The main vegetation types are:

- Tropical dense moist evergreen forest on limestone under 800 Meters above sea level, which covers 110.476 hectares and almost all of the limestone area;
- Low tropical montane evergreen forest on limestone above 800 masl occupies 12.600 hectares;

Tropical dense moist evergreen forest on hills under 800 masl covers 12,200 hectares in three areas. (cf. UNESCO)

It follows an overview of the *flora and fauna species* that are described in the contiguous area of PNKB NP and the Hin Namno Biodiversity Conservation Area in Laos, not only in PNKB NP. Source of this information is the detailed WWF compilation *Flora and Fauna of Phong Nha - Ke Bang and Hin Namno* (Meijboom and Lanh 2002) that gives further information on all species recorded in the area and their protection status.

In Phong Nha-Ke Bang and Hin Namno 1,436 different plant species of 151 different families have been recorded, of which 97 are represented on red lists, 34 are (nearly) threatened according to IUCN (2002), and 12 (mainly orchids) are included in CITES (the Convention on International Trade of Endangered Species). (cf. Meijboom and Lanh 2002)

Also the occurring fauna in PNKB and Hin Namno is very rich and diverse with "several species new to science that were described only in the last decade such as the Giant muntjac, the Black langur, the Annamite striped rabbit, a pitviper and two species of butterflies. These species are endemic to the Annamites, or even PNKB and Hin Namno" (Meijboom and Lanh 2002).

The area is globally important for primate conservation for (sub) species such as the Black langur (*Trachypithecus laotum ebenus*), the Ha Tinh langur (*Trachypithecus laotum hathinhensis*) and the Red-shanked Douc langur (*Pygatrix nemaeus nemaeus*). "These three taxa have small



distribution ranges and are endemic to the northern and central Annamite region. (cf. Meijboom and Lanh 2002)

In total 34 mammal species (some are provisional records), including ten primate species

- 46 bat species,
- 391 bird species,
- 83 reptile species, including 12 threatened turtles / tortoises and
- 38 species of amphibians have been recorded.

29 different fish families are reported (there is big difference in the specie composition in PNKB, with 21 families and Hin Namno, with 17 fish families).

In the class of insects primarily butterflies have been studied and 270 butterfly species have been found in the area. (cf. Meijboom and Lanh 2002)

Population – Local ethnic minorities

There are two villages in the core zone area of 2001. (UNESCO)

One village named *Arem* or, *village number 39*, consists of 46 households of the *Arem* people (and *Ma Coong people*, UNESCO) who were resettled by the government to this village in 2004. (VietNamNet Bridge 2004)

The second village is named *Yen Hop* of the *Ruc* group. Before the governmental resettlement activities began in 1992, these ethnicities lived in the caves or in houses made of bamboo and leaves dependent on forest products and hunting. (cf. UNESCO)

The today's houses of the government in *Arem village* are made of concrete and traditional social structures are degrading as a result of the introduction of foreign technologies. (cf. Forster 2006)

Within the buffer zone area of 2001 there is a total population of 52.000, of which 73% belong to the *Kinh* group. The different ethnic minority groups living in and around the PNKB NP area are listed in chapter 3.11.



Tourism

The following information was provided by the PNKB NP Tourist Administration Centre.

- *Local public transport:* There is a public bus every day from NP twice a day at about 6.30 am and 4.30 pm departing from Dong Hoi to PNKB NP. The one-way ticket costs 15 000 VND.
- The centre made an application to the government to install trekking tourism.
 - *Boat tours to Phong Nha Cave*

Tourism is actually only organized for the *Phong Nha Cave* and attracts growing number of tourists. *Phong Nha Cave* is only used the first 600 meters for tourism. The Centre launched a pre-project to open up until 1500 meters, only specialists are allowed to enter deeper in the cave systems. The boat tour lasts about 3, 5 hours. Tickets for the boat tours are sold by the Tourist Administration Centre, the boatmen get money from the centre. There are about 620 boatmen, two men per boat.

- There are about 300 people working as photographers. The 44 tour guides (about 10 of them speak English, two French and one Chinese) are employees of the tourism administration centre.

(cf. Tourist Administration Centre PNKB NP 2006)

The use of motor boats and fuel lights inside the caves is not allowed. (cf. UNESCO)

The number of visitors, who are mainly domestic tourists and visit Phong Nha caves, increased each year. There were

- 1.000 visitors in 1993
- 5.000 visitors in 1995, including 200 foreign tourists,
- 28.000 visitors in 1997, including 1.900 foreign tourists,
- 81.400 visitors in 1999, including 900 foreign tourists (cf. UNESCO)

There is a discrepancy between the provinces and private investment interests, with already made plans for tourist facilities, and environment conservation efforts in PNKB likewise in examples of other PAs:

“A recent Global Environmental Facility project is providing eight million dollars to improve two park areas and is to be used for ‘landscape planning’ and ‘integrated biodiversity management’, but as a foreign



consultant told that the Vietnamese park managers think the money gets to go towards building lodges and carnival grounds and elephant rides⁵ to help them bring more tourists. You can imagine how this goes over with the international conservationists” (McElwee 2002).

Another problem is the integration of local people in the benefits of tourism. Officials often emphasize that local communities participate but mostly they are not the beneficiaries and not participants of the planning process. For example come most people that work in the tourism sector of PNKB from Hue or other bigger towns where they get better education and information about tourism issues.

According to Mr. Forster from the Frankfurt Zoological Society there is an often used visitor tour inside for the forest, a circuit near the PNKB NP management board. It passes a waterfall that usually doesn't carry water in dry summer months, a historic war memorial and an observation place for macaques, where usually a macaque population can be watched at evening time. This circuit could be established for future tours but then, due to high visitor numbers, the conservation purpose of this area has to be given up.

One activity of the Frankfurt Zoological Society (FZS) and the Zoo Cologne is a program of primate reintroduction, especially of Hatinh langurs (*Trachypithecus laotum hathinhenses*) as part of a wildlife rescue centre. This semi-free reintroduction area could also become a place for ecotourism connected with environmental education and will be planned by the FZS.

(cf. Forster, 2006)

Conservation management

At national level the Forest Protection Department is responsible for the management. The direct responsibility for the Park lies with the PNKB NP-Management Board under the People's committee of Quang Binh province.

Current conservation threats and management problems

- **Hunting**

Currently, one of principal threat to biodiversity at PNKB is hunting, concentrated in areas within a day's walk of villages. Most hunting activities are commercially orientated with established wild animal trade, either for restaurants or medicine, in the area. This led and leads to decline of species

⁵ By the way: The Asian elephant (*Elephas maximus*) has been reported in the past also in the area of PNKB NP. There was a report of one mother and young in Trung Hoa (Minh Hoa district) in July 1998. These two elephants are considered the last remaining elephants in the area. It is very unlikely that elephant populations persist in the area Phong Nha-Ke Bang and Hin Namno. (Meijboom and Lanh 2002)



such as Wild Pig (*Sus scrofa*), Binturong (*Arctictis binturong*), the Sun bear (*Ursus malayanus*), the Asiatic Black bear (*Ursus thibethanus*), turtle and tortoise species and primates. Other large mammals like the Tiger (*Panthera tigris*) or the Asian Elephant (*Elephas maximus*) are supposed to be extinct in the NP as a result of hunting. Snaring threatens also populations of ground-dwelling birds. (cf. BirdLife Indochina 2004)

- Illegal logging / cutting

Timber extraction is also a major threat and widespread. The illegal timber trade is highly organized and networked. It is focused on economically valuable timber like the critically endangered (IUCN) species of the *Dipterocarpaceae* family and *Aquilaria crassna* (*Thymelyaceae*) with high commercial value. (Meijboom and Lanh 2002) Other species extensively exploited are *Diospyros* spp., *Pterocarpus macrocarpus*, *Dalbergia ramosa*, *Cinnamomum* spp. and Rattan. (cf. UNESCO)

Illegal logging activities as well as illegal hunting and the trade of its products are not only well organized but often also backed by corrupt official authorities:

“A new word has appeared with increasing frequency in the Vietnamese press – ‘lam tac.’ A lam tac is a person who poaches and deforests with impunity, usually because he has connections” (McElwee 2002).

- Infrastructure development: Road construction

The road construction activities through PNKB NP such as the new built Ho Chi Minh Road are a direct cause of habitat loss and habitat fragmentation of species. The road could also facilitate human settlement in the surrounding area and access to the forest, thereby increasing human pressure on natural resources.

- Forest burning by cultivators and hunters near villages

- Impacts of tourism

To date tourism is concentrated on the *Phong Nha cave*, “where problems of water pollution and damage to biodiversity are occurring” (UNESCO), because the cave is under frequent disturbance by human interference.

Opening other park areas uncontrolled to a growing number of visitors, with the attendant infrastructure, means a potential threat to biodiversity at the site.



3.17 Infrastructure

3.17.1 Fresh water and quality

Lakes

There are natural lakes and man - made lakes in Quang Binh province. The mountainous relief makes it possible to build many lakes for agricultural producing and daily life activities. According to the data from Department of Agriculture and Rural Development, there are 133 lakes, both small and large, distributing in the whole province with the total volume of about 424 million cubic meter, 65 dams, 164 pumping stations, 1 salt water dam which annually irrigates 43,000ha (My Trung dam). Bau Tro natural lake with the maximum surface area of 43.6 ha and the maximum volume of 2 mi. m³ and Phu Vinh lake with the maximum surface area of 3,800 ha and the maximum volume of 22 mi. m³ are now the main water sources to supply to all activities in Dong Hoi city. There are also small lakes and dams under local management which are used for living and irrigating activities in small areas. These lakes are less effective due to the dryness in dry season.

Lakes with volume over 1 mio m³

Order	Name	Place	Characteristics		Irrigation area (ha)	
			F (km ²)	W (10 ⁶ m ³)	Designed	Reality
1.	Vuc Tron	Quang Trach	110	52.8	2500	800 - 900
2.	Tien Lang	Quang Trach	36.7	16.6	1240	600 - 800
3.	Trung Thuan	Quang Trach	9	40	200	120
4.	Minh Cam	Tuyen Hoa	12	7	500	250
5.	Dong Ran	Bo Trach	7	5.3	250	150
6.	Mu U	Bo Trach	4	2.7	180	120
7.	Vuc Sanh	Bo Trach	7	3.2	250	150
8.	Vuc Noi	Bo Trach	13.6	11.2	600	340
9.	Phu Vinh	Bo Trach	38	22	1500	500
10.	Khe Ngang	Bo Trach	4.6	1.7	100	68
11.	Dau Ngon	Bo Trach	9.5	1.2	130	80
12.	Vinh Trung	Quang Ninh	12	1.6	150	90
13.	Dong Son	Dong Hoi	6	2.4	200	100 - 130



14.	Cam Ly	Quang Ninh	29	44	2000	1400 - 1700
15.	Thanh Son	Le Thuy	9.3	6.4	300 - 500	30 - 50
16.	An Ma	Le Thuy	49	63	3000 - 4000	3000
17.	Bau Sen	Le Thuy	-	-	400	200/150
18.	Dap Da Mai	Bo Trach	141	-	1600/600	500/400
19.	Dap Ba Nuong	Minh Hoa	39	-	300	80
20.	Rao Nan pumping station	Quang Trach	780	-	1600	1000/2000
21.	My Trung dam	Quang Ninh	Preventing salt water, retaining fresh water, water drainage, flood preventing			

Fig. 37: Lakes in Quang Binh Province (QB Dep. of Agriculture & Development, 2005)

Surface water quality

Surface water in Quang Binh has no indication of significant pollution. But in some places (especially parts of rivers in resident areas, urban and areas with high density of industrial activities), there is a rise in the amount of pollutants in surface water such as: lubricant, agricultural pesticides, producing waste water.

Water in rivers is in the highest danger of being polluted. The main pollutants come from agricultural and fishery activities, living and industrial waste. However, the amount of pollutants doesn't markedly increased and then it quickly reduces due to the fact that rivers are short and steep with high water quantity (especially in rainy season) and are affected strongly by tide. The pollution is usually observed in summer, when water quantity decreases and this is also the period when water is strongly affected by industrial - agricultural activities and extensive fishery in wetland area. Pollution is mainly occurred in Kien Giang river (the area in Kien Giang town, Phong Thuy, Loc Thuy, An Thuy communes) and other rivers in the lower section of the river.

Lakes in Quang Binh are in less danger of human - caused pollution. Lake pollution is mainly occurred under natural effect such as soil erosion and salt penetration (for example, Bau Tro lake). Lake pollution is also caused by humans over exploitation.



Results of water quality observation in some main rivers and lakes in 2002, 2003 (the average of 4 observations each year) and 2005 (observed in June) are shown in the following table.

Surface water quality in 2002, 2003 and 2005

Order	Places	Observed Year	Observation indicators							
			pH	BOD ₅ (mg/l)	COD (mg/l)	DO (mg/l)	SS (mg/l)	Fe (mg/l)	Total N (mg/l)	Lubricant (mg/l)
1	Roon river (at Roon bridge)	2002	7.95	29.25	78.00	5.23	15.25	0.28	7.36	0.062
		2003	7.93	26.25	81.00	5.70	10.00	0.25	9.00	0.065
		2005	-	-	-	-	-	-	-	-
2	Gianh river (at Gianh bridge)	2002	7.99	25.25	80.50	6.25	18.25	0.135	1.025	0.05
		2003	7.87	25.00	77.50	6.05	6.00	0.11	6.937	0.05
		2005	6.16	15.00	68.00	-	3.00	0.04	-	-
3	Dinh river (at Chanh Hoa bridge)	2002	6.78	23.50	44.75	6.125	20.50	0.392	1.09	0
		2003	6.51	22.50	37.00	5.85	24.75	0.45	6.65	0
		2005	-	-	-	-	-	-	-	-
4	Nhat Le river (at Quan Hau bridge)	2002	7.59	35.50	64.75	6.20	13.25	0.23	1.18	0
		2003	7.63	28.50	80.25	6.22	4.50	0.18	5.60	0
		2005	6.71	18.00	64.00	-	1.00	0.03	-	-
5	Kien Giang river (at Treo bridge)	2002	6.72	24.25	39.00	5.95	26.00	0.515	1.69	0
		2003	6.14	20.50	39.50	5.90	16.75	0.44	5.25	0.025
		2005	-	-	-	-	-	-	-	-
6	Bau Tro lake (in the middle)	2002	7.22	19.50	35.75	6.15	8.00	0.12	0.50	0
		2003	7.16	16.00	38.70	6.20	11.50	0.10	5.14	0
		2005	-	-	-	-	-	-	-	-
7	Phu Vinh lake (in the middle)	2002	7.2	22.25	37.25	6.30	7.00	0.135	1.28	0
		2003	7.1	16.60	38.50	6.30	13.70	0.13	5.20	0
		2005	6.68	12.00	24.00	-	5.00	0.02	-	-
8	Bau Sen lake (in the middle)	2002	6.18	24.75	43.75	5.98	17.25	0.248	1.525	0
		2003	6.03	19.80	35.00	6.00	10.50	0.250	5.100	0
		2005	-	-	-	-	-	-	-	-
TCVN 5942-1995		A	6-8.5	4.00	10.00	6.00	20	1.000	-	0
		B	5.5-9	25.00	35.00	2.00	80	2.000	-	0.3

Fig. 38: Surface water quality in QB (a)

(PPC, 2005)



Order	Places	Observed Year	Observation indicators	
			NH ₄ (mg/l)	NO ₃ (mg/l)
1	Dinh river (at Chanh Hoa bridge)	2005	2.73	1.70
2	Nhat Le river (at Quan Hau bridge)	2005	1.47	1.80
3	Phu Vinh lake (in the middle)	2005	6.68	12.00
TCVN 5942-1995		A	0.05	10.00
		B	1.00	15.00

Fig. 39: Surface water quality in QB (b) (PPC, 2005)

Compared to surface water quality standard in TCVN 5942-1995, it shows that the main pollution is BOD₅, COD and NH₄. In many sites, lubricant isn't found. It is found insignificantly in 2 sites in Roon bridge and Gianh bridge but it's still under accepted limit. This means that Quang Binh rivers are not polluted by petrol (gasoline) and oil but it needs to take care of this pollutant's appearance.

Surface water quality doesn't change much within a year. Pollution is mainly caused by BOD₅, COD but only in point of time and has no sign of increasing from year to year. In some river mouths, lubricant has appeared. Although the amount of it is still in limit (less than 3 mg/l), there's a need of warning to have suitable management of boat and ship anchorage along rivers and in ports, especially in the lower section and river mouth.

(cf. PPC, 2005)

Underground water

The observation on underground water, only in total, not in detailed, shows that distribution of underground water is not equal in the whole province, it depends on terrain and rainfall.

According to the observation results and collected (available) data of the two projects (Dong Hoi project and Quang Trach project), together with results taken from 18 drilling holes, it is shown that there're aquifers with potential exploitation in average productivity at the depth of 40 - 50 meters. Water quality is good for eating and drinking.

In observation sites, underground water is taken through digging and drilling wells. Results of water quality observation in some main sites in 2002, 2003 (the average of 4 observations each year) and 2005 (observed in June) are shown in the following table.



Underground water quality in 2002, 2003 and 2005

Order	Places	Observed Year	Observation indicators							
			pH	Cu (mg/l)	Total F ⁻ (mg/l)	CN ⁻ (mg/l)	NO ₃ -N (mg/l)	SO ⁻² (mg/l)	Cd (mg/l)	Total hardness (mg/l)
1	Drilling well in Nguyen Van Tot's house (Quy Hau - Lien Thuy)	2002	7.65	0.016	0.12	0	0.045	9	0.00033	105
		2003	7.15	0.015	0.13	<0.001	0.25	13	0.0012	144
		2005	-	-	-	-	-	-	-	-
2	Digging well in Vo Van Hoang's house (Hoanh Pho - An Ninh)	2002	7.62	0.005	0.395	0.0005	0.305	93.23	0.0002	335.5
		2003	6.91	<0.001	0.405	<0.001	0.3	97	0.0015	316.5
		2005	-	-	-	-	-	-	-	-
3	Drilling well in Thu Thu - An Ninh	2002	7.44	0.0076	0.008	0	0.185	26	0.00026	107.5
		2003	7.34	0.012	0.015	<0.001	0.25	30	0.0014	173.5
		2005	-	-	-	-	-	-	-	-
4	Drilling well in Dong Hoi Aluminium Factory	2002	4.00	0.0025	0.025	0	2.1	42	0.00027	113.5
		2003	5.53	0.01	0.025	<0.001	3.1	169	0.0033	48
		2005	3.70	-	-	-	-	125	<0.001	-
5	Digging well in Ton's house (Bac Ly - Dong Hoi)	2002	4.98	0.0052	0.38	0	2.87	23.2	0.0006	94.5
		2003	5.26	0.01	0.4	<0.001	3.4	51	0.001	42.5
		2005	-	-	-	-	-	-	-	-
6	Digging well in Tran Thi Tha's house (Hoan Lao)	2002	5.50	0.0135	0.025	0	4.25	44.5	0.00041	125.5
		2003	4.90	0.016	0.01	<0.001	3.4	48.5	0.0023	105.5
		2005	-	-	-	-	-	-	-	-
7	Drilling well in Water Fatory (Ba Don)	2002	7.46	0.0025	0.025	0	0.25	29	0.00027	110
		2003	4.04	<0.001	0.015	<0.001	2.95	44	0.002	22
		2005	6.74	-	-	-	-	1	<0.01	-
TCVN 5944-1995			6.5 - 8.5	1	1 - 5	0.01	45	200 - 300	0.01	300 - 500

Fig. 40: Underground water quality in QB (a)

(PPC, 2005)



Order	Places	Observed Year	Observation indicators		
			NO ₂ (mg/l)	Pb (mg/l)	Fe (mg/l)
1	Drilling well in Dong Hoi Aluminium Factory	2005	0.006	0.0031	0.009
2	Drilling well in Water Fatory (Ba Don)	2005	0.003	0.0033	0.03
TCVN 5944-1995			-	0.05	1 - 5

Fig: 41: Underground water quality in QB (b) (PPC, 2005)

Compared to TCVN 5944-1995, underground water quality is under accepted limit, except 4 sites with pH value lower than the acceptance. As a whole, underground water in observation sites has no sign of pollution increasing. But in some places, mainly in coastal sandy area, there are indicators of light salt contamination due to shrimp raising on sand.

Sea water in coastal area

Along the 116 km coastline (from Ngang pass to Ha Co), there are 5 river mouths with resident areas distributed in river mouth and coastal areas. Near shore areas are affected by living and industrial waste, especially seafood processing industry.

Oil slick in Quang Binh has not occurred yet but in some river mouth areas, boat and ship anchorage has caused lubricant pollution.

Results of water quality observation in some main sites in 2002, 2003 (the average of four observations each year) and 2005 (observed in June) are shown in the following table.

Sea water quality in coastal area in 2002, 2003 and 2005

Order	Places	Observed year	Observed indicators						
			pH	DO (mg/l)	BOD ₅ (mg/l)	SS (mg/l)	NH ₃ - N (mg/l)	Total Cl (mg/l)	Lubricant (mg/l)
1	Gianh river mouth (in petrol port)	2002	7.86	6.0	25.25	13.5	0.94	7.147	0.135
		2003	7.86	6.05	30.5	4.75	0.8	10.7	0.15
		2005	-	-	-	-	-	-	-
2	Gianh river mouth (in Gianh port)	2002	7.93	5.93	31.25	14.5	1.09	7.213	0.16
		2003	7.94	5.7	34	6.5	0.87	11.244	0.287
		2005	-	-	-	-	-	-	-



3	Nhat Le river mouth - in Dong Hoi coach station	2002	7.85	5.7	28	8.75	0.68	6.201	0.165
		2003	7.8	5.8	33.25	6.25	0.46	9.700	0.2125
		2005	-	-	-	-	-	-	-
4	Nhat Le river mouth (in light house)	2002	7.9	5.89	31	7.25	0.58	6.556	0
		2003	7.83	6.1	29.5	4.75	0.745	10.29	0.08
		2005	-	-	-	-	-	-	-
TCVN 5943-1995	- Beaches		6.5-8.5	≥ 4	<20	25	0.1	-	None
	- Fishery area		6.5-8.5	≥ 5	<10	50	0.5	-	None
	- Others		6.5-8.5	≥ 4	<20	200	0.5	-	0.3

Fig: 42: Sea water quality in Quang Binh (PPC, 2005)

The observation results show that BOD₅ and NH₃ - N amount has exceeded the accepted limit. Lubricant isn't found at Nhat Le river mouth while it is detected in other sites, particularly in beaches and fishery areas.

3.17.2 Waste water system

The amount of waste water in Quang Binh has not been completely calculated. In Dong Hoi city, the amount of waste water is about 20,000 - 25,000 m³ per day (living waste water is about 7,000 - 8,000m³ per day). Living waste water has not been treated before coming into environment. Industrial waste water in some factories has been treated but it still has not come up to the standard. Results of waste water quality in some main sites are shown in the following table.

Waste water quality

Order	Places	Observed year	Observed year								
			pH	SS (mg/l)	BOD ₅ (mg/l)	COD (mg/l)	Total P (mg/l)	NH ₃ - N (mg/l)	H ₂ S (mg/l)	Cd (mg/l)	Lubricant (mg/l)
1	In Hai Dinh	2002	8.28	17.5	108.5	150.5	0.385	2.165	0.0005	-	0.03
		2003	7.70	16.5	118	146	2.525	2.7	0.009	-	0.2
		2005	-	-	-	-	-	-	-	-	-
2	In Dong My	2002	7.36	25	107	141.5	1.21	8.025	0.001	-	0.02
		2003	7.13	39.5	120.5	150	3.75	12.75	0.0035	-	0.25
		2005	-	-	-	-	-	-	-	-	-



3	Vietnam - Cuba Hospital	2002	8.66	30	113.5	200	0.335	2.165	0.005	-	0.035
		2003	8.30	36.5	144.5	171	2.14	0.555	0.0105	-	0.15
		2005	8.28	19	28	96	-	0.32	0.015	0.0042	-
4	Aluminium factory	2002	4.27	118	49	142.5	0.075	11.89	0.0005	-	0
		2003	5.39	15	34.5	86.5	2.95	12.8	0.008	-	0.1
		2005	-	-	-	-	-	-	-	-	-
5	Beer factory	2005	6.27	253	230	384	-	8.3	0.018	0.0063	-
TCVN 5945-1995		A	6-9	50	20	50	4	0.1	0.2	0.01	No detected
		B	5.5- 9	100	50	100	6	1	0.5	0.02	1
		C	5-9	200	100	200	8	10	1	0.5	5

Fig: 43: Waste water quality in Quang Binh (PPC, 2005)

The results show that:

- Living waste water coming into the environment does not come up to the standard (level B) - BOD₅, COD and NH₃ are several times larger than accepted limits.
- Industrial waste water has been treated but not stable. COD, BOD₅ and NH₃ exceed accepted limits (level B).

3.17.3 Water supply and drainage

Quang Binh as one of the poorest provinces within Vietnam suffers beyond other less developed infrastructure from a lack of fresh water supply. Only most of the households in and about three kilometres around Dong Hoi town are connected to fresh water pipes coming from Báo Trờ Lake. This natural lake with fresh water in sandy areas has a surface area of 43.6 ha and the volume of 2 mio m³.

Away from the urban centre and in the so called urban areas fresh water has to be collected 'by hand'. Except some state and official buildings, social institutions, hospitals and hotels the public receive water predominantly from wells. Most of them have their own well in front of the house / hut or share one with neighbours. Still existing, although retrogressive, are some rural areas without any fresh water supply. There people cover the mainly



need for daily water from surrounding rivers and lakes. Only fresh water for drinking will be collected from public wells more or less close or far from their home.

In 2004, it is estimated that the number of people who are supplied with fresh water are 321,788, about 43.3% of people in rural areas. The percentage of people in the whole province that are supplied with fresh water increases to 55.4%. (cf. Quang Binh Statistic Department, 2006)

Main water supply projects

Order	Places	Year	Water supply		
			Total amount of water	Number of households	Number of offices
1	Dong Hoi city	2003	1,874,442 m ³	5,952	341
2	Ba Don town	2004	41,197 m ³	245	14
		2005	2,000 m ³ /day		
3	Quan Hau town	2004	57,282 m ³	268	23
		2005	1,000 m ³ /day		
4	Dong Le town	2004	70,049 m ³	142	26
5	Quy Dat town	2005	2,000 m ³ /day		
		2005-2015	4,000 m ³ /day		
6	Kien Giang town	2005	1,000 m ³ /day		
		After 2005	2,000 m ³ /day		

Fig. 44: Water supply projects in Quang Binh (QB Statistic, 2005)

According to Quang Binh Water Supply and Drainage Company, in 2004, only Dong Hoi city has a designed water drainage system. Other towns have already had the designs but have not been completed yet. Thus, there are still inundated areas when it rains hard.



3.17.4 Waste disposal site

Waste sources

Waste in Quang Binh is increasing in both quantity and variety due to socio - economic development that leads to population increase. According to statistic number, there is a rise in total amount of waste in the recent years.

Total amount of hard waste in Quang Binh in 2002, 2003 and 2004

Order	Hard waste	Units	2002	2003	2004
1	Urban living waste	Ton/day	24.2	25.9	27
2	Rural living waste	Ton/day	172	180	190
3	Unharmful industrial waste	Ton/day	172	186	200
4	Harmful industrial waste	Ton/day	1.5	1.8	2
5	Harmful waste from hospital and other health services	Ton/day	0.100	0.110	0.116

Fig. 45: Hard waste in Quang Binh (PPC, 2005)

Waste classification and waste collection

- Living waste

In 2000, a test on living waste classification right from its sources (households) was taken in 30 days. People on the test did the classification only on the first 15 days. In the last 15 days, only a few household kept on classifying the waste.

It is still difficult to carry on waste classification at each household, mainly because of people's awareness of this problem.

- Industrial waste

Industrial waste hasn't been classified and there's still no specified waste area for industrial waste. In fact, the amount of industrial waste is not too big and waste poison is low, so it's temporary accepted that industrial and living waste are dumped in the same area. But in the future, they need to have specific dump for poisonous industrial waste.



- Waste from hospital and other health services

Vietnam - Cuba - Dong Hoi Hospital is the only hospital having waste incinerator but it does not come up to the standard. Hospitals in other districts are under reconstruction (Quang Trach, Minh Hoa, Dong Hoi) or are being downgraded in quality so that hospital waste and living waste classification and treatment methods are lower than the standard (burning waste with oil).

- Waste collection percentage

Waste collection percentage in the whole province, especially in rural areas, is less than 50%. In Dong Hoi city, this percentage is 61 - 63%.

Waste collection percentage in Quang Binh (%)

Order	Hard waste	2002	2003	2004
1	Living waste	41	43	46
2	Industry waste	59	67	73
3	Construction waste	71	79	82
4	Waste from hospital and other health services	89	92	96

Fig. 46: Waste collection percentage in QB

Waste treatment

Waste in Quang Binh province is collected by an organisation the people have to pay for. Every household has to pay 5.000 VND per month.

Although it is generally compulsory not everybody is doing so. As one example the Phong Nha – Ke Bang National Board can be mentioned. They collect the waste and burn it off at a declared place. Especially because of the status as a national park that should be seen critically and is probably not the best way and example for other people.



Waste treatment in Quang Binh

Order	Name of waste dump	Sites	Treatment technology	Treatment capacity	Starting year	Notes
1	Dong Hoi waste dump	Loc Ninh - Dong Hoi	Burying	100 ton/day	Dec. 1997	Closed in 2006
2	Ly Trach waste dump (for Dong Hoi & Bo Trach district)	Ly Trach - Bo Trach	Burying under control	200 ton/day	Under construction	Sponsored by Urban Development project
3	Minh Hoa waste dump	Quy Dat town	Burying	50 ton/day	Under construction	Not hygienic
4	Minh Hoa waste dump	Luu Thuan, Dong Le town	Burying	70 ton/day	Under construction	Not hygienic
5	Quang Trach waste dump (old)	Quang Long	Burying	30 ton/day	June 1998	Not hygienic, will be closed
6	Quang Trach waste dump (new)	Quang Tien	Burying	100 ton/day	Under construction	
7	Le Thuy waste dump	Truong Thuy	Burying	100 ton/day	Under construction	Not hygienic
8	Quang Ninh waste dump	Vinh Ninh	Burying	70 ton/day	Under construction	Not hygienic
9	Cha Lo waste dump	Dan Hoa	Burying	30 ton/day	Under construction	Not hygienic

Fig. 47: Waste treatment (PPC, 2005)

Waste treatment in Quang Binh is lack of synchronous investment, less hygienically burying. There's no factory (no site) doing the work of changing waste into compost. There are only some small factories recycling nylon wrapper with the amount of about 25% of total hard - disintegrated waste. These factories are differentiated by type of waste. Therefore to one place paper will be brought, to another plastic and so on. This recyclable waste (apart from living waste etc.) will be collected by (generally) women. They pay for it and sell it later to the factories.



3.17.5 Social institutions

The question for all existing social institutions in Quang Binh province could not be answered completely. Therefore the following list show vacancies.

Social institutions are groups of persons banded together for common purposes having rights, privileges, liabilities, goals, or objectives distinct and independent from those of individual members. They can be divided in categories such as community and community service organisations, educational institutions, ethnic or cultural groups, extended families, families and households, governments and legal institutions, health care institutions, political and non governmental organisations and religious organisations. The focus within this chapter lies only – restricted on available information – on some of the mentioned classes.

Cultural institutions in Quang Binh province

<i>Institution</i>	<i>Number</i>
Museum and House of Tradition	2
Cultural House	23
Libraries	9
Classified relics and sites	29 (as of 7/8/1997)
Historical relics	22
Historical an cultural relics	2
Archaeological relic	1

Fig. 48: Cultural institutions (DoTT, 2006)

The ‘Culture Centre’ in Dong Hoi is one of the main centres appropriate for exhibitions, concerts, theatre etc. But although the possibility is given it will not be used constantly. Once or maximum twice a month one ‘event’ takes place in the cultural centre. Even some dispositions are mentioned on Quang Binh homepage the marketing and therefore the visitor numbers are quite low and restricted on local people.

Exhibitions and concerts organised and performed by students of local colleges or universities can be in the tourist’s interests as well as e.g. choir competitions, temporary theatre, readings or any other presentations.



Dong Hoi Cultural Centre



Fig. 49: Cultural Centre in Dong Hoi (Gruebler, 2006)

Recently finished was the construction of a ‘SOS children’s village’ in Dong Hoi where about 100 young people can move in. In separate houses orphans or indigent children live together with their foster mother.

In Dong Hoi is also an old cinema which is maybe authentic to Vietnam’s history but not appropriate for tourists.

3.17.6 IT and communication

Access to internet is available in the whole province, mostly offered by internet cafés governmental and official departments, organisations, institutions etc. Also some of the existing hotels offer internet access as a service to their guests.

QB’s connection to the national telephone network is well developed. Mobile phones are widespread in the province.

3.18 Legal Framework

Within this chapter a short overview of the present entry regulations for international tourists and the import export specifications will be given as well as some comments to the existing corruption problems.

3.18.1 Entry regulations (Visa)

Visitors to Vietnam have to apply for a visa at the embassy of the Socialist Republic of Vietnam. The passport needs to be valid at least six month after returning from Vietnam. The entry clearance allows visiting the whole country except military areas and adjacency borderland which both admittedly are not always marked as prohibited areas. Available signs are merely lettered in Vietnamese. Moreover, the expansion and the real distance of border length are often random interpreted by local securities. To visit border-close areas (or so called “restricted areas) special permissions are necessary. Visitors can apply for those documents at the police station or at the Ministry of legal affairs.

A “normal” tourist visa true normally four month and allows the one-time entry to Vietnam. For longer stays or a multiple-entry visa visitors have to apply on presentation of special documents such as official invitations and have to pay a higher fee.

Visa for businessmen or women is available for maximum one year. Further information how to get a business visa are not important on this stage.

A visa extension or a change of validity is possible directly in Vietnam.

The first visa cannot be received at the airport while entering Vietnam.

German passports for children are generally accepted by Vietnamese government but there must be a photo included. To avoid any difficulty it is recommended to carry along a separate passport for children or to mark inside the parent’s passport the validity of the visa also for the children. The children’s document has to be valid at least one month longer than the visa.

(cf. www.auswaertiges-amt.de)

The present entry regulations can restrict in some points the tourism development activities like the implementation of special tourism forms. ‘Home stay’ tourism in the Phong Nha – Ke bang National Park brings



tourists automatically close to the Laotic border gate which call for special permissions.

Also the planned tourism highlight ‘three countries in one day’ (see chapter 5.3) cannot be used from Vietnam tourist who want to come back to the country after being in Laos and Thailand.

Visas for Laos are also necessary but can normally obtain on the border gate by presenting a picture, the passport and a fee. But this visa value maximum for 14 days.

Visitors from neighbouring and other Asian countries are not bounded to the mentioned entry (visa) regulations. They are allowed to enter Vietnam without visa or special permission and without paying any fee.

(Oral information by a member of the Vietnamese embassy in Berlin)

3.18.2 Import and Export

The tariff regulations come widely up to international regulations as e.g for limitations of a certain amount of tobacco, alcohol, or medicine. Very strict and be punished by disciplinary measures is the import, export and dealing with drugs.

National currency can not be imported or exported. Foreign currency has to be declared from up to 5000 US Dollar per person.

Further strict regulations are given by the Washington convention of protection of species. Import and export of several protected animals, animal products and plants are forbidden.

3.18.3 Corruption

Generally defined by the World Bank – but also accurately related to Vietnam – corruption “... *is the abuse of power for personal gain*” (World Bank In: Hai 2004: 66). Talking to authorized people from different departments (the direct denotation will be avoided) corruption seems to be something convicted but tolerated. Everybody knows about the problem and its impacts on the economy, as it

- decreases investment flows (domestically and internationally)
- restrict economic growth
- raise economic instability



- allay and change resources in the economy (losses of tax revenue, investments etc.)
- stress the poor and enlarge the ‘rich-poor gap’
- decelerated the democratization process
- undermine essentially the faith of the people and international community in the state regime (cf. Hai 2004: 66 f.)

The following given example outlines moreover the (beside) impacts on Quang Binh’s ecology:

In the Phong Nha – Ke Bang National Park, among others, monkeys (different species) are endangered since the hunting laws and general using laws for the ethnic minorities within the park have changed. Were the monkeys in earlier years (by law!) mostly hunted for the own purpose of the ethnic minorities, they are now under protection. The usage for the own purpose would be probably still accepted but the problem lies on the growing number of people (tourists) coming to the region. The (mainly from Vietnamese people) consumption of monkey meat increases the demand and provide high income for their sellers. The rare the species is the higher will be the price. To hinder this “business” numerous rangers are engaged and instructed to prevent this kind of trade. The problem is that the rangers are often involved in this process. As their income is very low the chance of additional revenue – even if it is illegal – is more seductive than to protect an endangered species. Normally it should be impossible that monkeys will be brought to market but in fact people can almost everywhere order and get the meat within one hour. This type of organized corruption, which is closely related to smuggling, will be – even if it cannot be stopped – one major problem in future.

As negative trend it needs to be mentioned that corruption has more and more systematically manner and key corruption subjects are Government officials. Further corruption becomes more sophisticated with different meaning and forms.

The areas of corruption are widely destroyed and occur in financing, oil and gas, petroleum, tax, customs, border gates, land use management, budget revenue-expenditure, fishery (offshore fishing), infrastructure investment projects and public service areas (cf. Hai 2004: 67 f). Which areas affect mainly to and in Quang Binh province cannot be said on this point.



Nevertheless corruption in Vietnam is slow but noticeable declining. In a ranking compared with other countries in 2004 Vietnam ranked 102nd out of the 146 countries in the survey (Index: 1 = most severe corruption) (cf. Hai 2004: 67).

To avoid corruption in Vietnam several anti-corruption efforts are implemented. There it is

- a ‘Civil Code’ to restrict corruption by law (corruption offences)
- a growing number of legal documents for special defined corruption areas
- a ‘Law on Inspection’ to allow special agencies more active intervention
- an applied information technology in state management activities
- the development of own websites within the provinces for information transfer
- the strengthened of the role of mass media (cf. Hai 2004: 71f)

3.19 Health System

The whole province – including all districts and wards – is covered by an established health care system containing around 178 health units like hospitals, clinics, health offices or private doctor consultants. The number of health establishments in 2004 was 178, the units are equipped with total beds for 1845 patients (cf. Quang Binh Statistical Yearbook 2005). Some specialised health units are now available such a preventive medical centre, a dermatology centre, an optical centre and a malaria centre. Nevertheless the whole system and its quality standard have to be improved to offer an appropriate health care for local people and tourists including the modernisation of hospitals etc. and the emphasis of improving the education of doctors and medical staff. Especially in rural areas the system has to be strengthened and upgraded continuously. To all people – independently of status, income or living standard – access to medical and pharmaceutical service should be offered.

In Dong Hoi town are 13 health establishments from which one is a hospital (visited and “inspected” by the project management), two clinics and several private doctor consultants. The standard of the medical supply as well as the equipment are low and not appropriate to an international health system. The capacity of available beds is restricted (max. 450 in 2004; Statistical Yearbook of Quang Binh 2004), the medical supply is insufficient and the



use of sterilised instruments etc. needs to be called into question. About the qualification of the medical staff (Quang Binh 2004: 1915, Dong Hoi 2004: 673) no statement can be made.

In conclusion, tourists – especially international tourists – are recommended to go to Hue, Danang or Hanoi in case of any health inquiry. There international health care is offered.

Health education in Quang Binh province starts in the school where teacher and medical staff brief pupil in nourishment, health care and vaccinations. Further introduction to associate with fresh water, food, animals and other possible health risks are discussed with the children. But the manner with and exposure to the mentioned points is generally restricted to the given situation. Less endangered people live in urban areas with generally better living conditions like it is a fresh water supply, a waste water system etc. In rural areas people normally do not have this infrastructure and even they know about the risks they cannot avoid the use of not cleaned water.

Another way of health education in Quang Binh is via advertising. Posters along the streets show e.g. food pyramids or the necessity of vaccinations. Although placates are generally under bad condition it is a first step education accessible by all people.



Fig. 50: Food pyramid in QB province (Gruebler, 2006)

Other health components such as wellness opportunities are still low in Quang Binh province. Some hotels or people offer different kinds of massages but no extensive practices for the health and beauty of locals and tourists.

4 Valuation

The valuation is evidence of the predefinition of tourism forms for developing in Quang Binh province. First, the strengths and opportunities resulted from the stock taking and data described in detail will be mentioned and summarized. Secondly the focus lies on the description of Quang Binh's weaknesses and threats for sustainable tourism and leisure development.

The listing of strengths, opportunities, weaknesses, and threats is randomised and without any special order. A shallow classification will be made while summarising them at the end.

4.1 Strengths and Opportunities

- The establishment of Phong Nha – Ke Bang National Park advanced the attractiveness of Quang Binh province and increased the visitor numbers abundantly clear. PNKB is a “green oases” with high biodiversity and presently the provinces Unique Selling Proposition (USP).
- Even if the management plan for the National Park is not really in progress yet, some regulations are already implemented. Hence, visitors have to pay an entrance fee. The fee will be used (supposedly) for the parks maintenance.
- With nomination as UNESCO World Heritage PNKB is all the more main attraction for tourists and above all one of four nearby World Heritage sites (totally Vietnam has five heritage sites). Therefore visitors focus on this areas indifferent sectors including tourism. The World Heritage can be “draught horse” to bring tourists to Quang Binh province.
The classification can and will – among others – also be utilised as successful marketing instrument.
- Two caves inside PNKB are well developed for visitors even they are not opened completely. They offer interesting and impressive shapes; especially for tourists pushed and “sold” as figures associated with regional traditions and sagas. Step-by-step more caves will be discovered and developed which can probably spread the increasing



visitor numbers especially in summer time. The carrying capacity in the caves is restricted and can be managed that way.

- Quang Binh's natural resources – with e.g. the National Park – provide best possibilities for the development of ecotourism and provincial-wide of nature tourism.
- High market potential comes from QB's "natural gold" – the 116 km long coastline with fine sandy beaches. Several small Vietnamese restaurants along the water offer local cuisine in high quality – even if international tourists cannot expect that quality adequate infrastructure and service.
- Sand Dunes in the province are popular and another natural attraction. Their main focus lies on its protection and the prevention of aggradations surround. Nevertheless potentials for tourism activities exist such it could be the development of and for sand dune surfing, sand dune skiing etc.
- Two Hot Springs exist in the province:
One is the Bang mineral water resource in southern QB which is also already known as tourism site. The development of the area is still very low and not appropriate to high visitor numbers but there is potential for further activities. This could be the intensive deployment as well-known and attractive tourist place and also valuable asset for developing health tourism.
The second Hot spring is located north of the province. This newly discovered nature resource is not yet known by the public. The integration in tourism development plans is restricted by natural facts: Most of the year the Hot spring is covered by a natural lake and therefore visible only during dry season.
- The province is centre of the Ho Chi Minh Road and therefore connection of important historical sites. Moreover QB is the only province where the Ho Chi Minh Road is divided into two routes: one predominantly constructed for (economical) traffic and another for tourism with preservation of cultural values.



- The access to QB is presently easy and comfortable by rail. The railway is under good condition but time consuming. The reconstruction of QB airport promises in future time's access by air. Tourism development and the growth of visitor numbers depends on the official opening of the airport (planned for 2007).



Fig. 51: QB airport under reconstruction (Gruebler, 2006)

- QB's cultural background has potential for tourism development. But with the addition that the development must be examined and occurred carefully to maintain the original culture and traditions.
- The location of the province along the South China Sea offer possibilities for cruise ship tourism. Dong Hoi as capital of the province and also other harbour cities have potential to develop appropriate infrastructure for cruise liner.
- A ("new") island two hours by boat north-east from Hon la Bay has a rich biodiversity – especially of birds – and is therefore capable for bird watching.

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- Various rivers allow (maybe) for nature based and sport tourism development such as for kayaking etc. (a specific feasibility study has to be done).
 - The development of the river promenade in Dong Hoi city should be carried on to increase the cities attractiveness clearly. First step is (was) the establishment of the restaurant ship offering typical provincial sea food.
 - The general “flair” with small restaurants, several coffee and tee bars etc. along the coast line is pleasing and invites tourists for longer stays.
 - Close to Dong Hoi city a businessman from Hanoi (originally born in QB) reconstructed ‘Quang Binh Village’ as museums village. The village is already signed as tourism sites (war relic) and offer visitors information about living standards during war time.
 - Several historical relics – such e.g. the birth place of Vietnamese famous people or so called ‘heroes’ like General Vo Nguyen Giap or Mandarin Nguyen Huu Canh – are further important assets for tourism development. But this is prior relevant for Vietnamese people and will supply more the domestic market.
 - Several handy craft villages have potential for further development. They are already signed as tourism attractions and interesting for (especially international) tourists, even if the development is still low and inconspicuous.
 - Numerous restaurants offering local cuisine are at tourists command. The price level is – compared to the daily living standard – averaged for national tourists and quite low for international tourists.
 - QB is famous for typical food. The province’s specialities and economic dishes are – respective supply – predominantly made by sea food.



- The number of hotels and guesthouses in QB is high. The standard varies but could be generally improved constantly during past years. Except the one four stars hotel the price level is – compared to other tourist destinations in Vietnam – relatively low which enables also and especially Vietnamese tourists to spend holidays in the province.



Fig. 52: Hotel in QB province

(Gruebler, 2006)

- Due to the fact that tourism is not extensively developed yet, the province is still rich of various nice and quiet places and could be therefore valuable asset for developing e.g. health and wellness tourism.
- Several stakeholders are interested in the province's tourism development. They go to the time and effort of doing adequate advancement in the developing process. Their "good will" is obvious.
- Strong support comes from numerous domestic and foreign organisations (especially Non-Governmental-Organisations) to push the tourism development process in QB. The focus of their effort varies from supporting management plans for sustainable tourism within PNKB NP and also for the whole province's growth.



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- During past years – especially since the establishment of PNKB NP and the recognition as World Heritage Site – the visitor numbers increased steadily. QB has high potential for and is domestic tourism market.
 - The maintenance of culture and traditions in QB and the high number of ethnic minority groups still living in the province could be a possible asset for developing home stay tourism.
 - QB’s tourism development is still in the beginning; therefore exist an explicit chance to develop tourism sustainable and to “make it better than other regions”.
 - QB is already well-known for domestic tourism. This privilege is also tourism asset for the province and should be wise used before thinking about developing the international tourism market. Nevertheless foreign tourism to Vietnam can be expected to continue and becoming more popular and attractive.
 - The establishment of clear objectives within the sustainable tourism development process in QB enables to convince tour operators to integrate the province in their products / programs.
 - The planned and target establishment of PNKB as UNESCO Biodiversity Heritage will increase the popularity of QB and in the following probably the visitor numbers.
 - The direct connection to Laos and the closeness also to Cambodia and Thailand is another important asset for tourism development. One possibility to lure tourists to the province is by offering special programs such as (e.g.) “three country tourism”.



Category	Strengths and Opportunities
Tourism market	QB's "flair" along coast line
	Accommodation
	Gastronomy (Sea food)
	Low price level
	Low tourism development enables different possibilities
	Various stakeholders are integrated and development process
	Support from domestic and foreign organisations
	Increasing visitor numbers in past years
	Potential for domestic tourism market
	Natural & Cultural resources
Entrance fee to PNKB NP	
UNESCO World Heritage	
Natural resources provincial-wide	
Caves in PNKB NP	
116 km long coast line / fine sandy beach	
Sand Dunes	
Hot Springs	
QB's cultural background	
Ho Chi Minh Road	
"New" island north-east Hon La Bay	
Biodiversity	
Quang Binh Village (museums village)	
Historical relics	
Handy craft villages	
Ethnic minority groups	
Infrastructure & Services	Some (even very few) tour operators
Access & Transport system	Access by rail
	Airport under reconstruction
	Potential for cruise ship tourism (harbour)
	Location / Nearness to Laos and Thailand

Fig. 53: Strengths and Opportunities



4.2 Weaknesses and Threats

- QB is predominantly known for its PNKB NP (especially since the World Heritage nomination) and – depending on future development – it may be difficult to “enlarge” the province’s image to further prominent features / characteristics.
- One main and not influenceable weakness in QB is the climate. Long winter months with cold muddy weather as well as extremely hot summer months reduce the tourism season to very few months.
- Some tourist sites – such as PNKB caves – are closed in winter and rain season because of flood disease. Beach tourism is also restricted on very few summer months.
- Even the 116 km long coast line with sandy beach has particular potential to implement tourism, it is still underdeveloped.



Fig. 54: Boardwalk along QB’s coast line (Gruebler, 2006)

- The general current tourism development standard in QB is – compared with other provinces in Vietnam – very low. QB cannot keep up with adjacent areas. One reason may be the not accomplished market research!

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- The province's tourism infrastructure is insufficient. Visitors will not find information via signs etc., public toilets are not available, adequate information points (like tourist information) are not suitable, etc. Even if guests may know about e.g. handy craft villages, they will not find any information how to get there.
 - Although various hotels and guesthouses are available, the average standard is appropriate for the domestic tourism market but relatively low for the anyway less widespread international market. Hoteliers are not yet attuned to the tourists demand.
 - Qualification of service staff varies; many receptionists, chambermaids etc. have no professional skills. They got experiences by "learning by doing". Therefore the service is generally lower than tourists would probably expect (except they stay in one of the high standard hotels).
 - Language skills in QB are very low. Generally and specifically in the tourism sector communication for and with foreigners is difficult.
 - The knowledge about e.g. QB's history or culture is often not sufficient to convey it to tourists (to say nothing of low language skills and not available guides doing so).
 - Dong Hoi as capital of the province is quite unimpressive for visitors and – aside the nice but not yet developed beach – without attractions worth seeing.
 - Workstations in QB's tourism sector are mostly manned by people from other provinces and not from locals. Reasons are the general lower educational level and most notably the distribution in someone's personal interest (catchword: corruption). Several employees come from nearby cities like Hue, Danang and also from the wider distanced Hanoi.
 - The time consuming access to the province deters tourists. This weakness will be solved in future with opening the new airport in Dong Hoi city.



- Several restaurants offer typical and fresh tasty (sea)food but the standard (infrastructure including poor sanitary arrangements) does not meet the needs of (inherently international) tourists.



Fig. 55: Restaurant's kitchen in PNKB / QB (Gruebler, 2006)

- Almost all tourism sites in QB are overcrowded by waste. In the Hot Spring area waste – predominantly from visitors – reduces the attractiveness and recreational value obviously.



Fig. 56: Waste in the Hot Spring area (Gruebler, 2006)

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- The water supply system in the province is insufficient. Majority of households especially in rural areas are not connected to the water system. People have to collect water from wells in front of their houses or from remote water resources. Before or while developing tourism including the construction of new infrastructure the access to water should be warranted without limitation.
 - The supply unit of waste water systems is also limited to urban areas. New constructions of e.g. hotels in the province did not mean automatically the general improvement of living standards for Vietnamese people.
 - Especially in most ethnic minority villages the living standard is very low and not ready for tourism. Above all minority groups are not yet prepared to interact with (maybe) foreign visitors and reverse. Therefore home stay tourism must be developed very sensible to maintain and respect the minority's culture and traditions.
 - Widely spread problem is the (nation-wide) corruption which constrains the province's (tourism) development significant. This problem is generally well-known although nobody would call a spade a spade.
 - Birds and other wildlife in QB and especially in PNKB NP are rarely seen (in particular in tourism zone). Therefore the development of ecotourism must be seen critically. Generally the overstraining of natural resources can occur.
 - Also the development of ecotourism in PNKB NP is restricted by corruption. Several (low-paid) rangers have formed a criminal network to provide restaurants, private people etc. with rare and endangered animals from PNKB NP on demand.
 - Potential land for ecotourism will not be used effectively: A small Island two hours by boat away from north QB shall be rich of bird biodiversity but tourism development activities are not indicated.



- The number of qualified developed tourist sites in the province is small. The natural and cultural resources could be used more effectively and QB could probably offer their visitors a lot more.
- The favourable situation of QB close to Laos enables in principle good tourism possibilities but access crossing the border for foreigners is only allowed by special permission. The permit has to be applied and paid (10 USD) for in advance and may be a grave obstacle for developing tourism in these areas.
- Engagement and commitment to translate theoretical development steps into action is not visible. Several stakeholders with various interests plan steps give advice and try to participate in the process, but the real effort with recognizable changes is not to be seen.
- Marketing activities are quite low which determined an obvious decline of (domestic) visitor numbers already in 2005 (after big success the years before). The nomination as NP and World Heritage is (was) not enough to stable the growth of visitor numbers.
- QB's marketing activities in general are "wrong placed" (with focus on the supply side and physical infrastructure rather than to activities arose from market research) and less developed.
- The working structure in tourism development processes is neither effective nor successful. Typical for top down approaches the Province's People's Committee (PPC) is the decision maker without the stakeholder's participation. Interests and activities of each commune – represented by individual People's Committee's – are not brought into agreement with the PPC. Local "private" people are categorical not included in any developing process.
- While domestic tourists spend their holidays – therefore a few days or weeks – in QB, foreigners stay generally only one day, oftentimes without overnight stay. The visit of PNKB is part of some standard tours going from north to South Vietnam or reverse. As QB does not offer other tourist hot spots beside PNKB, "*the trip to the province does not include time consuming overnight stays*" (Tour operator).



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- QB strives for increasing the international tourism market which is maybe inconsistent with the interest of domestic tourists. Expectations to quality, supply and activities in the tourism sector vary obviously between Vietnamese and (western) foreigners. Developing tourism for international guests will probably displace domestic tourists. Other way round it is necessary to convince foreigners for longer stays.
 - The perception of QB's decision maker in tourism developing processes is obviously not similar to western tourist expectations. Only an extensive market research or / and the consideration of foreigner advices will help to find the "right" way.
 - The budget available and scheduled for sustainable tourism development in QB is low. Therefore a good structured developing plan with emphasis on some (in the beginning) important steps is inevitable.
 - The present tourism development bases – among others – on several investment plans which will change the province's style and charm noticeable but neither sustainable nor increasingly visitor numbers. One example is the fairly new built bridge in Dong Hoi to connect (the peak of) headland with mainland.
 - Health care system in QB is very low and not adequate for international (western) tourists.
 - While the hygienically standard on the majority of hotels is alright, public places (restaurants, toilets etc.) need to be increased highly.
 - Except one, all hotels, guest houses, restaurants etc. does not accept credit cards.
 - Adequate tourist maps and other information about events, shows, exhibitions etc. do not exist. Beside this the offer of those activities is very low.



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- To visit ethnic minorities in PNKB NP is generally possible but it is very complicate and time consuming to get special permissions and adequate transportation to go there. Moreover visitors are maybe disappointed to see “only” some people living in a small village such it could be at any other rural place in Vietnam. Further, the minorities are not yet “ready” to receive tourists with maybe completely different behaviour.
 - QB is one of the poorest provinces in Vietnam. Therefore main emphasis should go for poverty rate reduction which can be partly arrived – among others – with sustainable tourism development. Nevertheless the process must be seen critically to avoid social distinctions. Also child labour must be avoided. Jobs need to be created for local people and not to be “sold” by corruption.
 - In tourism development processes local people often become quickly “oppressed” by the tourists. They will be driven out from their living places (like it already happened with the ethnic minorities in the NP – although it was only a few km).
 - Too many different stakeholder and organisations work on similar tourism development projects without or with low cooperation. The flow of information is absolutely insufficient but necessary to “get together” and to reach best possible conditions.
 - Presently the population is neither included in any tourism development process nor informed about possible effects of tourism / tourists, which is leading to misunderstanding between public and tourists.
 - All discussions between the stakeholders (PPC, departments etc.) take too much time which means, that they will miss one’s connection to the state-wide tourism development.
 - Critically to be seen must be the (maybe occur) effect of child labour increase to decrease expenditures for tourism staff.



Category	Weaknesses and Threats
Tourism market	Image is restricted on PNKB NP
	Tourism restricted on seasons
	Very low tourism standard
	Tourism market does not meet the need of the tourists
	High unemployment rate
	Workstations mostly manned by people from other provinces
	Low management skills
	Corruption (generally, not only tourism)
	Entrance regulations
	Necessary “special permissions”
	Low engagement to translate theoretical development steps into action
	Low marketing activities
	Working structure (in management) is neither effective nor successful
	Top down approach, no bottom up
	Low potential for overnight tourism
	Try to increase international tourism market is contraire to interests of domestic guests
	No market research was done
	Low budget / financial background available for the development process
	Unsustainable investment plans (especially from foreign investors)
	Indigenous people suffer from tourism
Local people are almost excluded from the tourism development process	
Child labour in tourism sector	
Natural & Cultural resources	Climate
	Coast line / beach is underdeveloped
	Birds and wildlife is rarely seen
	Resources are neither used sustainable nor efficiently



Infrastructure & Services	Insufficient infrastructure
	Low hotel standard
	Low qualification of tourism staff
	No service skills
	No language skills
	Waste
	Water supply system
	Living standard of local people does not seem to be convinced while developing tourism
	Low health care system
	Low hygienic standard
	Almost no exception of credit cards
	No adequate tourist maps or any other information available
	Access & Transport system
No official inn-city transportation system	

Fig. 57: Weaknesses and Threats



5 Tourism

As the focus of this study lies on sustainable TOURISM development, it will be further discussed in depth. The short introduction of the current tourism situation in Vietnam and especially in Quang Binh province follow some explanations to the organisational structure (stakeholder, decision maker etc.). In chapter 5.3 various types of tourism (partly implemented in QB) will be mentioned and discussed (prerequisites, potentials, target groups, risks, effect on nature, socio-culture, economic consequences etc.). In the continuation a first pre-selection of possible tourism forms (for QB) can be made before a detailed valuation and analysis follow to lie down relevant types of tourism (for its sustainable development in a future project).

5.1 Introduction

In 2000 a Tourism Master Plan for Vietnam (named as ‘National Tourism Development Strategy to 2010’) was implemented.

In the strategy Quang Binh province was also and already mentioned as one destination of the tourism development in the north-central zone. The development potential was especially set on ecotourism in PNKB National Park, on beach and leisure tourism as well as on the concentration of historical and cultural relics, world heritage sites and war relics.

Now, in 2006, the present tourism situation can be described as followed.

The tourism “Hot Spot” in Quang Binh is undoubtedly the Phong Nha – Ke Bang National Park (PNKB) with the Phong Nha cave (established in 1997) and UNESCO world heritage (nominated in 2003). PNKB offers attractive natural and cultural resources to the visitors. A beautiful landscape with primary rain forest, karst and limestone formations inspires locals and tourists likewise.

To explore the Phong Nha cave by boat is presently the most common and most developed activity within the National Park. Trips by ship are carried out by local people living in or around the NP. Their income depends on the tourist’s demand. Tour guides for the cave trips are employed by the tourism management board.



Trips inside the NP – on land – are possible inside the declared service zone and offered by paying an entrance fee. To visit or going through areas in the buffer zone – such as to go to ethnic minority groups – a special permission (applying and paying for at police) is mandatory. The development of infrastructure, points of interests, sanitations etc. is still in the beginning but already discussed for future projects such as the development of a management plan. The service (main tourism) area is generally growing quickly; therefore protection measures are necessary to maintain the park's attractiveness and uniqueness. Investment plans to construct various hotel resorts etc. already exist but not all of them are in sustainable sense. Also planned is the extension of PNKB by a northern located primary forest. This should support the application of the second UNESCO World Heritage nomination for biodiversity.

Similar significance and attractiveness true for the 116 km long sandy beach. The tourism development along the coast line is concentrated to some significant points where meantime popular tourist destinations grew up for domestic tourism. As outlined before (s. chapter 3.13.7) the number of international tourists is much lower because of different reasons. One is the presently suboptimal accessibility to the province (until the airport reconstruction could not be finished). Hence the tourism supply, development, and standard are much lower than in other regions in Vietnam. There are lots of nice and small hotels available in Quang Binh province but they are generally not adequately for “typical ambitious tourists” from abroad. The one luxury (four stars) hotel in Dong Hoi city has a perfect location, good services and nice beaches in front. Nevertheless the average plant utilisation is inconvincible which probably caused by low market research and insufficient marketing activities. Anyway the total number of tourists in Quang Binh province grew up noticeable in the past years.

Moreover QB's tourism development focuses on the two existing Hot springs. The Banh Hot spring with 105° C water is accounted as tourism side and also mineral water source. The second hot spring is located and recently detected northern Dong Hoi city. During rainy season it is covered by water and then therefore not viewable.

The development of the Banh Hot Spring area has already been started but is still in a low manner. To enter the Hot spring ground visitors have to pay a low entrance fee and for parking the vehicle. This area also offers a



restaurant and sanitary services. Then people have different possibilities. One is to go to a “hot water pool” naturally filled by water coming from the Hot spring. One (kind of) changing-cubicle is available.



Fig. 58: Changing Room Hot Spring area / QB (Gruebler, 2006)

Hence, that area invites to relax along the river. Also possible is the visit of the direct source of the 105°C hot water. There the boiling water covers in streams a large area. Therefore, in view of the project management the stay is dangerous and absolutely not recommended for children or less agile people. Further, signs with explications etc. are not available and by side tons of waste are compromising the areas attractiveness. As tourist attraction eggs can be bought by visitors to boil them inside the hot water for eating. BUT, even if it is a good idea and typical for those areas, it should be reconsidered to exchange duck eggs with chicken eggs (s. picture below). For Vietnamese people it is quite normal and delicious to eat already breed eggs, but not for international tourists!



Fig. 59: Breed duck egg; Hot Spring QB (Gruebler, 2006)

Generally the infrastructure and tourist facilities are quite low in the Hot Spring area.

If the climate in the region is suitable for health tourism could not be answered yet.

Handy craft villages within QB are further tourism sites accounted in the province's tourism guide. In rural areas (villages) visitors are invited to look at Vietnamese people preparing e.g. hats or baskets in traditional ways. Tourists do not get the possibility yet to learn a trade themselves.

Close to Dong Hoi city a cultural point of interest has tourism development opportunities. Planned and financed by a business man from Hanoi 'Quang Binh village' was (re)constructed. The village is a war relic from 1957-1975 while Vietnam was bombarded by the United States. It is now a museum's village where earlier living houses, the hospital, the kindergarten, the rice storage, the school etc. are partly maintained originally and can be visited. To protect the inhabitant for bombs all houses were built underground and connected each other. At present visitors (the number is still quite low) do not have to pay an entrance fee, they can go around as they want, and they get information by some signs and by a local person living there (to stand

sentinel over the village and to guide tourists if they want). There is a lot more space and potential to enlarge the museums village but there is presently no more private money available. And the PPC did not decide about state investments yet.



Fig. 60: Quang Binh Village

(Gruebler, 2006)

Tourism in QB province is presently more or less restricted on the attractive sites mentioned before. Dong Hoi as main city of the province is ‘central point’ and origin for activities but no tourist destination itself. It probably becomes more important when the airport will be operational. But then more than ever the development of Dong Hoi is extremely important to convince the visitors and their expectations.

Generally domestic tourism dominates in QB, the number of international tourists grows constantly but is still much lower than the other. The reasons vary from the name recognition of the region, service and quality standard, accessibility to the management structure including a market research.

The above mentioned objection of low market research is probably for the present provincial wide tourism situation. Whether a complete feasibility study, a SWOT analysis, a market research to outline demand and supply, surveys to know about visitors interest and satisfaction, nor consequent



marketing activities were done in advance of tourism development processes or while implementing and realising them.

Concerning this matter more information to responsibilities, stakeholders, decision makers etc. is given in the following chapter.

5.2 Organisational structure

All Quang Bing tourism projects are generally in line with nation wide governmental policies and plans which point out tourism as one of Vietnam's most important economic sectors. As in the 2002 adopted and by the World Tourism Organisation (UNWTO) supported 'National Tourism Strategy for Tourism' defined, tourism shall be the basis for a high increase of economic growth rates and to decrease the poverty rate all-around. Hence, the strategy will determine the sustainable use and protection of nature resources as well as the preservation of traditional cultures. Under even this consideration and the "target N° 1" to develop tourism for province's boom, Quang Binh place emphasis on the existing resources and "qualities". As already mentioned before, the focus herein lies on

- eco-/nature-based tourism,
- beach tourism, and
- cultural tourism.

Beside this QB province must be seen as attractive region to complete Vietnam's central point for World Heritage Sites. 4 World Heritage sites out of totally 5 in Vietnam are located "around" QB province, while the 5th is the PNKB NP and therefore well connected to various tourism attractions.

Important outcome of the National Strategy is the passed 'Law on Tourism' which emphasis the need for sustainable tourism development. In particular the law call for participation of all local communities within plans and processes to secure the involvement of the public interest and needs. That includes the possibility to have a voice and to effort the participation in tourism activities and investments.

Another focus is given to regulations protecting the environment: to protect, maintain and monitor the nature and all plans affecting this and excite impacts.

The development and implementation of individual management plans is indicated for and after the official recognition of major tourism areas,



attractive tourism sites, mentionable cities etc. Whose management as business enables the right to charge access and user fees.

Every plan has to be verified with regional plans and approved by (local) government authorities.

In QB province particularly the ‘Province People’s Committee’ (PPC) accept this task and is the mainly decision maker before adopting any plan or process. The QB PPC consists of 18 head of committees of each district. Their work includes obligatory the collection of opinions of all local stakeholders concerning the planned project. For this purpose surveys, workshops or written statements are usual actions. In the first step a draft plan will be prepared, followed by a final questionnaire to approve final opinions of the local communities. Within five working days sanctions and objections can be made. Otherwise the plan is adopted. (cf.Thai, Ninh 2006)

The public interest will be represented by different stakeholders who submit legwork to the PPC. Even if the list of stakeholders ranges from several departments (government agencies) to private organisations, the total number of participants is high. What seems to be helpful because of many participants can complicate the development process significant, when all of them work individual or in worst case antithetic. Nevertheless, the stakeholders can influence the tourism development process, depending on their willingness, support and knowledge. Only if they possess tourism management skills and if their ideas come along with the general tourism plans and principles of sustainable tourism management it benefits the sustainable tourism process.

5.3 Types of tourism

The variety of different tourism forms allow for verified and approved development, well adapted to the province’s conditions. To choice particularly suitable tourism types for QB they will be shortly described.

5.3.1 Eco tourism

Eco tourism is defined as ecological tourism, where both environmental and social components are considered in equal measure. Since 2002, when the United Nations celebrated the “International Year of Ecotourism”, the meaning of ecotourism became more important and is since that time



defined as “*responsible travel to natural areas that conserves the environment and improves the well-being of local people*” (The International Ecotourism Society). [Remark: During past years a lot more equal definitions were created].

Ecotourism means travelling to destinations where the flora, fauna, and cultural heritage are the principal attractions while minimizing negative impacts on the natural environment and improving the social and cultural integrity of local people. As integral part of (developing and implementing) ecotourism provider’s focus on employment of renewable resources, energy-efficiency, water re-use, and further more. The conservation of biological and cultural diversity, the promotion of sustainable use by providing jobs to local people, the fair distribution of socio-economic benefit between local communities and indigenous people, as well as the clear improvement of environmental and cultural knowledge are indispensable preconditions of ecotourism.

To be seen critically is the often misunderstanding of the word’s meaning: In many cases the term ecotourism is used as marketing tool to promote all tourism activities related to nature. Further – to deliver tourists expectations – so called ‘ecotourism hotels’ are placed in splendid landscape to the disadvantage of the ecosystem.

In opposition to ecotourism the term nature tourism refers to (travel) activities through and enjoyment of the natural world.

5.3.2 Nature tourism

Nature tourism relates to all tourism based on nature with nature as significant attraction or environment for activities. Nature tourism involves recreation in natural surroundings. It combines recreational use of nature and tourism.

Therefore the band width of nature tourism activities is large just as the provoked environmental impacts. Any activity – equal if hiking, climbing, canoeing, or camping – trigger several negative effects by constructing trails, waste, logging, water pollution, increased land use, noise, destruction of vegetation etc. Consequences are soil erosion, animal displacement, air and water pollution, reduce of biodiversity, destruction of ecosystem, forest clearance, eutrophication and a lot more.



5.3.3 Mass (beach) tourism

Mass tourism is the often consequence of opening up to any tourism types covering high visitor numbers such as beach tourism. Mass tourism describes the piled manner of tourists on certain places, a high travel intensity including broad populations. Unlike individual tourism it occurs in well-organised manner for bigger groups travelling to high frequency destinations.

The appearance of a huge amount of tourists at same time and location aggravate the anyway obvious negative impacts of tourism quantitative-proportional. Supplementary qualitative impairments appear, especially in form of (socio-) cultural changes. Mass tourists generally do not look for specific activities, culture, or any other for the travel destination significant feature. They supply their want to travel with the interest not to abandon habitual and familiar patterns. With imitation of foreign (western) life style destinations loose identity and traditional structures. Cultural shocks in destinations and the estrangement of local cultures occur. Culture and tradition will be presented in the tourist's interest (show) far from reality. The commercialisation of interpersonal relations (sex tourism) is often effect of mass tourism and trigger of demoralisation, drug problems and crime. The enlargement of tourism effects the displacement of indigenous people – such as ethnic minority groups in PNKB. Moreover several negative environmental impacts appear through the following:

- Traffic
- Infrastructure
- (Leisure) activities

Traffic	
Cause	Impacts
Journey (especially by aircraft)	Pollutant emission
Mobility (during holiday)	Pollution, energy and resource consumption
Short travel but frequently	Increase of pollutant emission
High price level of e.g. trains	Use of private cars: pollution
Low-Budget travel / flights	Quick accessibility also of great distances, pollution emission, expansion of infrastructure on land (travel destination), noise



<i>Infrastructure</i>	
Cause	Impacts
High number of tourists	Floor space required for hotels, camp sites, leisure parks, generally infrastructure adequate for mass, concentration of many people on limited space, high water and energy consumption, extreme waste (water) deposit. All construction is often done without consideration of locals.
Construction of accommodation	Destruction of typical and traditional architecture style
Tourist ghettos	New “periphery” in destinations
Construction of “playgrounds” for leisure and sport activities	Land use, further space required
Expansion of infrastructure	Uncontrolled development, urban sprawl, loss of habitat, change of biotopes
Special construction for tourists demand (public toilet, swimming pool, water system for gardening...)	Increase of water consumption and energy, sewage disposal
Water supply (system)	Drawdown, risk of diversification, supply bottleneck
Waste water system	Construction of clarification plants to avoid disposal in stream / water networks

<i>(Leisure) activities</i>	
Cause	Impacts
Construction of special infrastructure	Land use, space required, destruction of architecture style etc.
Technical innovation	Activities are independently of climate: all-year activities are possible
Improvement of equipment (standard)	Spatial expansion in so far intact and ecological valuable areas, progressive encroachment of tourism



Often new and short trends	Often new constructions are necessary (consequences see above)
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Fig. 61: Impacts of (mass) tourism (Becker, C. et al, 2004)

While the environmental impacts of (mass) tourism will be mentioned later in detail (see ‘adventure & sport tourism’), direct effects of the tourist’s behaviour will follow at this point. Because of the often hot climate in tropical countries and probably for some other reasons, the tendency of tourists to use (better: waste) more water than they do at home increases the water consume dramatically. Up to 440 litre of fresh water per day and tourist– and therefore almost double of ‘normal’ use – shortage the existing water resources. And this amount is ONLY for the tourist’s personal use, not for washing, swimming pools, golf courses or any other infrastructure etc. The advanced water consume also rises the mass of waste water which has to be disposed or purified. (cf. UNEP, 2002)

Even if (mass) tourism has several negative impacts the positive potential must be seen as well. Provided that the tourism form is well structured and managed it enables the destinations sustainable development including e.g. poverty reduction. Examples of positive impacts of (mass) tourism:

- The public benefits from infrastructure expansion, such as water supply systems, waste water systems, health system, education etc. (industrialisation).
- Raise of gross domestic product and tax revenue: new investment for further development.
- Economic growth and stabilisation.
- Improvement of national labour market, added value, multiplier effect
- Revival of traditional handicraft.
- Environmental education for both local people and visitors.
- Upgrading the (international) competitiveness of the region by attractive supply.
- Fortification of the service sector.
- Prevention of migration (cf. Becker, C. et al, 2004)

The implementation of (mass) tourism in general and to achieve positive results from tourism (as mentioned before) some requirements have to be fulfilled. The chosen destination has to feature specific tourism potential



such as ‘water’ (coastlines, island, beaches, lakes, rivers, maritime flair, and harbours). This criteria offer possibilities for a high number of tourists, for several activities and for different target groups such as families, young people, seniors, sportive people, people interested in relaxing tourism, low-budget tourists etc. Therefore, the tourists demand must be attended by appropriate supply. Various sport possibilities, attractive surroundings, warm and tropical climate, low prices, western standard accommodations, well educated staff with sufficient language skills, and some more need to be at tourist’s command. (cf. Becker, C. et al, 2004)

Mass tourism call for complete concepts and supply to provide high numbers of travellers in appropriate manner. It means the continuous and total attendance and care of the tourists. Therefore, mass tourism starts in the country of origin (tour operator, adviser, and tutor). In transit transport services and tour guides go with the tourists. Catering is provided from the beginning and during the whole stay ensured (often as ‘All-inclusive package’). Beside this tourism producer accommodate tourists with lodging, tours and day trips, leisure activities, animation, souvenirs, special offers (e.g. health care, cure), exhibitions, events etc. (cf. Freyer, W., 2006)

5.3.4 Health tourism

Also known as ‘medical tourism’ main ambition of this tourism form is the translocation (travelling) while advancement, stabilisation, and sometimes recreation of the tourist’s physical, mental and social well-being through health care utilisation.

Health tourism can further be differentiated in:

- **Cure tourism**

A cure supports the maintenance or recreation of health in specific destinations and spa’s (therapeutic bath). Guests are generally accompanied by consulting physicians. The stay with therapeutically measures is paid by health insurance and / or the clients. (cf. Rulle, 2004)

- **Tourism for health prevention**

This concept contains several new cure and holiday forms and aims for health prevention through movement and sport. The stay has to be paid by the guests and is not undertaken by health insurances.

(cf. Hinsching, Steingrube 2004)



- Wellness tourism

Wellness means the integrated healthy balance of the mind, body and spirit obtained by vitality and relaxing equally. In specific wellness hotels and institutions guests choose between numerous therapies, activity programs and courses. These will be offered in form of packages or individual but generally in combination with a holiday stay. Consulting physicians are available. Some therapies can be paid by health insurances when guests submit receipts to the spa.

To develop and establish health tourism (regardless the specification) quite a few requirements should be fulfilled:

First of all and most important is an efficient and stable health system in the country to hinder the solely dependence of a high quality (health product) supply from the income of tourism.

Secondly the natural surrounding must correspond with the request to healthy practices. Resources like water, salt, hot springs, chalk, algae, air or generally the climate should be available and used for medicative effect.

Beside the construction of adequate infrastructure such as wellness hotels, well educated staff must be at the tourist's command, and the supply (natural medicine, massage, acupuncture, yoga etc.) must be from international standard. The location of accommodation must be chosen carefully. A natural and unique landscape around, supply of tourism services like e.g. culture and leisure programs, transportation systems as well as hiking tracks, information signs, rest areas etc. are essential. Unique selling propositions (USP) will distinguish destinations from other which also outlines that health policy and tourism need to cooperate for a successful development.

Target groups of this tourism form feature specific criteria. Health tourists are generally dynamic, active, well-balanced, nutrient-conscious and in health living people. Foreign health tourists pay themselves (not undertaken by insurances) and combine health with other tourism forms. The significance of well-being arises with present circumstances. Therefore guests are ready / willed to spend more money than e.g. beach and low-budget tourists.

The generally high quality standard of health tourism calls for a comparably destination-wide development. What look set to become a sophisticated tourism area and therefore a 'draught horse' for the regions improvement



can also cause the opposite. The exclusive and non-sustainable development of health tourism components without consideration of the general and not in the public's interest improvement leads to grave class divides. Then, poverty will not be reduced, the stagnation of education is indicated and the public loose more and more their rights and voice.

Nevertheless, the integral and sustainable development with numerous positive impacts is possible. Some of them will be mentioned below.

- Health tourism supposes a variety of jobs, beginning with service staff to medicinal specialists. The educational system shall become coordinated with the tourism form and resultant demand (of employees) to qualify local people for emerging jobs.
- The 'high standard tourism form' leads to increasing numbers of 'well-heeled' tourists.
- Wellness is presently a trend used by all age-groups which extend the target group.
- Health tourism and especially wellness packages are often short time offers. Visitors spend much money in short time. Therefore, destinations (like Quang Binh) with statistically short lengths of stays are also suitable for developing this tourism form.
- The integration of natural remedies demanded the environmental preservation. Environmental protection and sustainability are important roles in those regions.
- Health tourism is not bound to seasons; it is a whole-year tourism form.
- 'Wellness' e.g. enables different certification and will be then a marketing instrument.

5.3.5 Adventure & sport tourism

Adventure tourism is defined as "*a type of niche tourism involving exploration or travel to remote areas, where the traveller should expect the unexpected*" (<http://en.wikipedia.org>).

Sport tourism describes any sport activity popular to spend a vacation. Not restricted on specific categories 'sport tourists' play golf or tennis, go for hiking, climbing or mountain biking, prefer kayaking, diving, surfing or sand dune skiing. A lot more sports can be mentioned – especially because



of regular new developed trends – but only some of them will be discussed further.

Generally the main positive and negative impacts will be outlined from both adventure and sport tourism. A separation between these types is difficult because of sometimes smooth transitions. Differentiated could be the environmental impacts of different sport types because of the following reasons.

- The disturbance of nature resources (soil, water, air, flora, fauna, landscape scenery, and silence) depends on the sport activity, the location of performance and the force of realisation.
- Potential environmental impacts cannot be equated with real pressures. As some impacts always appear, further potential effects are dependent on the 'management' of the sport type (choose and preparation of the location, sustainable behaviour etc.).
- The dimension of destruction is often more important than the manner. It depends on the (ecological) intensity of exposure as well as on the sensibility and need of protection of the used space.

(cf. Schemel / Erbguth, 2000)

Nevertheless, the environmental impacts will be outlined generally. Later, after the first pre-selection of possible tourism forms in QB, some of them will be maybe discussed in depth.

Adventure & sport tourism often take place in nature (are often outdoor activities), a depletion of natural resources is therefore at risk. Tourism development triggers the environment especially when increase consumption through growing visitor numbers is greater than the capability to compensate impacts within the acceptable limits of change (LAC). Regions with already scarce resources are jeopardised in particular.

Water, and especially fresh water, is one of the main important but most critical natural resources. While indigenous people in less developed countries often have limited or no fresh water supply, it is clearly overused by the tourism industry for swimming pools, for personal use of the tourists (as mentioned before rising up to 440 litres a day) and to keep several sport areas such as golf courses. The number of golf courses increases since several years, often connected to luxury hotels or resorts and located in attractive landscape such as close to protected areas. The daily required



water amount for golf courses is huge (per year up to as much water as 60.000 rural villages need!) and can result in water scarcity. Water, (over)pumped from wells sometimes provokes saline intrusion into groundwater.

Water related sports do not directly attract fresh water resources but effect e.g. contamination released by use or waste. But most notably is the risk to damage riverbanks, flora and fauna (live stock). The impairment of nature and landscape starts already with the journey to and off activity places including transportation of equipment. Noise, exhaust gases, waste and damage caused by steps affect the environment. Soil erosion, pollution, contaminant loads and animal disturbances are consequences. The construction of roads, footbridges, and other entries to water, make for mechanical damages. Also while practicing sport activities similar impacts occur.

On land activities – such as (mountain) biking – may trigger both ecological and social problems. The damage of vegetation through wheel traces provoke soil erosions, habitat of animal species will be disturbed, waste pollute the environment and affect the vegetation, and journey to and from the sport area by motor vehicle cause noise and air pollution.

Social conflicts occur between sportsmen and local people as well as other visitors looking for recreation in quiet nature.

Similar are the impacts of hiking and climbing. (Endangered) flora and fauna are affected by footsteps which boost the risk of soil erosion. The entry of inorganic and organic waste leads to eutrophication. Animals are endangered through disturbance and diversification of biotope structure.

Sand dune surfing or sand dune skiing are further examples for on one hand attractive trend sports and therefore tourism development factors, but on other hand for environmental hazards. While direct impacts of sport activities are scarcely present, they hinder the maintenance of sand dunes. The already existing problem of shifting sand dune – the relocation into the inland and therefore the threat of residential areas – will be enhanced and plantings are impeded. (cf. Schemel / Erbguth, 2000)



5.3.6 Home stay tourism

Home stay is a unique concept of accommodation for those who want live in traditional way of the locals (such as ethnic minorities). The traditional village is committed in ensuring that home stay tourists (“homestay”) get the total experience of the minorities “normal way of life”. The food offered to the guests (or also self-made by themselves) and all activities they participate in are authentically. Homestay get the possibility to feel like a native.

Several preconditions to implement home stay tourism are indispensable for both hosts and guests to avoid social impacts. Educational advertising is necessary to achieve awareness and moderate behaviour on the visitor’s side. Guests have to know what they are expected, they have to accept the living style, have to adjust to it, and my pass on used comfort and customs. Hosts also need to be informed about their guests. They have to know in advance that foreigners are accustomed to completely different living standards and that they “only” want to make a new experience with attention of adventure.

The non-observance of the mentioned clues affects social impacts like loss of authenticity, culture and tradition. Further, the “preparation” of the hosts for tourism may mean significant changes in their life or even resettlements to appropriate better (but not authentic) conditions for tourists.

5.3.7 Luxury tourism (Hideaway)

This specific tourism form offers tourists high quality to even high prices. A higher-than-average and effort not indispensable to live is proposed to vacationists. The target group of luxury tourism is well funded and expecting exclusively organised journeys.

Also known in this context is the term ‘Hideaway’. Hideaway means place of refuge / a place of concealment which is secluded or isolated (more in cognition than local). Therefore it is an insider tip (a hiding place), a resort to spend undisturbed holidays. (cf. www.hideaway.de)

Hideaways offer guests enormous luxury without any limitation. For the money tourists have to spend they expect perfect service, a consistently infrastructure (to get there and within the resort) and mainly a stay at a unique place where “normal” tourists do not arrive. This can be e.g. along the beach, on an (uninhabited) island, or in the mountains. Beside the location, a lot more requirements have to be fulfilled to implement luxury



tourism and specifically to open a Hideaway: The landscape and scenery around the resort must be unique and attractive with the possibility of e.g. animal watching or random flora and fauna in general. Tourist ‘Hot Spots’ like World Heritage, caves or any other place of interest should be nearby. Further, sport and leisure possibilities should be given. Another important criteria to choose the area for a hideaway is the climate. Visitors expect good weather conditions with sunshine and warm temperature. Hence, a great appearance of insects can automatically exclude a region. Maintenance and supply of the resort has to be warranted, including local and western standard nourishment – every good must be on hand. Fresh water supply as well as waste and waste water systems are necessary. Access to the hotel must be easy and quickly for transportation of products and for the tourist’s arrival / departure.

Considering these (not complete list of) requirements to implement luxury tourism / Hideaways, the problems and negative impacts are obvious. Even if luxury tourists are insular from other tourists and from local people, the danger of social inequity arises clearly. Beside this, environmental impacts are also indicated. All necessary constructions impact the vegetation, the high use of water endanger local communities, the waste deposit grows immediately, etc.

5.3.8 Cruise ship tourism

Cruise ship tourism is – among other tourism sectors – one significant economic factor with quick growths worldwide. Beside several “typical” routes of numerous cruise ship lines the demand of more specific, unique and exotic destinations increases. Further, this form of travelling is no longer reserved for the upper-class; the trend goes in direction of mass tourism. Especially since cruise ships become bigger and equipped with an infrastructure similar to a small city. Mass-tourism-cruise-ships become more and more floating amusement parks. They change to artificial islands and replace the real tourism destination.

Nevertheless, the port of destination has to be developed for even those big cruise liners. Infrastructural adjustments of the terms – creation of an adequate harbour, making dispositions for transport and traffic, guarantee of security, etc. – are indispensable. The carrying capacity of the destination chosen for cruise ships has to value up to some thousand tourists at the same time.



Environmental and social impacts occur such as all tourism development processes effect. Significant interferences for necessary constructions (cruise ship tourism needs adequate supra- and infrastructure in the destinations) endanger flora and fauna, alter the natural scenery, take up room, overstrain the economic capacity, and may finally displace local people from their land. In consequence they may lose the basis of income from e.g. agriculture. Adequate compensations are generally not paid and job alternatives are quite low. Even if cruise ships often go under a foreign flag and the staff is already completed, local people will not fill the jobs. Social inequity is indicated soon. Cruise ship tourism decline the development possibilities of local people, foreign traditions influence their life, their rights of self-determinations decrease noticeable. The expectations of medium and long term (positive) economic effects will often not be fulfilled. The proportion between input and output – at both economical and socio-cultural level – is unbalanced. The economical success of the tourism industry accounts of the destinations development perspectives.

Cruise ship tourism also needs huge amount of resources and produce tons of liquid and solid waste. About 75% of the existing waste water coming from ships is being caused by cruise liners. The environmental capacity limit is often exceeded.

To be seen positive is the increasing number of tourists coming to destination and resultant effects. The demand of local guides and specialists in the tourism service sector will grow. Well developed the destination may profit from the tourists expenditures. The importance of the region in the nation wide tourism market will arise. (cf. www.lighthouse-foundation.org)

5.3.9 Camping tourism

“Camping is an outdoor recreational activity, in which the campers get away from civilization and enjoy nature by spending one or more nights at a campsite”. (<http://en.wikipedia.org/wiki/Camping>).

To protect the environment camping is often restricted by law to designated (camp) sites. These areas are provided with sanitary arrangements, places for tents and sometimes also cabins and caravans are available. Campers follow up different outdoor activities. Long term stays to enjoy relaxing holidays are also possible such as the combination with hiking, biking or backpacking. Favourite camping grounds are National Parks and other publicly owned natural areas. The requirements to construct a camp site are



obvious. A more or less big amount of space needs to be provided and developed. An adequate infrastructure is essential. Hence, environmental impacts – such it as mentioned before – are predicted. To be seen from socio-cultural site, some positive effects are possible. The development process can be used for environmental awareness, educational programs are indicated. High economically growth is not expected, emerging working places are rare and the fee's tourists have to pay are necessary for maintenance. The destination – restricted in the area close around the camp site – profit from tourist's expenditures: gastronomy, retail, sightseeing, souvenirs.

5.3.10 Culture & historical tourism

Culture tourism describes a specific tourism form with the focus of visiting cultural monuments, getting inside foreign cultures or attending cultural events.

The chance to increase the income from tourism offers an incentive to develop tourism in destinations under consideration of the (individual) cultural characteristic and activity. The regional unique identification is most important to meet with success. Therefore culture tourism is defined as gentle use of culture-historical elements and relics as well as the traditional commerce with specific ways of life to enhance the regions tourism standard. Main goal is the maintenance of cultural identification, traditional values and the advancement of understanding within the population and between local people and visitors.

Defined in a study of the European Union “*cultural tourism is travel undertaken with the intention – wholly or partly – of increasing one's appreciation of [...] cultural resources*” (Irish Tourist Board, 1988).

Requirements for cultural tourism are constructions, relics, monuments and customs in urban and rural areas, in unique landscapes and within buildings to give tourists an understanding of the regions culture, social and economic development. It must be avoided to “create” or develop a specific tourism-culture without any reference to reality. All offerings have to be open and useful for both indigenious and visitors. Culture tourism should impart authentic experience and therefore “life” presented. To keep from capacity overload of the cultural potential, offerings must be limited. All products must be developed competent, efficient and diversified.

(cf. www.wissens-quiz.de, 2006)



The following checklist outlines further requirements to implement culture tourism products.

- Extensive information to and about culture activities and programmes have to be prepared beforehand.
- Information points and adequate signage are essential.
- Opening hours and dates of events etc. must be visitor friendly.
- The cultural program / offer must be supplemented with appropriate supply of gastronomy and other services.
- Tourism infrastructure must be developed as well. Accommodation etc. to the expected target groups is essential.
- Regular repetitions of (then well-known) culture programs are recommended.

(cf. Ministry of Brandenburg, 2005)

Part and specific form of cultural tourism and supplement to previous descriptions is the event tourism.

5.3.11 Event tourism

Event tourism is *“the systematic planning, development and marketing of festivals and special events as tourist attractions, development catalysts, and image builders for attractions and destination areas. A market segment consisting of those people who travel to attend events, or who can be motivated to attend events while away from home”* (Getz, 1997). Regarding this definition it is obvious that the destination must fulfil several requirements. The implementation of cultural, sporting, socio-political, natural or economic happenings (or even one of these categories) must be possible. Beside specific staged events also environmental conditions play a key role. Event tourism to natural phenomenon's (e.g. solar eclipse) or natural disaster (e.g. volcanic eruption, earthquake) is thinkable. Events – normally time restricted – increase visitor numbers in phase. Therefore, the complete tourism infrastructure must be developed and available on demand which outlines already a well structured organisation. Successful events add to the destinations credit which cause profit while holding the event but mostly from future business. (cf. Dreyer, 1998 In: Groß, 2005)

The specification to event tourism is exigent and therefore to be chosen from destinations where the general tourism development is advanced.



5.3.12 Active tourism

This specific tourism form is not an established term and should only be seen as an integrated part of another tourism category such as culture or home stay tourism. Within active tourism participants take part in programmes to e.g. create their own souvenir, to get inside authentic lives while harvesting rice, fishing etc. Thus local people maintain and publish their culture and tradition, have more working places and therefore higher income and open up for socio-cultural exchange. On the visitors site a better understanding of the host's behaviour etc. can be achieved.

The normal and daily work (in the beginning the main income of the local people) should not be hindered by the visitors, and should be separated from the visitor areas. There local people should explain their handicraft and should give some introduction. For those projects sufficient language skills are important as well as some more education. They e.g. need knowledge in accounting, they have to organise necessary material, their environmental understanding must be sustainable, and their behaviour must be adapted to existing laws. Both locals and tourists need a general social awareness to accept the opponent's differences.

Further, the cooperation between local provider and governmental tourism sector is necessary to bring the programmes to market.

5.3.13 City tourism

City tourism describes the stay of non-native people (private and business) in a city. Main activity of the generally short breaks is to visit objects or places of interest. Centre of attractions for city tourists are e.g.

- Conventional and modern sightseeing, such as historic and architecture interesting buildings, museums, zoos etc.
- Culture offerings
- Sport events
- Special events like yearly activities, jubilees or international fairs

Although a general well developed infrastructure is necessary (!), further substantial changes can be avoided to implement city tourism. An economic growth is possible through additional income in the service sector (accommodation, gastronomy etc.). It enables to add new jobs. Former used areas (military fields, harbours etc.) can be revitalised and integrated in the developing process. And the creation of tourism relevant establishments the



cities image arises. In the following investors are motivated to more activities.

Beside these positive impacts (or chances) some critical points are to be seen. New created working places are predominantly part and short time jobs. Working in tourism (generally) requires specific skills and knowledge, which may exclude local people from several positions. Inner-city tourism may increase the land price and mainly poor population groups will be displaced. Sudden streams of visitors effect environmental and socio-cultural impacts. City tourism must be adapted to the often fast changing demand of tourists. (cf. Law, 1994)

5.4 Pre-selection of relevant types of tourism

The pre-selection of tourism forms has been carried out by the foregoing descriptions. With simultaneous consideration of necessary requirements, possible positive and negative impacts on one hand, and of QB's potential and circumstances on the other hand a few types of tourism were chosen. The different types of tourism and the individual criteria for pre-selection (positive [+] and negative [-] facts) will be outlined in the following table.

Type of tourism	Criteria for pre-selection
Eco tourism	+ Established National Park (PNKB) + High biodiversity + Cultural Heritage (UNESCO) + (planned) management activities + sustainable use is prescribed - present management - planned investments - over consumption of natural resources - low wages - publics involvement - climate



<p>Nature tourism</p>	<ul style="list-style-type: none"> + PNKB NP and caves + Land resources + biodiversity + development activities have started (planning) + historic sites + rivers + mountains + walking trail: Ho Chi Minh road - environmental impacts - several constructions are necessary - no experience - no staff available - climate
<p>Beach (mass) tourism</p>	<ul style="list-style-type: none"> + ideal prerequisite: beach / coast line + call for various target groups + land resources + several hotels are already existing + employment for local people - public awareness - no experience - no management skills - low qualification (tourism service) - loss of culture / traditions - environmental impacts - high water consumption - except beach, rare tourist attractions - waste - climate - access



<p>Health tourism</p>	<ul style="list-style-type: none"> + Hot springs + caves + coast line (air / water) + not bound to seasons (climate) <i>Remark:</i> health effects from the resources above are not known yet! - very low health system - very low hygienically standard - no adequate infrastructure - only few attractions in the province - no cooperation between health and tourism sector - no adequate staff - nothing known about natural medicine
<p>Adventure & sport tourism</p>	<ul style="list-style-type: none"> + natural resources + especially sand dunes, NP etc. + land resources (space) - environmental impacts - disturbance of nature - impacts depend on activity and its management which is still low - fresh water overuse - water contamination by waste - no infrastructure - impacts on flora and fauna
<p>Home stay tourism</p>	<ul style="list-style-type: none"> + ethnic minority groups + maintained culture and traditions - conflicts between ethnics and tourists are predictable (socio-cultural) - minorities are not used to guests - loss of authenticity - inadequate supply - access - entry regulations to PNKB NP



<p>Luxury tourism</p>	<ul style="list-style-type: none"> + unique landscape (National Park) - adequate land is only in protected areas available and therefore not accessible - import of international goods will be necessary which aggrieved local people - socio-cultural impacts are indicated (difference between rich and poor) - rare tourist hot spots - necessary service is insufficient - access
<p>Cruise ship tourism</p>	<ul style="list-style-type: none"> + QB's location (close to Laos and Thailand) + good pre-condition for harbour construction + tourist expenditures + QB is suitable for short-term tourists (packages for one or two days) + international tourism market will arise + accommodation not necessary - low infrastructure - actual harbour not adequate - service / information - security - entry regulations - mass tourism - environmental impacts - social impacts
<p>Camping tourism</p>	<ul style="list-style-type: none"> + land resources (coast line) - no camping site available - no infrastructure - Vietnam is not the typical destination for camping tourism, neither for domestic tourists - economic growth is restricted, camping can be (maybe) developed in addition to other tourism forms



<p>Culture & historical tourism</p>	<ul style="list-style-type: none"> + cultural background + special educational programs (offered by Dep. of Science and Technology) + Quang Binh village + Word Heritage - cultural background not widely-used - rare monuments, relics etc. - low knowledge within population about own history etc. - no cultural programs available - low infrastructure (information, signs)
<p>Event tourism</p>	<ul style="list-style-type: none"> + Dong Hoi cultural centre - number of festivals and happenings is very low - low tourism standard in general - low infrastructure
<p>Active tourism</p>	<ul style="list-style-type: none"> + handy craft is widely known + existing traditions + skills (how to prepare...) + may be an integrated part of the general tourism development - local people are not used to tourists - low “teaching” knowledge - tourist’s behaviour - not suitable for high visitor numbers - social impacts
<p>City tourism</p>	<ul style="list-style-type: none"> - no adequate and attractive city for tourism - not suitable for sightseeing - no events - low cultural offerings - low infrastructure - inadequate service - land use rights

Fig. 62: Valuation of tourism forms



Considering these results and with the goals of economic growths and avoiding grave social and environmental impacts, six types (or “groups”) of tourism were pre-selected. They will be now analysed in depths (s. chapter 5.5) to shortlist relevant types for sustainable development in QB province.

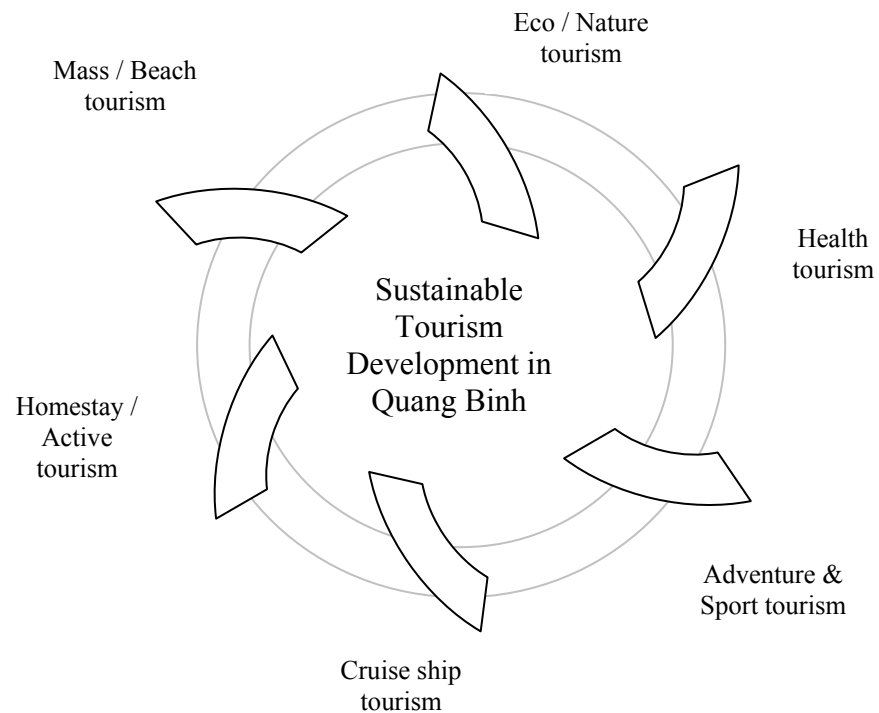


Fig. 63: Pre-selection of relevant tourism forms for QB province

5.5 Valuation / Analysis

The valuation involves, but does not repeat already done explanations (s. chapter 5.3). It rather focuses on relevant information for implementing each tourism form especially in Quang Binh. It is therefore related to the province’s present situation. The following questions shall be answered:

- Does “xxx tourism” already exist in Quang Binh? (divided in ‘not yet’, ‘in the beginning’, ‘established, but not completely expected’, ‘well-developed and economical’)
- Will “xxx tourism” be suitable and profitable for the province?
- Who will profit when developing “xxx tourism”?
- Are positive or negative socio-cultural impacts expected?
- Will the public be involved in the tourism development process?



- What is necessary to do and can the requirements be fulfilled? (such as infrastructure, land use, knowledge / education, service, etc.)
- Which environmental impacts will occur?
- Will the “xxx tourism” development be costly? (financial and effort)
- Which target groups will be addressed?

5.5.1 Eco / Nature tourism

The eco and nature tourism development process in QB province is already in the beginning but not at all implemented or successful. There is a big potential with PNKB NP and its surrounding areas and landscape but the present situation seems to be much uncoordinated. Several interest groups want to participate in the management process and want to be the decision makers. Blended from foreign investment plans possible negative environmental impacts will be ignored. But at least the Province’s Peoples Committee is now responsible for any decision and will hopefully act sustainable and in the province’s interest. Then the development of both eco and nature tourism in QB province is recommended, inherently because of scheduled international involvement and support in the planning process.

To make this tourism forms profitable a well structured management plan is undoubtedly the most important tool. This includes questions like how to decrease the poverty rate, how to integrate the public and how to avoid any negative impact.

Eco tourism in QB – and especially in PNKB NP – has to be restricted to the carrying capacity which reduces the number of tourists to a fixed size. Nevertheless several constructions such as information boards, signs, rest areas, tracks, visitor directing, shelter, rubbish bins etc. are necessary. A lot of work has to be done for relatively few tourists (compared with e.g. beach tourism) and environmental impacts are not completely avoidable. Further trustworthy rangers are important to protect flora and fauna. They already exist but their wages are very low. To feed their families they have to increase the income which is often done illegal (corruption).

It is the public who has to be integrated in the planning process and has to be therefore employed to profit from tourism. Presently the number of trained people for tourism in QB is very low. They do not have language skills, they are not used to be a tour guide, have no management skills etc. So, this has to be changed first, most effort in the beginning of the planning process has to be done in QB and its public. Also people not working but



living in or close to the National Park have to be integrated in the development process. It may seem simple but first of all they have to know about all plans, they have to be asked about what is indicated to do and they should get chance to agree or to decline. Since PNKB was established as National Park many indigenous people suffer from this (generally positive) development. Some of them were resettled, jobs in the tourism sector were mainly given to people from Hue, Danang etc., and it is now prohibited to use the land as they did before. To develop eco tourism sustainable requires the consideration of all relevant aspects to avoid both environmental and socio-cultural impacts.

Although some critical points were mentioned here, the development of eco tourism in QB province is recommended and may later on be profitable for the province. The target group for eco tourism cannot be restricted generally, especially because of often not clear differences between eco and nature tourism. Travel groups, backpackers and also some families are expected as (so called) eco tourists in QB – although a lot of them will probably be more nature tourists.

The development of nature tourism in QB is also recommended, but the area for those plans must be chosen carefully. The status of PNKB as NP hinders some activities automatically. But the province is big enough and has some potential outside the National Park to supply different activities in nature. But except the opportunities people have in PNKB NP (the development was started here already) further areas for activities in nature are not yet “opened” for tourism. Some historic sites, several rivers, some lakes and trails like Ho Chi Minh road are suitable for nature tourism and a step-wise (sustainable) development.

The positive and negative impacts, comments to profitability and public involvement, to necessary infrastructure, costs and target groups are similar and to be seen in almost the same manner to eco tourism development. Several planning steps can be therefore done parallel especially because a strict separation of eco and nature tourism is often difficult.

***Result of analysis:
The development of eco and nature tourism in QB is recommended.***



5.5.2 Health tourism

Equal the general low tourism situation in QB the development of this specific form does not exist so far but first considerations – from responsibilities site – are in progress. Restrictively should these “considerations” be seen as ideas or wishes and not as presently serious plans or actions. Most important (but inexistent in QB) for the health tourism development is a generally well and high standard health system. Therefore it does not seem useful and suitable for the province to establish health tourism before the medical care of the public is not guaranteed. Nevertheless QB fulfils some “natural” requirements such there are the hot springs or the caves in PNKB. But, the health effects from these resources (air, water etc.) are not known yet and must be analysed first. QB’s location (along the coast line) with its water and bracing climate may be healthy and hence suitable for therapeutically use.

Further, the potential of the local’s knowledge about traditional (natural) medicine must be determined as well in the planning process. This will enable the integration of local traditions and culture to strengthen the provinces individuality / uniqueness, and the increase of the employment rate.

To be seen positive is (unlike other tourism forms) the independence of climate and seasons. Health tourism occurs often in specifically constructed and prepared locations – in hotels / resorts often inside – and the above mentioned natural resources are year-round available. If this aspect will be borne in mind and health tourism will be developed and supplemented with artificial attractiveness, it may be one future profitable tourism form for Quang Binh province.

Nevertheless, also negative impacts as well as unpropitious prerequisites have to be considered. As mentioned before is the health system in the province very low. The hygienically standard is insufficient and well educated staff – for tourism generally and for specifications in particular – is rare. The number of attractions in the province is also low and can therefore not “complete” necessary supply. The existing infrastructure is also not adequate and sufficient to establish health tourism. Specific hotels with Spa, fitness areas, therapeutical devices etc. need to be constructed. The natural resources have to be “prepared” for its use, the nourishment must be chosen target-oriented etc. A lot more prerequisites are important for the health tourism development – the detailed listing will be passed on – which will need a lot financial and personal effort. Environmental impacts will occur



mainly from necessary constructions and maybe from overuse of natural resources.

Health tourism in QB will (probably) not mainly target the domestic market. Vietnamese people are probably not sensible for this specific type of tourism and not willed to pay for their own traditions etc. In case of any necessary health care they use traditional medicine etc. of their families. That health tourism – like relaxing etc. – is not known by the locals and their willingness to pay may be low. Therefore, this tourism form will target international tourists with financial background who want to relax, for their health promotion, to enjoy an upper class tourism form and to visit a foreign country.

***Result of analysis:
Development of health tourism in QB should be subordinated.***

5.5.3 Adventure & Sport tourism

In QB are presently no examples or evidences for adventure & sport tourism although the province has some potential for developing. Several rivers may be the basis for e.g. canoeing, mountains are appropriate for climbing, hiking or biking, sand dunes may invite for sand dune surfing or skiing, in forests survival trainings can be hold, other locations may enable Bungee jumping or paragliding, etc. The list could be extended widely with various examples. The activities may mostly target young people, sportive people, guests looking for surge of adrenalin and also some families. The addressed target group depends finally on the supply of activities. Therefore, the development plan, structure and management decide about people coming to QB. While the province is – from its natural resources – suitable for this tourism forms, the profitability depends on supply and demand, and the spending capacity of guests for specific activities (to undergo something “unique”). As for all tourism forms, a detailed market research has to be done to outline the trends and interests of future tourists, their willingness to pay, etc.

To avoid socio-cultural problems the public has to be integrated in the developing process. Local people – often not connected to fresh and waste water systems, and not experienced with nowadays techniques etc. – will otherwise not understand the life happening in their neighbourhood. They need to get the chance to participate in offered activities, although their



financial background is (very) low and normally not enough for those leisure activities.

Not avoidable, and therefore particularly restricting, are environmental impacts triggered from adventure & sport tourism. Being in the nature while doing some sport etc., as well as all necessary constructions will affect disturbances of nature. Fresh water will be overused, water contaminates by waste, and flora and fauna will be impacted inherently. Without consideration of the carrying capacity and the limits of acceptable change the province will lose its uniqueness very fast.

Also if well developed and established this tourism form has limited possibilities of economical growth. Also the number of jobs coming up is restricted and can be occupied by local people only with specific educational programs.

***Result of analysis:
Development of adventure & sport tourism in QB should be
subordinated.***

5.5.4 Beach (Mass) tourism

Beach tourism is – accordingly QB's location along the 116 km long coast line – the already most developed and common tourism form in the province. Predominantly domestic tourists spend here their holidays, live in one of several small hotels and enjoy their meals in various restaurants along the beach. The hotel standard is adequate for Vietnamese tourists, one four star hotel also suits international guests, and the quality of food in restaurants is excellent. Beach tourism call for different target groups (singles, families, young and older people) which enables the development of different complementary activities (culture, sport, animation etc.) and hence numerous job possibilities. Considering these points beach tourism in QB is already suitable and profitable which can be increased with further development activities. However, it should take note to some aspects – till now to be seen as constrictions and negative impacts – in future processes. QB's experiences and the management skills of all stakeholders are very low (in all types of tourism). Except the staff in the one four star hotel in Dong Hoi the employees have no professional skills and are not (yet) adequately qualified for the work in the tourism sector. The coast line itself is not very well developed, at some places waste influence the fine sandy



beach, neither sanitary arrangements are available nor sport or other bases and attractions (nets for volleyball, surfing, diving etc.). There is nothing done for the tourists safety (lifeguards etc.). Another point is the negative socio-cultural and environmental impact of beach (and especially mass) tourism: The banishment of local people for new infrastructure (hotels etc.), the conjunction of poor and rich people, high water consumption, damages on flora and negative influence on fauna.

Another very important but not influenceable fact is the climate in QB. The summer and beach season in the province is very short. Therefore some alternatives have to be found to guarantee a regular and year-round income for all people working in the tourism sector.

Nevertheless is QB suitable for beach tourism and further development is recommended.

***Result of analysis:
The (further) development of beach tourism in QB is recommended.***

5.5.5 Cruise ship tourism

The province's location along the coast line offer best opportunities to develop cruise ship tourism, provided that sufficient effort is available and will be implemented in appropriate manner. Cruise ship tourism is not yet developed but first ideas are under discussion. North of the province the circumstances are suitable to construct or to enhance the existing harbour for cruise ships. It is therefore not necessary to create a completely new infrastructure, the basis is at hand. Moreover the geographical position is excellent to "lure" tourists to QB. Special arrangements can offer guests the possibility to visit three countries in one day. Arriving in QB they can follow the routes to Laos and Thailand which are very close to the province. Back from the trip they are accommodated and provided at their "swimming hotel". But during day time tourists spend money on local tour operators, on souvenirs, on local meals, entrance fees etc. On this point QB has a very good potential to raise economic benefits, especially because of its suitability for short-term tourists. Another activity can be a visit of PNKB NP which would combine this tourism form with e.g. eco and nature tourism. Furthermore, cruise ship tourism can be a first step in direction of the international tourism market.



To be seen critically is the still low infrastructure. QB or the stakeholders are very active with ideas and discussions, but to reach the goal it is important to start implementing (at least) some plans. The existing harbour is (as said before) a good basis but need to be extended. Hence the whole tourism infrastructure need to be improved (service, information, signs etc.), staff has to be trained, and – again – local people has to be integrated (from socio-cultural view and also from labour market view).

Some governmental decisions should be discussed as well: To visit Vietnam international tourists need to apply for visa which will be arranged normally by the tour operators where people book the journey. But in case they want to participate on trips to Laos and Thailand, to PNKB NP, to villages of ethnic minority groups etc., they do need specific visa or permissions. To apply for those papers are time consuming and costly and will keep some tourists from the trips.

Once more the environmental impacts of cruise ship tourism have to be considered. The immense structural alterations will affect flora and fauna, also huge numbers of tourists coming to QB at same time (“selective mass tourism”). Tons of waste water – coming from cruise ships – will influence the environment as well.

Socio-cultural impacts are possible when rich tourists meet poor Vietnamese people in the province. Ill-prepared tourists (without knowledge about culture, traditions, and attitudes in Vietnam) on one site, and indigenous people not used to western life-style on the other site may cause conflicts between both groups.

The target group of this tourism form comprises (as mentioned before) tourists with good financial background and expectations to high level standard and services. Although cruise ship tourism presently address also young people (club cruise ships), the destination will probably predominantly “used” by “traditional cruise ship tourists”. Therefore the development must be arranged for a specific target group which facilitates and contains necessary activities.

***Result of analysis:
The development of cruise ship tourism in QB is recommended.***



5.5.6 Home stay / Active tourism

Home stay or active tourism is not yet developed in QB but first concepts from stakeholder's site are in progress. The idea is to "open" some ethnic minority villages in PNKB NP for tourists, where they can live together and in the traditional manner. Guests would live in traditional houses and not in high standard accommodations; they prepare meals by themselves and get inside the daily life of the ethnic minorities (active tourism). This would – well developed – enable the maintenance of culture and traditions and would increase the understanding of tourists about Vietnamese lifestyle. In addition ethnic minorities would "survive" with the chance not to change their circumstances; which is what they want: to preserve their traditional life.

Until now people can visit some handy craft villages to get an idea of the traditional work but they are not allowed to participate in any preparation. When tourists would get the chance to participate in different handy crafts, Vietnamese people could become the instructor / teacher (income / employment), and tourists would increase their knowledge while making their own souvenir.

Nevertheless several restrictions must be considered. The villages are not that big that many tourists could visit them this tourism form would always be limited to a low number of tourists. Although home stay tourism is suitable because of existing villages, it is not profitable. Only very few people would benefit from home stay tourists. Furthermore, socio-cultural conflicts between ethnic minority people and tourists are predictable and a loss of authenticity is possible. The indigenous people are not used to be hosts and to the tourists behaviour. They have no knowledge in "teaching" tourists and their houses etc. are not suitable for high visitor numbers. It may be difficult to find the right way between maintaining the traditions and offering adequate situations (provide sanitary arrangements, avoid health risks etc.) for the tourists.

Other limits are the access to the villages and the general entry regulations to PNKB NP.

Not so many tourists are probably willing to pass on habitual standard which restrict their stay in the villages to some hours. The addresses target group is therefore very specific.

***Result of analysis:
Development of home stay tourism in QB should be subordinated.***



5.5.7 Result of valuation

The analysis of six pre-selected tourism forms outlined the potential of each type to develop in Quang Binh province. It could be differentiated in those tourism forms recommended to develop prior and those with several limitations and therefore not suitable for prior development.

The results show that finally three tourism forms are suitable to develop prior to establish a basis for the sustainable tourism development in QB: Eco and nature tourism, beach tourism, and cruise ship tourism.

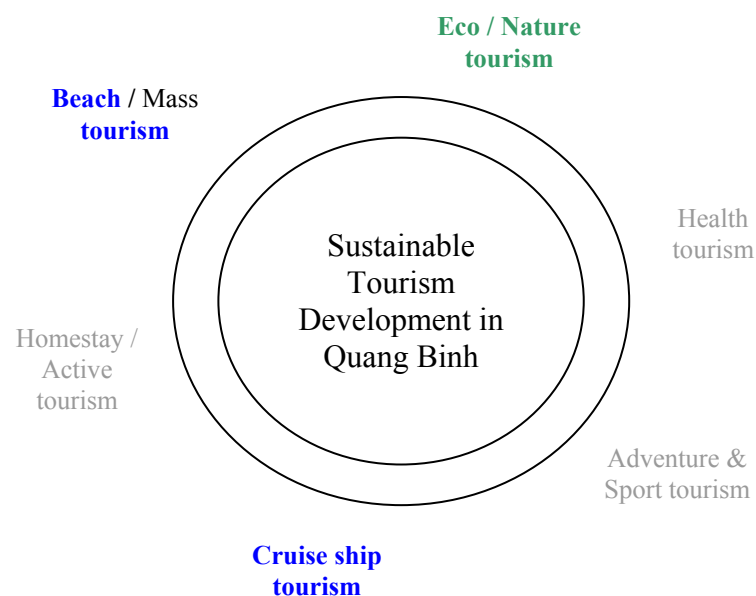


Fig. 64: Determination of relevant tourism forms for QB province

Beside this, the focus in the developing process should first be on the domestic tourism market before broadening to international market. This can also be supported by results of interviews with several tour operators (based in Hanoi). The main and consistent statement can be summarized as followed:

- Quang Binh province is presently one of the most frequented destinations for Vietnamese tourism. The infrastructure, service standard and nature resource – especially the 116 km long coast line with fine sandy beach – is adequate to Vietnamese people and their “insider tip” for relaxing holidays. International tourists would instead not find what they are normally looking for: luxury hotel resorts with international standard.

Further (summarized) results of the discussions will be outlined as well to “confirm” the general statements of this study.

- QB’s accessibility is presently deficient and time consuming.
Remark: Most of the interviewed tour operators did not know about the presently reconstruction of QB’s airport.
- The province has mist the connection to Vietnam’s tourism development.
- As one of the poorest provinces in Vietnam, QB has to focus on poverty reduction before or maybe under consideration of tourism development.
- QB will be an interesting tourist destination in future for both domestic and international tourist, but the way to go is hard and will need financial background and a lot manpower.
- The province has a few unique selling propositions like PNKB but they are actually not very successful with its active marketing measures.
- It is presently hard to convince international tourists of visiting the province; therefore it is not part of the standard programs. And as long as the province did not change the “tourism strategy” that will not change.
- It is too extensive to go to QB only to see the National Park or to relax along the beach. The province may combine some attractions in a (maybe) two-day program for tourists coming along Highway No1 (by going to Hanoi or Ho Chi Min).
- Compared to other destinations in Vietnam the province QB has nothing that special or unique that tourists are convinced to go there. There are several (sometimes better) alternatives: not that time consuming and less expensive.

5.6 Lay down relevant types of tourism

The detailed analyses in chapter 5.5 outlined the advantages, disadvantages, possibilities and potentials of different tourism forms – and therefore its suitability – for its implementation and sustainable development in Quang Binh province. The chosen tourism forms for the prior sustainable development in QB combine land and water based tourism and should be concentrated on the domestic before broaden to the international market.



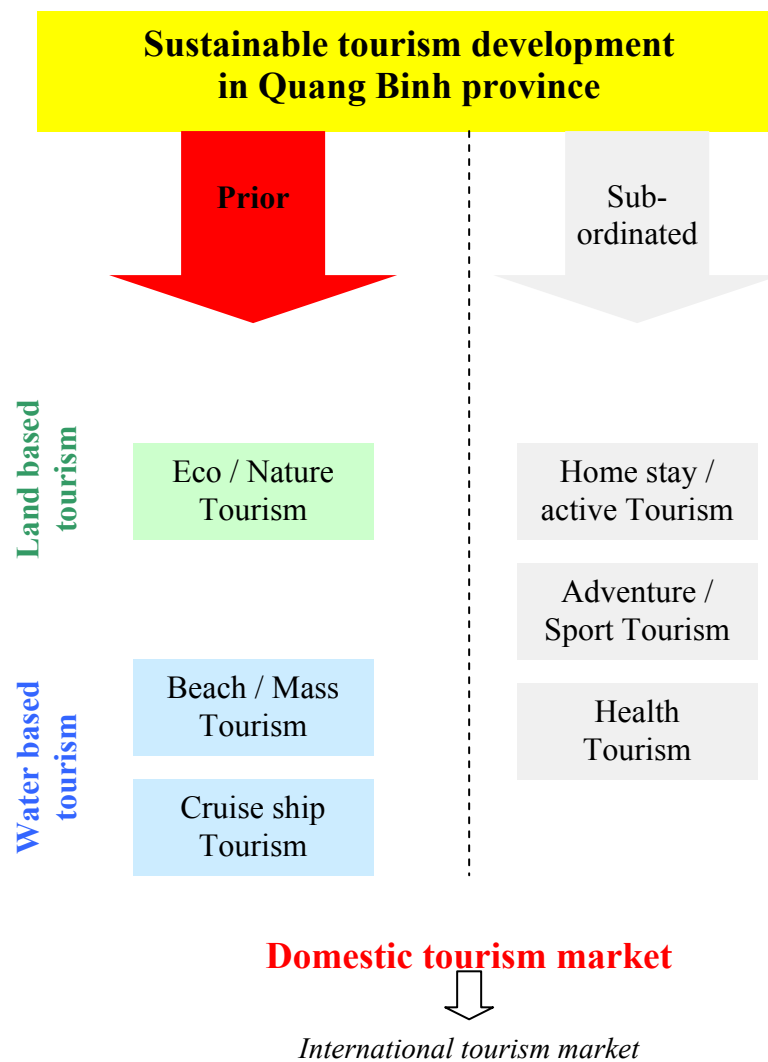


Fig. 65: Relevant tourism forms for the sustainable development in QB

This combination of tourism forms also enables growing visitor numbers of different target groups (families, singles, tourists with financial background, sportive people etc.). All tourism forms are also suitable for short term stays. Various employment sectors and therefore skills are necessary and (to be seen positive) possible which appeal to many local people. A well structured management plan enables a “step-by-step” development, not everything has to be done at once.

6 Recommended actions

The following points outline some recommended actions for sustainable tourism development in QB province. It is NOT a complete structure or management concept; it only gives direction to possible changes and ideas. The order has been chosen without relevance.

Pull together

A successful tourism development process calls for the willingness of all participants and stakeholders to collaborate. The individual work of several interest groups will be contra productive and has to be avoided.

Change data and information

All information useful and necessary for the process should be handed out to all stakeholders to reach best results and to avoid double work. A clear structure prepared in advance should define responsibilities of each participant.

Start action at once

Sustainable tourism development is not restricted on planning and discussion. At any time the steps to do need to be implemented. The nation wide development process is running fast. Not in time, QB province will miss the connection to other regions.

Cooperate with international organisation

Several international organisations have long-year experiences in sustainable tourism development – also in less developed countries. It is recommended to fall back on the expert's knowledge within the scope of cooperations to get and transfer professional instructions.



Market research

First and most important step in the development process should be a comprehensive market research to outline useful future activities and to implement a development strategy.

Marketing plan

The province's marketing activities are presently very low. Although QB has some tourism potential it is not market sufficiently on the national level neither international. Integrated part of the tourism development is the establishment of an extensive marketing plan.

Involve public

The integration of the public to take their interests in consideration and to give them information regularly will avoid misunderstandings and conflicts. The public's involvement is integrated part of an efficient bottom-up approach.

Public awareness

Indigenous people have to be integrated in the tourism development process. To avoid socio-cultural conflicts local people (= future hosts) should be "prepared" for growing visitor numbers and whose behaviour.

Education (tourism staff)

At the same time as the development process is running, strong effort should lay on educational programs to "prepare" local people for tourism and growing visitor numbers. Good service quality, language skills, guiding knowledge and plenty more "sectors" have o be covered by locals.



Maintain QB's uniqueness

QB is not Hanoi, Hue, Ho Chi Minh, Quang Ninh (Halong Bay) or any other already developed destination. The province is to be seen individually and their uniqueness and their strengths have to be maintained. QB has not enough potential to “be like others cities / provinces” but to be a province with own character.

Be sustainable

The focus on sustainability should be seen prior which automatically excludes some already existing (investment) plans from the development process. Ecological, economical and socio-cultural action is necessary to develop tourism profitable for present and future generations.

Concentrate to some selected tourism forms

QB is a small province with limited potential. While implementing tourism in the province only a few tourism forms should be selected and developed; mainly regarded to a) the 116 km long sandy beach, and to b) the National Park with UNESCO World Heritage site.

Tourism as tool for poverty reduction

QB's poverty rate is one of the highest in Vietnam. Main objective in future years should be the clear poverty reduction. Among others tourism can be one tool to reach this goal. Nevertheless, tourism is NOT the prior and “one and only” activity to be successful in this regard.

Concentrate on domestic tourism

Concerning this study – and the outlined results – the prior focus on developing domestic tourism is recommended. Regarding the outlined relevant tourism forms for QB the international tourism market will then arise automatically.



7 Conclusion

Quang Binh – located in north-central Vietnam – is one of the countries poorest provinces with a high unemployment rate and a low educational background. The living standard is – compared to other regions – low and especially in rural areas degrading: The monthly average income is far inferior to the country-wide average, huts and houses are mostly not connected to fresh and waste water systems and almost everything is influenced by corruption. The present tourism standard is clearly below the nation-wide development. Nevertheless, everything in QB seem to be “original” and therefore interesting and attractive, people are friendly and (apparently) satisfied, and with its natural resources and willingness of several stakeholders to increase the present situation the province is probably on the right – even though longsome – way.

Main interest of the stakeholders – represented by the Provincial Public Committee (PPC) – is the sustainable tourism development. Supported by several domestic and international organisations tourism should increase to one of the most important economical sectors in the province. To assist this plans in appropriate manner this study on hand was done with the main goal to analyse the present situation and to give some recommendations for future developments. It is not a detailed tourism management plan at all, but rather a support to find the best directions – in form of selected types of tourism – of future development steps. Tourism is and should be seen as one possibility for QB’s development, but it is not the “one and only” project they have to do.

Prior and most important is the intention of poverty reduction – to reach this goal, sustainable tourism is only one possibility among others!

On that condition the province should think about an adequate and wise order to develop tourism. As result of this study it is recommended to start the development process with increasing the domestic tourism market first before working international. Regarding QB’s location, resources and possibilities the development of eco & nature tourism, beach tourism, and cruise ship tourism is suitable and – if later on well developed – profitable. As it is said by the word “sustainable” it is essential to maintain the rights of all indigenous people, to enhance their rights (land use right, employment,



education, health care etc.) prior the tourists interests, and to include the public in all processes. Furthermore a good communication and cooperation between the PPC, all districts, and committees etc. is necessary and recommended. From ecological site the natural resources have to be protected. All resources QB has – for instance if National Park or fine sandy beach – are the “capital” for future generations.



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8.3 Interview partner

DAI (Director) (10.04.06): Institute of Meteorology

DE (Director) (13.04.06): Department of Ethnology

HA, N.V. (Vice Director) (10.04.06): Department of Planning and Investment (DPI)

HIEP, N.T. (Director) (12.03.06): Phong Nha – Ke Bank National Park

HOAN, N.T. (Lecturer Quang Binh Teacher's Trainings College) (14.04.06):
Quang Binh Teacher's Trainings College

KHAI, T.T. (Vice Director) (21.04.06): Phong Nha – Ke Bang National Park
Science Research and Rescue Center

NAM, H.H. (Director) (05.04.06): Department of Trade and Tourism (DoTT)

NGUYEN (Manager of Tourism Department in PNKB NP) (21.04.06):
Tourism Department Phong Nha – Ke Bang National Park

NINH, T.A. (Head of Foreign Economics Relations Division) (04/06):
Department of Planning and Investment

THAI, N.K. (Director) (19.04.06a): Department of Science and Technology.
Centre for Informatics and Scientific Technological Information

THAI, N.K. (Director) (19.04.06b): Department of Science and Technology.
Centre for Informatics and Scientific Technological Information



TU, D.N. (Director) (11.04.06): Department of Statistics

TUYEN, N.X. (Director) (07.04.06): Department of Natural Resources and
Environment

