

Attachment-2

The Proposal of the Coastal Environment Protection Corridor (CEPC)

**The Proposal of the Coastal Environment Protection Corridor
for Halong Bay (CEPC)**

**Action Plan for Proposed Measures
in Coastal Environment Protection Corridor
for Halong Bay**

(Draft)

February 2013

**Working Group-2 (Land Use Management)
Under the Project for Environmental Protection in Halong Bay**

**Action Plan for Proposed Measures
in Coastal Environment Protection Corridor
for Halong Bay**

(Draft)

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- Attachment-2: Report on Social Experiment for Improvement of Traffic Safety and Landscape in Bai Chay Road on 1 Dec. 2012
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List of Abbreviations

CEPC	Coastal Environment Protection Corridor for Halong Bay
DARD	Department of Agriculture and Rural Development
DCST	Department of Culture, Sport, and Tourism
DOC	Department of Construction
DONRE	Department of Natural Resources and Environment
DOT	Department of Transportation
DPI	Department of Planning and Investment
EIA	Environmental Impact Assessment
EPC	Environmental Protection Commitment
JICA	Japan International Cooperation Agency
PC	People's Committee
PMB	Project Management Board (for the Project for Environmental Protection in Halong Bay)
SEA	Strategic Environment Assessment
UNESCO	United Nations Educational, Scientific and Cultural Organization
URENCO	Urban Environment Company
VINACOMIN	Vietnam National Coal and Mineral Industries Group

CHAPTER 1 INTRODUCTION

1.1 Innovative Points of the Action Plan

Innovative points of the Action Plan for Proposed Measures in Coastal Environment Protection Corridor for Halong Bay are summarized below.

(1) Introduction of the CEPC Concept

Coastal land use management from viewpoints of environmental protection and sustainable tourism in Halong Bay was focused on, which has not clearly been managed so far, but important from both economic development and environmental protection.

(2) Enhancement of linkage between land use management and environmental considerations for Halong Bay

Legal measures on support of Strategic Environmental Assessment (SEA) and Environmental Impact Assessment (EIA), in line with land use plan preparation and impact assessment related to the Halong Bay which have not been well implemented so far, were proposed.

(3) Proposal of mangrove protection areas

CEPC focuses on not only minimization of pollution from the land, but also conservation of biodiversity and eco-system from viewpoint of land use management for environmental protection in Halong Bay.

(4) Measures for sustainable tourism in Bai Chay

Some measures were proposed considering that maintenance of land use and landscape at certain high level in the Bai Chay coastal area is an critical factor as international tourism area with UNESCO natural heritage site.

(5) Support of potential measures by making a comprehensive measure

Intensions and demands in the localities were reflected and integrated into the proposed measures at larger-scale and comprehensive manner such as proposed mangrove protected areas.

(6) Some trials on the proposed measures

Before actual full-scale implementation of the proposed measures, trial activities even with partial implementation are sometimes required and useful to examine implementing issues and effects of the proposed measure in addition to the preparation of detailed plan. During the Project, the following two trial activities have been conducted as shown in the following photos.



Figure 1-1 Trial Eco-tour in the Proposed Mangrove Protected Area in Quang Yen Town on 13rd Oct. 2012

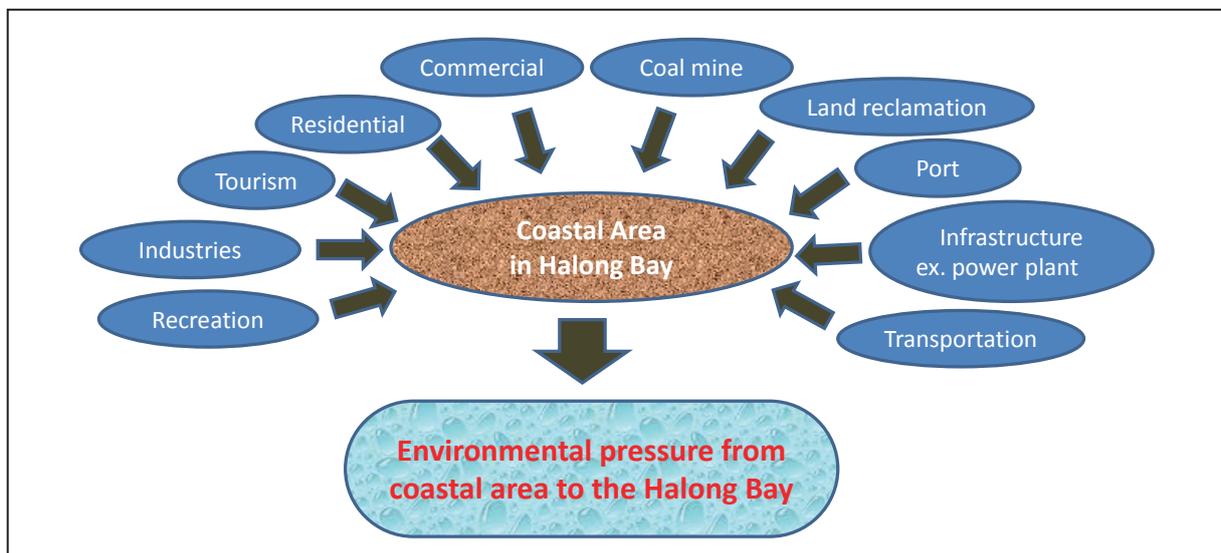


Figure 1-2 Social Experiment for Improvement of Traffic Safety and Landscape in Bai Chay Road on 1st Dec. 2012

CHAPTER 2 CURRENT AND POTENTIAL ISSUES IN LAND USE OF THE COASTAL AREA IN HALONG BAY

As shown in the following figure, various land uses in the coastal area of Halong Bay, where the area is limited and important for the economic activity and residence, have brought about environmental pressure to the Halong Bay, mainly by wastewater discharge and sediment/silt runoff.

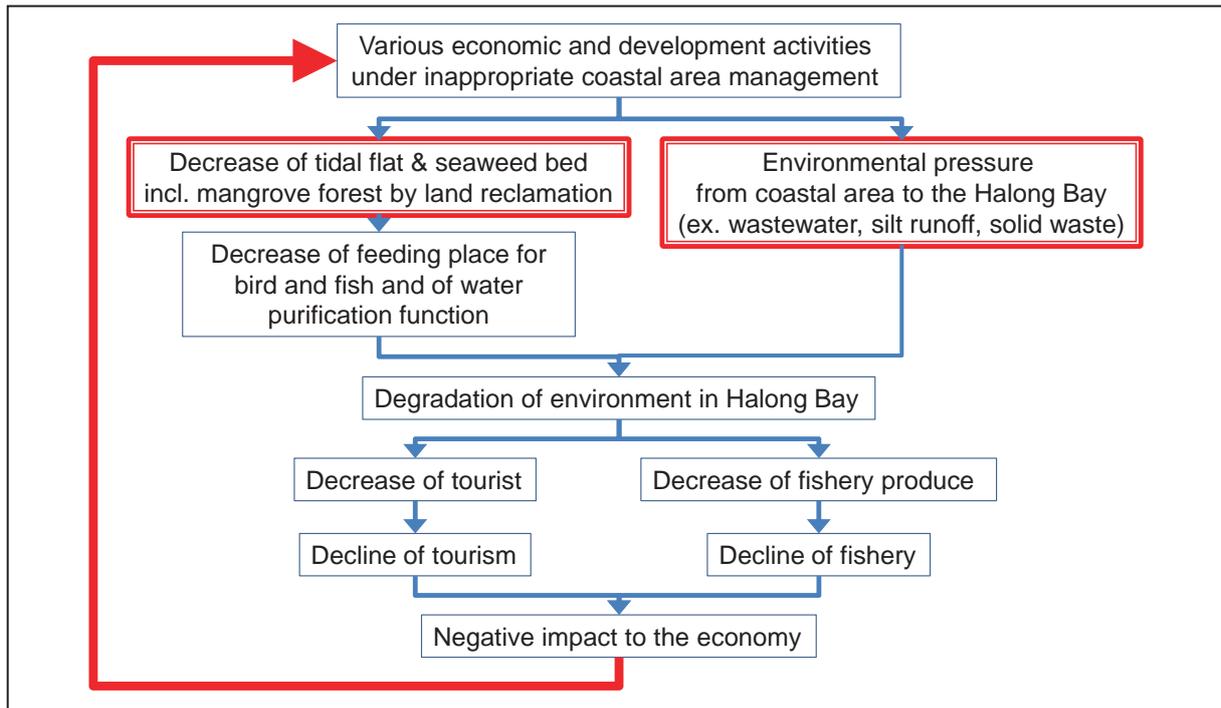
In the coastal area, there was no clear responsibility to manage the coastal area from the point of view of environmental protection for Halong Bay so far. As result, the various economic and development activities under inappropriate coastal area management have caused vicious spiral in two factors; 1) decrease of tidal flat and seaweed bed including mangrove forest due to land reclamation, and 2) environmental pressure from coastal area to the Halong Bay such as wastewater, silt runoff, and solid waste discharge. The proposed measures to be implemented in the CEPC will prevent such factors of the vicious spiral and even improve the environment.



Source: WG-2

Figure 2-1 Various Land Use and Environmental Pressure from Coastal Area to the Halong Bay

It is considered that minimization of environmental pressure from coastal area to the Halong Bay with economic development in the coastal area contribute to realize sustainable tourism development in Halong area as well as conservation of the Halong Bay from the land use management as shown in the following figure. From the viewpoint, land use management in “Coastal Environmental Protection Corridor for Halong Bay (CEPC)” was examined as environmental buffer.

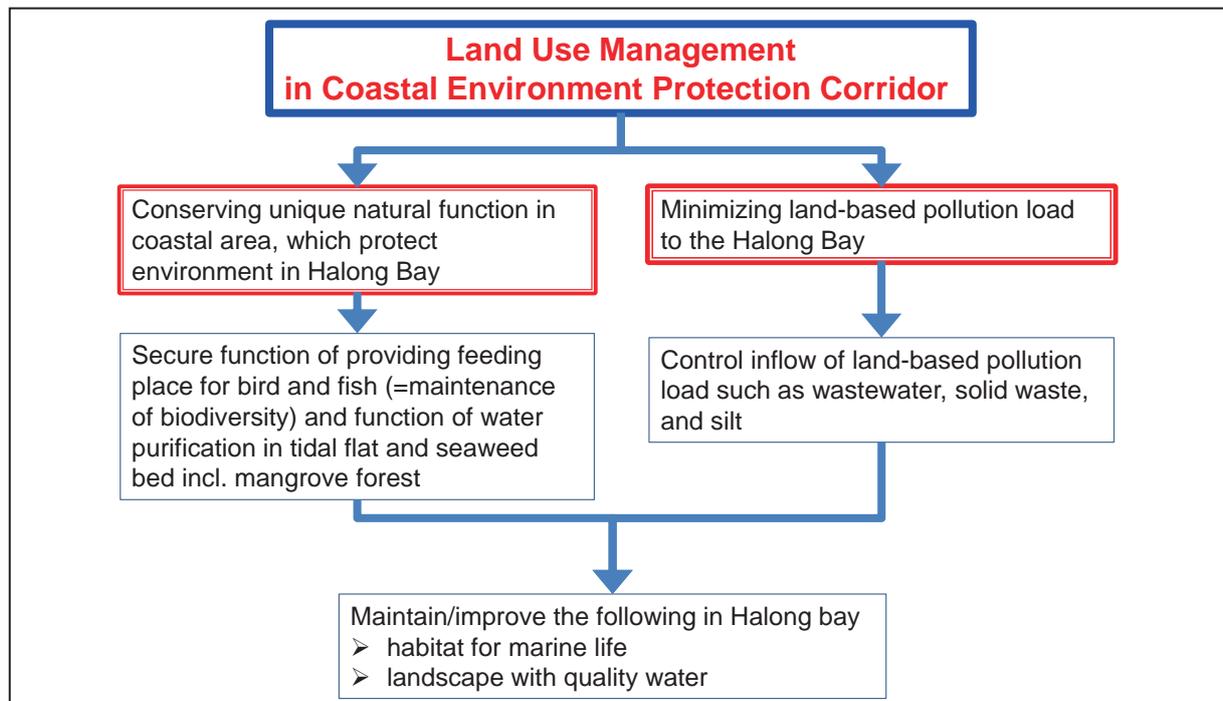


Source: WG-2

Figure 2-2 Vicious Spiral under Inappropriate Coastal Area Management in Halong Bay

CHAPTER 3 FRAMEWORK OF THE CEPC

Concept of the “Coastal Environment Protection Corridor for Halong Bay” would tentatively be defined as “Spatial corridor along the coastal inland area of the Halong Bay subject to active management of land use and development for environmental protection for Halong Bay, functioning as environmental buffer between terrestrial development area and the Halong Bay, as conservation of biodiversity and eco-system, and as securement of sustainable tourism”.



Source: WG-2

Figure 3-1 Functions of CEPC

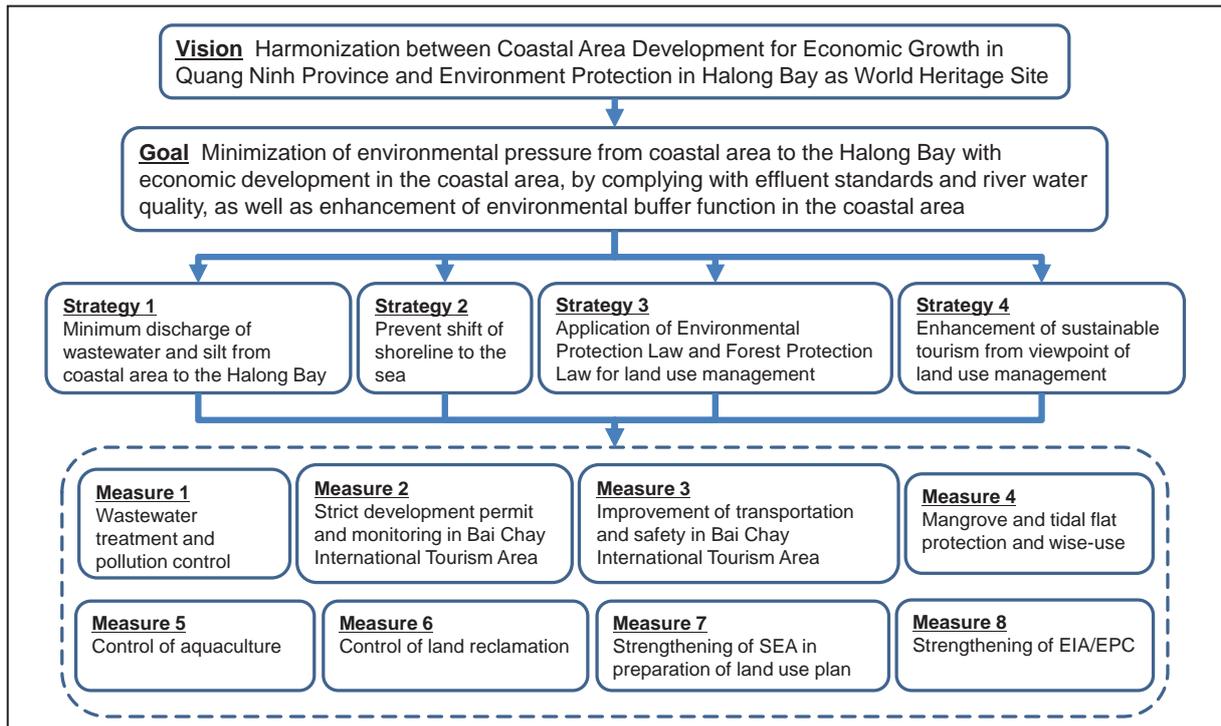
In order to clarify concrete measures/activities to be conducted in CEPC, vision, goal, strategies and measures are examined from viewpoint of the land use management for conservation of the Halong Bay as shown in the following figure. Clarification of functions of CEPC was required to determine its boundary and necessary measures to be implemented. The following major two functions of CEPC were clarified from both positive and negative factors of the coastal inland area to the Halong Bay.

1) Minimizing land-based pollution load to the Halong Bay

The CEPC controls inflow of land-based pollution load such as wastewater, solid waste, and silt into the Halong Bay.

2) Conserving unique natural function in coastal area, which protect environment in Halong Bay

The CEPC conserves tidal flat including mangrove forest and seaweed bed along the coastal area to secure feeding place and habitat for bird and fish, where contribute to maintain biodiversity in Halong Bay and its surrounding area, and also to secure function of water purification.



Source: WG-2

Figure 3-2 Framework of CEPC

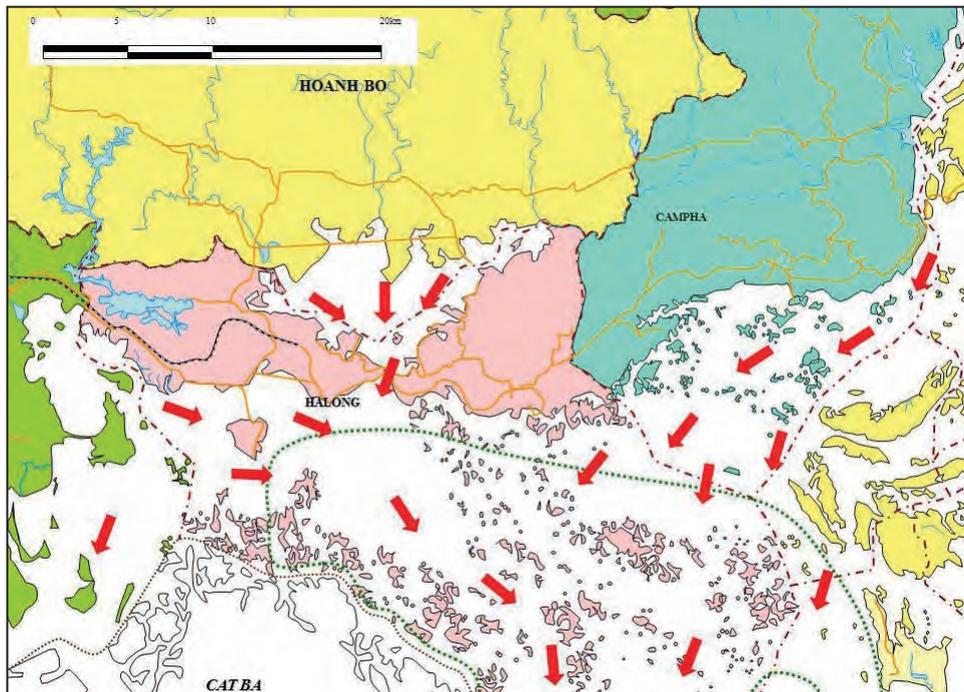
Based on the proposed measures, roles of the CEPC were examined by setting numerical targets under the goal as follows. Under the targets, detailed activities should be examined further based on the proposed measures.

- a) 100% of domestic wastewater is treated to comply with effluent standard.
- b) 100% of industrial wastewater is treated to comply with effluent standard.
- c) Silt runoff and sedimentation are prevented directly from the coastal area due to coastal development, especially land reclamation site.
- d) The following major rivers of the corridor comply with river water quality standard such as Troi River and Lo Phong Stream.
- e) Remaining mangrove and tidal flat areas are protected and reforested in Binh Huong Estuary and Cua Luc Estuary, with legal background.

In order to examine the boundary of the CEPC, there are some factors to be examined such as administrative boundary, existing and planned roads, rivers, elevation and water depth, shoreline, existing land use zoning boundary, current land use / development plan such as sewerage, area to be environmentally protected such as mangrove, and tidal current. Considering those factors, the boundary of the CEPC was discussed among the relevant organizations in the various meetings such as workshop during the Project. As results, the following direction for determination of CEPC Area was determined and applied to finalize the CEPC boundary.

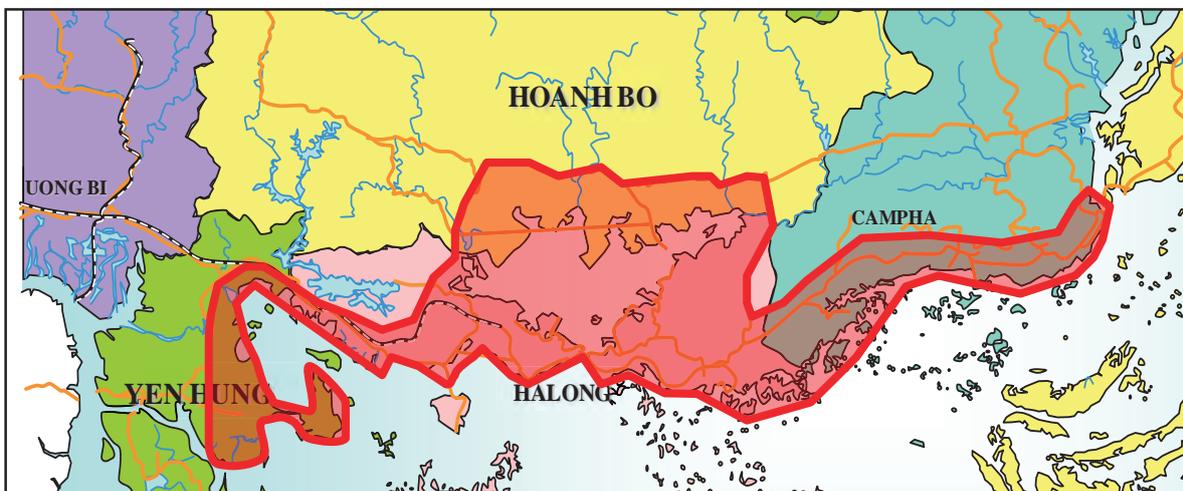
- 1) Easier understanding for the general public and easier management for responsible organizations such as road and shoreline with legal basis
- 2) More focusing on coastal area with narrowing down corridor width
- 3) Include only area where CEPC have effect and meaningful from the viewpoint of its concept
- 4) Exclusion of less potential area for development

Based on the above directions, the CEPC area were determined as shown in the following figure.



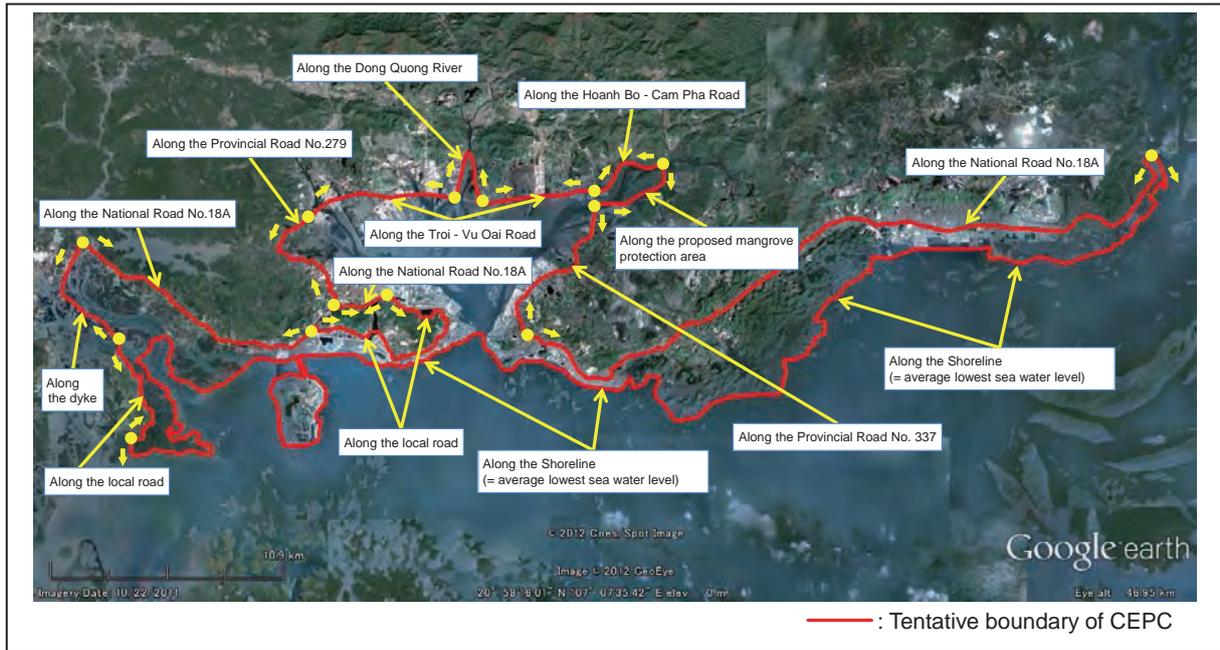
Source: The Study on Environmental Management for Ha Long Bay, JICA, 1999

Figure 3-3 Current Direction to the Heritage Area (Simulated Ebb Tide of the Upper Layer)



Source: WG-2

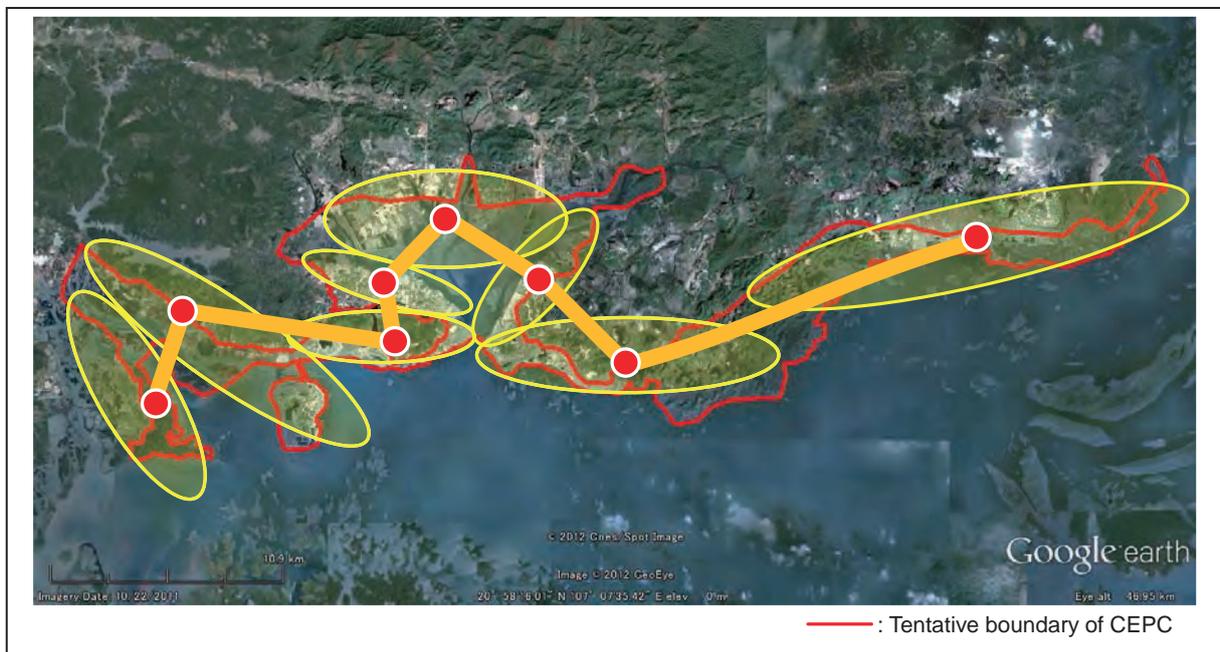
Figure 3-4 Initial Conceptual Image of CEPC



Source: WG-2

Figure 3-5 Boundary of the CEPC

The above CEPC area was divided into 8 active management zones, considering topographic and socio-economic conditions, as shown in the following figure. By connecting the active management zones, it makes an image of the corridor. Proposed measures in CEPC were examined for each active management zone.



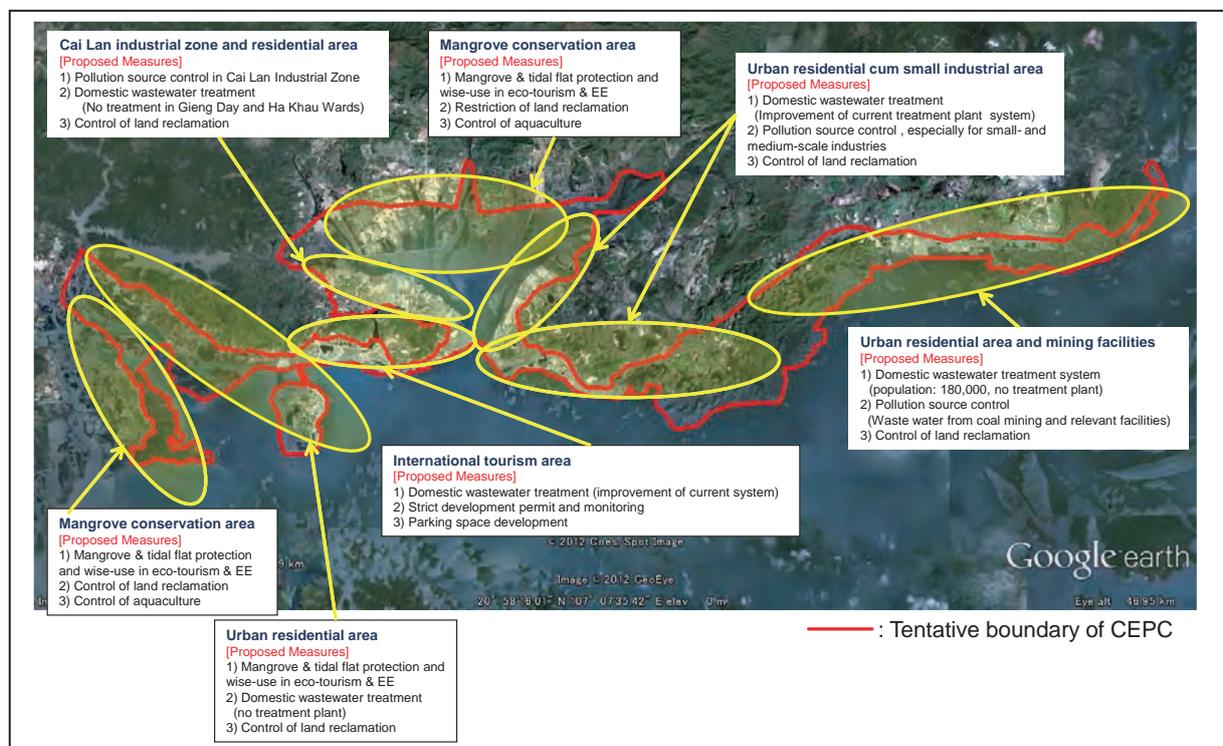
Source: WG-2

Figure 3-6 Image of the CEPC by Connecting Active Management Zones

CHAPTER 4 PROPOSED MEASURES IN THE CEPC

The following eight measures were selected as proposed measures to be implemented in CEPC.

- (1) Wastewater treatment and pollution control
- (2) Strict development permit and monitoring in Bai Chay International Tourism Area
- (3) Parking space development in Bai Chay International Tourism Area
- (4) Mangrove and tidal flat protection and wise-use
- (5) Control of aquaculture
- (6) Control of land reclamation
- (7) Strengthening of SEA in preparation of land use plan
- (8) Strengthening of EIA/EPC



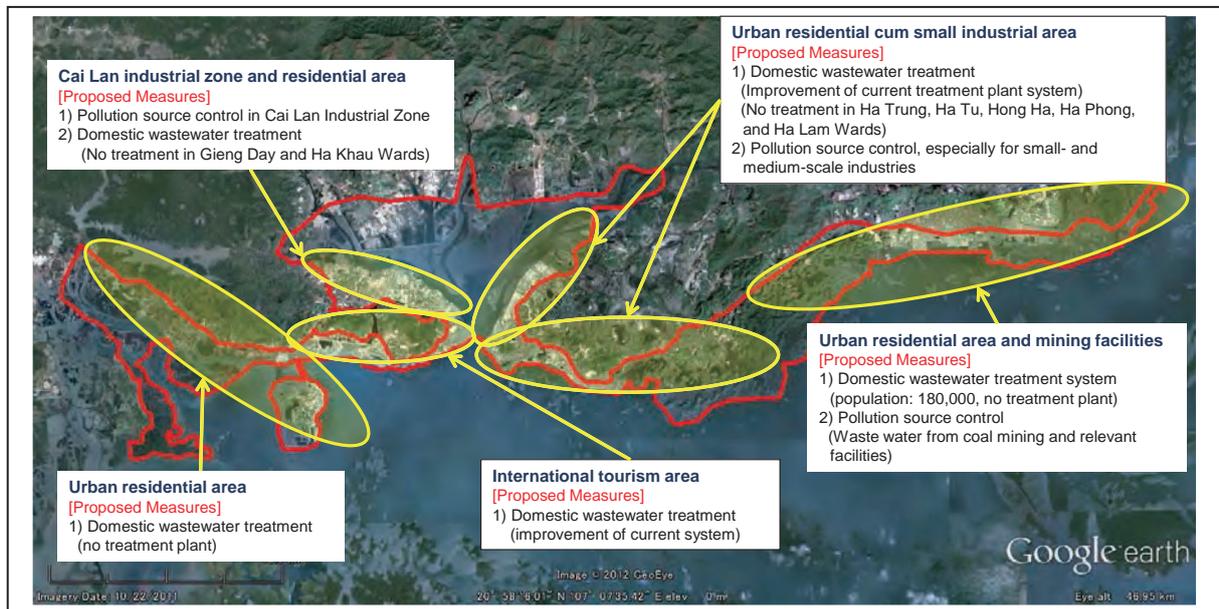
Source: WG-2

Figure 4-1 Proposed Measures in each Active Management Zone

4.1 Wastewater Treatment and Pollution Control

Measures in urban residential area and mining facilities of Cam Pha City were proposed as shown in the following figure; a) Installation of domestic wastewater treatment system, b) Pollution source control, especially wastewater from coal mining and relevant facilities, and c) Control of land reclamation. Regarding the measure on pollution source control, especially wastewater from coal mining and relevant facilities, VINACOMIN should continue to implement the measures as planned by them. Regarding the proposed measure in Halong City, this measure support the proposed Halong City Environmental Protection Project, which has a component of installation of the wastewater treatment system in uncovered area, where

contains 5 wards: Ha Trung, Ha Tu, Hong Ha, Ha Phong, and Ha Lam in eastern Halong City, together with proposed measure in western Halong City, which covers Gieng Day and Ha Khau Wards where there is no wastewater treatment system at present.



Source: WG-2

Figure 4-2 Location of Measures on Wastewater Treatment and Pollution Control

4.2 Strict Development Permit and Monitoring in Bai Chay International Tourism Area

Regarding the proposed measures “Strict land use control as international tourism area such as strict development permit and monitoring”, this was proposed because abandoned/unfinished buildings and unutilized vacant land are widely seen in the Bai Chay international tourism area, however, this causes unfavourable landscape from viewpoint of the international tourism area with UNESCO natural heritage site as well as effective land use from economic viewpoint, and in the long term, reputation and dignity of the area will be damaged and sustainability of the tourism in the area would not be secured.



Source: WG-2

Figure 4-3 Proposed Measures in Bai Chay International Tourism Area



Source: WG-2

**Figure 4-4 Issues on Tourism Development Activity
(abandoned/unfinished buildings and unutilized vacant land)**

Unlikely other area, it is considered that strict development permit and monitoring should be enforced in different periods of the development as follows;

- a) In development permit process

Strict examination such as duty of submission of document, which prove financial reliability to guarantee completion of the construction

- b) During construction

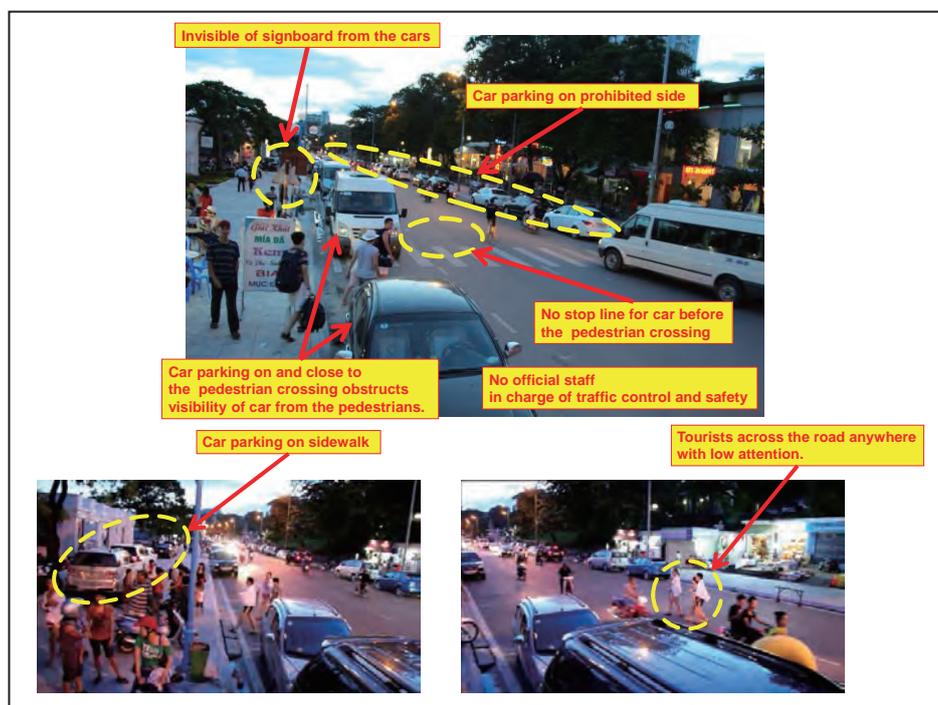
Duty of report in case of delay and its examination

c) In operation

Duty of report in case of stop operation/closure, duty of restoration of the land in such case by terminating the land lease

4.3 Parking Space Development in Bai Chay International Tourism Area

As shown in the following figures, some traffic safety issues are seen in the Bai Chay Road, especially in the weekend and during the tourism peak period, due to lack of the parking space and rapid increase of the number of vehicles and tourists. With the rapid increase of the vehicle number, the situation will become worse in the near future. Considering that to secure the traffic safety is a significant factor of the sustainable tourism, parking space development in the Bai Chay International Tourism Area was proposed as a measure for the traffic safety from viewpoint of the land use management.



Source: WG-2

Figure 4-5 Current Issues on Transportation and Traffic Safety in Bai Chay International Tourism Area

In parallel with the parking space development, the following actions should be conducted;

- 1) Removal of roadside parking space along the Bai Chay Road, especially in the weekend and tourist peak period,
- 2) Strict control of roadside parking in main road, especially in Bai Chay Road,
- 3) Development of parking space in strategic location and utilization of the parking space such as road station development as shown in the following figure,
- 4) Guiding vehicles to the parking space with parking guidance and information system such as strategic installation of signboard for parking spaces and provision of information on real time condition of the parking space (as optional),
- 5) Introducing environmentally-friendly free public transportation along the Bai Chay Road with park-and-ride system, and

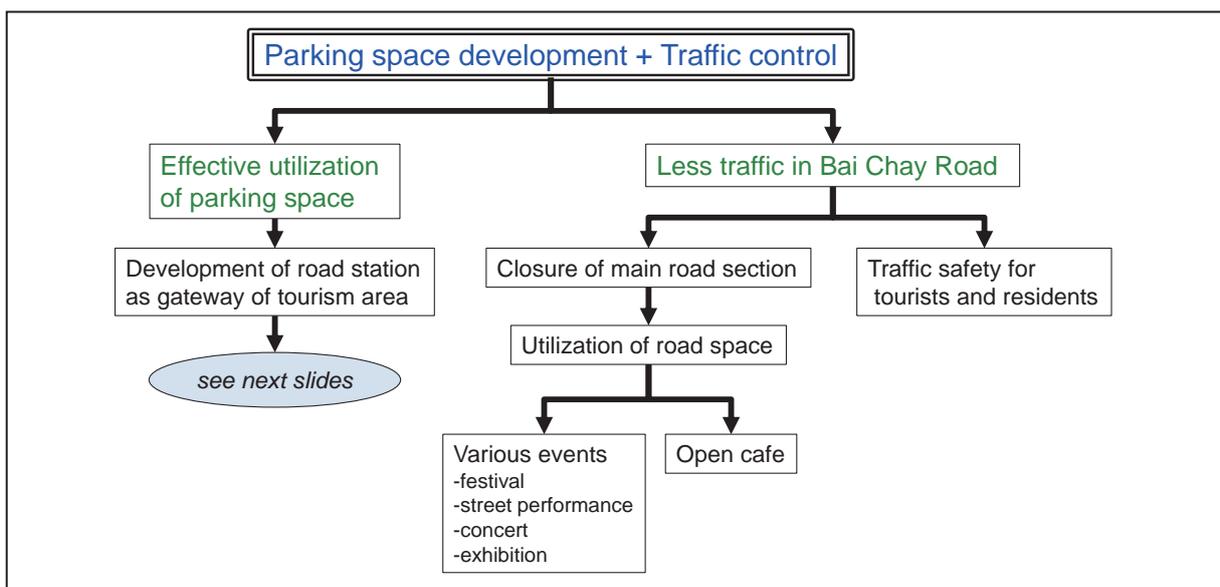
6) Application of the barrier free design for the above

Tentative proposal of traffic control measure along the Bai Chay Road is shown in the following figure. After development of the parking sites close to the main section of the Bai Chay Road, strict limited access of the main section of the Bai Chay Road by vehicles and motorbikes would be legally designated, especially in the weekend and tourist peak period. Since length the traffic control section with strict limited access is long for walking with approx. 1.7 km under the tentative proposed in the figure, public transportation system has to be provided in the section to minimize inconvenience for the public such as tourists and local residents. From viewpoint of financial sustainability of the public transportation system, though cost recovery and business plan should be considered such as fee system, it is proposed that free-ride pass or fee discount should be provided to users of the parking sites to encourage to use the parking sites with “park-and-ride”.



Source: WG-2

Figure 4-6 Traffic Control Measure along the Bai Chay Road (tentative proposal)

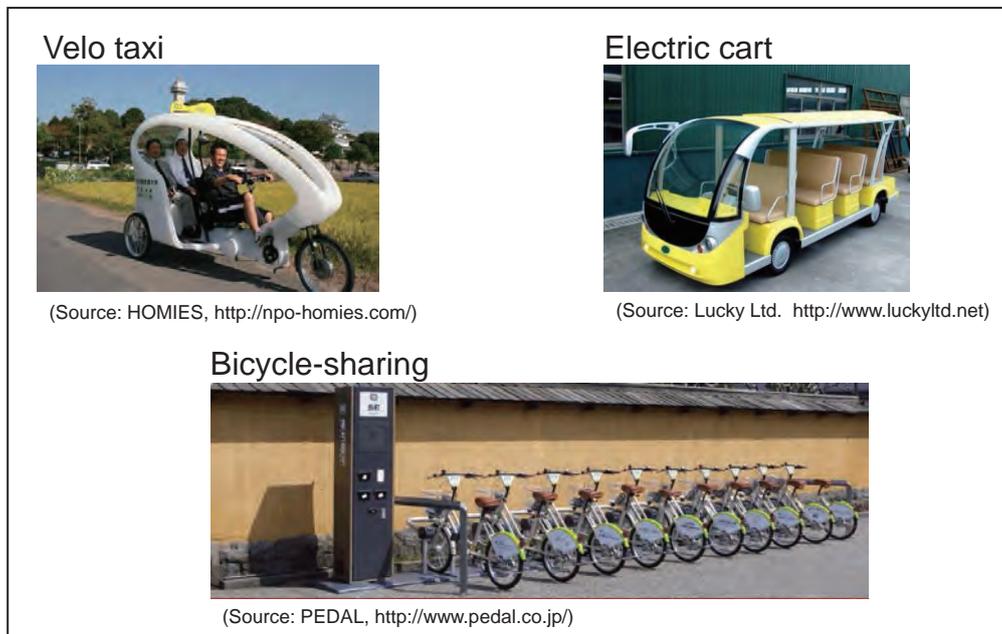


Source: WG-2

Figure 4-7 Expected Benefits by Developing Parking Space + Traffic Control in Bai Chay Road

4.3.1 Introduction of Environmental-friendly Public Transportation in the Traffic Control Section

Though there are various means of the public transportation system, environmental-friendly conscious means should be introduced to make image of the tourist site better such as “clean, green, and smart!”. Examples of environmental-friendly public transportation in the traffic control section are shown in the following figure.



Source: WG-2

Figure 4-8 Examples of Environmental-friendly Public Transportation in the Traffic Control Section

4.3.2 Effective Utilization of the Parking Space

(1) Development of the Road Station in the Parking Site

In addition to propose the parking site development for making traffic safety by reducing the traffic into the Bai Chay Road and for the place of the “park-and -ride”, it is proposed that further utilization of the parking space by developing the Road Station. The Road Station is from a concept made in Japan that a facility located along the road with 3 main functions which are 1) rest function, 2) information provision function, and 3) regional development function. Based on the concept, the road station can have various functions as shown in the following figure such as shops selling authorized local product, restaurant and cafe, Information desk, multi-media information corner, art gallery space, multipurpose event hall, rest room and observatory.

In the case of the Bai Chay tourism area, it is supposed that, by locating the road station in the parking site along the Bai Chay Road, firstly when the tourists come to the parking site, tourists can obtain detailed information on sightseeing such as event information and location of the restaurant before entering the tourism area at the entrance of tourism area. On the other, when the tourists come back to their home or move to other destination, tourists can buy local souvenir on the way back without carrying the souvenir during sightseeing and can put the car in the parking.

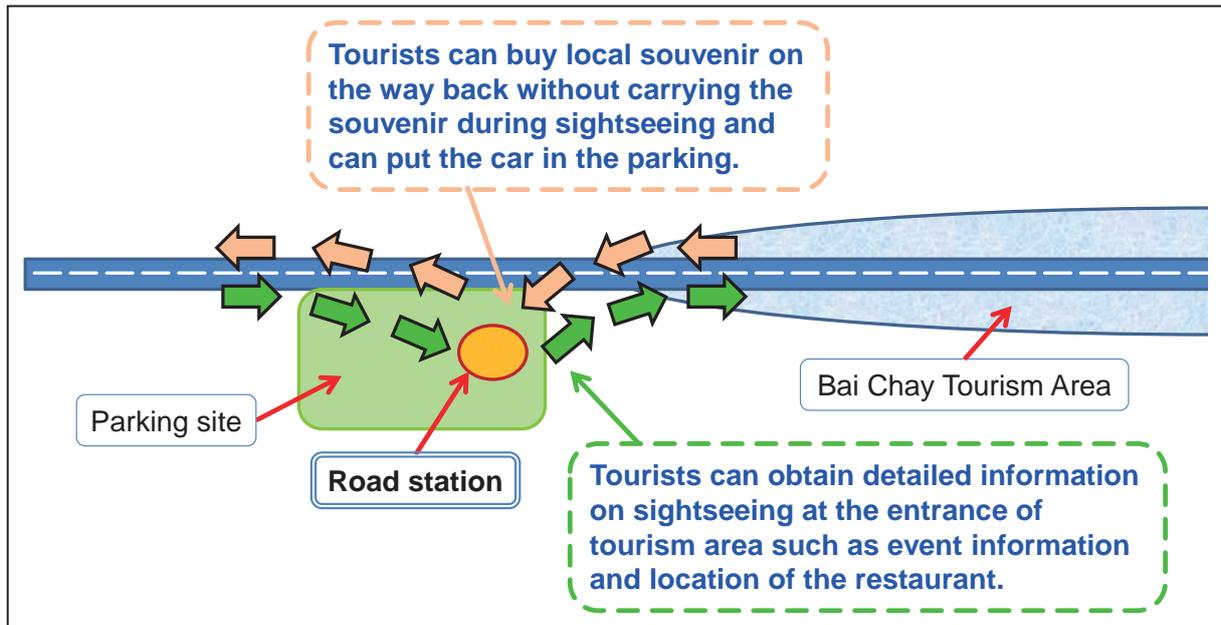
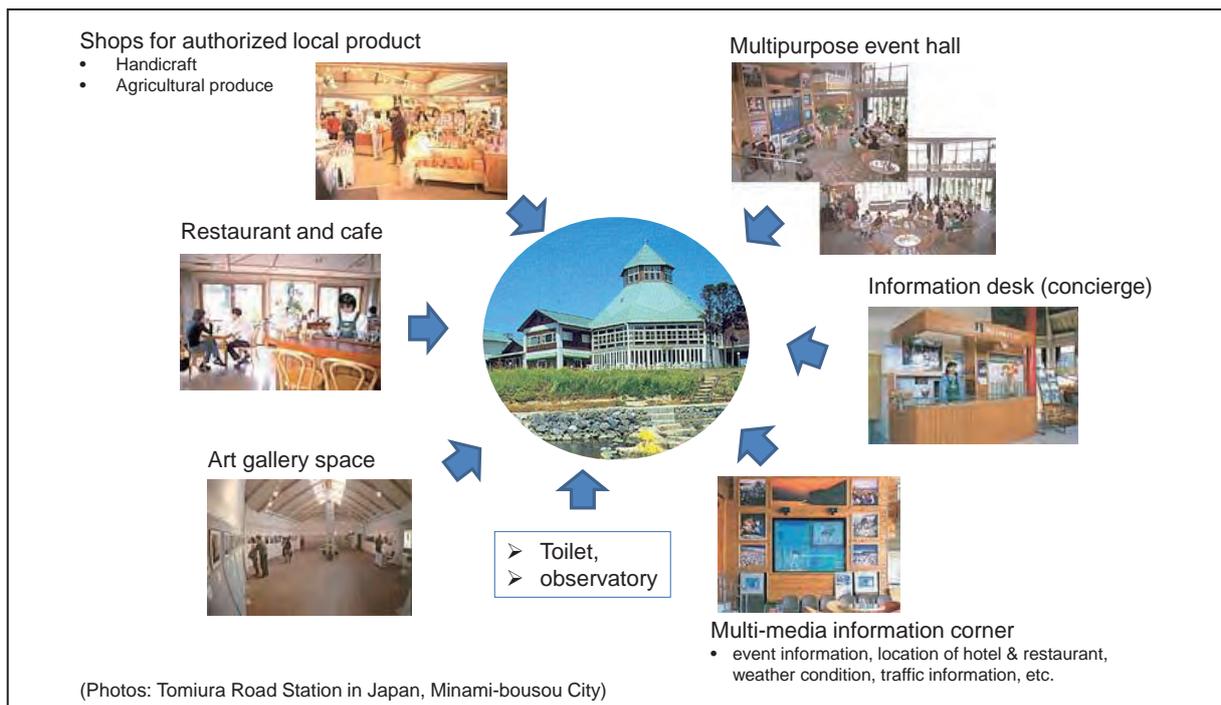


Figure 4-9 Expected Roles of the Road Station in the Parking Site



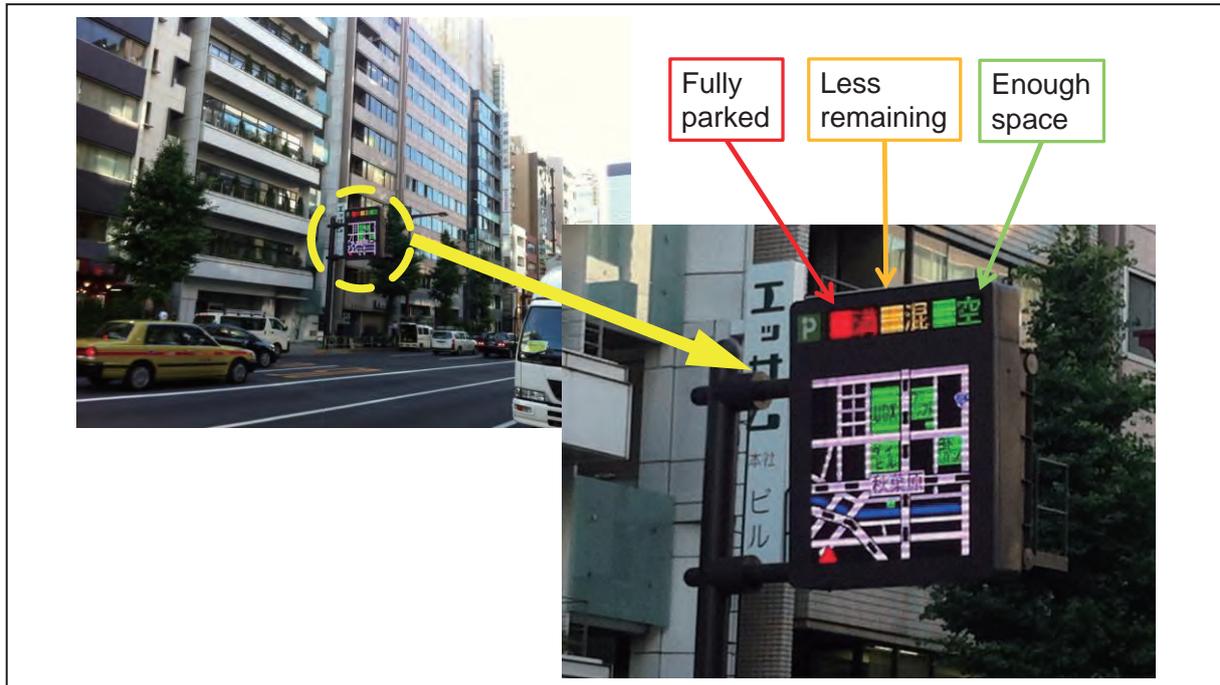
Source: WG-2

Figure 4-10 Multi-purpose Use of the Road Station as Effective Utilization of the Parking Space

(2) Parking Guidance and Information System

Users of the parking space should be well informed about location of the parking sites. Therefore, signboard for parking spaces should be installation strategically to lead the users to the parking sites. In addition, real time condition of the parking space such as occupancy condition will be required, especially in the weekend and tourist peak period when many

tourists come to the Halong Bay area. Example of parking guidance and information system in Japan is shown in the following figure.



Source: Photos taken in Tokyo, Japan

Figure 4-11 Example of Parking Guidance and Information System

4.3.3 Step-wise Introduction through Social Experiment

(1) Social Experiment, conducted on 1st Dec. 2012

Social experiment is a trial activity which is conducted with local people under the limited location and period before the new measure is implemented at full-scale. Through implementation of the social experiment, issues and effects of new measure can be understood before implementation at full-scale¹. As first trial, a social experiment on the measure was conducted on 1st Dec. 2012 as summarized below and detailed results are shown in Attachment-2.

1) Objectives

- a) To demonstrate and raise public awareness on new measure for improvement of traffic safety and landscape in Bai Chai international tourism area
- b) To get feedback and lessons for further examination of the proposed measures on traffic control

2) Date and Time

8 am - 4:30 pm on 1st Dec. 2012 (Sat.) (date for the Eco-fair 2012)

3) Target group

- a) Tourists
- b) Tourism business along and around the Bai Chai Road such as hotel, restaurant, and shop
- c) Local residents in Halong City, mainly in and around the Bai Chai tourism area

¹ translated from the web-site of the Ministry of Land, Infrastructure, Transport and Tourism, Japan

- 4) Main activities
 - a) Closure of main section of the Bai Chay Road (approx. 1-km length)
 - b) Provision of temporary parking space for cars and motorbikes
 - c) Demonstration of the electric carts as environmental-friendly public transportation in the closed section of Bai Chay Road
 - d) Quick interview survey to the tourists on the social experiment
- 5) Organizations
 - a) Leading organizations: DOT, Halong City PC (incl. Police Dept.) and DONRE (PMB for the Project for Environmental Protection in Halong Bay)
 - b) Associate organizations: DCST, Bai Chay Ward PC (incl. Police Dept.)



Source: WG-2

Figure 4-12 Layout of the Traffic Control Zones in Social Experiment

- 6) Demonstration of the electric carts

10 electric carts were operated for the demonstration purpose to introduce a mean of future environmental-friendly transportation means or smart transportation. During the social experiment, the electric carts were utilised for the parade after opening event of the Eco-fair 2012 and demonstration run for the public within the closed road section. In total, approx. 1,600 passengers used the electric carts on the day.



Figure 4-13 Demonstration of the Electric Carts in the Social Experiment on 1st Dec. 2012

7) Findings through the Social Experiment

There are findings in the social experiment as summarized below.

a) General findings

- i) In general, behaviours of various stakeholders were observed in actual operation such as tourist and drivers, basically the public are cooperative and have positive intension to the proposed measure.
- ii) Intention and adaptation of use of public transportation are high among tourist, residence and business.

b) Negative facts

- i) Access for some hotels was disturbed, especially in the western side of the closed section of the Bai Chay Road.
- ii) Purpose of the closure of road was not clearly shown in the closed locations. Therefore, only people asked to the police or staff of the social experiment, activity of the social experiment were informed to the people at the closed section. Though installation of the signboards at the site of the closure was planned, the signboards were not installed by mis-arrangement, though banners on the social experiment were put on the street in some locations.

c) Prospects

- i) There is high potential of effective utilization of open road space with current good condition and landscape of the road in implementation of the measure at full-scale.

8) Conceivable Difficulties in the Actual Implementation of the Measure

By examining the experience in the social experiment, conceivable difficulties in the actual implementation of the measure at full-scale were examined as follows.

- a) Public awareness and understanding of the measure, mainly for business and residents nearby are indispensable by understanding of traffic safety issue and effect/benefit from the measure and by accepting some inconvenience caused by implementation of the measure.
- b) Access difficulty and traffic congestion in northern road of the Bai Chai Road would be occurred since the road is not fully connected to the main road, especially in the west-end. To avoid such issue, connection of the road with main road in the west end should be improved and roadside parking along the road should be prohibited.
- c) Operation time of the traffic control should be well examined and applied to maximize effect and minimize inconvenience of the proposed measure. In general, peak period and time of vehicles and tourists should be selected such as 4 pm to 9 pm on Saturday for applying the strict limited access in traffic control section of the Bai Chay Road.
- d) Investment and cost recovery mechanism in operation should be examined, mainly cost for i) parking space development, ii) public transportation system, and iii) traffic control as common public asset in tourism area, such as find and cost collection system from tourism business and/or directly from tourists.

9) Recommendations: Preliminary implementation with short distance

In the process of examination and until actual operation of parking space development and public transportation, it is recommended that preliminary implementation of the measures be started by closing the short section of the Bai Chay Road in the weekend, especially on Saturday (400 - 500 m length).

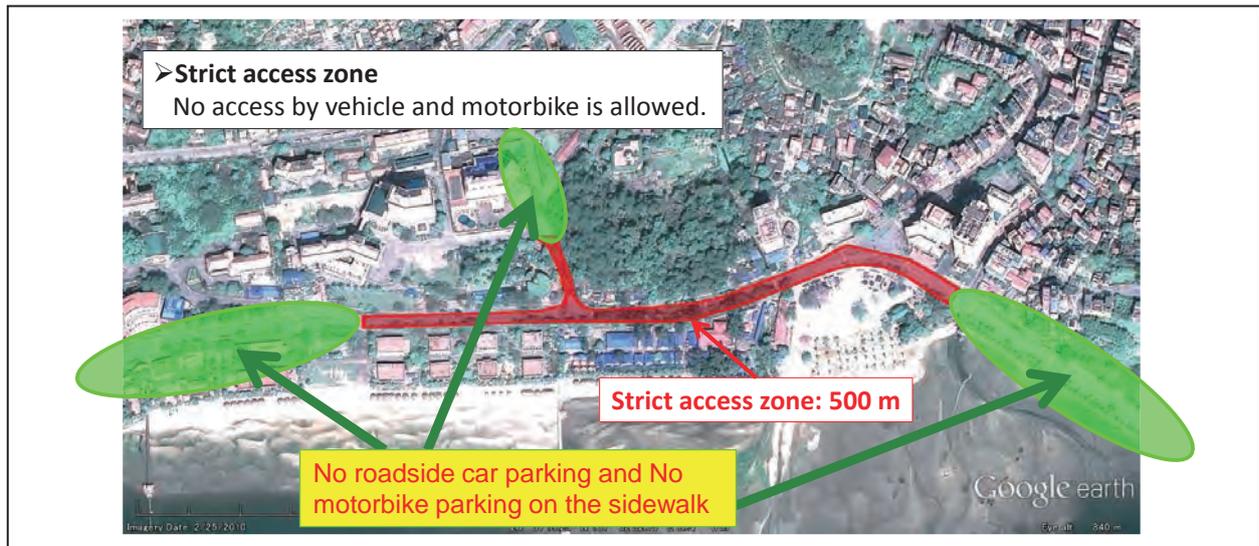


Figure 4-14 Proposed Layout of the Traffic Control Zones in Preliminary Implementation

a) Effects and Impacts

Even the short distance to be closed in the Bai Chay Road, traffic safety will be secured, especially by blocking the through traffic, even only short distance of road closure. In addition, through the activity, it is expected that public awareness on the proposed measure will be raised before actual full-scale implementation. Further, gradual change of behaviour and business style under new condition, especially for the hotel, restaurant, and shops along and near the Bai Chay Road will be expected.

b) Conditions

Some conditions should be considered for implementation of the preliminary activity as follows.

- i) Operation of the activity should be only in traffic congested time: late afternoon to evening (eg. 4 pm - 9 pm on Saturday)
- ii) Due to short distance, no provision of public transportation is required in the closed section.
- iii) Roadside car parking and motorbike parking on the sidewalk near the closed section is strictly prohibited, but temporary parking site shall be prepared. Otherwise, more congestion would be occurred near the closed section. In addition, this will be an opportunity for the public to make familiar with use of the parking sites.

c) Necessary activities

The following activities for the preliminary implementation are required.

- i) Implementation of traffic survey in some locations to measure the quantitative effects (better to measure with- and without-cases)
- ii) PR activities to raise awareness, especially for business nearby such as hotel, restaurant, tourism company, and shop.

4.4 Mangrove and Tidal Flat Protection and Wise-use

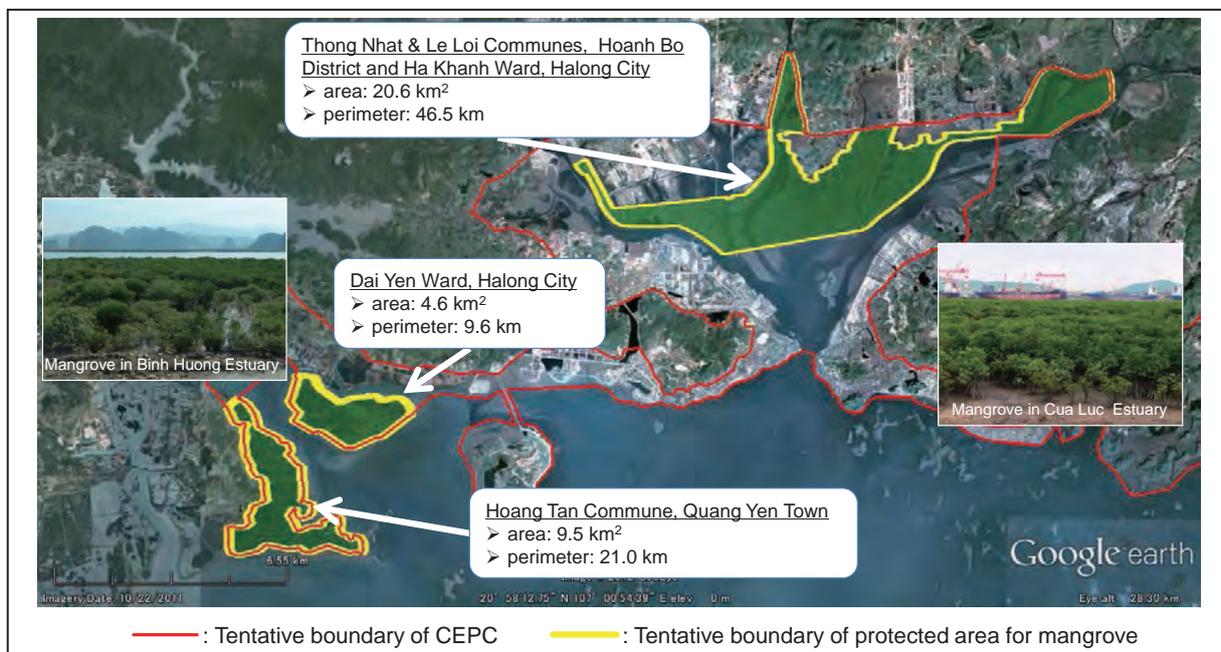
4.4.1 Mangrove and Tidal Flat Protection

In the Halong Bay area, over 2000 ha of the mangrove has been lost for decades due to mainly land use change such as land reclamation for urban area development. In general, the mangrove and tidal flat area has various functions such as conservation of biodiversity and eco-system, habitat for animals and plants, water purification, landscape, environmental education, and recreation. To main such functions in the Halong Bay area, mangrove protection was considered from viewpoint of the land use management as follows.

(1) Proposal of Mangrove Protected Areas

Mangrove protected areas in Binh Huong Estuary and Cua Luc Estuary were proposed as shown in the following figure, together with two measures “Restriction of land reclamation” and “Control of aquaculture”. The two measures will be indispensable to support the measure on mangrove and tidal flat protection.

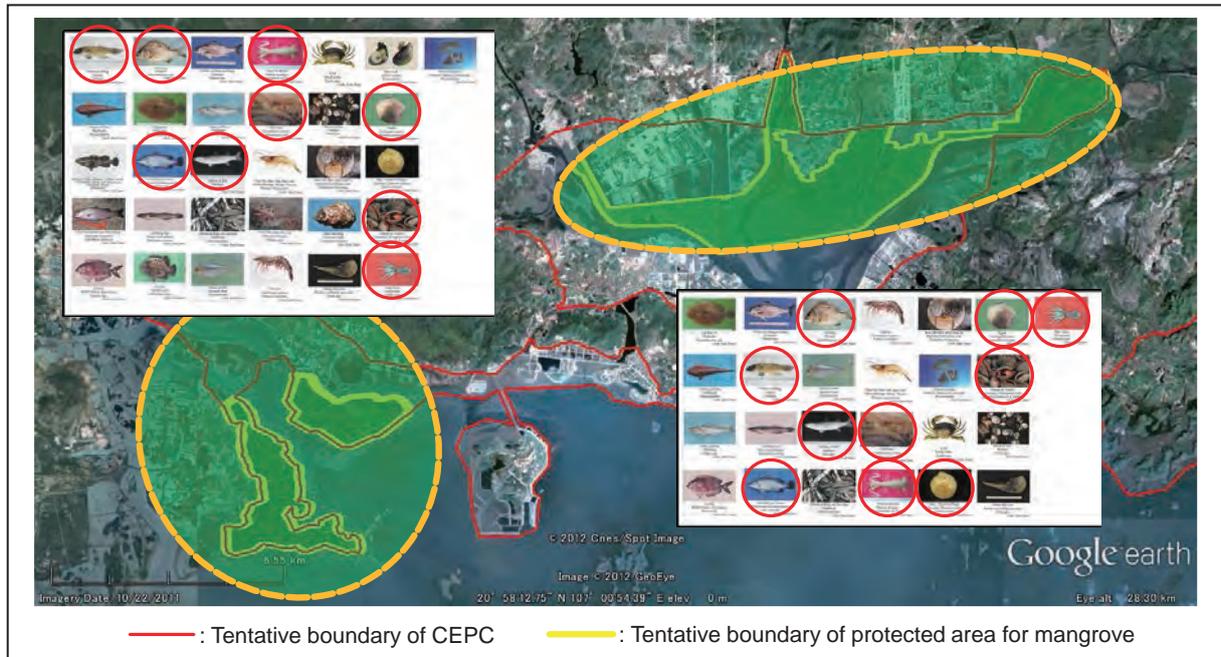
Regarding the proposed mangrove protected area in Cua Luc Estuary Area of Hoang Bo district and Halong city, tentative boundary of the mangrove protection area was determined among Hoanh Bo district PC, Halong city PC, and the Project, considering various aspects such as current aquaculture dyke, cadastral situation (land owner), proposed development plan, and on-going reclamation work. In the proposed mangrove protected area in Binh Huong Estuary of Quang Yen town and Halong city, most of the proposed areas are located in the current aquaculture ponds with practicing extensive aquaculture method. Therefore, continuation and improvement of the extensive aquaculture method is a key factor in the area. Those measures support the proposed plan for Urban Eco-cultural Development Project in the area.



Source: WG-2

Figure 4-15 Proposed Mangrove Protected Areas in Binh Huong Estuary and Cua Luc Estuary

- b) polluted water from the plants/factories and upstream
- 4) Fishermen's intention:
 - a) Mangrove is important for marine species and for local livelihood (income)
 - b) Active protection, control and planting, necessity of support by government
- 5) Number of bird species observed: Hoang Tan: 58, Dai Yen: 46, Cua Luc: 47



Note:  identified in the survey subject to the fishery

Source: Preliminary Survey on Marine Species and Birds in the Proposed Mangrove Protection Areas, JICA Expert Team, 2012

Figure 4-18 Available Marine Species in the Proposed Mangrove Protected Areas

Table 4-1 Average Annual Catch by Species (Main Species)

(Unit: kg/group/year)

Commune / Ward	Proposed Mangrove Protection Area in Binh Huong Estuary			Proposed Mangrove Protection Area in Cua Luc Estuary		
	Hoang Commune, Yen Town	Tan Quang	Dai Yen Ward, Halong City	Thong Commune, Bo District	Nhat Hoanh	Le Loi Commune, Hoanh Bo District
(1) Mangrove oyster	3662		4187	2058		1953
(2) White scallop	6152		-	1323		454
(3) Blood arks	2500		1598	288		158
(4) Mud clam	212		324	160		46
(5) Greasy mud clam	256		188	497		454
(6) Mullet	433		454	343		139
(7) Gobies	284		452	290		124
(8) Ot fish	274		788	389		128
(9) Porgies	453		183	593		86
(10) Giantseaperch	628		282	963		25
(11) Greasy back shrimp	882		546	234		130
(12) White shrimp	179		262	358		130
(13) Mantis shrimp	339		282	205		143
(14) Octopus	104		272	92		174
(15) Mud crab	103		291	138		-
(16) Mud small crab	180		-	199		101
(17) mangrove small crab	420		-	132		129

Source: Preliminary Survey on Marine Species and Birds in the Proposed Mangrove Protection Areas, JICA Expert Team, 2012

4.4.2 Wise-use of Mangrove

In addition to the importance of the protection of mangrove and tidal flat from viewpoint of maintenance of biodiversity and provision of seafood production, there is high potential of utilization of the mangrove and tidal flat area in eco-tourism and environmental education in the area of mangrove and tidal flat, where there was almost no utilization for the purpose so far. The following figure shows some images of the activities on eco-tourism and environmental education in mangrove and tidal flat area.



Source: Photos from Yanbaru Shizenjuku

Figure 4-19 Image of Eco-tourism and Environmental Education in Mangrove

(1) Trial Eco-tour in aquaculture pond of Quang Yen Town

A trial eco-tour in aquaculture pond of Quang Yen Town was conducted on 13 Oct. 2012 to examine feasibility of the eco-tour in the proposed mangrove protection area and to promote the proposed mangrove protection area to relevant persons and organizations.

Approx. thirty persons were attended from PMB/DONRE, WG-3&4, DCST, Quang Yen Town, Youth Union, Tourism Boat Association, tourism college, volunteers, pond owner, and JET. Program of the trial eco-tour is shown in the following table. By using the kayak, the trial eco-tour was implemented in 1.8 km length route for approx. 1 hour for each group as shown in the following figure.

Table 4-2 Program of the Trial Eco-tour in Mangrove

Activity		Planned Time	Actual Time
(1) Move from QN PPC inter-office No.2 to the eco-tour site in Quang Yen Town		8:30 - 10:00	8:30 - 10:00
(2) Introduction on the eco-tour with safety instruction		10:00 - 10:15	10:00 - 10:30
(Group-1)	(Group-2)		
(3) Eco-tour by kayak		10:15 - 10:45	10:30 - 11:45
(4)	Eco-tour by kayak	10:50 - 11:20	11:45 - 12:45
(5) Discussion and lunch		11:30 - 13:00	13:00 - 15:00
(6) Move from the eco-tour site to QN PPC inter-office No.2		13:00 - 14:00	15:00 - 16:00

Source: WG-2



Source: WG-2

Figure 4-20 Route of the Eco-tour



Source: WG-2

Figure 4-21 Photos of the Trial Eco-tour

After implementation of the trial eco-tour, comments and suggestions from the participants were collected for future actual implementation. Main comments are shown below.

Table 4-3 Comments from Participants of the Trial Eco-tour in Mangrove

<p>a) Participation from local community with training b) Necessity of infrastructure improvement such as road, parking, toilet, and jetty for kayak c) On-site local restaurant with local specialties d) Preparation of the detailed map on eco-tour route e) Preparation of different eco-tour programs with combination of scientific, cultural, traditional, and historical aspects f) Preparation of safety plan g) PR and tourism promotion h) Combination of mangrove eco-tour and other tourism program i) Inclusion of opportunities such as mangrove planting and local lifestyle learning</p>

Source: WG-2

(2) Potential Management Model for Eco-tour in Aquaculture Pond

Eco-tour in aquaculture pond which is located in the proposed mangrove protected area in Binh Huong Estuary is proposed with maintaining current practice of extensive aquaculture method, where abundant mangrove is grown. In the eco-tour in the aquaculture pond, there are advantage and disadvantage as follows.

- 1) Advantage
 - a) Safer operation is expected compared to that on the sea.
 - b) Income from the eco-tour can be a motivation for the pond owner to maintain mangrove with the extensive aquaculture method.
 - c) Easier access to the pond
- 2) Disadvantage
 - a) Type of mangrove species in the pond is limited, almost one species. However, this disadvantage is limited to the some tourists who have already known about the mangrove. In general, even this advantage, it is expected that most of the tourists can enjoy the environment.

To implement the eco-tour in the aquaculture pond, a management model is proposed as shown in the following figure.

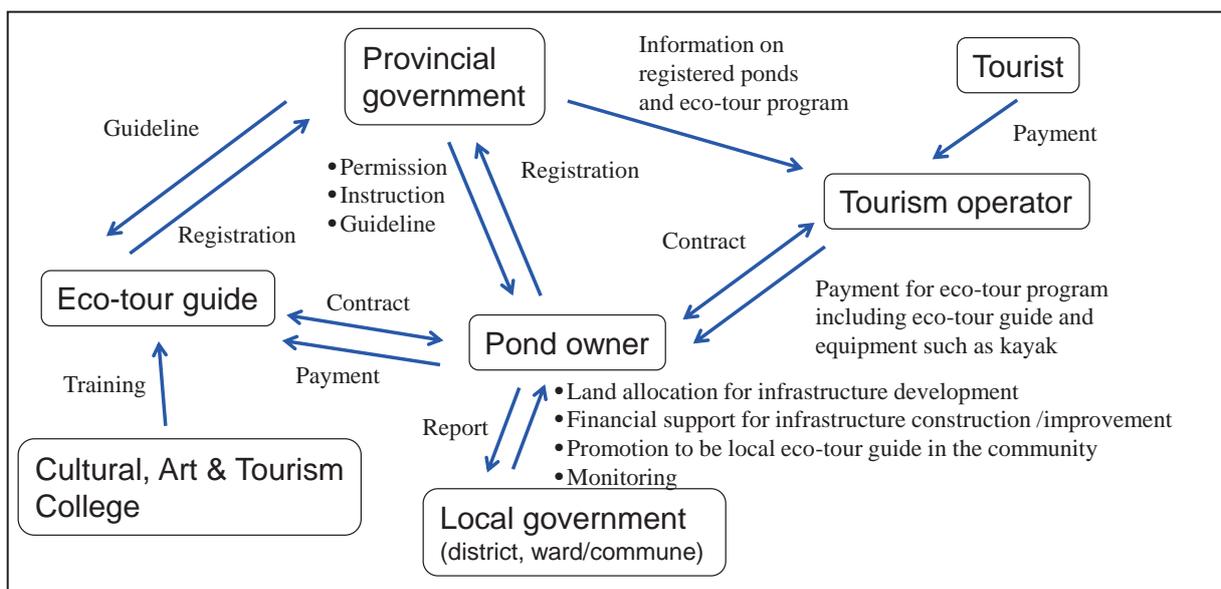


Figure 4-22 Relationship among Relevant Bodies for Eco-tour Business

In addition to the eco-tour for the tourists, the eco-tour can be utilized for the environmental education. For utilization in the environmental education, the following management model can be proposed.

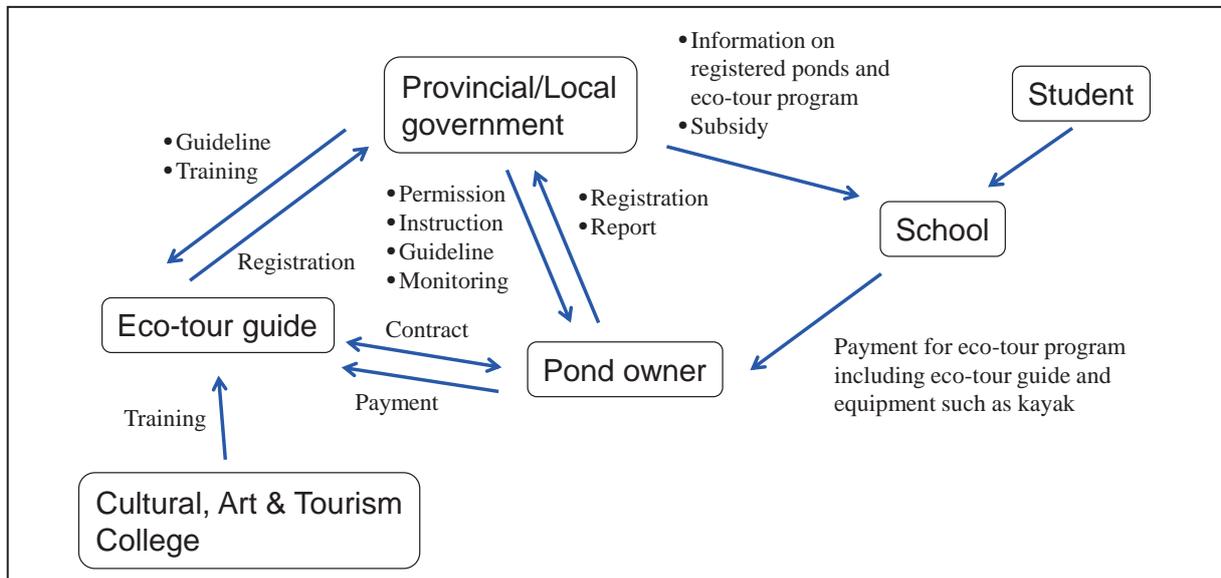


Figure 4-23 Relationship among Relevant Bodies for Environmental Education

To implement the above management models, there are some requirements from viewpoints of institutional aspect, human resource, and common infrastructure as follows.

- 1) Institutional aspect
 - a) Development of certification system for eco-tour guide
 - b) Registration system of aquaculture pond for the eco-tour use
 - c) Guideline on development of eco-tour program
 - d) Guideline on facility design such as jetty for kayak and board walk
 - e) Monitoring system on eco-tour operation
- 2) Human resource
 - a) Training of certified eco-tour guide
- 3) Common infrastructure development
 - a) Improvement of road near the pond
 - b) Parking space near the pond

(3) Example of Current Management Practice of the Mangrove Area in Ha Khanh Ward

For the other mangrove area subject to the proposed mangrove protected areas, the following current management practice, which is contracted between special forest management board and local households, would be useful to further examine management system.

- 1) Benefits for and provisions from the governmental side
 - a) Mangrove protection
 - b) Provision of technology on planting
 - c) Provision of seedling for planting

- 2) Benefits for the local households
 - a) Allowance for mangrove planting, care, protection, and making fire separation line
 - b) Catching marine products from the mangrove area

4.5 Control of Aquaculture

Practice of extensive aquaculture with mangrove is currently seen in the aquaculture ponds in the proposed mangrove protected areas in Hoang Tan Commune of Quang Yen Town and Dai Yen Ward of Halong City. The extensive aquaculture should be continued to maintain and even improve the mangrove condition. The following extensive aquaculture and improved aquaculture methods are suggested not only in the proposed mangrove protected area and other areas with utilization for eco-tourism in mangrove.

4.5.1 Extensive Aquaculture

Extensive aquaculture method, which is currently practiced in the proposed mangrove protected areas in Hoang Tan Commune of Quang Yen Town and Dai Yen Ward of Halong City, is based on traditional aquaculture type which has been applied since the '60s in the tidal flat along the river or sea with mangrove forest. Main characteristics of traditional aquaculture type are: (i) several species living together including shrimp, crab, fish, mollusks and seaweed, mostly are greasy-back shrimp, (ii) water, seeds and food for cultured species are collected from nature and, (iii) no use of medicine and chemicals, therefore, less polluted environment. However, recently, traditional type has not been applied many because of low output and revenue.

In order to increase revenue for aquaculture farmers and protect the mangrove, the Project introduces the method for extensive aquaculture combined with mangrove eco-tour in the aquaculture pond with mangrove. This method is not recommended to apply for the ponds that will newly be developed but only for existing aquaculture ponds located in the Project area with low profit and always in risks of species disease by applying other farming methods. Outstanding advantages of the method are low production cost, stable profit and friendly with environment and suite to farmers who do not have capital for investment. Major steps in this method as follows:

(1) Pond layout

- 1) Area of these farms is usually over 50 ha.
- 2) Pond arrangement

The pond is as large as possible, however, it should be separated into some cells with approx. 1000 m² - 2000 m². Shrimp, fish or crab are kept with high density in these cells to serve the fishing activities for visitors by fishing rod, nets, lift net and casting-net. Tools for pond separation should be bamboo wattle or nets to ensure water circulation inside the ponds.

Number of gate is as much as possible to be able to get more seeds in high tidal water period. Normally, there is one gate per 10 - 15 ha-area of the pond. Width of gate is between 1.2 and 1.5 m. The gate is constructed by concrete. Tidal plots should be prepared with approx. 2,000 m² - 5,000m² inside or outside the pond to create the mangrove nursery.

(2) Pond preparation

1) Pond hygiene and preparation

Annually, pond hygiene and preparation must be implemented after entire harvesting, normally before the TET holiday (Lunar New Year). Water in the pond must be drained to expose the pond bottom for anti-bacteria under sunlight, for dyke and gate upgrading. Drying time of pond bottom is between 15 and 30 days to crack as the bird feet line depending on condition of each place. It is better if the pond bottom at the bare mangrove trees to be ploughed for soil rehabilitation.

2) Maintenance of dyke and gate

When the pond bottom is exposed to be good chance for check the leaks in dykes and gates for treatment and upgrading. This is the annual compulsory work.

(3) Water and seeds collection

1) Water and seeds for the pond are completely collected from nature in two ways.

- a) Through the gates: dropping the open-end net bag to collect the seeds from the Bay. The lamp with appropriate light should be hung in front of the gate to attract the larvae of shrimp and crab, since most of them like the light.
- b) Dropping the bundles of branches or grass along the dyke, or mangrove tree outside ponds for collecting larvae of shrimp, crabs and mollusks. Then, bring the bunch of bundles within seeds to put into the pond. The collected seed from these bundles will swim themselves in the pond to search for food.

2) Water taking and seeds collection is implemented regularly two times/month at the beginning of high tidal period. Seeds are collected much more during days from second to fifth day of high tidal period. The months getting the seed usually are March - April in spring and September - October in autumn. These seasons are reproduction and breeding time for aquatic species.

3) Water level in the pond is as higher as possible depending on elevation of the pond and high level of the dyke of each pond, normally between 1.2 m and 1.5 m.

4) Taking water into pond is implemented day by day to reach above level. Each high tidal period, the taking water is implemented from 3-4 days in the beginning day of the high tidal period. Each day it takes only 3 - 4 hours.

(4) Feed collection for cultured species

Feed for cultured species is collected from natural waters including phytoplankton, zooplankton and fish living in surface layer with small size. Besides, organic humus in the pond dropped from mangrove leaf is also good food for aquatic animal. There are two ways to collect the natural food:

- a) Through the gates when high tides. The food is collected more in the sunny days because most of algae species float more on the surface layer.
- b) Use of specialized hand net with fine-mesh net to tie to the boat running slowly to collect plankton outside the Bay to put on the pond for additional food when cultured species in the pond growing.

(5) Management of ponds during the aquaculture process

1) Water change

Normally, within 2 first months after completing seed collection, the fish and shrimp are small, oxygen and food consumption is less. Therefore, the water drainage should not be implemented in this period to avoid the loss of seed and feed collected from outside.

When the cultured species in the pond are bigger, the water change should be implemented to supplement oxygen and feed for them. The water change is based on difference of water level between the inside and outside of the pond in high tidal periods. The big mesh net bag is hung up gate to prevent the floating garbage outside into the pond. Amount of changed water is less than 20% of the water amount in the pond. Number of changed water days is from 3 to 4 days for each high tidal period depending on condition of each pond.

2) Pond management

Daily check must be implemented to find out and to treat the leaks in dykes and gates to prevent the loss of fish and shrimp. Even if there is only one small leak, the great fishes will be escaped, because they like to follow the water flow, especially, the fingerling.

(6) Harvesting and product preservation

1) Usual harvesting (trimming catching)

a) Shrimp harvesting

Time for usual harvesting is implemented after 3-4 months of culture (usually from July onwards). It should be harvested in the dark days to be able to get the shrimp with high quality.

Harvesting tools: Bamboo trap coop, lift-net, casting-net or appropriate mesh size net should be used to catch the shrimp with commercial size. The small shrimp will be escaped outside.

b) Fish and other species harvesting

Using appropriate nets such as gill nets or trawl nets.

Some harvested products should be stored in the cells. In the process of harvesting, if the small fishes are caught, however, they still are alive and healthy. They should also be restocked into the cells for continuing culture to serve fishing activities by tourists.

2) Entire harvesting

Time of harvesting: it is implemented in the end of the year from December to before the TET holidays. Harvesting in this time is in order to have products serving requirement in TET holidays and to take water with seeds in the high tidal period in the new spring.

Harvesting tools: combination of bamboo trap coop, gill-nets, trawl-nets and net-bag hung at the gates. Gently to catch the harvested products.

3) Post-harvesting

The harvested products should be selected and kept in clean container containing salt water which has salinity equivalent to pond water with aerator to keep the product alive. For the dead products, they are preserved by ice and quickly transferred for frozen to increase the value of the products.

(7) Planting mangrove

One tidal area around 2,000 m² - 5,000 m² inside or outside the pond should be selected to create the mangrove nursery. Planting mangrove by seedling is better than by fruit. Besides, there is available seedling in the pond to be good opportunity to invite tourists participating planting when they visit to the farm. The available mature seeds inside or outside the pond with good quality should be collected to plant in the nursery.

Planting areas include places such as long the both inside and outside of the dyke, the bare trees place and along the channel inside the pond in order to protect the pond and improve the landscape for Eco-tourism. Planting mangrove should be done step by step, starting from higher place to lower place to ensure the survival rate of planted trees.

The following figure shows a sample layout of extensive aquaculture combined with eco-tourism in the proposed mangrove protected area

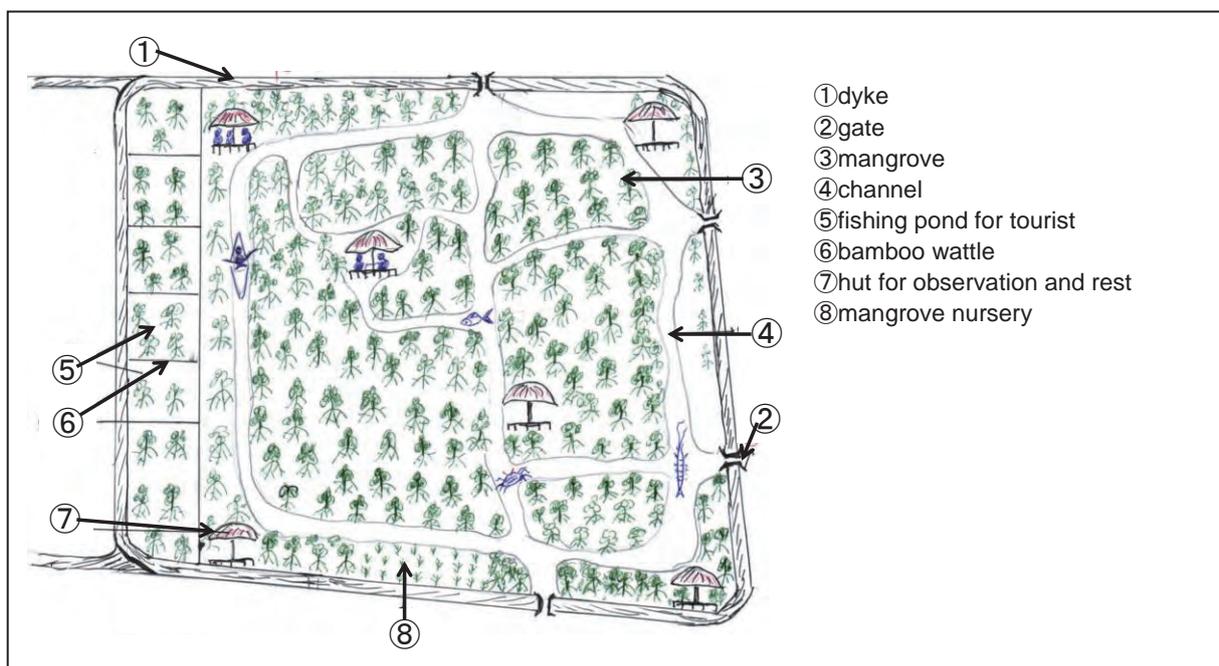


Figure 4-24 Sample Layout of Extensive Aquaculture Combined with Eco-tourism in the Proposed Mangrove Protected Area

4.5.2 Improved Extensive Aquaculture

This method is based on reference of existing improved aquaculture type which is under application in the tidal flat along the river or sea with mangrove forest in Vietnam including Quang Ninh Province. The main characteristics of the existing aquaculture type are: (i) main cultured species is the Tiger shrimp with different density from 1 to 10 post-larva/m², (ii) using seeds from hatchery, (iii) using additional food from industrial production or made by the farmer, (iv) using medicine, chemical or fertilizer and, (v) production cost is higher than extensive culture method. By this method, the farmer can get higher profit but not stable. Some years, crop failure due to happen the shrimp disease. In order to increase revenue, profit and stability for aquaculture farmers as well as protect the mangrove, the Project introduces the method: Improved extensive aquaculture combined with mangrove-tour in the aquaculture pond with mangrove.

This method is not recommended to apply for the ponds that will newly be developed, but only for the existing aquaculture ponds located in the Project area that have low profit and always in risks of species disease by applying other farming methods.

Outstanding advantages of the method are higher and stable revenue, profit, and friendly with environment. Major steps in this method is explained as follows:

(1) Pond layout

- 1) The area of these farms is usually less than 50 ha.
- 2) Pond arrangement

The pond is as large as possible, however, it should be separated into some cells with approx. 1,000 m². Shrimp, fish or crab are kept with high density in these cells to serve the fishing activities for visitors by fishing rod, nets, lift net and casting-net. Tools for pond separation should be bamboo wattle or nets to ensure water circulation inside the ponds.

Number of gate is as much as possible to be able to get more seeds in high tidal water period. Normally, there is one gate per 10 ha-area of the pond. Width of gate is between 1.2 and 1.5 m. The gate is constructed by concrete. There is one plot around 100 m² inside the pond. The bottom of the plot is higher than bottom of the pond to place the shrimp nursery net. There is one plot around 2,000 m² - 3,000 m² inside or outside the pond to create the mangrove nursery.

(2) Pond preparation

- 1) Pond preparation: is implemented annually, after entire harvesting, normally before TET holidays (Lunar New Year). This time, the pond bottom is exposed.
- 2) Maintaining dyke and gate: Pond bottom is exposed to be good chance for check the leaks in dykes and gates for treatment and upgrading. This is the annual compulsory work.
- 3) Pond hygiene:

Water in the pond must be drained to expose the pond bottom for anti-bacteria under sunlight, for dyke and gate upgrading. If possible, the water in hollow places should be drained by pumping. Drying time of pond bottom is from 15 to 30 days to crack as the bird feet line depending on condition of each place. It is better if the pond bottom at the bare mangrove trees to be ploughed for soil rehabilitation.

If there is no pump available, the waters in the pond must be bacteria/ microbe extermination by liming and saponin. Content of lime is 300 to 500 kg/ha of the pond. It should be used for bare tree area. Content of saponin and other finished products should be followed the instruction by supplier.

(3) Water supply

- 1) Water for the pond is completely supplied from the Bay through the gates. The net bag must be fixed in the gates to prevent the floating garbage and predator (Shrimp-eater) into the pond.
- 2) Supplying water is implemented regularly two times per month at the high tidal periods.
- 3) Water level in pond is as high as possible depending on elevation of the pond and high level of the dyke of each pond, normally from 1.2 m to 1.5 m.
- 4) Taking water into pond is implemented day by day to reach above level. Each high tidal period, the taking water is implemented from 3 to 4 days in the beginning day of the high tidal period. Each day it takes only 3-4 hours. It is different from the Extensive aquaculture

method. Taking water could be done at highest tidal water level. However, when stocked shrimp is very small, the suitable water level is 0.8 to 1 m.

(4) Seed selection and stocking

1) Seed selection

a) Seed selection at hatchery

Time of buying seed is from February to March. The post-larvae are tested by using formalin shocking with content of 100 ppm in two hours. If the survival rate of post-larvae get 95%, the post-larvae are good.

Using abrupt reduction of salinity: The salinity of water in seeds bag is reduced by 15% than the salinity of the pond within 30 minutes. If the survival rate of post-larvae reach 100%. The post-larvae are good.

Put some post-larvae in the water basin and stir two rounds. Even if the post-larvae is not concentrated in the middle of the basin, they can swim surrounding the basin wall. The post-larvae are good.

b) Disease quarantine

Bought post-larvae must be tested/quarantined at the local fisheries quarantine stations to exterminate White-spot and Yellow-head diseases virus.

2) Nursing

a) Size of bought post-larvae always is from P12 to P15. If they are stocked right into the pond, the survival rate is high. Therefore, they should be reared in the small pond or net cage in 20 - 30 days. However, using net cage is more convenience. The size of the net cage is 5 m x 20 m x 1.5 m. Nursing density is from 500 - 1000 post-larvae/m² depending the water level.

b) Food for nursing post-larvae is red yolk of chicken egg and industrial food pellets (very small size). Feeding is implemented 3-4 times per days. Amount of the food is increased by the time. Red yolk is used in two first weeks, from 1 to 2 eggs for 10,000 post-larvae. The pellet food is used following instruction by suppliers.

c) Stocking nursed post larvae into the pond

When the nursed post larvae gather into group and swim around the edge of the net, they should be stocked into the pond. The appropriate time for stocking is cool weather without raining. Stocking density is 0.5 to 1 post-larvae per 1 m².

(5) Feed for shrimp and feeding

Food for shrimp includes natural feed and artificial feed.

1) Natural food

Natural feed for cultured shrimp is collected from natural waters through the gate including phytoplankton, zooplankton and small fish living in surface layer. Besides, organic humus in the pond dropped from mangrove leaf is also good food for cultured shrimp.

2) Artificial feed (additional feed)

Artificial feed can be industrial feed pellets or feed made by farmers from rice flour, corn, fish meal, bean pulp, bran and some minerals and vitamins.

Number of meal is 1 per day or two day one meal depending on the stocking density and planktons in the pond (seeing water colour). Amount of food reach from 2 to 5% of the weight of shrimp in the pond.

(6) Poly-culture

Selected species for poly-culture with tiger shrimp are species that often do not or less to eat shrimp as the Tilapia or Mullet. They can live together and take advantage of the natural feed such as organic humus and plankton in mangrove inside the pond. In addition to Tilapia and Mullet, the Mud crab could be selected to stock in the shrimp pond. Since mud crab eats small mollusks such as snails and mangrove oyster in the mangrove forest inside the pond.

Besides taking advantage of available feed sources and cleaning environment in the pond, the poly-culture creates diversification of products to serve tourists and increases income for aquaculture farmers. There are some poly-culture ways as follows:

1) Poly-culturing Tiger shrimp with Unisexual Tilapia

Tilapia fingerling is stocked after one month stocking shrimp. Size of stoked fingerling is from 10 to 20 g/fingerling. Stocking density is from 0.05 to 0.1 fingerling/1 m². The fingerling should be salinity domestication before stocking into the pond. This work should be done at the hatchery by suppliers. However, the buyer must inform about the salinity of their ponds to suppliers. The fingerling of Tilapia is available in several hatcheries in Quang Ninh.

2) Tiger shrimp with Mullet

Similarly as Tilapia poly-culturing, Mullet should be stocked after one month or two months rearing Tiger shrimp. Size of fingerling ranges from 10 to 15 g/fingerling. Stocking density ranges from 0.1 to 0.2 fingerling/m². Currently, Mullet fingerling is not produced in Quang Ninh. However, the farmers can order the agencies or local hatcheries to provide.

3) Poly-culturing Tiger shrimp with Mud crab

In July or August, after harvesting Tiger shrimp with great amount, the juvenile Mud crab should be stocked into the shrimp pond. Size of stocked crab ranges from 10 to 15 g/individual. Stocking density ranges from 0.05 to 0.1 individual/m².

(7) Pond management

1) Water change

Normally, within first month after stocking seeds, the fish and shrimp are small, oxygen and food consumption is less. Supplying water should be implemented to enough the designed level. The water drainage should not be implemented in this period to avoid the losing small seed and natural feed.

From the second month, the water change should be implemented to supplement oxygen, food for pond. The water change is based on difference of water level between the inside and outside of the pond in high tidal periods. The big mesh net bag is hung up at the gate to prevent the floating garbage outside into the pond. Amount of changed water is less than 20% of the water amount in the pond. Number of changed water days is from 3 to 4 days for each high tidal period depending on condition of each pond.

2) Pond management

Daily check must be implemented to find out and to treat the leaks in dykes and gates to prevent the loss of fish and shrimp. Even if there is only one small leak, the great fishes will

be escaped, because they like to follow the water flow, especially, the fingerling and small crab.

Besides checking dyke and gate, the checking health of the cultured species should be conducted every day. It is impossible for disease treatment for shrimp, fish and crab in the very big pond. Therefore, the carefully to pond preparation, seed and food selection, reasonable feeding as well as reasonable water adjustment to ensure the depth of the water or water colour are the most effective general prevention measures for aquaculture farming.

Fertilization: Green manure and compost manure mixed lime are fertilized to the pond in the times of low water in the pond if possible. Fertilizing is to provide nutrients to increase planktons in the pond for addition of natural food for cultured species and for stable environment. Amount of fertilized compost is about 100-200 kg/ha, green manure is 500 kg/ha.

(8) Harvesting and product preservation

1) Usual harvesting (trimming catching)

a) Shrimp harvesting

Time for harvesting is usually implemented after 3 to 4 months of culture (usually from July onwards). It should be harvested in the dark night (without moon light) to be able to get the shrimp with high quality.

Harvesting tools: Bamboo trap coop, lift-net, casting-net or appropriate mesh size net should be used to catch the shrimp with commercial size. The small shrimp will escape outside.

b) Fish and crab harvesting

Time for usual harvesting: similarly to the shrimp, time for fish or crab harvesting is implemented after 3 to 4 months of culture. Crab is harvested in the ending months of the year, since they are stocked later than others.

Tools: appropriate nets such as gill nets or trawl nets.

Some harvested products should be stored in the concentrated (high density) cells. In the process of harvesting, if the small fishes or crab are caught but they still are alive and healthy. They should be also restocked into the cells for continuing culture to serve fishing activities by tourists.

2) Entire harvesting

Time of harvesting: it is implemented in the end of the year, from December to before the TET holidays. Harvesting in this time is in order to have products serving requirement in Tet holidays and to take water with seeds in the high tidal period in the new spring.

Harvesting tools: combination of bamboo trap coop, gill-nets, trawl-nets and net-bag hung at the gates. Gently to catch the harvested products.

3) Post-harvesting

The harvested products should be selected and kept in clean container containing salt water which has salinity equivalent to pond water with aerator to keep the product to be alive. For the dead products, they are preserved by ice and quickly transferred for frozen to increase the value of the products.

For the crab, because they can be alive in long time after harvesting, therefore they can be preserved by wet grass wire or put on the tanks and then transfer to the market.

(9) Planting mangrove

One tidal plot around 2,000 m² - 3,000 m² inside or outside the pond should be selected to create the mangrove nursery. Planting mangrove by seedling is better than by fruit. Besides, there is available seedling in the pond to be good opportunity to invite tourists participating planting when they visit to the farm.

The available mature seeds inside or outside the pond with good quality should be collected to plant in the nursery. Planting areas include places such as place long the both inside and outside of the dyke, the bare trees place and along the channel inside the pond in order to protect the pond and improve the landscape for Eco-tourism. Planting mangrove should be implemented gradually, starting from high place to low place to ensure the survival rate of planted trees.

The following figure shows a sample layout of extensive aquaculture combined with eco-tourism in the proposed mangrove protected area

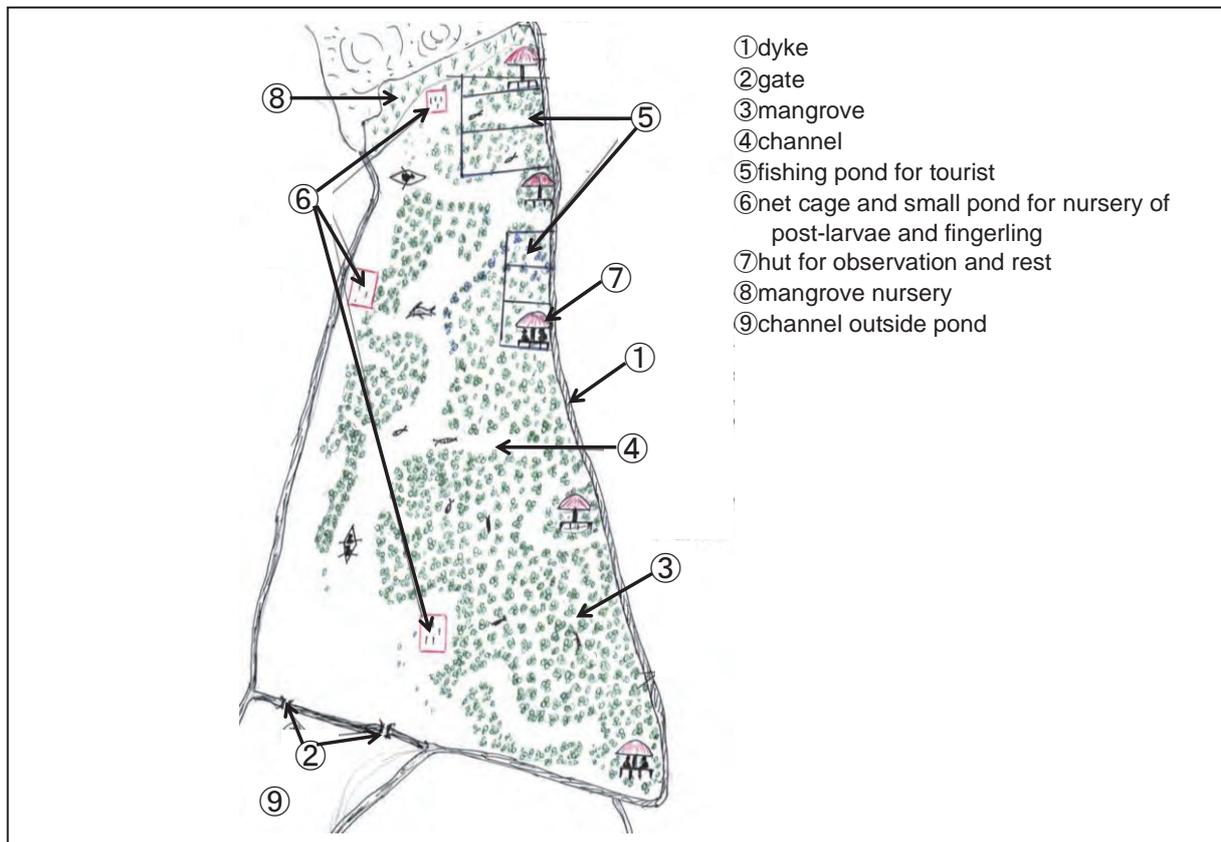


Figure 4-23 Sample Layout of Improved Extensive Aquaculture Combined with Eco-tourism in the Proposed Mangrove Protected Area

4.6 Control of Land Reclamation

Strict implementation of construction method is required to prevent from discharging sediment to the water area. In addition, checklist with explanatory document shall be prepared. The proposed measures of “Control of land reclamation” and “Control of aquaculture” will be indispensable to support the measure “Mangrove and tidal flat protection”.

Strict implementation of construction method to prevent from discharging sediment to the water area.

Checklist with explanatory document shall be prepared.

4.7 Strengthening of SEA in Preparation of Land Use Plan

Environmental considerations should be examined in preparation of the land use plan in CEPC area through the Strategic Environmental Assessment (SEA). Supplemental legal document to be applied in the CEPC shall be prepared.

4.8 Strengthening of EIA/EPC

Environmental impact(s) to the Halong Bay and necessary measure shall be examined in the case where development project is located in the CEPC area or nearby through the Environmental Impact Assessment (EIA) / Environmental Protection Commitment (EPC). Supplemental legal document to be applied in the CEPC shall be prepared.

CHAPTER 5 IMPLEMENTATION STRUCTURE

The following organizations are considered to be responsible for each action/activity for the proposed measures.

Table 5-1 Proposed Institutional Set-up

Proposed measures	Necessary Action/Activity	Responsible Organization
(1) Wastewater treatment and pollution control	1) Plan of improvement and new installation of WWTP	DPI Halong City, Cam Pha City
	2) Construction of WWTP	DOC
	3) Operation of the WWTP	URENCO or private company contracted with QN PPC
	4) Pollution source control for industry	DONRE
	5) Pollution source control in coal-related activities	VINACOMIN DONRE (administrative guidance)
(2) Strict development permit and monitoring in Bai Chay International Tourism Area	1) Preparation of a bylaw	DOC, DPI, DONRE, DCST
	2) Enforcement of the strict development permit and monitoring	DOC, DPI, DONRE, DCST
(3) Improvement of transportation and safety in Bai Chay International Tourism Area	1) Removal of roadside parking space along the Bai Chay Road, especially in weekend and peak period	DOT (legal procedure) Police Dept. (enforcement)
	2) Strict control of roadside parking in main road, especially in Bai Chay Road	DOT
	3) Selection of site(s) for parking space	DOT and DCST
	4) Development of parking space	DOT
	5) Development of road side station in the parking space	DOT, DCST, and Halong City
	6) Installation of signboard for parking spaces	DOT
	7) Installation of parking guidance and information system	DOT and DCST
	8) Introducing environmental-friendly public transportation along the Bai Chay Road	DOT and DCST
(4) Mangrove and tidal flat protection and wise-use	1) Application of national protected area system	DARD
	2) Management of the protected area	Ward/commune PCs
	3) Eco-tourism in the protected area	DCST, DARD, Ward/commune PCs
	4) Environmental education activity in the protected area	DCST, DARD, Ward/commune PCs, HLEEA
(5) Control of fishery exploitation and aquaculture	1) Promotion and technical instruction of the extensive aquaculture	Sub-dept. of Fishery Exploitation and Protection of Aquatic Resources (DARD), Ward/commune PCs
	2) License the fishery exploitation, monitor the fishery exploitation activity	
	3) Monitoring of the aquaculture activity	
(6) Control of land reclamation	1) Preparation of guidelines on construction method for land reclamation	DOC
	2) Monitoring of land reclamation activity	DONRE and DOC
(7) Strengthening of SEA in preparation of land use plan	1) Preparation of a bylaw	DPI and DONRE
	2) Implementation of the SEA	DONRE
(8) Strengthening of EIA/EPC	1) Preparation of a bylaw	DONRE
	2) Implementation of the EIA/EPC	DONRE

CHAPTER 6 IMPLEMENTATION SCHEDULE

Implementation schedule for Proposed Measures is shown in the following table.

Table 6-1 Implementation Schedule for Proposed Measures for Coastal Environment Protection Corridor for Halong Bay

Strategy	Approach/Measure	Implementing agency/ organization	Source of funding	Implementation period																		
				Short		Mid			Long													
				2013	2014	2015	2016	2017	2018	2019	2020	2021	2022									
Strategy 1 Minimum discharge of wastewater and silt from coastal area to the Halong Bay	(1) Wastewater treatment and pollution control																					
	1-1) Plan of improvement and new installation of WWTP	DPI, Halong City, Cam Pha City	QNPPC, donor	■	■																	
	1-2) Construction of WWTP	DOC	QNPPC, donor			■	■	■														
Strategy 2 Prevent shift of shoreline to the sea	1-3) Operation, maintenance, and replacement of the WWTP	URENCO or private company contracted with QN PPC	QNPPC (water charge)					■	■	■	■	■	■	■	■	■	■	■	■	■	■	
	1-4) Pollution source control for industry	DONRE	QNPPC	■	■	■	■	■	■	■	■	■	■	■	■	■	■	■	■	■	■	
Strategy 3 Application of Environmental Protection Law and Forest Protection Law for land use management	1-5) Pollution source control in coal-related activities	VINACOMIN, DONRE (administrative guidance)	VINACOMIN	■	■	■	■	■	■	■	■	■	■	■	■	■	■	■	■	■	■	
	(2) Strict development permit and monitoring in Bai Chay International Tourism Area																					
Strategy 4 Enhancement of sustainable tourism from viewpoint of land use management	2-1) Preparation and promulgation of bylaw or any legal document on strict development permit and monitoring in Bai Chay International Tourism Area	DPI, DOC	QNPPC	■																		
	2-2) Enforcement of the strict development permit and monitoring	DOC, DPI, DONRE, DCST	QNPPC		■	■	■	■	■	■	■	■	■	■	■	■	■	■	■	■	■	
Strategy 4 Enhancement of sustainable tourism from viewpoint of land use management	(3) Parking space development in Bai Chay International Tourism Area																					
	3-1) Selection of location of parking site in the Bai Chay tourism area and land recovery procedure (if necessary)	DCST, DOT, DONRE	QN PPC																			
	3-2) Development of parking site with road station	DCST, DOT	QN PPC Private company	■	■																	
	3-3) Removal of roadside parking space along the Bai Chay Road, especially in weekend and peak period, and strict control of roadside parking in main road, especially in Bai Chay Road	DOT (legal procedure) Police Dept. (enforcement)	QN PPC	■	■																	
	3-4) Installation of signboard for parking spaces	DOT	QN PPC			■	■	■	■	■	■	■	■	■	■	■	■	■	■	■	■	■
	3-5) Installation of parking guidance and information system	DOT, DCST	QN PPC	■	■																	
Strategy 4 Enhancement of sustainable tourism from viewpoint of land use management	3-6) Introducing environmental-friendly public transportation along the Bai Chay Road	DOT, DCST	QN PPC Private company	■	■																	
	(4) Mangrove and tidal flat protection and wise-use																					
	4-1) Application of the proposed mangrove protected areas to the national forest protected area system	DARD	QNPPC	■																		
	4-2) Management, maintenance, and restoration of the protected area	DARD, Ward/commune PCs	QNPPC		■	■	■	■	■	■	■	■	■	■	■	■	■	■	■	■	■	
	4-3) Preparation of guidelines on eco-tourism and environmental education in the mangrove protected areas	DARD, DCST	QNPPC																			
	4-4) Establishment of registration system on implementation of eco-tour in aquaculture pond within the mangrove protected areas	DARD	QNPPC																			

Strategy	Approach/Measure	Implementing agency/ organization	Source of funding	Implementation period									
				Short		Mid		Long					
				2013	2014	2016	2017	2018	2019	2020	2021	2022	
	4-5) Establishment of training and registration system on eco-tour guide, who conduct eco-tour in the mangrove protected areas	DARD, DCST	QNPPC										
	4-6) Operation of the eco-tour and environmental education in the mangrove area		Tourism company, QNPPC (EE),										
	(5) Control of aquaculture												
	5-1) Preparation of a guideline on extensive aquaculture method, and promulgation of bylaw (Resolution) for its promotion	DARD	QNPPC										
	5-2) Promotion and technical instruction of the extensive aquaculture	DARD, Ward/commune PCs	QNPPC										
	5-3) Establishment of monitoring system on the extensive aquaculture and its implementation	DARD, Ward/commune PCs	QNPPC										
	(6) Control of land reclamation												
	6-1) Preparation of a guidelines on construction method of the land reclamation, and promulgation of bylaw (Resolution) for its promotion to be applied in the CEPC area	DOC	QNPPC										
	6-2) Monitoring of land reclamation activity	DOC, DONRE	QNPPC										
	(7) Strengthening of SEA in preparation of land use plan												
	7-1) Preparation and promulgation of bylaw or legal document on implementation of SEA in the preparatory/review process of the land use plan, especially for the CEPC area	DONRE	QNPPC										
	7-2) Implementation of the SEA	DONRE	QNPPC										
	(8) Strengthening of EIA/EPC												
	8-1) Preparation and promulgation of bylaw or any legal document on examination of environmental impact to the Halong Bay in the preparatory process of EIA/EPC in the case where the subject development project/activity is located in the CEPC area	DONRE	QNPPC										
	8-2) Implementation of the EIA/EPC	DONRE	QNPPC										

CHAPTER 7 NECESSARY ACTIONS IN FURTHER STAGE

(1) Actions to be taken by QN PPC/ CEM after the Project

Actions to be taken by QN PPC/ CEM after the Project are shown as follows;

- 1) Recommendation on the proposed CEPC is the legalization of CEPC as priority area to implement the environmental measures
- 2) Recommendations on each proposed measure are as follows;
 - a) Wastewater treatment and pollution control
 - Further study on domestic wastewater treatment system for non-coverage areas
 - b) Strict development permit and monitoring in Bai Chay International Tourism Area Land Recovery
 - Preparation and promulgation of bylaw or any legal document on strict development permit and monitoring in Bai Chay International Tourism Area
 - c) Parking space development in Bai Chay International Tourism Area
 - Selection of location parking site in the Bai Chay tourism area
 - Examination of public transportation system in the tourism area
 - d) Mangrove and tidal flat protection and wise-use
 - Application of the proposed mangrove protected areas to the national forest protected area system
 - Ban of land use change in existing mangrove area within CEPC
 - Preparation of guidelines on eco-tourism and environmental education in the mangrove protected areas
 - Establishment of registration system on implementation of eco-tour in aquaculture pond within the mangrove protected areas
 - Establishment of training and registration system on eco-tour guide, who conduct eco-tour in the mangrove protected areas
 - Setup of management structure of the protected area with building management capacity
 - Plantation and increase/recovery of tidal flat area
 - Development of nursery
 - e) Control of aquaculture
 - Preparation of a guideline on extensive aquaculture method for existing aquaculture pond in the mangrove protected areas, and promulgation of bylaw (Resolution) for its promotion
 - Establishment of monitoring system on the extensive aquaculture
 - f) Control of land reclamation
 - Preparation of a guidelines on construction method of the land reclamation, and promulgation of bylaw (Resolution) for its promotion to be applied in the CEPC area

- g) Strengthening of SEA in preparation of land use plan
 - Preparation and promulgation of bylaw or legal document on implementation of SEA in the preparatory/review process of the land use plan, especially for the CEPC area
- h) Strengthening of EIA/EPC

Preparation and promulgation of bylaw or any legal document on examination of environmental impact to the Halong Bay in the preparatory process of EIA/EPC in the case where the subject development project/activity is located in the CEPC area

Attachment-1

Report on Trial Eco-tour in the Proposed Mangrove Protected Area on 13 Oct. 2012

1. Objectives
 - To examine feasibility of the eco-tour in the proposed mangrove protection area
 - To promote the proposed mangrove protection area to relevant persons and organizations
2. Date: 13 October, 2012 (Saturday)
3. Time: 8:30am - 14:00pm
4. Location: Aquaculture pond in Hoang Tan Commune, Quang Yen Town
5. Participants

Total 31 persons attended the activity as shown in the following list.

List of the Participants

No.	Name	Organization
1	Ms. Nguyen Thi Thu Thuy	PMD, DONRE
2	Ms. Phan Thi Hoang Hao	PMD, DONRE
3	Ms. Nguyen Thi Van	WG-3 member, DCST
4	Mr. Vu Nam Phong	WG-3 member, DONRE
5	Mr. Nguyen Dang Thanh	WG-4 member, Youth union
6	Ms. Dang Thi Hai Yen	WG-4 member, DONRE
7	Mr. Dao Manh Luong	Tourism Boat Association
8	Mr. Vu Dinh Linh	Tourism Boat Association
9	Ms. Nguyen Thu Trang	Resource Tourism Development Division, DCST
10	Ms. Nguyen Thi Hang	Lecture, Ha Long Culture- Art & Tourism College
11	Mr. Pham Dinh Quang	Lecture, Ha Long Culture- Art & Tourism College
12	Ms. Hoang Thanh Quynh	Volunteer in Eco-star club, Quang Ninh Medical College student
13	Mr. Le Thanh Tu	Volunteer in Eco-star club, Quang Ninh Medical College student
14	Mr. Doan Chien Thang	Volunteer in Eco-star club, Quang Ninh Medical College student
15	Mr. Nguyen Luong Dat	Volunteer in Eco-star club, Quang Ninh Medical College student
16	Ms. Nguyen Thi Thanh	Volunteer in Eco-star club, Quang Ninh Medical College student
17	Mr. Nguyen Tien Thang	Youth Union
18	Ms. Nguyen Lan Phuong	Youth Union
19	Ms. Cao Thi Bon	DONRE, Quang Yen Town PC
20	Mr. Dinh Duc Thanh	Economy Division, Quang Yen Town PC
21	Mr. Dam Chi Thiet	Economy Division, Quang Yen Town PC
22	Mr. Le Van Mat	Pond owner
23	Mr. Tran Ngoc Chung	Pond owner
24	Mr. Tran Anh Tuan	Vice-head of Hoang Tan commune police station
25	Mr. Tomoo Aoki	JET
26	Mr. Go Kimura	JET
27	Ms. Bui Thi Cuong	Local staff, JET
28	Ms. Duong thi Nhuan	Local staff, JET
29	Ms. Ha Thi Minh Phuong	Local staff, JET
30	Mr. Nguyen Thanh Phuong	Local staff, JET
31	Ms. Tran Thi Mai Lan	Local staff, JET

The Project for Environmental Protection in Halong Bay
Action Plan for Proposed Measures in Coastal Environment Protection Corridor for Halong Bay

6. Implementation structure

(1) Total coordinator	Mr. Aoki, JET
(2) Eco-tour guide	Ms. Cuong, JET
(3) Assistants	➤ Mr. Nguyen Thanh Phuong and Ms. Ha Thi Minh Phuong, JET ➤ Members of Eco-stars Club

7. Program

Activity	Planned Time	Actual Time
(1) Move from QN PPC inter-office No.2 to the eco-tour site in Quang Yen Town	8:30 - 10:00	8:30 - 10:00
(2) Introduction on the eco-tour with safety instruction	10:00 - 10:15	10:00 - 10:30
(Group-1)	(Group-2)	
(3) Eco-tour by kayak	10:15 - 10:45	10:30 - 11:45
(4)	Eco-tour by kayak	10:50 - 11:20
(5) Discussion and lunch	11:30 - 13:00	13:00 - 15:00
(6) Move from the eco-tour site to QN PPC inter-office No.2	13:00 - 14:00	15:00 - 16:00

8. Arrangements of Equipment

Item	Quantity
(1) Transportation (mini-bus)	2
(2) Two-seater kayak	6
(3) Small boat (for supervision and camera)	2
(4) Life jacket	more than 15

9. Location and Eco-tour Route Map



Source: Prepared by JET by using the Google earth

10. Narration by eco-tour guide

The eco-tour guide explained about the mangrove ecosystem by stopping the group of kayaks during the eco-tour as follows;

Dear visitors

Warmly welcome to visit the mangrove forests of Hoang Tan commune

Mangrove forest is one special forest type which is in estuaries and coastal areas of the tropics and subtropics. Mangrove trees have special abilities such as development of root system and mechanisms of salt elimination to adapt to condition of periodical submersion in tidal water.

Mangrove forest has several species of plants such as *Aegivenasfloridum*, *Avicennia alba*, *Bruguieragymnorhiza*, *Kandeliacandel*, *Rhirophozastylosa* species and so on. Species composition, size and density of mangrove forest depend on soil composition, tidal regime and climate condition of each area. There are one-species forest and the poly-species forest. Mangrove trees in northern Vietnam are lower and smaller than mangrove trees in the south of Vietnam due to low temperature and diurnal tidal regime. The height of mangroves tree in Ca Mau are over 20m while depth of mangrove trees in Quang Ninh are from 2 to 3m.

According to report by People's Committee of Quang Yen Town on 9th December 2011, mangroves area of Hoang Tan is about 406 hectares, including 250 hectares of natural forest and 156 ha of planting forest. Most of mangroves that are covered by aquaculture ponds in Hoang Tan are one-species forest with *Rhyrophozastylosa* species.

Mangrove forest is the shelter belt for wave prevention to protect the sea dyke. Strength of the sea wave will be greatly reduced if they meet mangroves before hitting at the dyke. Mangrove forest is the green lungs to make climate equable. With the developed root system, mangroves can prevent soil erosion and runoff. By the great importance, mangrove forest is planned as one of coastal protective forest types by QNPPC.

Mangrove forest is nursery of most of marine species. In their life cycle, they lay their eggs in the ocean. Eggs follow the waves drifting on shore and into the mangrove forests and hatch into larvae, than develop into fingerling and small shrimp. These marine species live, find the food and take shelter under the forest canopy. They come back sea when they grow up. Some species live their lifetime in the mangrove forest such as Mud clam, Mud crab, Mangrove oyster, Greasy mud clam, Nerites, Foureyes sleeper, Mud eel and so on. According to preliminary result of a quick survey from 4th to 6th October 2012 conducted by the Project in cooperation with Hoang Tan Commune People's Committee, more than 62 marine species are exploited in Hoang Tan tidal flat and mangrove forest. Some species are exploited with high output such as Mangrove oyster and White scallop. Recently, by the drop of shell, bamboo or dry trees into tidal flats to collect oyster larvae for natural rearing, after 9 to 12 months dropping shell or bamboo, one day a person can exploit about 100kg of mangrove oyster. Exploitation of marine resources in tidal flats and mangrove forest has been livelihood of coastal communities for many generations.

Besides marine species, mangrove forest is home of many birds. According to the preliminary result of quick survey mentioned above, more than 37 (now is 58) species of birds occurred in tidal flat and mangroves in Hoang Tan area. During the day, birds fly outside to find the food and at night they sleep on the mangrove trees. Furthermore, in the flowering season, many bees come to get mangroves pistil to make honey.

Mangrove forest has also other several benefits and effects. Skin of *Bruguiera* and *Rhyrophoza* trees provides tannin to dye fabric, mesh and leather (Bating). Wood of *Sonneratia* tree can make the cork stoppers. Fruit shell of water coconut can make handicrafts. Some mangrove trees and leaves can be herb medicine for disease treatment for humans and fertilizer for planting.

In recent years, the same as other localities, for economic development, some households in Hoang Tan have been allocated tidal flat with mangroves to build aquaculture ponds. Mostly, aquaculture ponds conducted by households apply the extensive culture method and improved extensive methods (Using natural seed and additional stocking some seeds from hatcheries). Companies usually apply the form of semi-intensive or intensive (industrial method). Aquaculture activities solved the work demand for local people and created a variety of products for export as well as domestic consumption. However, the use of land with mangroves for construction of pond dyke and expanding channels in the pond also reduce the area and the density of mangrove trees. Besides, keeping water in long time made some trees in the ponds to die.

Dear Visitors

At the moment, we are standing in mangroves inside aquaculture pond of Mr. Le Van Mat, 60 year-olds. The pond was built in 1992 with an area of about 35 ha. Mr. Mat is a of successful shrimp farmers in the Hoang Tan with improved farming methods and mangroves protection. Additional stocking species include tiger prawn (*Monodon*), white less prawns (*Vannamei*) and sea bass. Average output is 4000 kg / year. Main products are greasy-back shrimp, tiger shrimp and mud crab. Average profit is about 300 million / year. Profit varies from 100 million (in poor crop) to more than 400 million (in bumper crop).

This time is the end of the shrimp harvest. Therefore, the remaining product is very little. Here are some products of the aquaculture of Mr. Mat (Showing the harvested products).

Now, please to continue rowing in the pond to enjoy the natural beauty of green mangrove forests and go to see the Little Egret herd at the end of the pond.

We wish you have nice trip

11. Feedback from the participants

Inquiry survey was conducted to some participants after the activity. Main comments are summarized below. Original comments from the participants are shown in the attachment.

Main Comments from the Participants

- 1) Participation from local community with training
- 2) Necessity of infrastructure improvement such as road, parking, toilet, and jetty for kayak
- 3) On-site local restaurant with local specialties
- 4) Preparation of the detailed map on eco-tour route
- 5) Preparation of different eco-tour programs with combination of scientific, cultural, traditional, and historical aspects
- 6) Preparation of safety plan
- 7) PR and tourism promotion
- 8) Combination of mangrove eco-tour and other tourism program
- 9) Inclusion of opportunities such as mangrove planting and local lifestyle learning

12. Photos

	
<p>Introduction on the eco-tour with safety instruction by JICA Expert</p>	<p>Practice of kayak operation before starting the eco-tour</p>
	
<p>Eco-tour by Kayak, lead by small boat with eco-tour guide</p>	<p>Explanation on mangrove and its ecosystem by eco-tour guide</p>
	
<p>Eco-tour by Kayak, lead by small boat with eco-tour guide</p>	<p>Landing the dyke of aquaculture pond for bird watching</p>

Attachment

- (1) Feedback comments from the participants

(1) Recommendation For Mangroves Tour Improvement

By Mr. Vu Nam Phong-WG-3 member

1. Number of site should be increased.
2. Presentation/Interpretation for each site's history, potential, protection and utilization.
3. Detail maps with instruction signs.
4. Different access routes (by car, by boat, by motorbike).
5. Local community's participation (interpretation of history).
6. Infrastructure improvement.
7. Local restaurants with on-site specialties.
8. First hand-on experience such as fishing, rowing and swimming.
9. Staff and local people training
10. PR and tourism promotion.

(2) Opinion for Mangroves-Tour Development

Mr. Dao Manh Luong, Boat Tourism Association, 29th October 2012

Dear Mr. Tomoo Aoki

I was really very interesting to participate in the Mangroves-tour which is conducted by the Project

Idea for development of Eco-tour in mangroves (the Tour) Quang Yen is very well. Because it is the new and strange discovery to replace the existing normal tours that become boring with tourist who have annual tour. Besides, the Tour can help tourist to mobile and to discover them self through discover the secrets of nature, to understand more about live environment and ecology environment, and their practical awareness on necessary for life environment protection of Earth which is being compromised by the human will be improved.

However, in order to organize successfully the Tour, it is the necessary for thorough preparation. The interesting scenario should be prepared making tourist surprise. There is explanation which combined by science basics with vivid characteristics of culture and popular myth colour. Most importance is good preparation of material facilities in order to ensure the planned time, health and safety for tourists.

Finally, I wish you and colleagues well, healthy with many ideas & creativities to organize successfully many cheerful and helpful tour the same as last Tour.

(3) Suggestion For Development Of Mangroves Tour

By Ms. Dang Thi Hai Yen, October 29th, 2012

Thank you very much for giving me opportunity to participate in the last trial on Mangroves-tour in Hoang Tan Commune, Quang Yen Town.

It gave me the experience of a mangroves space and created enthusiasm as well as more attention to the Eco-tourism field.

How to get the best Mangroves-tour in the future?

When I participated in the training course in Japan, I found out that propaganda effectiveness of environmental protection in the community through ecotourism activities is feasible.

In my opinion, in order to have the best Mangroves-tour in the future, the detailed plan for 02 target groups including the youth, juvenile group and other objects group should be prepared.

1. For the youth- juvenile group

This is a study session to learn about mangroves through explanation by guide. The supporting activities such as rowing or kayaking competition with some prizes (mangroves book, eco-quiz book, eco symbol of the Project etc.) should be combined with instruction of boat rowing and kayaking to create the fun, exciting during Mangroves-tour. There is loudspeaker in the boat to propagandize and instruct the mangroves protection and give the questions for tourists to receive the answers on the spot. Tourist can also join the production activities with aquaculture farmers and fishermen such as making

bamboo trap for fishing, allocating the bamboo trap into pond for fishing and so on. Some local products should be prepared in the tour site. Besides, some outdoor snacks or simple meals should be made in the garden area near the Mangroves-tour.

2. For other objects group (including workers, public employees, women, etc)

For them, this is experience session in mangrove forest through the guide. There is loudspeaker on the boat to propagandize and instruct the mangroves protection and tell the funny stories on mangroves. The introduction of mangroves products including shrimp, fish, clam, and crab etc. as well as some mangrove trees should be introduced by local people. The concentrated areas of fish should be created for fishing activities. And, if possible, the lunch for visitor with local products should be served by local people.

(4) Opinion For Mangrove Tour Development

By Ms. Nguyen Thi Van, WG-3 member, DCST, 31st October 2012

Dear Mr. Aoki and Ms. Cuong

My ideas for formation of eco-tour area in Quang Yen as follows:

1. Report to authorities for approval of Mangroves-tour (the Tour)
2. The mangroves tour should be combined with some visit to other sites to form a half-day tour in Quang Yen. For example, in the morning, visitors will visit to Bach Dang history relic area including Bach Dang Piles Ground, Tran Hung Dao Temple, Vua Ba Temple, the Iron wood tree-forest well, Bach Dang Museum and then visit to mangroves by kayak. Or visitors will visit to traditional boat-building workshops or bamboo-boat building workshops and then visit to mangroves. Visitors will have lunch in Quang Yen Town.
3. In order to the Tour becomes to reality, some following contents/works should be invested
 - Road improvement: checking the width of road to the mangroves area. If the 45 seats bus cannot access the mangroves area by existing road, the road must be improved.
 - Park arrangement for tourism bus.
 - Boat wharf construction
 - Toilet construction
 - Tradition pub like eco-pub to serve traditional seafood that exploited from mangroves forest.
 - Development of standard explanation and local guides. The local guides should be trained on explanation skill.
4. Making plan to implement the Tour. Who will be investor to operate the Tour? Commune PC or private companies or combination of both.
5. Marketing options to promote the Tour to attract the visitors

Above contents are my initial opinions. In fact, besides these contents, some other works must be implemented more.

(5) Proposals For Local Mangrove Tour Development

By Ms. Nguyen Thi Thu Thuy & Ms. Phan Thi Hoang Hao, PMB, October 2012

Community Ecotourism is best option for environment protection and creating the new livelihood for local people. It helps them to stabilize their life and to raise their awareness on natural resources protection. This approach is selected and painstakingly studied by WG-2 of the Project to apply in the mangrove forest in Hoang Tan Commune, Quang Yen Town.

More importantly, for the local people in the commune, an ideology has changed. They self-protection of marine biodiversity and they are beginning to have revenues from mangroves resources that they are keeping. Ecotourism model here really makes the link, the association of their interests with the

natural environment. The developed Mangrove-tour is like the getting more an invisible wall for environment protection at the wetland area.

Most participants were amused and impressed by the pristine beauty and unique of the wetland in trial site. Through the witty, enthusiastic and attractive explanation by a guide, the staff of the Project, specifically, participants were directly to see the wonderful landscape of mangroves species, the trial tour was more interesting. We can say that, in the future, if there is an appropriate investment and development, the Mangrove-tour will be an activity which attracts attention of many people due to its attraction and novelty.

However, in order to duplicate and maintain the sustainability of these activities, we suggest as follows:

1) WG-2 of the Project continues refer the experiences to develop the criteria for Mangrove-tour in accordance with the national and international criteria for ecotourism including criteria to ensure safety for tourists during the tour.

2) Further diversification of tourism types, specially, local cuisine tourism. After the experienced tour, exploring the wetlands by kayak, or boat, visitors can have opportunity to enjoy the delicious fresh seafood and exchange culture with local people.

The trial tour was a very significant activity and it was highly appreciated by participants because they had opportunity to learn more about the cuisine culture here. Through the Mangrove-tour, the tourists can learn about the seafaring skills, boat rowing as well as learn about aquaculture activities or will be involved in the mangroves planting or learn the lifestyle of rural people who are honest and very enthusiastic.

3) Quang Ninh PPC is proposed to build the policies, mechanism to attract investment for development of Mangrove-tour type in potential areas of the Province. The priority investment should be given to build the professional tourism workforce. They may be the local people. Material facilities and standard transportation mean should be invested. Besides, the several ecotourism services such as driving the cart of racing bike should be developed to exploit the long road section to the Mangroves-tour area.

The detailed plan for extensive promotion of the new eco-tourism sites should be implemented soon to attract tourists, especially the foreign tourists who are very interested in the eco-tour type.

(6) Opinion For Mangrove Tour Development

By Mr. Vu Dinh Linh

Dear Sir

I am a representative of the Minh Hang International Tourism Service JSC.

We were very happy to attend the last trial on Mangroves-tour in the Hoang Tan Commune, Quang Yen Town. This is a new idea, a new journey to look for eco-tourism potential of Quang Ninh. Now, there are rare places where still retain the original blue as this place. Natural river and sea are great gifts to us. Why we do not bring that beauty to foreign visitors for admiring. We hope that the idea of Mangroves-tour became a reality in the near future. The visitors will take the time to participate in the Mangroves-tour after or before visiting to Halong Bay.

Some our suggestion as follows for your reference:

- It would be reasonable if you have the reception room/office to pick-up visitor at the T-junction at km-11 (on the National 18A).
- There are reception staffs to welcome, show the way or and take the visitor into Mangrove site.
- Material facilities and parking ground must be invested in a regulated and orderly manner.
- Making facilitation for tourists for rowing/ kayaking along mangrove forests.
- Creating the reasonable location for a relaxing, taking pictures or fishing.

We hope that, we and our tourists will be visited to your developed Mangroves-tour soon.

Halong City, November 2nd 2012

By Vu Dinh Linh: Director of Minh Hang International Tourism Service JSC

Add: Group 9, Area 3, Bai Chay Ward, Halong City, Quang Ninh, Tel: 033.3640.858 Fax: 033.3511.429

(7) Opinion For Mangrove Tour Development

By Mr. Nguyen Dang Thanh, Provincial YU

After the participating the last trial on Mangroves-tour at Hoang Tan commune, Quang Yen Town conducted by the Project, I would like to contribute some following ideas:

1. Regarding the time: If the participants come from Halong City, they should depart early at 6.00 Am and finish the tour at 16h00.
2. Regarding the activities: In addition to rowing or kayaking, some other activities should be organized such as fishing with fishermen. If visitors are YU members, they should organize camping and organize games on environment or participate in the mangrove planting (if the tour time is planting crop). The cleaning action at the tour site (waste collection) must be done after leaving.
3. Regarding the location: the short-break venue should be organized in coordination with the local people in nearby tourism site to arrange the lunch for tourists. The lunch should be prepared by seafood from the fishing by them.

(8) Opinion for Eco-tour in mangroves forest of Quang Yen Town

By Ms. Nguyen Thu Trang, DCST

To: Environmental Protection Project for Halong Bay

Tourism Resources Development Division under DCST received the invitation letter No. 25/2012/BDH dated 8th October 2012 of the PMB. We appointed staff to join the pilot program on Eco-tour in mangroves.

After participating in Eco-tour trial in mangroves inside aquaculture pond of Hoang Tan Commune, Quang Yen Town, Tourism Resources Development Division has some following opinions:

1. Infrastructure and transport facilities should be invested to serve the development of eco-tours in the mangroves.
2. To build the tourism routes and sites with the connection of Eco-tour with visit to relic tours and traditional villages in Quang Yen Town to enrich and diversify the tourism products to attract more tourists and extend the stay-time of tourists in Quang Ninh.
To build the system of accommodation facilities, restaurant and public toilets for tourists in tourism points and area.
3. Training on mangroves tour guide with qualifications, profession and foreign languages to serve tourists. Local people in the mangrove area and traditional villages should be encouraged to participate in tourism activities.
4. To build the mechanisms and policies to encourage the enterprises operating in the tourism sector to invest, to build the Mangrove-tour, contributing to the diversification and enrichment for tourism programs in Halong Bay and vicinity.
5. Strengthening the advertisement, promotion and introduction of the tours to tourists through the travel agencies and mass media such as Web sites, TV show, leaflets and so on.

Above are a few ideas to build a Mangroves-tour in Quang Yen

(9) Opinion for Eco-tour in mangroves forest of Quang Yen Town

By Ms. Nguyen Thi Thu Hang, Lecturer of Halong Culture-Art & Tourism College

To Project for Environmental Protection in Halong Bay

First of all, I would like to thank you for inviting me to participate in the last trial on Mangroves-tour in Hoang Tan Commune, Quang Yen Town. This tour gave me a very new experience.

To make the trial-tour into practice, I think we should consider the feasibility of the program in the following factors: The quality of program content and price given to each tourist as well as physical facilities and infrastructure in mangroves site.

1) Program content

- There is new and strange element of space, which is the mangroves. It is different from the traditional tour programs on Halong Bay in Quang Ninh.

- However, tourism activities in the last program are few and not unique. In the trial program, we have only kayaking in the mangroves and do not have any other activities. Some other activities such as environmental protection and participation of life or production of residents should be added.

- For the tourism point, in the last trial tour, there is only one point with small space, not enough activity for one-day tour. It should be connected to a number of other tourism points of Quang Yen Town such as the Dam Nha Mac, Bach Dang Piles Ground, Tien Ong Temple, Mieu Vua Ba, etc, even it should be combined with other tourism points in Hoang Bo (Because Hoanh Bo is also less tourism resources and it is near Halong) to extend the tourism time and diversify tourism activities.

2) Price for a tour

- Cost for kayaking operation is quite high and not so different from kayarking in Halong Bay. Therefore, the small bamboo boats or wood boats should be used to replace the kayards.

- The eco-tours is usually fit students (young people) and foreigners. Two these objects have the different level of payment, but their requirement in tourism activities and experience is quite similar. They are like new things.

3) Material facilities and infrastructure

According to my observation, there are not travel services in surrounding mangroves area. The road is low quality (small, narrow, rough). It should be invested appropriately.

(10) Opinion for Eco-tour in mangroves forest of Quang Yen Town

*By Mr. Pham Dinh Quang, lecturer of Halong Culture-Art and Tourism College
Halong, November 29th, 2012*

Dear Mr. Tomoo Aoki

Firstly, I would like to thank to JICA Project Team for organizing a very interesting tour!

I understand that Mangroves-tour is a very significant program and is the idea of sustainable tourism development. The Tour was connected us to buffer zone of heritage site of Halong Bay with local people and the local tourism agency to contribute to raising people's awareness on environmental protection.

However, activities of the Tour were limited. If possible, in future, some activities as *team building/ team working* should be added for more abundant program.

The Tour will be more meaningful if it should be combined with other tours to visit the relics in Quang Yen Town such as Bach Dang Piles Ground, Iron wood tree-forest well, Tran Hung Dao Temple etc.

Thank you very much! the Project gave me a new experience in my *homeland!*

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(11) Some impressions after Mangrove-tour

*By Mr. Dinh Duc Thanh and Mr. Dam Chi Thiet, Economical Department of Quang Yen Town,
0912.776.231- damchithiet1982 @ gmail.com)*

After participating in the trial tour on mangrove forest in Hoang Tan Commune, Quang Yen Town, we have some following impressions:

In recent years, various types of tourism have been formed to meet requirement for sightseeing, tourism, entertainment of the people. In addition to Eco-tourism which has developed for over 10 years, the Mangroves-tour is also a potential tourism type. However, Mangrove-tour only is suitable for tourists who like adventure and discovery. In order to have a perfect trip, along with a good physical/health, tourists must prepare carefully to avoid risks. In addition, the tourists should prepare personal items such as compass, jungle boots, flashlights, raincoats, canned food, hammocks, tents and medical instruments etc. It is a mistake if the tourists do not know about mangrove forest where is destination such as location, typical plants, animals and so on.

Some suggestions to build one Mangroves-tour (2 days, 1 night) in Hoang Tan Commune as follows:

Visit to mangroves in Hoang Tan, the tourist will learn and discover interesting things of mangroves that maybe they never know. Tourists can learn to identify the plant and animal species in mangrove forest. Tourists can understand the adaption capability to salt water and stable standing on muddy soil as well as their bloom and regeneration.

Tourists will be introduced about the richness and diversity of species in the mangrove forest, especially, the wild birds, survival capability as well as life characteristics of each species. In addition to the introduction of identification and function of mangroves by the projector and direct visiting on the spot, the tourists can also participate in the game, play role on the mangrove species. Through these activities, the students or pupils will have the opportunity to understand the nature of the intimate relationship between the species in biome of mangrove forest.

Time schedule for the Tour

* 1st day:

- In the morning: tourists will arrive in mangroves site at 9am to hear a presentation on the process of recovery and development of mangroves, some plant and animal species in mangrove forest, adaptability and their reproductive capability.

- Discussion.

- Have lunch at the mangroves area.

- Afternoon, experimental visit to identify some common species and some wildlife such trees and birds in the mangrove forest. Transportation is implemented by boats.

- In the evening: campfire activities

*2nd day:

- Morning: visit to some typical mangroves ecosystems, alluvial/tidal flat ecosystem or visit to oysters or shrimp aquaculture farms.

- Have lunch

- Afternoon: Organization some environmental education games. The tourist will be characters as animal or tree in the game.

- Discussion and evaluation of the Tour.

* The Tour will be finished at about 16:00.

Attachment-2

Report on Social Experiment for Improvement of Traffic Safety and Landscape in Bai Chay Road

1. Objectives
 - a) To demonstrate and raise public awareness on new measure for improvement of traffic control and landscape in Bai Chai international tourism area
 - b) To get feedback and lessons for further examination of the proposed measures on traffic control before actual implementation in future
2. Date and Time
 - 8 am - 4:20 pm on 1st Dec. 2012 (Sat.) (the same date for the Eco-fair 2012 under the project)
3. Organizations in preparation and implementation
 - (1) Leading Organizations
 - DOT, Halong City PC (incl. Police Dept.) and DONRE (PMB for the Project for Environmental Protection in Halong Bay)
 - (2) Associate Organizations
 - DCST, Bai Chay Ward PC (incl. Police Dept.)
4. Target group
 - a) Tourists
 - b) Tourism business along and around the Bai Chay Road such as hotel, restaurant, and shop
 - c) Local residents in Halong City, mainly in and around the Bai Chai tourism area
5. Main activities
 - a) Closure of main section of the Bai Chay Road for approx. 1 km-length from the Dream Hotel to the Novotel Hotel. (please see a map in Attachment.)
 - b) Provision of temporary parking space for vehicle and motorbike
 - c) Demonstration of the electric carts, which is an example of the environmental-friendly public transportation to be used in the closed section of Bai Chay Road in the future
 - d) Explanation on the proposed measure for improvement of traffic safety and landscape in the Bai Chay Road at a booth of the project in the Eco-fair 2012, located at the Youth Summer Camping Site, Bai Chay Ward
 - e) Quick interview survey to the tourists on the social experiment
 - f) Video recording in some locations
 - g) Feedback information from traffic control officers after the experiment
6. Coordination and arrangements
 - a) Official permission from QN PPC and Halong City PC for implementation of the social

experiment on 22 Nov. 2012

- b) Clarification of roles for each organization to be involved
- c) Secure temporary parking sites near the closed road section
- d) Prior announcement to the hotels, shops, and restaurants on the event
- e) Prior announcement by signboards and campaign vehicle, and through mass media on the event with explanation on traffic limitation and parking locations
- f) Preparation of traffic control plan such as guidance of detour route for the vehicles and motorbikes
- g) Prior instruction to the traffic control police officers

7. Schedule for preparatory work

Work Item	11/4 -11/10	11/11 - 11/17	11/18 - 11/24	11/25 - 12/1
(1) Preparation of draft plan by WG-2/JET	●(-11/5)			
(2) Preliminary meeting with DCST	●(11/6)			
(3) Revision of draft plan		●(-11/11)		
(4) Explanation to Mr. Hau, Vice-chairman of QN PPC by PMB (and JET)		● (11/14)		
(5) Preparation of detailed plan		●●●●●●●●	●●●●●●●●	
(6) Arrangement of electric carts	●●●●●●●●	●●●●●●●●		
(7) Preparation of questionnaire			●●	
(8) Preparation of notice and banners		●●●●●●●●	●●●●●●●●	
(9) Approval of banner and signboard by PMB				●(11/27)
(10) Meeting among relevant organizations at DOT (DOT, DCST, Halong PC, QN Police, Halong Police, PMB, and JET)				● (11/27)
(11) Joint field investigation (DOT, Halong PC, QN Police, Halong Police, PMB, WG-2, and JET)				● (11/27)
(12) Meeting among Mr Pham Hong Ha Vice-chairman of Halong PC, Halong PC, DOT, PMB, WG-2 and JET				●(11/28)
(13) Distribution of notice to the hotel, restaurant, and shop along the Bai Chay Road				●(11/28)
(14) Advertising by campaign vehicle and mass media				●●●● (11/30 - 12/1)
(15) On-site preparation and confirmation				(11/30)●
(16) Implementation of the social experiment				(12/1)●

8. Schedule for the day of social experiment on 1st Dec.

Work Item	Time Schedule										
	7	8	9	10	11	12	13	14	15	16	17
(1) Preparation of zones and booth (7am - 8am)	●										
(2) Closure of the strict access zone (8am)		●									
(3) Start of operation of the parking areas (8am)		●									
(4) Preparation of the electric carts (9am - 9:45am)			●	●							
(5) Introduction of the social experiment in the opening program of the Eco-fair 2012				●							

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Work Item	Time Schedule											
	7	8	9	10	11	12	13	14	15	16	17	
(6) Demonstration parade by all of the electric carts along the closed section of the Bai Chay Road (10:20am - 10:40am)					●							
(7) Demonstration run of the electric carts (10:50am - 4:15pm)					●	●	●	●	●	●	●	●
(8) Patrol of every zones (8am - 5pm)		●	●	●	●	●	●	●	●	●	●	●
(9) Close of the booth (4pm)											●	
(10) Close the open cafe (4:00pm)											●	
(11) Open the closed road section (4:30pm)												●
(12) Close the parking zones (5pm)												●
(13) Completion (5pm)												●

9. Operation of the Demonstration Run of the Electric Carts

(1) Demonstration parade after the morning event of the Eco-fair 2012

- a) Immediately after finishing the morning events of the Eco-fair 2012 at the Youth Summer Camping Site at around 11:00 am, selected VIPs, headed by Mr. Dang Huy Hau, vice-chairman of Quang Ninh PPC, will be escorted by staff of the Eco-fair to the ten electric carts at the entrance gate of the Eco-fair.
=> In the case where Mr. Hau cannot participate in the above, a deputy person should be selected.
- b) Mr. Dang Huy Hau, Ms. Van Mai Huong (singer), and one selected VIP are escorted to ride the first cart. Some selected VIPs are escorted to ride the second and subsequent carts.
- c) The rest will be asked by staff to ride the carts in order.
- d) After confirmation of ride to all the electric carts, the carts move toward west along the Bai Chay Road with slow speed (approx. 5 km/h), lead by a marching band who play the Eco-song, and then the groups of the electric carts with the marching band make U-turn at around 450 m-point, and then return to the entrance gate of the Eco-fair by around 11:30 am.
- e) During the demonstration parade, the Eco-song which is a song for the environmental education in Quang Ninh Province will be played by a marching band (11 players).

(2) Demonstration run in the Strict Access Zone the Bai Chay Road

- a) After the demonstration parade, the electric carts will transport passengers between both ends of stop locations for the electric carts in the Strict Access Zone of the Bai Chay Road; (1) at the west end of the closed section (in front of the Novotel Hotel), and (2) in front of the Eco-fair venue.
- b) The electric carts start from both ends of the stop location every 5 minutes or whenever 5 passengers ride from 11:30 am to 5 pm. However, the operation will be terminated even before 5 pm in the case where battery of the electric cart is finished or has any mechanical trouble.

(see Attachment in detail)

10. Number of staff

Staff	Total number	Location of Deployment
(1) Overall supervision	4	all area subject to the social experiment JET will be in charge of video and camera. (PMB and JET)

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Staff	Total number	Location of Deployment
(2) Traffic control police officer	62	entrances of the Strict Access Zone (2 officers min/entrance X 4 locations)
(3) Security police officer		in the Strict Access Zone
(4) Parking staff	10	in the parking areas arranged from the Royal Hotel and Bai Chay Ward (5 persons/parking X 2 locations)
(5) Control staff at the stop locations for the electric carts (Youth Union of DONRE)	8	Stop locations for the electric carts at the west end of the closed section (in front of the Novotel Halong Hotel) and in front of the Eco-fair venue (2 persons/stop X 4 stops)
(6) Interview surveyor (Youth Union of DONRE)	10	all area subject to the social experiment
(7) Explanation on the social experiment to the public (Youth Union of DONRE)	30	4 locations at entrances of the Strict Access Zone Some locations in the Strict Access Zone 2 locations in the parking areas (2 locations)

11. Necessary equipment and materials

- a) Explanatory brochure with an official letter from Halong City PC on the social experiment to be distributed to the hotels, restaurants, and residents in and around the Bai Chay tourism area, Quang Ninh Tourism Information and Promotion Center, and tourism boat wharf.
=> Distribution has been done on 28 and 29 Nov.
- b) Electric carts (rent from a park in Thanh Hoa Province): 10 carts
- c) Presentation material and equipment in the exhibition booth: several sets of displays and computers from the project office
- d) Banners, signboards, and notices (see Attachment)
- e) Equipment for each zone

Zone	Equipment	Quantity	Location	Arranged by
(1) Strict access zone (1 location, 3 entrances)	barricade	20	entrance of the zone (5 X 4 entrances)	Halong City Police Dept.
	signboard	8	entrance of the zone (2 X 4 entrances)	JET
(2) Parking area (2 locations)	Ropes and stands	400 m	in the parking area (200 m X 2 areas)	JET
	signboard	4	entrance of the parking area (2 X 2 areas)	JET

- f) Truck to transport the above equipment such as barricades: 2 trucks
- g) Campaign vehicle (vehicle with speaker and sound system): 1 vehicle
=> The vehicle will be hired from the Halong Broadcasting and TV Company on 30 Nov. and 1 Dec.
- h) T-shirt for staff: approx. 50 (common to the staff for the Eco-fair 2012)

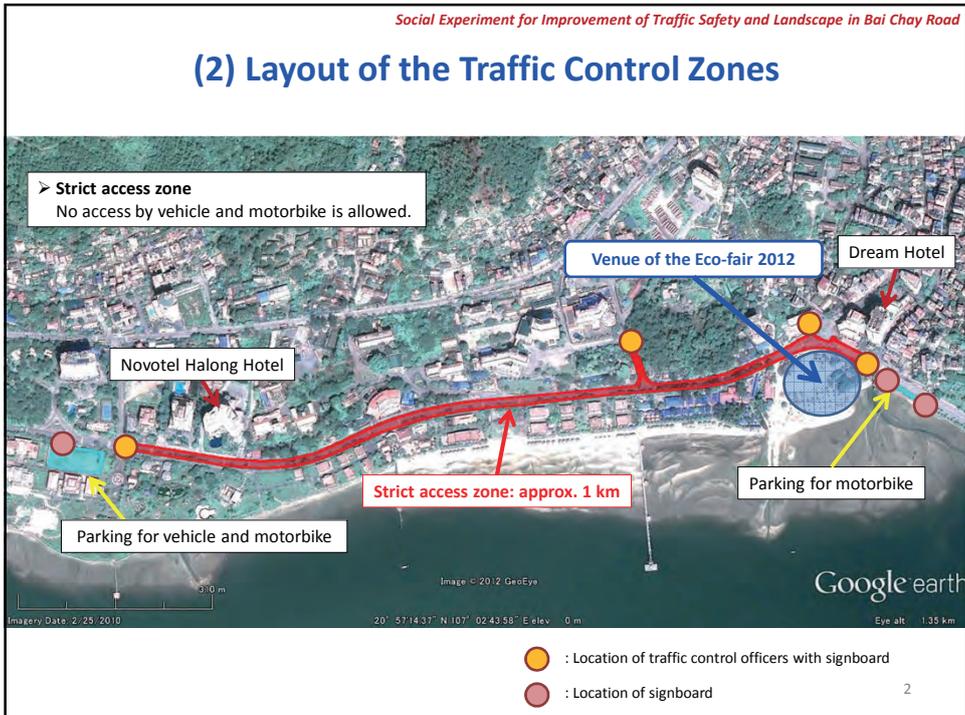
12. Safety management

- a) Emergency measure (to be confirmed.)

(1) Layout of the Traffic Control Zone



(2) Layout of the Traffic Control Zones





Dự án Bảo vệ Môi trường vịnh Hạ Long
The Project for Environment Protection in Halong Bay



**THỬ NGHIỆM XÃ HỘI CẢI THIỆN AN TOÀN
GIAO THÔNG TẠI KHU DU LỊCH BÃI CHÁY**

Thời gian: từ 8:00 – 19:00, ngày 01 tháng 12 năm 2012

SOCIAL EXPERIMENT ON IMPROVEMENT OF TRAFFIC SAFETY IN BAI CHAY TOURISM AREA

1



**THỬ NGHIỆM XÃ HỘI
CẢI THIỆN AN TOÀN
GIAO THÔNG TẠI KHU
DU LỊCH BÃI CHÁY**

Thời gian: từ 8:00 – 19:00
Ngày 01 tháng 12 năm 2012

SOCIAL EXPERIMENT ON
IMPROVEMENT OF TRAFFIC SAFETY
IN BAI CHAY TOURISM AREA

2



Cách 01:

Dự án Bảo vệ Môi trường vịnh Hạ Long
The Project for Environment Protection in Halong Bay

**THỬ NGHIỆM XÃ HỘI CẢI THIỆN AN TOÀN
GIAO THÔNG TẠI KHU DU LỊCH BÃI CHÁY**

Thời gian: từ 8:00 – 19:00, ngày 01 tháng 12 năm 2012

**SOCIAL EXPERIMENT ON IMPROVEMENT OF TRAFFIC SAFETY
IN BAI CHAY TOURISM AREA**

4

Cách 02 (mặt trái):



Dự án Bảo vệ Môi trường vịnh Hạ Long



**THỬ NGHIỆM XÃ HỘI CẢI THIỆN
AN TOÀN GIAO THÔNG TẠI KHU DU
LỊCH BÃI CHÁY**

Thời gian: từ 8:00 – 19:00, ngày 01 tháng 12 năm 2012

5

Cách 02 (mặt phải):



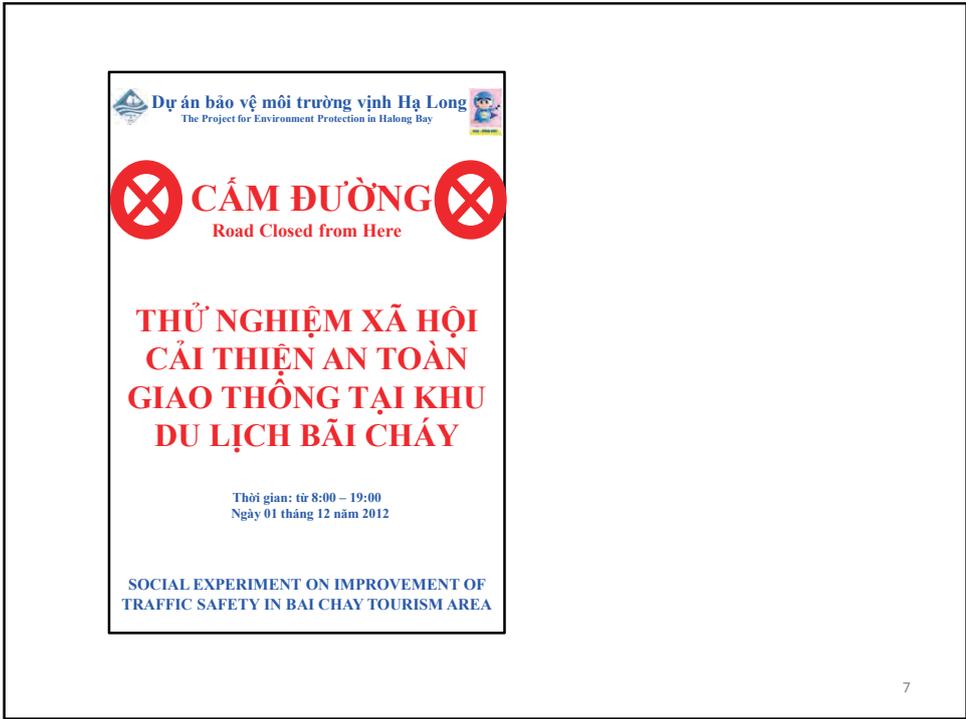
The Project for Environment Protection in Halong Bay



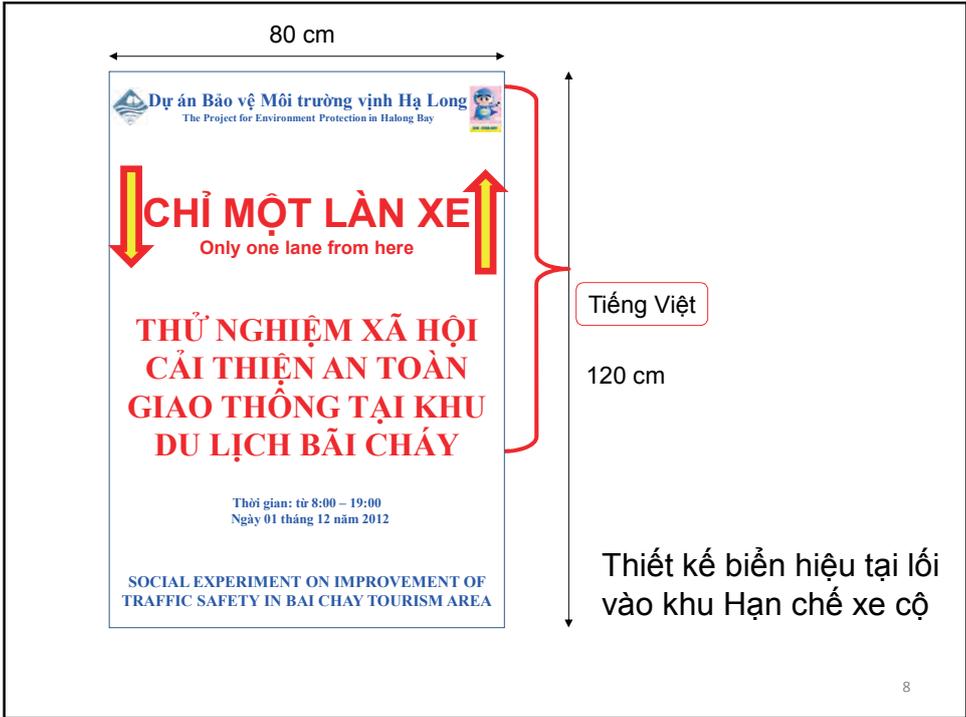
**SOCIAL EXPERIMENT ON
IMPROVEMENT OF TRAFFIC SAFETY
IN BAI CHAY TOURISM AREA**

Time: from 8:00 – 19:00, December, 01st, 2012

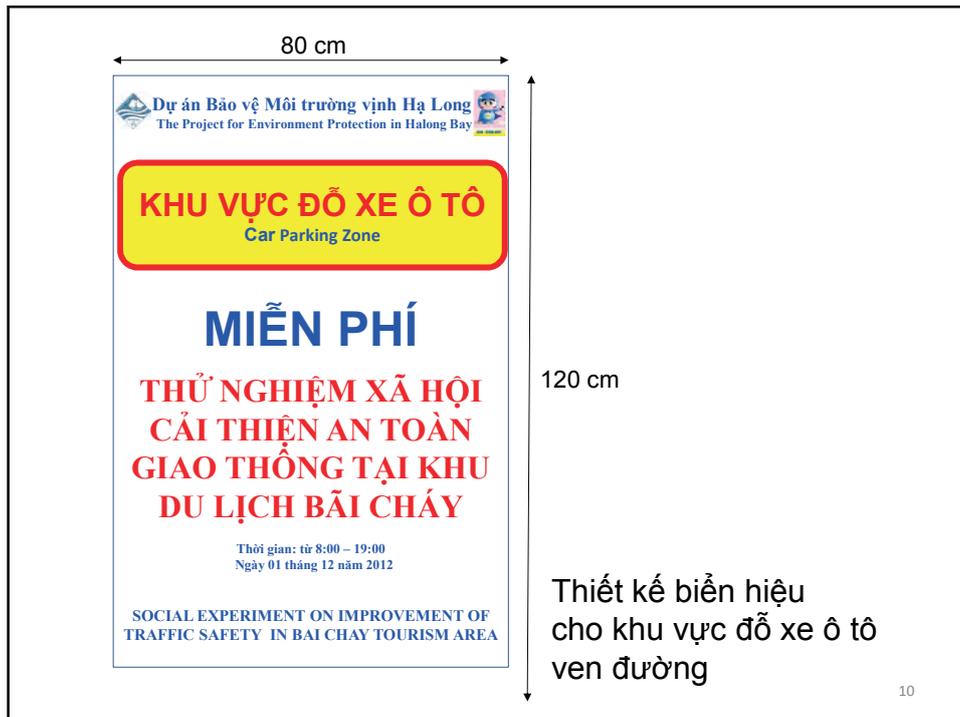
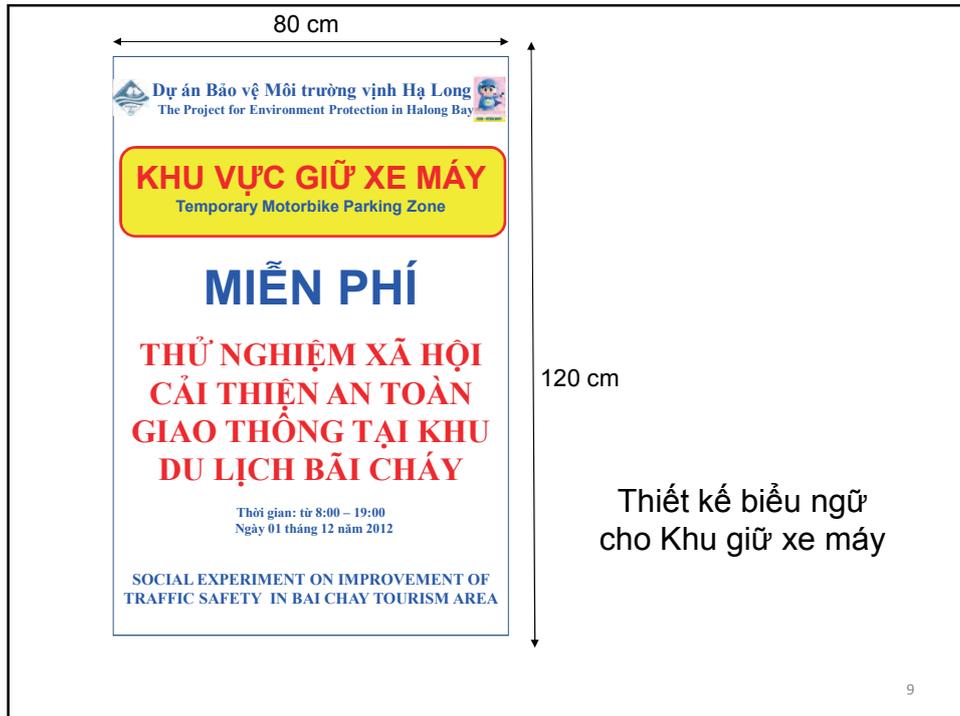
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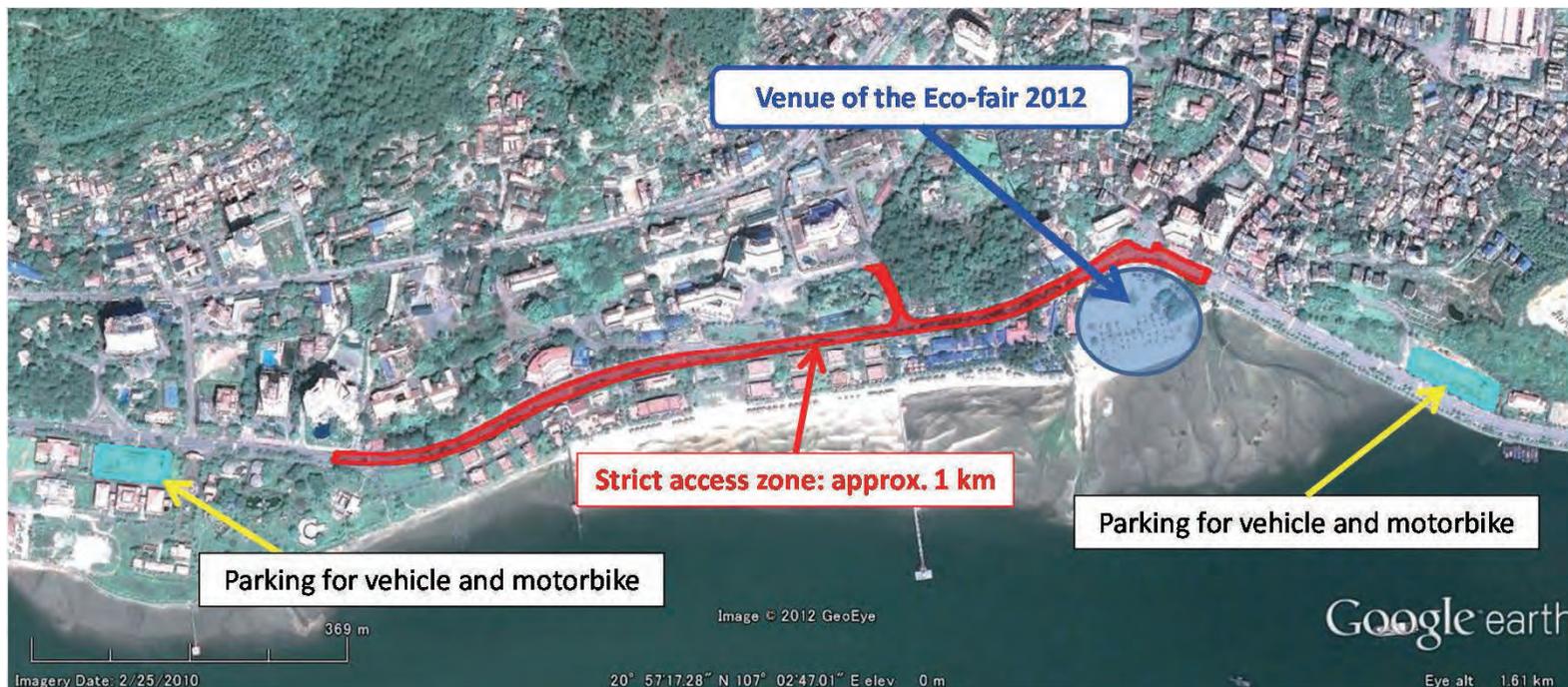


Social Experiment for Improvement of Traffic Safety and Landscape in Bai Chay Road



To demonstrate and raise public awareness on new measure for improvement of traffic control and landscape in Bai Chai international tourism area

- ◆ Date and Time: 8 am - 7 pm on 1st Dec. 2012 (Sat.)
- ◆ Organizer: QN PPC, DOT, DONRE, Halong City PC, DCST, and the Project for Environmental Protection in Halong Bay under technical cooperation of JICA
- ◆ Main Activities:
 - Closure of main section of the Bai Chay Road for approx. 1 km-length from the Dream Hotel to the Novotel Halong Hotel. (please see the following map.)
 - Vehicle and motorbike are not allowed to enter the Strict Access Zone, but bicycle and walking are allowed.
 - Vehicles and motorbikes can be parked in the parking sites, just close to the closed section, with free of charge.
 - Ten electric carts will run to transfer the people in the Strict Access Zone .



(1) Plan of Demonstration Parade of the Electric Carts

1. Time: 11:00 - 11:30
2. Start point: Entrance of the ECO-fair
3. U-turn point: (around 450 m from the start point)
4. Program
 - ① Escorting VIPs and other passengers to the Electric Carts: 11:00
 - Mr Dang Huy Hau (Vice-chairman of PPC),
 - ② Starting the parade, headed by the marching band with playing the Eco-song and followed by the 10 electric carts marching in single : 11:05
 - ③ Making U-turn at the U-turn point: 11:15
 - ④ Return to the start point (entrance of ECO-fair): 11:25
5. Staff in charge
 - Escorting VIPs to the Electric Carts: 5 - 10 volunteers
 - Parade supervision and control: 2 JET at the head and 2 JET at the end

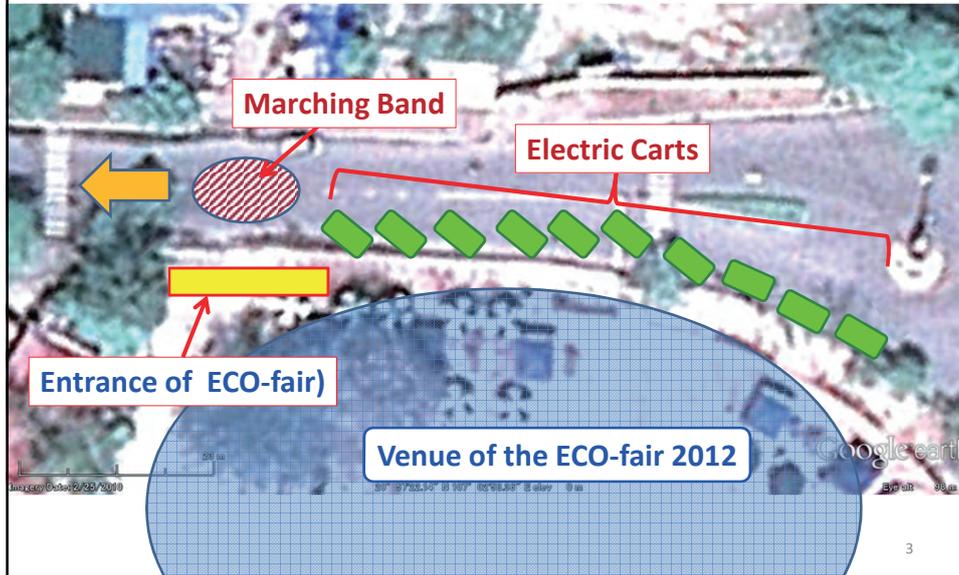
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Route Plan

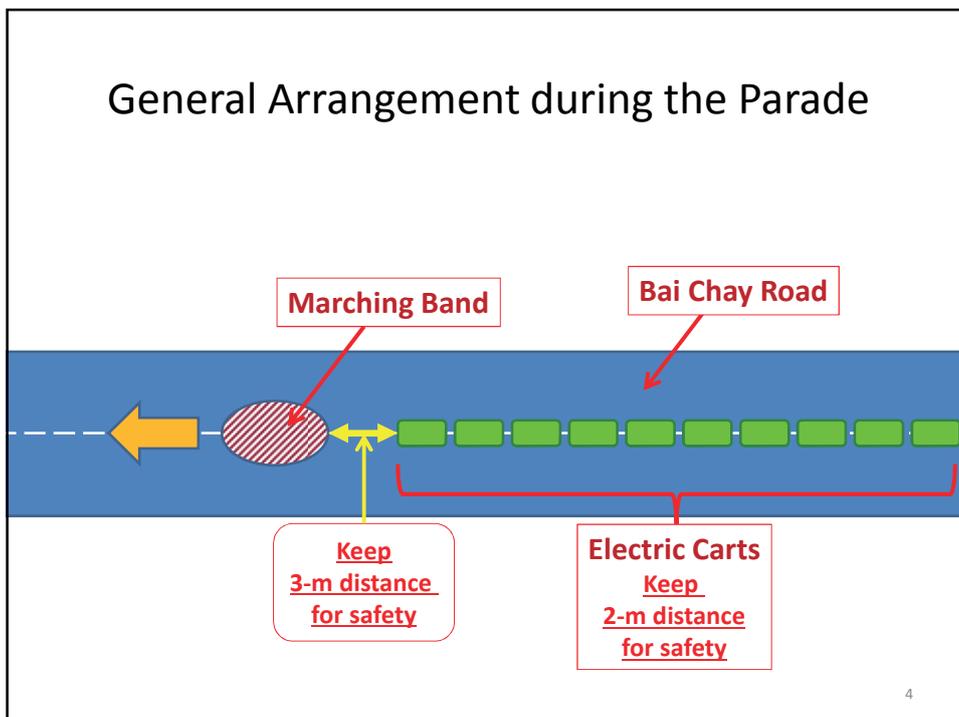


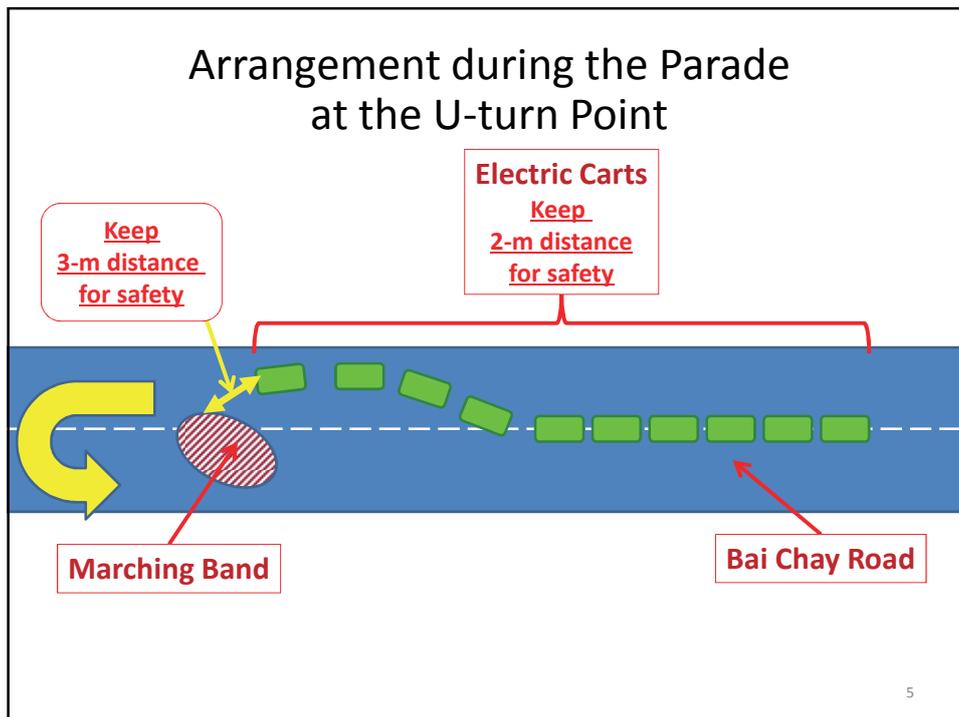
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Start Point Arrangement



General Arrangement during the Parade





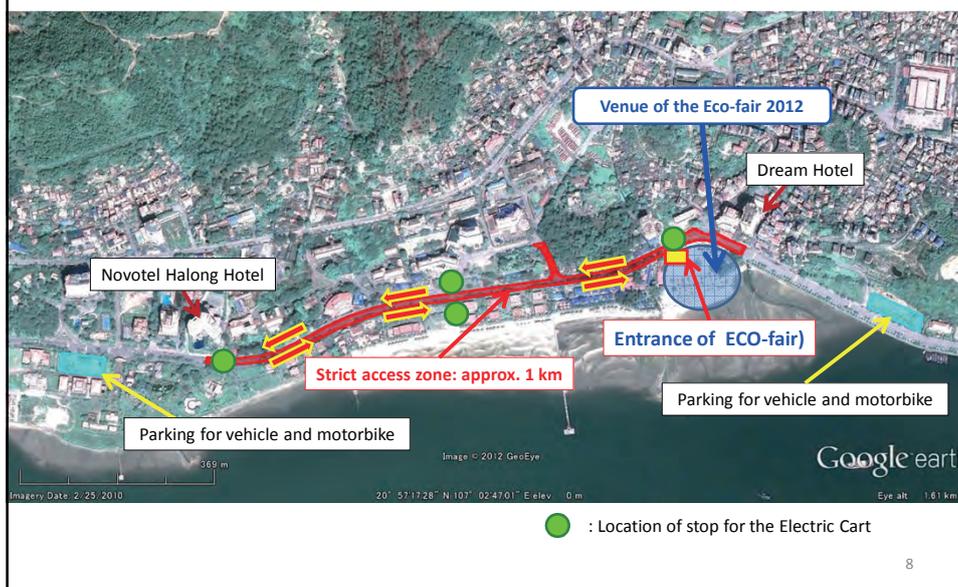
- ## (2) Operation Plan of the Electric Carts
1. Operation Time: 11:40 - 17:00
 - After finishing the demonstration parade, 5 electric carts move to the stop in front of the Novotel Halong Hotel with staff in charge
 - Rest of the 5 carts put stand by at the stop in front of the entrance of ECO-fair with staff in charge.
 2. Location of the stop
 - ① In front of the entrance of ECO-fair
 - ② In the middle section
 - ③ In front of the Novotel Halong Hotel
 3. Start time from the stops
 - ① Stops except for that in the middle section
 - every 5 minutes or whenever 5 passengers ride the carts
 - In case of no passenger, wait for another 5 minutes
 - In case the number of waiting carts reach 8, 2 carts should start even without passenger.
 - ② Stop in the middle section
 - Stop only during getting on and off
- 6

(2) Operation Plan of the Electric Carts

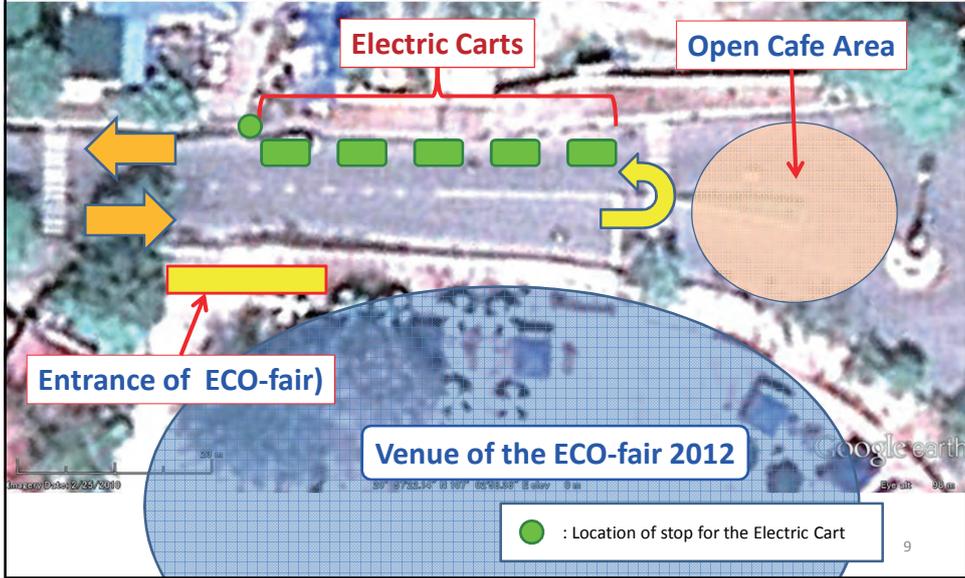
5. Operation speed: approx. 20 km/h max
 - Around 5 min. between the stop in front of the entrance of ECO-fair and the stop in front of the Novotel Halong Hotel
6. Staff in charge in the stops
 - Operation control: 2 local staff of JET (1 person/stop X 2 stops in both ends)
 - Passenger control: 8 Youth Union members (2 persons/stop X 4 stops)
7. Equipment
 - Chairs for staff: 8 (2 chairs/stop X 4 stops)
8. Record of the operation
 - Operation control staff take record of the operation for each electric carts; cart ID number, number of passengers, and starting time.

7

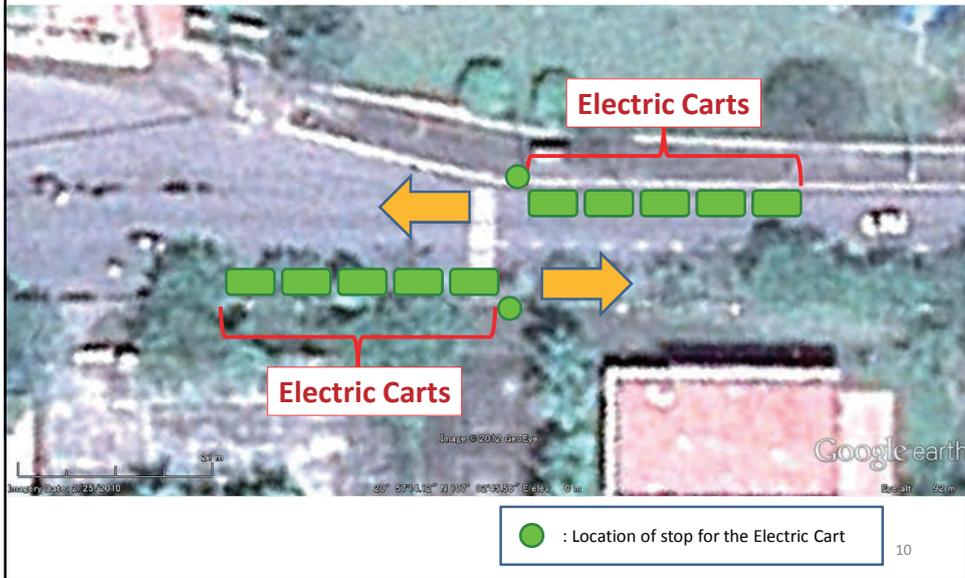
Location of Route and Stops



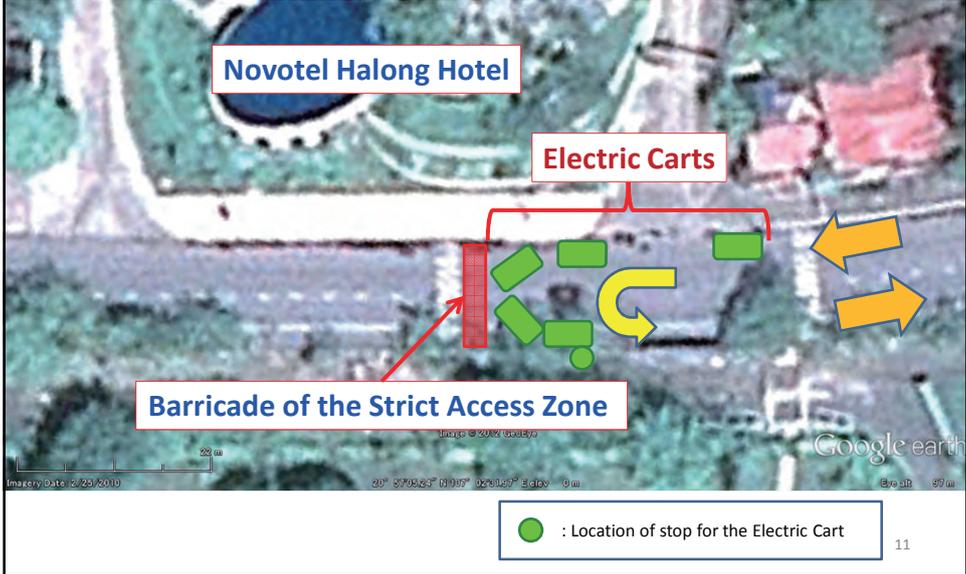
Stop Location in front of the ECO-fair entrance



Stop Location in the Middle Section



Stop Location in front of the Novotel Halong Hotel



Narration for the Campaign Vehicle for the Eco-fair 2012

In an international project, ECO-fair will be held on this Saturday, 1st December from 9:00A.M. at Youth Summer Camping Site in Bai Chay. In the morning, a professional singer, Van Mai Huong, will sing. Until 15:00 there are a lot of enjoyment, such as quiz, game and prizes. Please join us with your family and friends.

Along with the ECO-fair on this Saturday, 1st December, the road will be closed between the Dream Hotel near the Bai Chay post office and the Novotel Halong Hotel along the Bai Chay Road for approx. 1 km-length. This is an activity of social experiment on a measure for securing the traffic safety and quiet environment in the important tourism area for the tourists and residents, in line with the rapid increase of the number of the vehicle traffic and tourists, also for shifting from the large vehicles to the compact environmental-friendly transportation means such as electric car. The social experiment is an important opportunity to examine a model for actual implementation of such measure, which will be necessary in near future. In the closed section, vehicle and motorbike are not allowed to enter from 8 am till 7 pm. During the period, please come and enjoy open space on the road by walking or cycling. Electric carts will operate to transport people in the closed section of the Bai Chay Road. Please also come to ride the electric carts as a future green public transportation.

Thử nghiệm Xã hội

về cải thiện an toàn giao thông và cảnh quan trên đường Bãi Cháy

(trong khuôn khổ Dự án Bảo vệ Môi trường Vịnh Hạ Long, do cơ quan Hợp tác Quốc tế Nhật Bản – JICA tài trợ)

Social Experiment on Improvement of Traffic Safety and Landscape in Bai Chay Road

(under the Project for Environmental Protection in Halong Bay sponsored by the Japan International Cooperation Agency - JICA)

Mục đích:

- Để biểu diễn và nâng cao nhận thức cộng đồng về biện pháp mới để cải thiện hoạt động kiểm soát giao thông và cảnh quan tại khu du lịch quốc tế Bãi Cháy.
- Để thu thập thông tin phản hồi và những bài học kinh nghiệm cho các biện pháp đề xuất về kiểm soát giao thông trước khi tiến hành thực tế trong tương lai.

Thời gian: 8:00 – 19:00, ngày 1/12/2012 (thứ Bảy)

Cơ quan tổ chức: Ban Điều hành Dự án Bảo vệ môi trường vịnh Hạ Long cộng tác với UBND t.p Hạ Long và các cơ quan liên ngành

Hoạt động chính:

Tổ chức phân luồng giao thông và bố trí điểm trông giữ xe ô tô, xe máy của đại biểu, nhân dân đến dự Ngày hội Sinh thái ECO-fair 2012 và áp dụng biện pháp giao thông thông minh tại khu vực bãi tắm Bãi Cháy, t.p Hạ Long

Purposes:

- To demonstrate and raise public awareness on new measure for improvement of traffic safety and landscape in Bai Chay international tourism area
- To get feedback and lessons for further examination of the proposed measures on traffic control before actual implementation in future.

Date/time: 8:00 – 19:00, on 1st Dec.2012 (Sat.)

Organizer: The Project Management Board of the Project for Environmental Protection in Halong Bay in coordination with Halong City PC and relevant agencies.

Main activities:

Organize traffic and arrange parking areas for vehicles and motorcycles of participants and resident visitors to the ECO-fair 2012 and introduction of intelligent transportation measures in the area of Bai Chay Swimming Beach, Halong City .



Attachment-3

Rapid Survey Report on mangrove in the Proposed Mangrove Protected Areas

Suggestions on the plan for proposed mangrove protected areas

Dao Van Tan, Pham Hong Tinh
Mangroves Ecosystem Research Center (MERC)
Suite 905, Building K1, No. 136 Xuan Thuy Rd., Ha Noi

1. Plant Diversity

According to the agreement, we have conducted the rapid surveys at 7 sites in Ha Long (Figure 1) and found that 1) HB1 has relative high plant diversity (30 in total 32 found species), 2) HB2 has big and nice trees of *Avicennia marina*; unfortunately, we also found some dead trees, 3) A small area having high plant diversity with some old trees was found in HK1; however, the mangroves nearby has been cut. Therefore the plant diversity here is threatened. 4) DY1, DY2 and HT have lower plant diversity (Table 1). HB1, HB2 and HK1 should be priority areas for conservation.

Following is our comparison of mangrove plant species in Ha Long to other areas in the North of Vietnam.

	True Mangrove Species	Associate species
Ha Long Bay	12	17
Bai Tu Long National Park	13	27
Dong Rui-Tien Yen-Quang Ninh	15	35
Cat Ba National Park	13	28
Xuan Thuy National Park	10	36

2. Boundary of protected areas

The boundaries of the mangrove protected areas should be extended toward new/potential alluvial lands. The area of seagrasses in Hoanh Bo should also be conserved (Figure 2).

3. Eco-tour in mangroves

The Eco-tour in the mangrove should be incorporated with the propagation and education by the specific activities (Ex. Contests about shape/colour of mangrove trees' leaves, root, stem; Contests about mangrove photos; Composing poems and songs about mangroves; Finding the biggest tree in the mangrove, Planting memorial trees and so on.

Increasing mangrove plant biodiversity in aquaculture areas

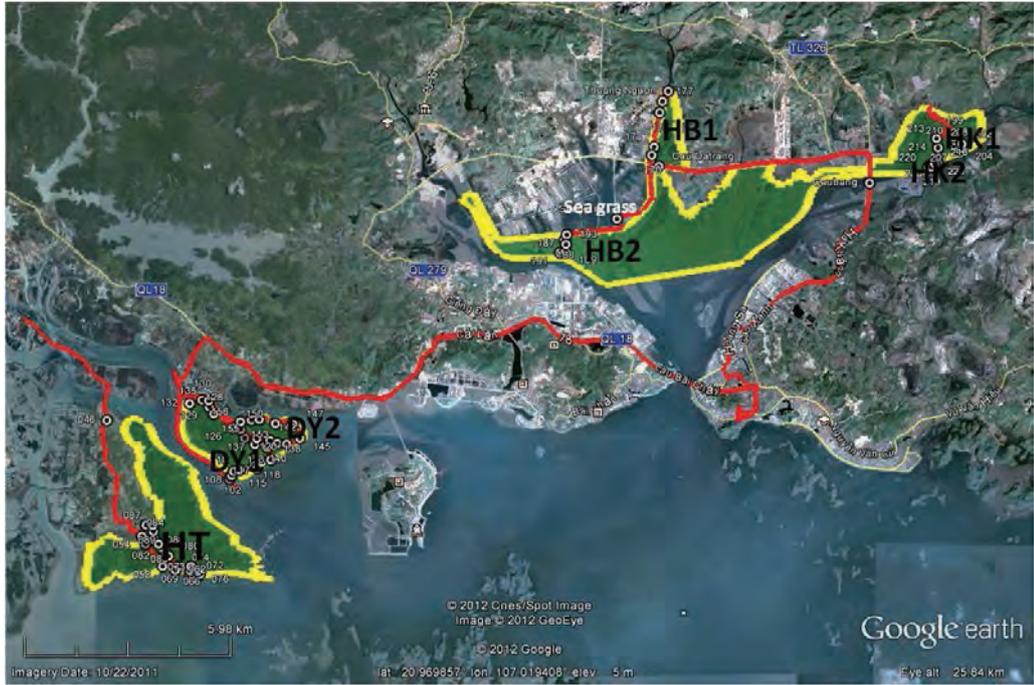


Figure 1. Ha Long Mangrove Survey: Sites, Path & Key Points (HT: Hoang Tan, DY: Dai Yen, HB: Hoanh Bo, HK: Ha Khanh)

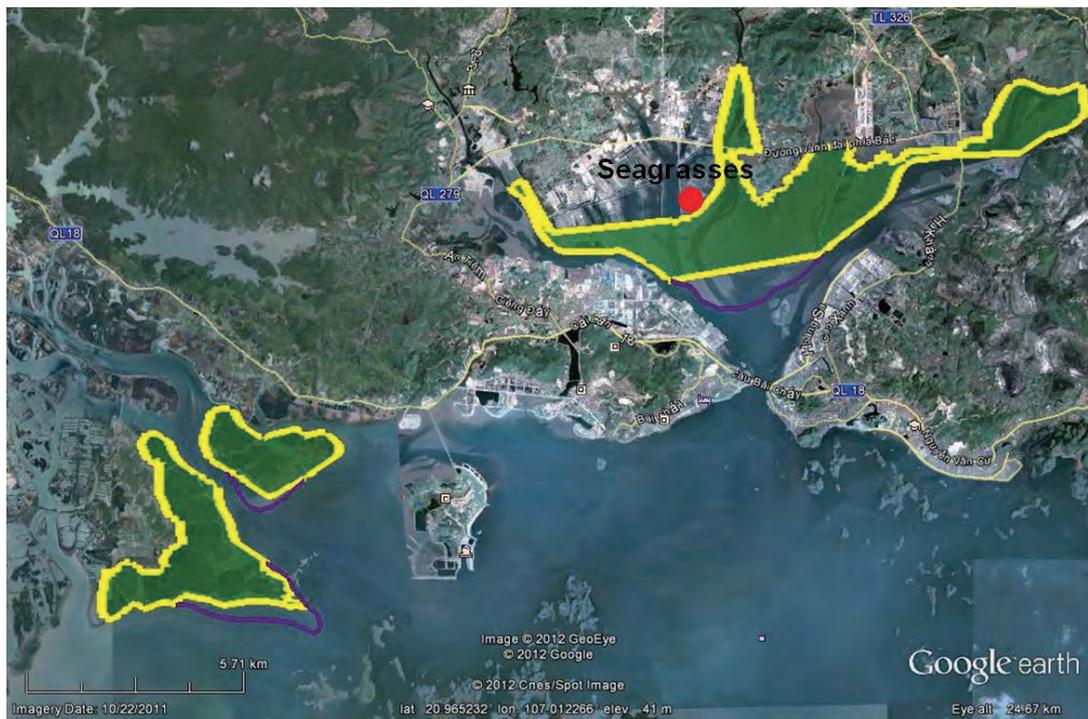


Figure 2. Boundaries of the protected areas proposed by JICA (yellow) and suggested by MERC (violet)

Table 1. List of mangrove plant species in Ha Long Bay

No.	Scientific Name	Vietnamese Name	14- Nov	15- Nov	16- Nov	25- Nov	25- Nov	26- Nov	26- Nov	Picture No
	TRUE MANGROVE SPECIES									
	Pteriophyta									
	Pteridaceae									
1	<i>Acrostichum aureum</i> L.	Ráng biển	+	+		+	+	+	+	IMG6608
	Angiospermae									
	Dicotyledoneae									
	Acathaceae									
2	<i>Acanthus ilicifolius</i> L.	Ô rô	+			+	+	+	+	DSC04923
	Aizoaceae									
3	<i>Sesuvium portulacastrum</i> L.	Sam biển	+	+	+	+				IMG9295; IMG6332
	Avicenniaceae									
4	<i>Avicennia marina</i> (Forsk.) Veirh	Mắm biển	+	+	+	+	+	+	+	DSC05131
	Combretaceae									
5	<i>Lumnitzera racemosa</i> (Gaud.) Presl.	Cóc vàng	+	+	+	+	+	+	+	DSC04945
	Euphorbiaceae									
6	<i>Excoecaria agallocha</i> L.	Giá	+	+	+	+	+	+	+	DSC04952; DSC04968; IMG6634
	Meliaceae									
7	<i>Xylocarpus granatum</i> Koen.	Xu ôi				+		+		IMG6643; IMG6644
	Mysinaceae									
8	<i>Aegiceras corniculatum</i> (L.) Blanco	Sú	+	+	+	+	+	+	+	IMG6573; IMG6568
	Rhizophoraceae									
9	<i>Bruguiera gymnorrhiza</i> (L.) Lam.	Vẹt dù	+	+	+	+	+	+	+	IMG6548; IMG6727
10	<i>Kandelia obovata</i> Sheue Liu & Yong	Trang	+	+	+	+	+	+	+	IMG6351; IMG6567; IMG6712
11	<i>Rhizophora stylosa</i> Griff.	Đâng	+	+	+	+	+	+	+	IMG6726
	Sterculiaceae									
12	<i>Heritiera littoralis</i> Dry.	Cui biển				+		+		IMG6631
	ASSOCIATE AND MIGRATION MANGROVE SPECIES									
	Angiospermae									
	Monocotyledoneae									

13	Cyperaceae <i>Fimbristylis ferruginea</i> (L.) Vahl.	Họ Cói Mao thur	+	+	+	+	+	+	+		
14	Pandanaceae <i>Pandanus tectorius</i> Parkins.	Họ Dứa dại Dứa gỗ				+	+			IMG6759	
15	Poaceae <i>Cynodon dactylon</i> (L.) Pers.	Họ Lúa Cỏ gà	+	+	+	+					
16	<i>Sporobolus virginicus</i> (L.) Kunth	Cỏ cây	+	+	+	+	+	+	+		
17	Dicotyledoneae Asclepiadaceae <i>Gymnanthera nitida</i> R. Br.	Lớp Hai lá mầm Họ Thiên lý Lõa hùng				+			+	IMG6706; DSC08081	
18	Asteraceae <i>Pluchea pteropoda</i> Hemsl.	Họ Cúc Sài hồ nam	+			+	+				
19	<i>Wedelia biflora</i> (L.) DC.	Cúc hai hoa	+	+	+	+	+	+		DSC04951; IMG6319	
20	Chenopodiaceae <i>Suaeda maritima</i> (L.) Dum.	Họ Rau muối Phì diệp biển	+		+	+	+	+	+	IMG6322	
21	Combretaceae <i>Terminalia catappa</i> L.	họ Bàng Bàng				+	+				
22	Convovulaceae <i>Ipomoea pes-caprae</i> (L.) Br.	Họ Khoai lang Muống biển	+		+	+	+			IMG6664	
23	<i>Ipomoea trichosperma</i> Bl.	Bìm hột có lông	+							DSC04926	
24	Fabaceae <i>Canavalia cathartica</i> Du Petit-Thouars.	Họ Đậu Đậu cộ biển	+		+	+	+			IMG6326	
25	<i>Derris trifoliata</i> Lour.	Cóc kèn	+		+	+	+			IMG6324; IMG6621	
26	Goodeniaceae <i>Scaevola hainanense</i> Hance	Họ Hếp Hếp							+	+	IMG6802
27	Hydrocharitaceae <i>Halophila ovalis</i> (R.Br.) Hook.f.	Họ Thủy thảo Cỏ xoan				+	+				
28	Loranthaceae <i>Dendrophthoe pentandra</i> (L.) Miq.	Họ Tầm gửi Tầm gửi				+	+			IMG6624	
29	Malvaceae <i>Hibiscus tiliaceus</i> L.	Họ Bông Tra	+	+	+	+	+	+	+	IMG6629	
30	<i>Thespesia populnea</i> (L.) Soland ex. Correa	Tra lâm vồ				+				IMG6614	
31	Verbenaceae <i>Clerodendron inerme</i> (L.) Gaertn.	Họ Cỏ roi ngựa Ngọc nữ biển	+	+	+	+	+	+	+	DSC05082	

Attachment-4

Rapid Survey Report on herpetofauna in mangrove in the Proposed Mangrove Protected Areas

Study on the herpetofauna of the mangroves in Quang Ninh province, Vietnam.

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1. Introduction

Vietnam is known as a country with a high level of herpetofauna diversity (Nguyen et al. 2009). The species richness of reptiles and amphibians was remarkably increased from 340 in 1996 to 458 in 2005 and 545 in 2009 (Nguyen & Ho 1996, Nguyen et al. 2005, Nguyen et al. 2009).

Amphibians and reptiles are a part of the current biodiversity research. They are influence of the environment. They are considered indicator species for habitat diversity as well as the deterioration of the environment, and thus the survey and monitoring of amphibians residents we can assess the level of diversity and ecosystem health (Dailtry and Momberge, 2000; McDiarmid, 1994).

There is over 200 km of coastline, the mangroves of Quang Ninh province plays an important in ensuring ecological balance, environmental protection, protection dikes. However, many years, for many reasons mangrove system in the province has been reduced in size and quality.

This study aims to investigate the diversity of herpetofauna at the mangrove in Quang Ninh province. It contributes effectively to biodiversity management in the area.

2. Study Methodology

2.1. Study site and timing

- Study timing: Field work was conducted from 20 to 27 November 2012. Field survey was conducted in day and night.

- Study sites: Amphibians and Reptiles diversity at the mangrove of Hoanh Bo district (Thong Nhat commune, Le Loi commune), Quang Yen district (Hoang Tan district) and Ha Long city (Dai Yen commune, Ha Khanh commune) in Quang Ninh province.

2.2. Study methods

Upon detection of reptiles and amphibians, we conducted sampling, photography, took coordinate.

We interviewed the local people to collect the data on rare species. Numerous interviews were conducted with local people to collect the information of species diversity, distribution, life history, exploitation status, and threats to their persistence.

Systematic followed Bourret (1936, 1942); Dao (1978, 1979, 1981, 1982); Nguyen et al (2009). Common English names generally follow Nguyen et al. (2009).

To assess rare based on the Decree 32/2006/NĐ-CP of the Government (2006); CITES, 2009; The Red Data Book of Vietnam (2007), The IUCN Red list of Threatened Species 2012.

3. Results and discussions

3.1. Taxonomic diversity

There are 8 amphibian species belonging to 1 families, 3 orders and 19 reptile species belonging to 8 families, 1 orders at this study (Table 1).

Table 1 List of Amphibian and Reptile at Quang Ninh Mangrove

Order	Scientific name	Common name	Coordinate	Location	Note
	AMPHIBIA				
	I. ANURA				
	1. Bufonidae				
1.	<i>Duttaphrynus melanostictus</i> (Schneider, 1799)	Asian common toad	N 20°54'54.2" E 106°56'04.5"	HT1	P
	2. Dicroglossidae				
2.	<i>Fejervarya limnocharis</i> (Gravenhorst, 1829)	Cricket frog	N 20°56'34.7" E 106°57'18.3"	DY1	P
			N 20°56'34.5" E 106°57'09.3"	DY2	P
3.	<i>Hoplobatrachus chinensis</i> (Osbeck, 1765)	Taiwanese bullfrog	N 20°54'44.3" E 106°56'07.7"	HT2	Obs.
	3. Microhylidae				
4.	<i>Kaloula pulchra</i> Gray, 1831	Malaysian painted frog	N 20°56'35.1" E 106°57'04.7"	DY3	P
5.	<i>Microhyla fissipes</i> (Boulenger, 1884)	Malayan bullfrog	N 20°56'36.5" E 106°57'25.8"	DY4	Obs.
6.	<i>Microhyla pulchra</i> (Hallowell, 1861)	Asian painted frog	N 20°54'58.7" E 106°56'22.1"	HT3	P
	4. Ranidae				
7.	<i>Hylarana erythraea</i> (Schlegel, 1837)	Green paddy frog	N 21°00'06.9" E 107°00'34.9"	LL1	P
8.	<i>Polypedates leucomystax</i> (Gravenhorst, 1829)	Tree frog	N 20°54'57.5" E 106°56'16.2"	HT4	P
	REPTILIA				
	II. SQUAMATA				
	5. Agamidae				
9.	<i>Hemidactylus frenatus</i> (Schelegel, in Dumeril et Bibron, 1836)	Common house gecko	N 20°59'48.5" E 107°01'09.7"	LL2	P
10.	<i>Calotes mystaceus</i> (Dumeril et Bibron, 1837)	Moustached lizard	N 20°54'36.7" E 106°55'57.5"	HT5	P
11.	<i>Calotes versicolor</i> (Daudin, 1802)	Garden fence lizard	N 21°00'48.8" E 107°03'21.0"	LL3	P
12.	<i>Gekko gecko</i> Linnaeus, 1758	Tockay	N 20°54'58.8" E 106°56'08.4"	HT6	P
	6. Lacertidae				
13.	<i>Takydromus sexlineatus</i> Daudin, 1802	Six-striped long-tailed grass lizard	N 21°01'16.5" E 107°03'21.8"	LL4	P
	7. Scincidae				
14.	<i>Eutropis macularia</i> (Blyth, 1853)	Bronze mabuya	N 21°01'26.5" E 107°08'18.0"	TN1	P
15.	<i>Mabuya multifasciata</i> (Kuhl, 1820)	East indian brown mabuya	N 21°01'27.4" E 107°08'31.5"	TN2	P
	8. Varanidae				
16.	<i>Varanus salvator</i> (Laurenti, 1786)	Water monitor	N 20°54'59.4" E 106°55'51.0"	HT7	P
	9. Colubridae				
17.	<i>Ahaetulla prasina</i> Reinhardt, in Boi, 1827	Oriental whip snake	N 21°01'10.0" E 107°03'20.7"	LL5	P
18.	<i>Chrysopelea ornata</i> (Shaw, 1802)	Golden tree snake	N 20°59'41.8" E 107°01'39.4"	LL6	P
19.	<i>Enhydryis bennetti</i> (Gray, 1842)	Mangrove water snake	N 20°56'46.9" E 106°55'43.4"	DY5	P
20.	<i>Enhydryis plumbea</i> (Boie, 1827)	Plumbeous water snake	N 21°01'22.7" E 107°08'05.4"	TN3	P
21.	<i>Ptyas korros</i> (Schlegel, 1837)	Indochinese rat snake	N 20°57'06.1" E 106°55'33.0"	DY6	P
22.	<i>Xenochrophis flavipunctatus</i> (Hallowell, 1861)	Yellow-spotted keelback	N 21°01'31.1" E 107°08'36.1"	TN4	P
	10. Elapidae				
23.	<i>Bungarus fasciatus</i> (Schneider, 1801)	Banded krait		HT	Int.
24.	<i>Naja atra</i> Cantor, 1842	Chinese cobra	N 20°54'53.6" E 106°56'08.4"	HT8	Obs.
25.	<i>Pelamis platurus</i> (Linnaeus, 1766)	Yellow-bellied sea snake		HT	Int.

Order	Scientific name	Common name	Coordinate	Location	Note
	11. Viperidae				
26.	<i>Trimeresurus albolabris</i> (Gray, 1842)	White-lipped pitviper	N 21°01'20.6" E 107°03'22.8"	LL7	P
	12. Xenopeltidae				
27.	<i>Xenopeltis unicolor</i> Reinwardt, in Boie, 1827	Sunbeam snake		LL	Int.

Notes: P: photo; Int.: interview; Obs.: Observed, HT : Hoang Tan; DY: Dai Yen; LL: Hoanh Bo; TN: Ha Khanh



Figure 1 Diagram Position Detection of Species at Hoang Tan and Dai Yen Commune



Note: TN: Ha Khanh

Figure 2 Diagram Position Detection of Species at Hoanh Bo District and Halong City (Ha Khanh Commune)

In general, the abundance of the species of reptiles, amphibians is low, since it is winter season in the area. Compared with the herpetofauna of the land area, the degree of amphibian and reptile diversity of this area is relatively low. In general, the amphibian and reptile diversity of wetlands, especially mangrove forests is often less than the terrestrial ecosystem available habitat diversity. Compare results of the study area and other mangrove in Vietnam also supports this assertion (Table 2).

Table 2 Comparison of Amphibian and Reptilian diversity in the study area and other mangrove

Mangrove	Reptilian species	Amphibian species
This study area	19	8
Thai Binh province	36	6
Can Gio	21	11
Xuan Thuy	27	9

3.2. Rare and endemic

Amphibians and reptiles list statistic in this area show that 5 species (18.52% of the total species) are rare and precious species. In which, there is not an amphibian species (0%). Specifically:

1 species listed in Decrees No 32/2006/ND-CP belonging to Group IIB (Limit on exploitation and use). It is *Naja atra* species.

There are 5 nationally threatened species listed in Red Data Book of Vietnam, 2007; with 4 species in the category of EN and one species in the VU category.

There isn't the species listed in IUCN's Red List, 2012. There is one species listed in CITES convention, 2009.

Table 3 Level of Conservation

Order	Scientific name	The level of conservation			
		IUCN	Red Book	D. 32	CITES
1.	<i>Gekko gecko</i> Linnaeus, 1758		VU		
2.	<i>Varanus salvator</i> (Laurenti, 1786)		EN		
3.	<i>Ptyas korros</i> (Schlegel, 1837)		EN		
4.	<i>Bungarus fasciatus</i> (Schneider, 1801)		EN		
5.	<i>Naja atra</i> Cantor, 1842		EN	IIB	II

Notes:

IUCN (The IUCN Red list of Threatened Species, 2011), RB (Red Data Book of Vietnam, 2007): CR: Critically endangered; EN: Endangered; VU: Vulnerable; NT: Near threatened.

D. 32 (Decree 32/2006/NĐ-CP of the Vietnam Government) : Group IIB (Limit on exploitation and use).

CITES (Convention on International Trade in Endangered Species of Wild Fauna and Flora, 2009) : II = Appendices II, III = Appendices III.

4. Conclusion

- The herpetofauna of the study area is diversity in low. It includes 27 species of amphibians and reptiles, including 8 species of amphibians and 19 reptile species.

Amphibian and reptile list statistic in this area show that 5 species (18.52% of the total species) are rare and precious species. Among them, there are: 5 species were listed in Red Data Book of Vietnam, 2007. 1 species listed in Decrees No 32/2006/ND-CP. There is one species listed in CITES convention, 2009.

- The mangroves at Ha Khanh commune (in Ha Long city) devastated a lot of, need to put this place out of the conservation area and take measures to restore them.

There is a big difference between the inside and outside of the dike in Le Loi commune, mangrove forests are recovering outside (Cai Xuyen area). Necessary to replant the outer vacant dike to benefit for the local people.

In Hoang Tan commune, there is well-developed mangroves, aquaculture operation smoothly. It is necessary to organize ecotourism activities to raise awareness of forest protection mangrove.

- Promote the dissemination to coastal communities about the value of mangrove forest. Protect mangrove ecosystem on a legal and science planning; determined to prevent the break mangrove activities to aquaculture or used for other purposes;

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Appendix 1: The pictures of the species recorded in Quang Ninh mangrove



Fejervarya limnocharis



Polypedates leucomystax



Duttaphrynus melanostictus



Microhyla pulchra



Kaloula pulchra



Calotes mystaceus



Calotes versicolor



Hemidactylus frenatus



Gecko gecko



Eutropis macularia



Takydromus sexlineatus



Eutropis multifasciata



Varanus salvator



Ahaetulla prasina



Chrysopelea ornata



Enhydris bennettii



Enhydris plumbea



Ptyas korros



Trimeresurus albolabris



Xenochrophis flavipunctatus



Xenochrophis piscator

Appendix 2: The research habitats and activities



Inside and outside of the dike at Hoang Tan commune



Limestone habitats at Hoang Tan commune



Inside of shrimp ponds at Dai Yen commune



Outside of shrimp ponds at Hoang Tan commune



Vacant land mixed mangrove forests at Le Loi commune



Mangrove forests destroyed at Ha Khanh commune



After destroyed



Mangrove nursery in Cua Luc Bay



Go survey at Dai Yen mangrove



Go survey on the stock habitats at Hoang Tan commune



Go survey at Ha Khanh mangrove



Field record

Attachment-3

Strategies and Measures for Sustainable Tourism Development (STD)

Strategies and Measures for Sustainable Tourism Development in Halong Area

February 2013

Working Group 3

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1. Strategies

1.1. Vision

Since Halong Bay was recognized as UNESCO World Natural Heritage, Halong Bay became a main tourist destination in northern part of Vietnam with increasing the number of tourist visiting Halong Bay in every year and rapid tourism development by private sectors in coastal area along Halong Bay. Increasing the number of visitor and rapid tourism development in Halong Bay are affecting impact to tourism resources and natural environment in Halong Bay and its surrounding coastal areas. To reduce impact to tourism resources and natural environment in Halong Bay and its surrounding coastal areas, continuous efforts on environmental protection activities as well as enhance awareness on importance of environmental protection for tourists, tourism related stakeholders and local communities are indispensable. Halong area covering Halong Bay and its surrounding coastal and inland areas connecting to Van Don area should be created and promoted as sustainable tourism destination in northern part of Vietnam as well as international tourism destination in Vietnam. In terms of creating Halong area as sustainable tourism destination, both tourism development and environmental protection should be balanced. Therefore, following vision is set for tourism sector in Halong area.

*Creating sustainable tourism destination:
'Reconciliation' of tourism development and environmental protection in Halong area*

1.2. Goal

Halong Bay has been known and promoted as one of major tourist destinations in northern part of Vietnam as well as UNESCO World Natural Heritage site in Vietnam. The main tourism attraction in Halong Bay is boat cruising on the bay with visiting islands and caves. Due to limited diversified tourism attractions and undeveloped tourism products in Halong Bay, length of stay for tourist is very short in Halong Bay. By improvement of road network from major cities, Hanoi and Mong Cai, tourist can easy access to Halong Bay and encourage to increase the number of tourist to Halong Bay. Under these circumstances, Halong Bay has already become mass tourism destination. Mass tourism will impact to natural environment and be limited expectation of economic effect by tourist.

By taking into consideration of vision and current tourism development policy for Quang Ninh province as well as promoting development policy of “Green economy” by Quang Ninh province, the goal for tourism development in Halong area should set as following. Sustainable tourism is regarded as low impact tourism such as promoting ecotourism and quality tourism market, which is less impact to tourism resources and natural environments.

Shift from Mass Tourism to Sustainable Tourism

1.3. Strategies

In order to achieve the goal, six strategies for sustainable tourism development in Halong area are set as follows.

- Strategy 1: Enhancement of management capacity for sustainable tourism development
- Strategy 2: Development of legal and institutional framework, and policy for supporting ecotourism
- Strategy 3: Protection of tourism resources
- Strategy 4: Development of sustainable tourism products
- Strategy 5: Upgrading service and quality of tourism facilities and business
- Strategy 6: Propaganda and promotion of sustainable tourism

The details of the above strategies are as follows.

Strategy 1: Enhancement of management capacity for sustainable tourism development

In coastal area of Halong Bay, especially in Bai Chay, these areas have been rapidly developed as core tourism area in Halong City due to potential demand for tourism and tourism related commercial development. In Hung Thang area, hotel, tourism service and commercial facilities are also being developed by private sector. In fact, tourism and commercial areas, and tourism development areas in these areas are not

properly controlled and managed in terms of sustainable tourism development for the area. Due to increasing the number of tourist and boat cruising tour visiting major islands in Halong Bay, natural environments in islands are affected and degraded. For the sustainable tourism development in Haling area, it is necessary to enhance management capacity of tourist sites and areas by development of zoning plan and management guideline in Bai Chay and Hung Thang, tourism site management guideline for major islands in Haling Bay and identification of solution for unfinished tourism development and pending tourism facilities in Bai Chay area.

Strategy 2: Development of legal and institutional framework, and policy for supporting ecotourism

Ecotourism is a low impact tourism which involves visiting natural areas with the objectives of learning, studying or participating in activities. Ecotourism does not bring negative effects to the environment, builds environmental and cultural awareness, and empowers local community. In Quang Ninh Tourism Development Plan, Quang Ninh PPC gives priority to develop and promote ecotourism in Halong Bay and other areas including Van Don area. In order to encourage promoting ecotourism in regional and local level, provincial government should establish official regulation such as decision on promotion of ecotourism and develop basic policy on ecotourism. For support on development and implementation of ecotourism activities in cooperation with tourism business operators and local community, it is necessary to establish ecotourism association, provide financial support and training of ecotourism narrator.

Strategy 3: Protection of tourism resources

Halong Bay is recognized twice as UNESCO World Natural Heritage. It has distinctive natural tourism resources with unique island landscape, ecosystem, values of geology and geomorphology. Due to increasing demand of urban, commercial and tourism development along the coastal area, reclaiming land, construction activities in the coastal area and inflow of waste water from residential and tourism area in Bai Chay area into the bay are causing degradation of water quality and water transparency in Halong Bay. Mangrove area in the coastal area was reduced. In terms of tourist and tourism business activities, following factors, garbage from tourist boat, tourist sites congested with tourists, and oil spill from tourist boats are cause of impact on sea water, natural environment and tourism resources in Halong Bay. To reduce impact and protect natural environment and tourism resources in Halong Bay and its surrounding area is one of important strategies for sustainable tourism development in Halong area as well as enhancement of value of UNESCO World Heritage for Halong Bay.

Strategy 4: Development of sustainable tourism products

Tourism product development is an integral part of tourism development and sustainable tourism. Currently, main tourism attractions in Halong area is boat cruising tour in Halong Bay with visiting islands, caves and floating villages. Besides these tourism attractions in Halong area, beach and night market in Bai Chay, Yen Tu mountain and pagoda in Uong Bi City and Cua Ong pagoda in Cam Pha City are major tourism attractions. Local souvenir product and activity are very limited and not developed in Halong area. Due to limited tourism product in Halong area, tourist's length of stay and expenditure is limited. In order to increase the length of stay for the visitors and their expenditure, creation of new tourism products and provision of diversified tourism product are necessary. Recommended ideas on tourism product development are as follows.

- Development of ecotour program on islands and nature forests
- Development of community based tour program
- Boat tour in mangrove area
- Study and educational experience-based tour program for students and foreign tourists
- Development of tour program connecting tourism potential sites (Excursion tour)
- Design and development of new souvenir product with utilizing local resources
- Establishing nature and ecotourism narrator and training
- Development and promotion of local event and traditional/cultural performance

Strategy 5: Upgrading service and quality of tourism facilities and business

Halong Bay area has been promoted as international tourism destination. High grade accommodations were developed and operated in Halong Bay area. Tourist boat companies have been providing overnight stay boat tour for targeting foreign tourists. These tourism business operators are providing quality services to meet international standard. Besides these tourism business operators, facilities and services provided by local tourism business such as non-star hotel, guesthouse, restaurants, day excursion boat operator are not sufficient and do not meet international standard. In addition, tourism service facilities such as toilet and

tourist information center operated by public sector are not sufficient and required for upgrading and improvement. Upgrading service quality by local tourism business and improvement of tourism facilities in Halong area are one of important strategies for sustainable tourism development in Halong area, which will also encourage to enhance awareness on environment and environmental protection by local tourism business operators. Recommended ideas on upgrading service and quality of tourism facilities and business are as follows.

- Training on customer services and hospitality for tourism business
- Promotion of ecograding system for accommodation (Green Lotus)
- Development of Ecolabel for tourist boat in Halong Bay
- Upgrading visitor facilities

Strategy 6: Propaganda and promotion of sustainable tourism

Halong Bay is well known in Vietnam and overseas as one of World Heritage Sites and major tourist destination in Vietnam. Halong Bay was selected New Seven Winder of Nature in 2011. Although many potential tourist sites and resources in Halong Bay and other areas in Halong area were identified during the project, detailed information on sites and resources, and tour programs are not prepared as tourist information and data for travel agents and tourist. Halong area should be further promoted within Vietnam and to overseas as sustainable tourism destination, not only preparation of tourist information materials and improvement of capacity tourist information center, but also creation of brand image and name for Halong area and carrying out tourism marketing and promotional activities by DCST in cooperation with Vietnam National Administration of Tourism, relevant sections in local governments and private sectors are indispensable. Recommended ideas on propaganda and promotion are as follows.

- Development of brand name and image creation for sustainable tourism development
- Development of tourism information materials and data of tourist information on website
- Holding promotion seminar and events

2. Measures

2.1 Proposed Approach and Measures

Due considering fully achievement of each strategy, the WG-3 proposes the following a set of approach and measures.

List of Proposed Approach and Measures by Strategy

Strategy	Approach	Measure
Strategy 1 Enhancement of Management Capacity for Sustainable Tourism Development	Approach 1-1 Development of tourism area management plan for Halong area	Measure 1-1-1: Preparation of the zoning plan and management guideline for tourism development in Bai Chay and Hung Thang areas
		Measure 1-1-2: Identification of solution for unfinished tourism development and pending tourism facilities, and preparation of effective approval and monitoring system of land leasing for tourism facilities and tourism development in Bai Chay and Tuan Chau
		Measure 1-1-3: Preparation of tourism site management guideline for major islands in Halong Bay
Strategy 2 Development of Legal and Institutional Framework, and Policy for Supporting Ecotourism	Approach 2-1 Institutional framework and policy for Ecotourism development	Measure 2-1-1: Formulation of regulation on promotion of Ecotourism in Quang Ninh
		Measure 2-1-2: Formulation of policy, institutional framework and incentives for promoting ecotourism activities
Strategy 3 Protection of Tourism Resources	Approach 3-1: Optimum operation and management of tourist boat	Measure 3-1-1: Control of tourist boat access and boat stay areas at major islands at peak time
	Approach 3-2 Strengthen of environmental protection for people in floating villages	Measure 3-2-1: Training on use of wool knitted scourer, sorting waste and composting waste for floating villages
		Measure 3-2-2: Lecture on environmental protection and activities for floating villages
		Measure 3-2-3: Monitoring of sea water quality by using Secchi disk
		Measure 3-2-4: Support for preservation of traditional culture of floating village
	Approach 3-3 Improvement of local wastewater treatment facilities with proper management	Measure 3-3-1: Upgrading operational capacity of local wastewater treatment facility and sewerage collection system
	Approach 3-4 Strengthen inspection and monitoring of pollution level at sea port and anchoring sites in Halong Bay	Measure 3-4-1: Development of guideline of inspection and monitoring of tourism resources and pollution level at tourist sites, wharf and jetties and anchoring sites in Halong Bay
		Measure 3-4-2: Training of inspection and monitoring activities based on guideline

Strategy	Approach	Measure
		Measure 3-4-3: Reporting monitoring and inspection data and information to relevant departments and boat companies
Strategy 4 Development of Sustainable Tourism Products	Approach 4-1 Development of ecotourism program	Measure 4-1-1: Development of ecotour to Trang Luoi Liem and Hon Quyen Rong, Ba Ham Lake
		Measure 4-1-2: Development of community based ecotour in Cong Dam area, Cua Van, Vong Vieng (floating villages)
		Measure 4-1-3: Development of community based ecotour at Yen Lap Lake and Loi Am Mountain area
		Measure 4-1-4: Boat tour in mangrove area with mangrove planting in Quang Yen and Bai Chay bay
		Measure 4-1-5: Study tour for unique values of Halong area (landscapes, geography, geomorphology, biodiversity, culture and history)
		Measure 4-1-6: Development of nature and educational boat tour by tourist boat company
	Approach 4-2 Creation of tour network	Measure 4-2-1: Development of tour programs combining existing and new tourism sites in Halong area and its surrounding areas with public, private and community participation
	Approach 4-3 Establishment of nature and ecotourism narrator certification and training system	Measure 4-3-1: Training and issue of certificate for Halong Ecotour narrator
	Approach 4-4 Training on ecotourism program development and marketing for local tourism business	Measure 4-4-1: Preparation of standard guideline for development, operation and marketing of ecotourism product for local tourism business
		Measure 4-4-2: Seminar and workshop for development, operation and marketing of ecotourism product for local tourism business
	Approach 4-5 Development of tourism products with utilizing local resources	Measure 4-5-1: Development of local tourism products with design and quality guideline
Measure 4-5-2: Training program on design, development and marketing for tourism products from utilizing available local resources		
Strategy 5 Upgrading Service and Quality of Tourism Facilities and Business	Approach 5-1 Training on customer services and hospitality for tourism business	Measure 5-1-1: Training on improvement of customer services and hospitality for local tourism business
	Approach 5-2 Introduction of Eco-grading system for accommodation (Green Lotus)	Measure 5-2-1: Encouragement of accommodation facilities in Halong area to apply Green Lotus Eco-label
	Approach 5-3 Development of Eco-label "Blue Sail" for tourist boats in Halong Bay	Measure 5-3-1: Finalization of developing Eco-label for tourist boats in Halong Bay
		Measure 5-3-2: Recognition of "Blue Sail" tourist boats and propaganda on Eco-label for tourist boat
	Approach 5-4 Upgrading visitor facilities in Halong Bay and Bai Chay area	Measure 5-4-1: Development of tourist information counter and space for presenting feature of Halong Bay by applying audiovisual system in tourist information center at Bai Chay Tourist Wharf
		Measure 5-4-2: Installation of display on feature of history, culture and nature of Halong area at tourist information center in Bai Chay
		Measure 5-4-3: Development of roadside station in Bai Chay area
		Measure 5-4-4: Improvement of display at small exhibit space for tourist in Vong Vieng floating village
		Measure 5-4-5: Utilization and updating tourism database at tourism information center including training
		Measure 5-4-6: Improvement, maintenance and management of toilet facilities for tourist at tourist sites and floating villages in Halong Bay, and Bai Chay area
Strategy 6 Propaganda and Promotion of Sustainable Tourism	Approach 6-1 Development of brand name and image creation for sustainable tourism destination in Halong area (Halong Bay)	Measure 6-1-1: Development of brand name and slogan of sustainable tourism destination for Halong area
		Measure 6-1-2: Propaganda on media, press conference for brand name, logo and slogan of sustainable tourism destination for Halong area
	Approach 6-2: Development of information and data of tourist information on websites for tourist and market needs	Measure 6-2-1: Updating information and data on floating villages, other major tourist sites in Halong Bay on existing website of HBMD
Approach 6-3 Promotion and marketing for Halong area as sustainable tourism destination	Measure 6-3-1: Development of tourism information and promotion materials for tourist and tour company	
	Measure 6-3-2: Promotion on sustainable tourism destination of Halong area through mass media	
	Measure 6-3-3: Holding promotion seminars and events for sustainable tourism destination of Halong area in Halong, Hanoi, Ho Chi Minh and other	

Strategy	Approach	Measure
		areas

2.2 Measures by Strategy

Contents of measure include following items.

(1) Strategy 1

Measure 1-1-1

Name of measure	Preparation of the zoning plan and management guideline for tourism development in Bai Chay and Hung Thang areas
Project area/location	Bai Chay and Hung Thang areas
Purpose	Bai Chay area has been rapidly developed as the core tourism area in Halong city and the gate way to Halong Bay. In Hung Thang area located in the west of Bai Chay area, large scale hotel and commercial development has been planned and implemented by private sector. In fact, hotel and commercial area and tourism development areas in Bai Chay and Hung Thang areas are not properly controlled and managed according to the land use plan. For sustainable tourism development in Bai Chay and Hung Thang areas, it is necessary to develop zoning plans for tourism areas and facilities and amenity spaces in these areas. For effective operation and management of zoned area in terms of tourism facility development, related infrastructure and tourism activities, preparation of management guideline in each selected zone is indispensable. The guideline helps to control illegal actions and manage tourism development activities for responsible agencies and stakeholders.
Components of program (activities)	<ul style="list-style-type: none"> • Review of current land use, road and transportation network, existing tourism facility, infrastructure development and relevant legal documents • Checking and assessment of tourism resources and tourism demands • Identification of areas, sites and facilities for improve and redevelopment • Preparation of policy for zoning • Preparation of zoning plan for tourist areas • Development of tourism network plan • Identification of management issues on tourism development and activities • Preparation of management guideline for designated zone areas including safety measures for tourist • Holding workshop on zoning plan and management guideline • Implementation of zoning plan and management guideline • Maps and drawings
Target/Beneficiary	QN PPC, Halong City, DCST and related local government authorities, local tourism business
Expected output (Achievement)	Zoning plan will guide and control function and development of tourism facilities in zoned area in Bai Chay area. Prepared guidelines for zoned areas can control and manage development of tourism facilities and sites, signage and amenity space, access road and pedestrian walkway, etc which helps for sustainable tourism development of Halong area with following the requirement of Coastal Environmental Protection Corridor (CEPC)
Expected implementation agency/organization	Halong City, DOC, DCST, DPI
Expected coordination agency/organization	To be decided
Implementation schedule	Short term (2013-2014)
Source of funding	Government (Quang Ninh PPC)

Remark: Short term (2013-2014), Mid term (2015-2017), Long term (2018-2022)

Measure 1-1-2

Name of measure	Identification of solution for unfinished tourism development and pending tourism facilities, and preparation of effective approval and monitoring system of land leasing for tourism facilities and tourism development in Bai Chay and Tuan Chau
Project area/location	Bai Chay and Tuan Chau island
Purpose	Tourism and commercial development in Halong City, especially Bai Chay and Tuan Chau are important for contributing economy of Halong City as well as QN province. Tourism development in Bai Chay and Tuan Chau was booming in the past and attracted private investors. Large areas along the coastal area were reclaimed for development of hotels, commercial and tourism related facilities. In Bai Chay and Tuan Chau area, there exists unfinished construction of hotels and tourism related facilities and pending tourism facilities in the private leasing lands. These facilities are negative assets for sustainable tourism development in Halong area. It is necessary to find effective solution for this issue.
Components of program (activities)	<ul style="list-style-type: none"> • Survey of current condition of unfinished buildings, not utilized and pending tourism facilities • Review of legal documents for land leasing and land development • Confirmation of reasons for unfinished or delayed construction of building and pending tourism facilities • Amendment of present laws on development and land leasing • Preparation of possible solutions for resume building construction, clearance of unfinished buildings or proposing alternative land use for tourism development • Preparation of effective approval and monitoring system for land leasing and building construction
Target/Beneficiary	QN PPC, Halong City, DOC and related local government authorities, developer, investor, local tourism business
Expected output (Achievement)	Unfinished planned tourism facilities can be removed or resumed to be developed by applying identified solution. Prepared approval and monitoring system of land leasing for tourism facility and tourism development can prevent for standstill of development of tourism facilities and helps for effective utilization of tourism assets and sustainable tourism development in Halong area.
Expected implementation	Halong City, DOC, DCST, DPI

agency/organization	
Expected coordination agency/organization	To be decided
Implementation schedule	Short (2013-2014)-mid (2015-2017) terms
Source of funding	Government (Quang Ninh PPC)

Remark: Short term (2013-2014), Mid term (2015-2017), Long term (2018-2022)

Measure 1-1-3

Name of measure	Preparation of tourism site management guideline for major islands in Halong Bay
Project area/location	Thien Cung-Dau Go, Sung Sot, Titop island, Me Cung
Purpose	Major islands in Halong Bay such as Thien Cung-Dau Go cave, Sung Sot cave, Titop Island are very popular tourist sites for tourist accessed by tourist boat. Especially, during tourist peak season and peak time, tourist wharf in Bai Chay and jetties at islands are crowded with tourist boats and tourists. Increasing the number of cruising tour and tourist will cause direct impact to the caves, sea water quality and nature environment in islands. It is necessary to have tourist management guideline to control and reduce impact at major island for sustainable tourism management in Halong Bay.
Components of program (activities)	<ul style="list-style-type: none"> • Inspection and monitoring conditions of tourist resources, facilities and tourist areas at each island • Identification of negative factors at each island • Estimation of carrying capacity for tourist at each island • Preparation of site tourism management guideline • Workshop on operation of site management guideline
Target/Beneficiary	HBMD, tourist boat operators, tourists
Expected output (Achievement)	HBMD can effectively control and manage tourist sites, facilities and tourism resources with sustainable manner according to tourism site management guideline. Negative impacts on tourism resources, sea water and nature environment caused by congestion of tourist boats and tourists landing islands will be reduced during the tourist peak time and season.
Expected implementation agency/organization	HBMD
Expected coordination agency/organization	To be decided
Implementation schedule	Short term (2013-2014)
Source of funding	Government (Quang Ninh PPC)

Remark: Short term (2013-2014), Mid term (2015-2017), Long term (2018-2022)

(2) Strategy 2

Measure 2-1-1

Name of measure	Formulation of regulation on promotion of Ecotourism in Quang Ninh
Project area/location	Quang Ninh province, Halong area
Purpose	Currently, QN PPC gives priority to development and promotion of ecotourism in Halong Bay and other areas, Quang Ninh province in Tourism Development Plan of Quang Ninh Province and Socio-economic Plan of Halong City. However, there is no legal document or system to support ecotourism activities. To encourage promoting ecotourism in regional and local level, provincial government should establish an official regulation such as decision on regulation for promotion of ecotourism should be established by provincial government. The regulation shall be included formulation of basic policy on ecotourism by responsible agency in QN province, establishment of ecotourism association, measures to promote the development of ecotourism in local areas and conservation of natural tourism resources and environment.
Components of program (activities)	<ul style="list-style-type: none"> • Review and study of relevant regulations tourism and ecotourism • Establish working group and committee including academics, representatives of relevant tourism business operators and local communities for preparation of regulation • Preparation of work plan and schedule • Preparation of draft regulation on promotion of ecotourism • Holding working group and committee meetings • Finalization of the regulation by DCST and the committee • Submission of the finalized regulation to QNPPC for approval
Target/Beneficiary	QNPPC, DCST, HBMD, relevant depts. in local governments, tourism business operator (Ecotourism)
Expected output (Achievement)	Enacted regulation (Decision) on promotion of ecotourism is an effective measure to support and promote followings, protection of natural environment through ecotourism, tourism promotion, regional development, promotion of environmental education. DCST and relevant sections in local governments are able to develop and promote ecotourism activities with involvement of tourism business operators and local communities based on the regulation.
Expected implementation agency/organization	DCST, HBMD
Expected coordination agency/organization	To be decided
Implementation schedule	Short term (2013-2014)
Source of funding	Government (Quang Ninh PPC)

Remark: Short term (2013-2014), Mid term (2015-2017), Long term (2018-2022)

Measure 2-1-2

Name of measure	Formulation of policy, institutional framework and incentives for promoting ecotourism activities
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Project area/location	Quang Ninh Province, Halong area
Purpose	The official regulation (decision) on promotion of ecotourism will include various rules, actions, institutional and promotional measures on ecotourism for provincial, local governments and tourism business operators. The responsible agency for the regulation, DCST is necessary to formulation of basic policy and strategy on ecotourism promotion and incentives for promotion of ecotourism, establishment of ecotourism association, development of mechanism on technical and financial support for training of ecotourism narrator, implementation of ecotour program, PR of ecotourism programs in coordination with relevant governmental agencies based on the regulation.
Components of program (activities)	<ul style="list-style-type: none"> • Establish expert team on basic policy and strategy on ecotourism promotion from external resource • Establish working group and committee including academics, experts on relevant fields, representative of relevant tourism business operators and local communities for preparation of basic policy and strategy on ecotourism promotion • Preparation of work plan and schedule • Formulation of basic policy and strategy on ecotourism promotion • Establishment of ecotourism association in QN province or local areas • Development of incentives to promote ecotourism for ecotour operators and relevant stakeholders • Development of technical and financial support for training of ecotourism narrator, implementation of ecotour program, PR of ecotourism programs • Holding working group and committee meetings • Finalization of basic policy and strategy by DCST and the committee • Submission of the finalized basic policy and strategy, document for establishment of ecotourism association in QN province to QNPPC for approval.
Target/Beneficiary	QNPPC, DCST, HBMD, relevant depts. in local governments, tourism business operator (Ecotourism), local communities
Expected output (Achievement)	Established basic policy and strategy on ecotourism promotion for Halong area or QN province will encourage for promotion of ecotourism activities. Ecotourism association in QN province or local areas is responsible not only to promote ecotourism activities but also to coordinate various stakeholders related to ecotourism activities, regional development and environmental education with support of Halong Environmental Education Association. In addition, local communities and tourism business operators can receive financial and technical support on ecotour development and training of eco-tour narrator.
Expected implementation agency/organization	DCST, HBMD
Expected coordination agency/organization	To be decided
Implementation schedule	Short-Mid terms
Source of funding	Government (Quang Ninh PPC)

Remark: Short term (2013-2014), Mid term (2015-2017), Long term (2018-2022)

(3) Strategy 3

Measure 3-1-1

Name of measure	Control of tourist boat access and boat stay areas at major islands at peak time
Project area/location	Halong Bay, Thien Cung, Dau Go, Sung Sot, Ti Top
Purpose	Jetties at popular islands and caves such as Thien Cung-Dau Go cave, Sung Sot cave and Titop islands are very congested with many tourist boats at peak time for cruising tour. The number of cruising tours visiting these sites are continues to increase. In terms of reduce impact on nature environment and caves at these sites and safety for cruising tour, it is necessary to control the number of tourist boats access to these islands during peak time based on study on carrying capacity of tourist sites.
Components of program (activities)	<ul style="list-style-type: none"> • Review of data on the number of tourist boat visiting major islands • Survey on tourist boat at jetty of major islands during tourist peak season and peak time. • Consideration of max. capacity (number) of tourist boats based on existing condition of jetty and its facilities • Setting regulation on number of receiving tourist boats at each jetty and number of boat for boat tour routes • Improvement of jetties and related facilities • Preparation of operation and management plan • Guidance to regulation to relevant depts. and boat companies • Training of staff in charge of control and safety for tourist boat • Implementation of control and safety management for tourist boat based on operation and management plan
Target/Beneficiary	HBMD, tourist boat
Expected output (Achievement)	Control of tourist boat access and boat stay areas at major islands at peak time will reduce direct impact to sea water and nature environment around and in the major islands. It also contributes sustainable management of tourism resources.
Expected implementation agency/organization	HBMD
Expected coordination agency/organization	To be decided
Implementation schedule	Short term
Source of funding	Government (Quang Ninh PPC)

Remark: Short term (2013-2014), Mid term (2015-2017), Long term (2018-2022)

Measure 3-2-1

Name of measure	Training on use of wool knitted scourer, sorting waste and composting waste for floating villages
Project area/location	Floating villages (Ba Ham, Vong Vieng, Cua Van and Cong Dam)

Purpose	Workshop on introducing wood knitted scourer and composting waste for floating villages were conducted by JICA Grass-roots project in cooperation with Women's Union. Using wood knitted scourer is to reduce using amount of water for washing dishes and detergent, and is less impact on water environment as well as to contribute for protection environment. Composting organic waste from floating villages is to reduce the volume of waste and the volume of transporting waste from floating villages to waste dumping sites in Halong Bay and a composting factory at inland area. These activities are feasible measures to reduce negative impact on water environment and help to protect environment of Halong Bay by floating villages. Plan of relocation of floating houses in Halong Bay was drafted by Halong Municipal PC in September 2012. In case, relocation of floating houses is implemented according to the plan, this measure will be excluded from measures under Strategy 3.
Components of program (activities)	<ul style="list-style-type: none"> • Evaluation of activities on wool knitted scourer, sorting waste and composting waste supported by JICA Grass- roots project • Preparation of training programs on activities • Purchasing materials for training programs • Conduct trainers training by responsible organizations/groups • Conduct workshop for each activities at floating villages
Target/Beneficiary	Residents of floating villages, people working on Halong Bay
Expected output (Achievement)	Reduce impact to sea water and fishes by discharging washed water and also volume of water for washing, which can also reduce expenditure for water.
Expected implementation agency/organization	Women's Union, HMBD, residents of floating villages
Expected coordination agency/organization	To be decided
Implementation schedule	Short term
Source of funding	Government (Quang Ninh PPC)

Remark: Short term (2013-2014), Mid term (2015-2017), Long term (2018-2022)

Measure 3-2-2

Name of measure	Lecture on environmental protection and activities for floating villages
Project area/location	Floating villages (Ba Ham, Vong Vieng, Cua Van and Cong Dam)
Purpose	Residents of floating villages are lack of knowledge and awareness on environmental protection in Halong Bay. A part of activities for enhancement of awareness on environmental protection in Halong Bay, an importance and necessity of environmental protection in Halong Bay was taught for elementary school pupil by JICA Grass-roots project. Enhancement of awareness on environmental protection is important not only for school children but for adults and women in floating villages. Therefore, continuous efforts on providing lecture on environmental protection for villages are indispensable. In case, relocation of floating houses is implemented according to the plan, this measure will be excluded from measures under Strategy 3 as same as Measure 3-2-1.
Components of program (activities)	<ul style="list-style-type: none"> • Preparation of themes and contents by theme for lecture • Preparation of presentation materials for lecture • Development of materials using lecture • Preparation of lecture schedule • Implementation of lecture
Target/Beneficiary	Residents of floating villages
Expected output (Achievement)	Knowledge and awareness on environmental protection for villagers in floating villages are enhanced. Activities on environmental protection by villagers are promoted.
Expected implementation agency/organization	HBMD, Halong Environmental Education Association, NGO, University
Expected coordination agency/organization	To be decided
Implementation schedule	Short-Mid-Long terms
Source of funding	Government (Quang Ninh PPC)

Remark: Short term (2013-2014), Mid term (2015-2017), Long term (2018-2022)

Measure 3-2-3

Name of measure	Monitoring of sea water quality by using Secchi disk
Project area/location	Floating villages (Ba Ham, Vong Vieng, Cua Van and Cong Dam)
Purpose	Secchi disk is a tool for monitoring sea water quality by measuring water transparency and turbidity. Trainings on monitoring of water transparency and turbidity by using Secchi disk were conducted by JICA Grass-roots project at floating villages in Halong Bay. It is important to measure transparency and turbidity of sea water around floating village for monitoring water quality in Halong Bay. This activity will keep collecting data on water transparency and turbidity around floating villages and enhance awareness on environmental protection. Monitoring of transparency of water using Secchi disk should be more promoted at floating villages. In case, relocation of floating houses is implemented according to the plan, this measure will be excluded from measures under Strategy 3 as same as Measure 3-2-1.
Components of program (activities)	<ul style="list-style-type: none"> • Provision of Secchi disk and materials for keeping records • Preparation of training plan and schedule for monitoring of sea water using Secchi disk • Conduct training programs on Secchi disk for villagers
Target/Beneficiary	Residents of floating villages
Expected output (Achievement)	Monitoring data contributes for analysis of water quality (water transparency and turbidity) and aware of importance of water quality in Halong Bay for villagers.
Expected implementation agency/organization	HBMD, residents of floating villages
Expected coordination	To be decided

agency/organization	
Implementation schedule	Short-Mid-Long terms
Source of funding	Government (Quang Ninh PPC)

Remark: Short term (2013-2014), Mid term (2015-2017), Long term (2018-2022)

Measure 3-2-4

Name of measure	Support for preservation of traditional culture of floating village
Project area/location	Vong Vieng and Cua Van
Purpose	<p>“Draft Plan on relocation of floating houses in Halong Bay (Relocation Plan) (No. 2969/BCD)” was prepared by Halong Municipal PC dated on 20th September 2012. The objectives for the plan is to protect, conserve culture of traditions of floating villages, enhance and improve management capacity of for conservation and promotion of Halong Bay World Heritage by relocation of floating houses in Halong Bay to the shore and inland areas. The plan includes supporting programs on housing, education and job for resettled households. After the Relocation Plan is approved by QNPPC, resettlement of floating houses will be carried out and all floating houses all floating houses will be relocated to the designated shore and inland areas by June 2014. Especially Vong Vieng and Cua Van floating villages have their traditional culture and living lifestyle. Two villages are main tourism attractions for boat tour in Halong Bay.</p> <p>To support for preservation of traditional culture of these floating villages and continue people in floating houses engaged in tourism businesses including rowing boat for tourists, resettled villagers from Vong Vieng and Cua Van should be allowed to stay designated floating houses and manage tourism facilities in Vong Vieng and Cua Van in daytime only with support of HBMD. Schedule of resettled people stay at floating houses and operation of row boat service will be planned and decided in accordance with schedule of boat tours visiting these areas by boat companies. For protecting environment in Halong Bay, fuel for boat access to two islands should be used bio diesel fuel produced from Jatropha (tree) planted at former coal mining sites. In addition, when resettled people commute to two islands, they are responsible to collect waste from floating houses and tourism facilities and transport collected waste to the land.</p>
Components of program (activities)	<ul style="list-style-type: none"> • Survey on resettled people from floating houses in Halong Bay those who engaging the tourism business and traditional fishing • Confirmation of floating villages to be conserved as tourism assets • Design and construction of traditional floating house including aquaculture facilities and pearl farm for selected floating villages • Preparation of conservation and training program for traditional fishing and culture • Conducting conservation and training program at designated areas in Halong Bay • Preparation of operation and management plan for designated floating houses, tourism facilities and aquaculture in Halong Bay by resettled people • Preparation of boat transport plan for resettled people access designated floating houses and facilities in Halong Bay including utilization of bio-diesel fuel for boat • Development of waste collection and transport system by boat in collaboration with HBMD
Target/Beneficiary	Resettled people in Halong Bay, tourist boat companies, HBMD
Expected output (Achievement)	Traditional culture and lifestyle of floating villages in Halong Bay is preserved as tourism resources by implementation of supporting measures for resettled people. Tourism facilities at Vong Vieng and Cua Van are maintained by resettled people. Negative impact to the sea environment is reduced by collecting waste on the sea, from floating houses and tourism facilities. Utilization of bio diesel fuel for boat reduces emissions of carbon monoxide (CO) and carbon dioxide (CO ₂), which contributes for Green Growth Strategy of QN
Expected implementation agency/organization	HBMD
Expected coordination agency/organization	To be decided
Implementation schedule	Short-Mid terms
Source of funding	Government (Quang Ninh PPC, Halong City)

Remark: Short term (2013-2014), Mid term (2015-2017), Long term (2018-2022)

Measure 3-3-1

Name of measure	Upgrading operational capacity of local wastewater treatment facility and sewerage collection system
Project area/location	Bai Chay and Ha Khanh wards, other areas in Halong City
Purpose	There are currently two wastewater treatment plants in Cai Dam (Bai Chay) and Ha Khanh wards of Halong city. However, the total capacity of the facilities is not sufficient to handle the existing level of waste water drainage in the city, particularly Bai Chay tourist area dues to exceeding number of lodging and other tourist facilities. Current drainage system in Bai Chay is designed without separation of surface water which causes overload of operational capacity especially during heavy rains. To solve these issues, upgrading of operational capacity of waste water treatment facility by development of new wastewater facility and improvement of drainage system in coastal areas in Halong City are indispensable.
Components of program (activities)	<ul style="list-style-type: none"> • Survey on operational conditions of the existing wastewater treatment facilities in Halong • Survey at sources of waste water • Develop the investment project for approval management) • Planning and design • Conduct improvement work and construction works • Operation and maintenance of the facilities
Target/Beneficiary	Local households and tourism businesses in Halong City
Expected output (Achievement)	Wastewater will be collected and handled more thoroughly that reduce pollution, especially in Bai Chay tourist area.
Expected implementation agency/organization	DOC, Halong City
Expected coordination	To be decided

agency/organization	
Implementation schedule	Short-Mid terms
Source of funding	Government (Quang Ninh PPC, Halong City)

Remark: Short term (2013-2014), Mid term (2015-2017), Long term (2018-2022)

Measure 3-4-1

Name of measure	Development of guideline of inspection and monitoring of tourism resources and pollution level at tourist sites, wharf and jetties and anchoring sites in Halong Bay
Project area/location	Bai Chay Tourist wharf, Jetties and anchoring sites and other tourism sites in Halong Bay
Purpose	According to result of water quality monitoring by WG-1 in cooperation with EMAC and HBMD, water quality at tourist jetty for Thien Cung cave and Tuan Chau Island were degraded and impacted to tourism activities. Due to increasing number of cruising tours by tourist boat for visiting these areas, water environment at jetty and anchoring sites in Halong Bay will be expected more degraded and polluted. The same degraded tourism resources have been found in the region. Under the these circumstances, it is necessary to prepare guideline for inspection and monitoring of pollution level as well as monitoring system for sustainable management of tourism resources and sites at main tourist sites, tourist wharf, jetty and anchoring sites and conduct regular inspection and monitoring of water quality based on the guideline. The framework of guideline needs to be discussed WG-1.
Components of program (activities)	<ul style="list-style-type: none"> • Method of inspection and monitoring activities • Sampling site • Parameters for sample analysis • Information sharing among concerned agencies • Workshop on monitoring and evaluation of tourism resources, tourism sites and facilities • Identification of prevention and solution measures for pollution sources and factors • Schedule for inspection and monitoring
Target/Beneficiary	HBMD, DONRE, tourist boat, tourist
Expected output (Achievement)	HBMD and DONRE can conduct efficient inspection and monitoring of water quality and reduce impact to water by tourist boats and other factors. Establishing system to avoid further damage of tourist facilities and sites and maintain tourist facilities and sites, monitoring and evaluation data contribute for improvement of tourist facilities and sites, and identification of potentials for development of tourism product
Expected implementation agency/organization	HBMD, DONRE
Expected coordination agency/organization	To be decided
Implementation schedule	Short term
Source of funding	Government (Quang Ninh PPC)

Remark: Short term (2013-2014), Mid term (2015-2017), Long term (2018-2022)

Measure 3-4-2

Name of measure	Training of inspection and monitoring activities based on guideline
Project area/location	Bai Chay Tourist wharf, jetties and anchoring sites in Halong Bay
Purpose	Inspection and monitoring activities for Halong Bay are conducted mainly by HBMD, DONRE and Environmental Police Dept. After the guideline is prepared, allocation of sufficient number of staff for inspection and monitoring activities, and training for inspection and monitoring staff needs to be planned and conducted by HBMD and DONRE based on the guideline.
Components of program (activities)	<ul style="list-style-type: none"> • Preparation of training plan for inspection and monitoring activities • Preparation of training manual • Purchase of equipment for training program • Holding training workshop for inspection and monitoring activities • Training by OJT (Inspection, monitoring and sample analysis)
Target/Beneficiary	HBMD, DONRE
Expected output (Achievement)	Improve technique and knowledge for inspection and monitoring for staff in charge of inspection and monitoring
Expected implementation agency/organization	HBMD, DONRE
Expected coordination agency/organization	To be decided
Implementation schedule	Mid term
Source of funding	Government (Quang Ninh PPC)

Remark: Short term (2013-2014), Mid term (2015-2017), Long term (2018-2022)

Measure 3-4-3

Name of measure	Reporting monitoring and inspection data and information to relevant departments and boat companies
Project area/location	Designated place for information provision and reporting to be decided by DONRE and HBMD
Purpose	After collected inspection and monitoring data are analyzed, these data and information shall be put in database, provided and shared among relevant departments and boat companies. Reporting results of inspection and monitoring data on water quality to relevant departments and boat companies will inform current situation of water quality in Halong Bay and enhance awareness of protecting water environment for relevant departments and boat companies.
Components of program (activities)	<ul style="list-style-type: none"> • Compilation of analyzed data and information • Data input in the database • Summary of analyzed data and information • Preparation of reporting system

	· Reporting and information provision
Target/Beneficiary	HBMD, DONRE, tourist boat
Expected output (Achievement)	Reporting of analyzed results of monitoring and inspection helps to identify negative impacts on water environment and sustainable management of Halong Bay
Expected implementation agency/organization	HBMD, DONRE
Expected coordination agency/organization	To be decided
Implementation schedule	Mid-Long terms
Source of funding	Government (Quang Ninh PPC)

Remark: Short term (2013-2014), Mid term (2015-2017), Long term (2018-2022)

(4) Strategy 4

Measure 4-1-1

Name of measure	Development of eco tour to Trang Luoi Liem and Hon Quyen Rong, Ba Ham Lake
Project area/location	Trang Luoi Liem and Hon Quyen Rong and Ba Ham Lake
Purpose	Trang Luoi Liem is an island with unspoiled white sandy beach. Hon Quyen Rong is an island with white sandy beach and access to karst lake. Two islands are located near Vong Vieng floating village and easy access and landing. Ba Ham Lake is a "closed lake" surrounded by limestone mountains and forests on Dau Be Island with beautiful landscape and flora and fauna, and habitat of golden hair monkey and flying squirrel. These islands have potential sites for development of eco tour.
Components of program (activities)	<ul style="list-style-type: none"> · Conduct detailed site survey · Evaluation of tourism resources and nature environment · Preparation of possible eco tour programs · Development of ecotourism attractions and activities · Provision of required facilities and improvement for operation of eco tour, including environmentally friendly accommodation and transportation facilities · Training of eco tour narrator · Establishment of organization structure for operation and management · Implementation plan for eco tour · Preparation and conduct pilot eco tour for inviting tourism related stakeholders (DCST, local government, tour operators, tourist boat operators, local communities) and tourists
Target/Beneficiary	Local communities, HBMD, tour operators, tourist
Expected output (Achievement)	Trang Luoi Liem and Hon Quyen Rong, Ba Ham Lake become ecotourism site for domestic and foreign tourists with enjoy sandy beaches, small trekking and exploring beautiful nature scenery by kayaking.
Expected implementation agency/organization	HBMD, tourist boat company
Expected coordination agency/organization	To be decided
Implementation schedule	Short-Mid terms
Source of funding	Private (boat companies, tour operators), Government (HBMD)

Remark: Short term (2013-2014), Mid term (2015-2017), Long term (2018-2022)

Measure 4-1-2

Name of measure	Development of community based ecotour in Cong Dam area, Cua Van, Vong Vieng (floating villages)
Project area/location	Cong Dam area, Cua Van, Vong Vieng
Purpose	In Cong Dam, Cua Van, Vong Vieng areas, there are floating villages with beautiful scenery of surrounding islands. Green Halong Environmental Program has been carried out by tourist boat company, Indochina Junk since 2009 with support of villages in Cong Dam. This program includes mangrove planting, garbage collection, demonstration of traditional fishing, boat tour by villager. In addition to Cong Dam floating village, other floating villages and their surrounding areas are suitable for further development and promotion of community based tourism including development of handicraft, traditional fishing and cultural activities.
Components of program (activities)	<ul style="list-style-type: none"> · Conduct detailed site survey · Evaluation of tourism resources and nature environment · Preparation of possible eco-tour programs · Development of ecotourism attractions and activities · Provision of required facilities and improvement for operation of eco tour, including environmentally friendly accommodation and transportation facilities · Training of eco-tour narrator · Establishment of organization structure for operation and management · Implementation plan for eco-tour · Preparation and conduct pilot eco-tour for inviting tourism related stakeholders (DCST, local government, tour operators, tourist boat operators, local communities) and tourists
Target/Beneficiary	Communities in Com Dam, Cua Van, Vong Vieng, tourists, HBMD, tourist boat companies
Expected output (Achievement)	Cong Dam area (floating floating village) becomes attractive eco-tour destination for tourist visiting floating village, caves and mangrove planting areas and experience life of traditional floating village. Other floating villages (Cua Van, Vong Vieng) are also attracted community based eco-tour areas for foreign and domestic tourists. Income of Cong Dam and other floating villages will increase through eco-tour.
Expected implementation agency/organization	HBMD and tourist boat company in cooperation with Cong Dam, Cua Van, Vong Vieng villages
Expected coordination agency/organization	To be decided
Implementation schedule	Short-Mid terms

Source of funding	Private (boat companies, tour operators), Government (HBMD)
Remark: Short term (2013-2014), Mid term (2015-2017), Long term (2018-2022)	

Measure 4-1-3

Name of measure	Development of community based eco-tour at Yen Lap Lake and Loi Am Mountain area
Project area/location	Yen Lap Lake and Loi Am Mountain, Halong city
Purpose	Yen Lap Lake was created by construction of dam in this area, which is good access from National Road 18. Loi Am Mountain is accessed by boat on Yen Lap lake. Main tourism resources and attractions in Loi Am Mountain are a green forest, pineapple trees, Loi Am Pagoda situated on the top of mountain and trekking in the forest. Local villages living in this area offers grilled chicken for visitors. This area has a potential for development of community based eco tour with involvement of local community.
Components of program (activities)	<ul style="list-style-type: none"> • Conduct detailed site survey • Evaluation of tourism resources and nature environment • Preparation of possible community based eco-tour programs • Development of community based ecotourism attractions and activities • Provision of required facilities and improvement for operation of community based ecotourism facilities, including home stay, B&B and local tour guides and programs • Establishment of organization structure for operation and management • Implementation plan for community based ecotourism development program • Preparation and conduct pilot community based eco-tour for inviting tourism related stakeholders (DCST, local government, tour operators, tourist boat operators, local communities) and tourists
Target/Beneficiary	Local communities, tour operators, tourist, DCST
Expected output (Achievement)	Yen Lap Lake and Loi Am Mountain area becomes a popular community based eco-tour site in Halong city with enjoying beautiful scenery of lake and mountains, trekking in forest, and reaching to Loi Am Pagoda, guided by local guide. Possible to provide activity of pineapple tree in the forest.
Expected implementation agency/organization	DCST, Halong city in cooperation with local community
Expected coordination agency/organization	To be decided
Implementation schedule	Short-Mid terms
Source of funding	Private (tour operators), Government (HBMD)
Remark: Short term (2013-2014), Mid term (2015-2017), Long term (2018-2022)	

Measure 4-1-4

Name of measure	Boat tour in mangrove area with mangrove planting in Quang Yen and Bai Chay bay
Project area/location	Mangrove areas in Quang Yen town, Bai Chay bay
Purpose	Yen Lap Lake was created by construction of dam in this area, which is good access from National Road 18. Loi Am Mountain is accessed by boat on Yen Lap lake. Main tourism resources and attractions in Loi Am Mountain are a green forest, pineapple trees, Loi Am Pagoda situated on the top of mountain and trekking in the forest. Local villages living in this area offers grilled chicken for visitors. This area has a potential for development of community based eco tour with involvement of local community.
Components of program (activities)	<ul style="list-style-type: none"> • Conduct detailed site survey • Evaluation of tourism resources and nature environment • Preparation of possible eco-tour programs • Development of ecotourism attractions and activities • Provision of required facilities and improvement for operation of eco-tour, including environmentally friendly accommodation and transportation facilities • Training of eco-tour narrator • Establishment of organization structure for operation and management • Implementation plan for eco-tour • Preparation and conduct pilot eco-tour for inviting tourism related stakeholders (DCST, local gov., tour operators, tourist boat operators, local communities) and tourists
Target/Beneficiary	Local communities, tour operators, tourist, DCST, DONRE
Expected output (Achievement)	Mangrove boat tour becomes one of eco-tour programs in Halong area. Tourists can learn importance of mangrove and its ecosystem. Local community has opportunity to engage operation of mangrove tour and expects to increase income through mangrove tour.
Expected implementation agency/organization	Quang Yen town, Halong city, local community in cooperation with tour operator
Expected coordination agency/organization	To be decided
Implementation schedule	Short term
Source of funding	Private (boat companies, tour operators), Government (HBMD)
Remark: Short term (2013-2014), Mid term (2015-2017), Long term (2018-2022)	

Measure 4-1-5

Name of measure	Study tour for unique values of Halong area (landscapes, geography, geomorphology, biodiversity, culture and history)
Project area/location	Me Cung, Master Cave, cultural sites, monuments and forests in Halong area
Purpose	Halong area has various natural, marine, cultural and historical resources. Existing tourism resources can be created as study tour for students and foreign tourist with support of guiding by professionals and academic researchers.
Components of program (activities)	<ul style="list-style-type: none"> • Conduct detailed survey on tourism resources • Plan of study tours with concerned departments and organizations

	<ul style="list-style-type: none"> • Preparation and conduct pilot study tour for inviting concerned stakeholders • Operation and management for study tour • Marketing of study tour
Target/Beneficiary	Local communities, Vietnamese students and foreign tourists
Expected output (Achievement)	Students and foreign tourists can learn and understand nature, historical and culture of Halong area through study tours. Nature, historical and cultural values of Halong area will be enhanced by study tour.
Expected implementation agency/organization	Halong Boat Association, boat companies, local people of floating villages
Expected coordination agency/organization	To be decided
Implementation schedule	Mid term
Source of funding	Private (boat companies, tour operators), Government (HBMD)

Remark: Short term (2013-2014), Mid term (2015-2017), Long term (2018-2022)

Measure 4-1-6

Name of measure	Development of nature and educational boat tour by tourist boat company
Project area/location	Cong Dam area, Trang Luoi Liem, Quyen Rong, Ba Ham, Cua Van, Vong Vieng
Purpose	Halong Bay has a high potential for ecotourism development, particularly eco-tours by boat. However, there are currently limited boat companies specialized in this type of business; most of them offer boat cruising tours to main attractions and destinations in the bay. Eco-tours by boat would allow geo-travellers (environmental conscious tourists) to explore and appreciate the beauty and outstanding values of natural tourism attractions in the bay, thus contribute to environmental education and conservation efforts. Ecotours by boat are considered as one of sustainable tourism products to be developed promoted by boat companies with support of floating villages in Halong Bay.
Components of program (activities)	<ul style="list-style-type: none"> • Conduct detailed site survey • Evaluation of tourism resources and nature environment • Preparation of possible cruising eco-tour programs • Development of ecotourism attractions and activities. • Identify boat companies for supporting and participating eco-tour • Training of eco-tour narrator • Implementation plan for eco-tour • Preparation and conduct pilot eco-tour for inviting tourism related stakeholders (DCST, local government, tour operators, tourist boat operators, local communities) and tourists
Target/Beneficiary	Halong Boat Association, boat companies, residents of floating villages
Expected output (Achievement)	Eco-tour by boat becomes one of eco-tour programs in Halong area. Tourists can learn importance of ecosystems and other natural values of local tourism attractions in the bay. Local community has opportunity to engage operation of eco boat tour and expects to increase income through the tours.
Expected implementation agency/organization	Halong Boat Association, boat companies, residents of floating villages
Expected coordination agency/organization	To be decided
Implementation schedule	Mid term
Source of funding	Private (boat companies, tour operators), Government (HBMD)

Remark: Short term (2013-2014), Mid term (2015-2017), Long term (2018-2022)

Measure 4-2-1

Name of measure	Development of tour programs combining existing and new tourism sites in Halong area and its surrounding areas with public, private and community participation
Project area/location	Halong area and other tourism areas in QN
Purpose	There are many tourism resources, sites and attractions in Halong area. However most of local and foreign tourists visit only major tourist sites such as Halong Bay area and Yen Tu in Uong Bi City. The length of stay for tourists in QN is less than 2 days. Tour program combining various tourist sites have not been developed and promoted in QN. Development of tour program combining various tourist sites can extend the tourist's length of stay in Halong area and reduce congestion of tourist in Halong Bay during the tourist peak season as well as increase revenue from tourism in other areas within the tour routes by tourist visiting tourist sites in the tour programs.
Components of program (activities)	<ul style="list-style-type: none"> • Conduct survey on existing tour programs and tourist sites in Halong area and its surroundings • Evaluation of tourism resources, tourism attraction, tourism infrastructure and natural environment • Development of possible tour programs combining tourist sites • Preparation of plan for upgrading and improvement of visiting sites for operation of tour programs • Development of signage and tourism resource interpretation board in various language at sites • Preparation of tour brochure • Preparation and conduct monitor tour for new tours programs for inviting tourism related stakeholders (DCST, local gov., tour operators, local communities) • Implementation plan and guideline of tour programs • Marketing and promotion of developed tour programs by DCST in coordination with local government, local tourism business operator and local communities
Target/Beneficiary	Local communities, tour operators, tourist, DCST
Expected output (Achievement)	Tour program with combining tourist sites increases length of stay for local and foreign tourist in Halong area (Foreign tourist: 2 days -> 3-4days). The tour program increases the number of tourist visiting tourist areas outside of Halong city and economic benefit through tourism. In addition, cooperation among local governments and local tourism business sectors are strengthening in terms of promotion of local tourist sites and receiving tourists.

Expected implementation agency/organization	HBMD, DCST in cooperation with relevant local government and tour operator, local communities
Expected coordination agency/organization	To be decided
Implementation schedule	Short - Mid terms
Source of funding	Government (DCST, local gov.), private

Remark: Short term (2013-2014), Mid term (2015-2017), Long term (2018-2022)

Measure 4-3-1

Name of measure	Training and issue of certificate for Halong Eco-tour narrator
Project area/location	Halong area
Purpose	In the current tourism guide license, there is no guide license specified for nature and ecotourism. Besides existing guide license, for promoting eco tourism in Halong, it is necessary to establish nature and eco tourism narrator certificate scheme by DCST in cooperation with concerned departments. Local people have an opportunity to become nature and eco tourism narrator, which helps to increase income for local people. After the nature and eco tourism narrator certification system is established, responsible agency (DCST) or other organization authorized by DCST, has to conduct training programs for the nature and eco tourism narrator for issuing the certificate.
Components of program (activities)	<ul style="list-style-type: none"> • Review of current tour guide license system • Review of nature and ecotourism guide training and certification programs • Design of nature and ecotourism narrator certification system • Development of training program and exam for eco-tour narrator • Preparation of trainers' eco-tour narrator training manuals • Advertizing narrator training programs by responsible agency • Preparation of detailed training programs including training materials and schedule. • Budget allocation and fee for training and certification • Implementation of narrator training • Provision of the eco-tour narrator certificate
Target/Beneficiary	Local communities, DCST, HBMD
Expected output (Achievement)	Ecotourism tour is secured in term of service quality and guiding skill by establishment of nature and ecotourism narrator. Quality and contents of nature and ecotourism tours are improved. Interpretation, operation and management for nature and ecotourism tour will be secured. Increase employment and income of local communities by training of nature and ecotourism narrator.
Expected implementation agency/organization	DCST, HBMD, University, training institutions
Expected coordination agency/organization	To be decided
Implementation schedule	Short - Mid terms
Source of funding	Government (HBMD), private (boat companies, tour operators)

Remark: Short term (2013-2014), Mid term (2015-2017), Long term (2018-2022)

Measure 4-4-1

Name of measure	Preparation of standard guideline for development, operation and marketing of ecotourism product for local tourism business
Project area/location	Halong area
Purpose	Most of ecotourism activities such as kayaking, swimming, cave exploring, nature trekking on islands are planned, organized and implemented by boat companies with support of local communities at floating villages in Halong Bay. There is not standard guideline and regulation on operation, management and marketing of eco tourism products for local business operators. To encourage local tourism operators and communities for participating ecotourism product development, it is necessary to develop standard guideline on development, operation, management and marketing of eco tourism products.
Components of program (activities)	<ul style="list-style-type: none"> • Confirmation of current situation of eco tourism products • Needs assessment for development, operation and marketing of ecotourism product development • Preparation of draft guideline for development, operation and marketing • Comments on draft guideline by local tourism operators and relevant departments • Formulation of the guideline for development, operation and marketing of ecotourism product development • Workshop on presenting guideline for development, operation and marketing of ecotourism product development
Target/Beneficiary	HBMD, DCST, Quang Ninh Tourist Association, boat companies, local tourism business,
Expected output (Achievement)	The guideline helps to develop, operate and marketing of ecotourism products for local tourism business operators, travel agents and boat companies.
Expected implementation agency/organization	HBMD, DCST, local government authorities
Expected coordination agency/organization	To be decided
Implementation schedule	Short - Mid terms
Source of funding	Government (DCST), private (tourism business companies)

Remark: Short term (2013-2014), Mid term (2015-2017), Long term (2018-2022)

Measure 4-4-2

Name of measure	Seminar and workshop for development, operation and marketing of ecotourism product for local tourism business
Project area/location	Halong area

Purpose	To promote eco tourism product development by local tour operators, boat companies, communities with support of DCST, QN Tourism Association and local NGOs, seminar and workshop on operation and marketing of eco tourism product development should be planned and held.
Components of program (activities)	<ul style="list-style-type: none"> • Preparation of agenda and schedule for seminar and workshop • Confirmation of lectures and eco tourist expert • Preparation of material for seminar and workshop • Arrangement of venue and sending invitation letters • Implementation of seminar and workshop
Target/Beneficiary	HBMD, DCST, Quang Ninh Tourist Association, boat companies, local tourism business
Expected output (Achievement)	Seminar and workshop will contribute to encourage for development, operation and marketing of ecotourism product by local tourism business operators. The number of ecotourism products will be increased and the ecotourism products will be diversified in Halong area
Expected implementation agency/organization	HBMD, DCST
Expected coordination agency/organization	To be decided
Implementation schedule	Mid term
Source of funding	Government (DCST), private (tourism business companies)

Remark: Short term (2013-2014), Mid term (2015-2017), Long term (2018-2022)

Measure 4-5-1

Name of measure	Development of local tourism products with design and quality guideline
Project area/location	Halong area and other destinations in Quang Ninh province
Purpose	Current tourism products sold in Halong area are mostly not utilized local materials. Most off those products are coming from other areas and imported from China through the border town of Mong Cai. Tourism products such as handicrafts and souvenirs in Halong area are very limited kinds and not attractive in terms of design and quality for tourist. To increase sales of tourism products in Halong area, it is necessary to identify potential local materials for development of local oriented tourism products in Halong area. It is also necessary to improve design and quality of tourism product by introducing design and development guideline for tourism products in Halong area.
Components of program (activities)	<ul style="list-style-type: none"> • Survey for local tourism product • Interview survey with souvenir shop • Identification of available and potential materials for development of tourism products • Evaluation of design and quality for local tourism product • Setting criteria on design and quality standard for local tourism product • Quality control system for local tourism product • Seminar and workshop for improvement and development of local tourism product • Development of design and quality guideline for local tourism product including branding product • Establishment of committee for operation and management of design and quality guideline for local tourism product
Target/Beneficiary	Souvenir shop, handicraft shop, DCST, Quang Ninh Tourism Association, tourist
Expected output (Achievement)	Design and quality guideline for local tourism product helps to improve existing local tourism products and develop quality local brand tourism products by utilizing local resources for local producers and companies. The guideline can control the quality of local tourism products to meet the standard for tourist.
Expected implementation agency/organization	DCST
Expected coordination agency/organization	To be decided
Implementation schedule	Short - Mid terms
Source of funding	Government (DCST), private

Remark: Short term (2013-2014), Mid term (2015-2017), Long term (2018-2022)

Measure 4-5-2

Name of measure	Training program on design, development and marketing for tourism products from utilizing available local resources
Project area/location	Halong area and other destinations in Quang Ninh province
Purpose	Existing local tourism products in Halong area are not sufficient in terms of design, quality, packaging, marketing and promotion. Support program provides technical support and guidance for local craftsman, product producers, shop owners to utilize local materials for development of tourism products, improve and upgrade design, development, marketing and sales promotion.
Components of program (activities)	<ul style="list-style-type: none"> • Clarification of needs for support on design and product development • Preparation of support program on design and product development for utilizing identified local resources • Holding workshop on design, product development and marketing for local tourism product • Technical and financial support for selected potential local tourism products
Target/Beneficiary	Souvenir shop, handicraft shop, DCST, Quang Ninh Tourism Association, tourist
Expected output (Achievement)	Design, quality, packaging and utilization of local resources for tourism products by local craftsmen and product producers are improved. Marketing and sales promotion for tourism products by local producers and souvenir shops owners are improved. Attractive and quality local tourism products are developed and promoted in Halong area.
Expected implementation agency/organization	DCST

Expected coordination agency/organization	To be decided
Implementation schedule	Mid term
Source of funding	Government (DCST), private

Remark: Short term (2013-2014), Mid term (2015-2017), Long term (2018-2022)

(5) Strategy 5

Measure 5-1-1

Name of measure	Training on improvement of customer services and hospitality for local tourism business
Project area/location	Halong area
Purpose	Halong Bay is the UNESCO World Heritage site and international tourist destination. However, level of customer service and hospitality by managers and staff of low grade hotels, non-star and small guest house, restaurants in Halong city are not meeting requirement for customers due to lack of knowledge and skills on customer service and hospitality. By increasing the number of tourist visiting Halong area, especially Halong City, it is necessary to provide training program for managers and staff of low grade hotels, non-star and small guest house restaurants in Halong city of in order to improve level of customer service, hospitality as well as communication skill in English.
Components of program (activities)	<ul style="list-style-type: none"> • Needs survey on customers service and hospitality for training targets • Preparation of contents for training program for target groups • Nomination of trainers and lectures for training • Preparation of materials for lecture and training • Preparation of action plan for training program and schedule • Conduct training programs
Target/Beneficiary	Hotel, guesthouse, restaurant, souvenir shop
Expected output (Achievement)	By conducting training on customer services and hospitality for manager and staff of small hotel and restaurants in Halong city, level of customer service, hospitality and communication skill in English for those who had training and improve level of satisfaction for customer service by tourist visiting Halong area as a whole.
Expected implementation agency/organization	DCST, Quang Ninh Tourism Association
Expected coordination agency/organization	To be decided
Implementation schedule	Short – Mid - Long terms
Source of funding	Government (DCST), private (tourism business companies)

Remark: Short term (2013-2014), Mid term (2015-2017), Long term (2018-2022)

Measure 5-2-1

Name of measure	Encouragement of accommodation facilities in Halong area to apply Green Lotus Eco-label
Project area/location	Halong city
Purpose	Green Lotus Eco-label is one of environmental protection standard and sustainable development measures using effective resources, energy, contribute to preserve heritage, develop industry, cultural-social locality and sustainable tourism development for applying tourism accommodation in Vietnam. The project for the Green Lotus Eco-label was planned and implemented by Hotel Dept., Ministry of Cultural, Sport and Tourism (MCST) from 2009 to 2012. After the approval of the Green Lotus Eco-label, demonstration of Green Lotus Eco-label will be applied first for 3 to 5 star hotels and then for all accommodation in Vietnam. The Green Lotus Eco-label is one of important measures for contributing sustainable tourism development in Halong area.
Components of program (activities)	<ul style="list-style-type: none"> • Holding meeting for preparation of guidance with authorized agency • Arrangement of guidance (venue, materials, invitation) • Customization/ harmonization of the standards/ criteria into the local context • Holding workshops to introduce the Green Lotus ecolabel to local accommodation businesses • Facilitating registration of local businesses in the ecolabel program
Target/Beneficiary	DCST, hotel, travel agent
Expected output (Achievement)	After introducing the Green Lotus Eco-label for accommodation in Halong area, holding guidance on applying Green Lotus Eco-label for hotels in Halong area will encourages understand objectives of the Eco-label and many classified star hotels for applying the Eco-label. It is expected negative impacts to the nature environment for Halong Bay form accommodation will be reduced and enhance awareness of environmental protection and sustainable tourism management and development through the Green Lotus Eco-label for hotel industry.
Expected implementation agency/organization	VNAT, DCST
Expected coordination agency/organization	To be decided
Implementation schedule	Mid term
Source of funding	Government (DCST), private (hotel)

Remark: Short term (2013-2014), Mid term (2015-2017), Long term (2018-2022)

Measure 5-3-1

Name of measure	Finalization of developing Eco-label for tourist boats in Halong Bay
Project area/location	Halong Bay, Halong city
Purpose	Development of Eco-label system for tourist boat in Halong Bay was implemented as a pilot project under the Project for Environment Protection in Halong Bay funded by JICA. Eco-label system for tourist boat is one of important measures for enhancement of environmental protection in Halong Bay and contributing sustainable

	tourism development in Halong area. However, it is still necessary to conduct further work for legalize the Eco-label system, capacity development for authorized agency for Eco-label and marketing and promotion of Eco-label for tourist boats.
Components of program (activities)	<ul style="list-style-type: none"> • Finalization of Eco label for tourist boats in Halong Bay • Development of awarding criteria and procedure • Formulation and finalization of legalization of Eco label for tourist boats • Establishment of committee for awarding • Capacity development of authorized agency for Eco label certification
Target/Beneficiary	DCST, HBMD, tourist boat companies, boat operators, travel agent
Expected output (Achievement)	Certification system of Eco label for tourist boats in Halong Bay is officially complete and approved by QN PPC.
Expected implementation agency/organization	DONRE, DCST, HBMD
Expected coordination agency/organization	To be decided
Implementation schedule	Short - Mid terms
Source of funding	Government (DCST), boat companies

Remark: Short term (2013-2014), Mid term (2015-2017), Long term (2018-2022)

Measure 5-3-2

Name of measure	Recognition of "Blue Sail" tourist boats and propaganda on Eco-label for tourist boat
Project area/location	Halong Bay, Halong city
Purpose	After Eco label "Blue Sail" is certified for tourist boats, authorized agency is responsible to monitor for "Blue Sail" tourist boats and award among certified "Blue Sail" tourist boats based on performance of eco label activities and propaganda on Eco label including awarded tourist boats, which are necessary measures for sustainability of Eco label for tourist boat.
Components of program (activities)	<ul style="list-style-type: none"> • Marketing and promotion of Eco label for tourist boats • Nomination and selection of "Blue Sail" tourist boat for awarding • Facilitation of evaluation process of the awarding agency • Preparation of prize and recognition ceremony • Propaganda on recognition of "Blue Sail" tourist boats through mass media
Target/Beneficiary	"Blue Sail" tourist boat operators and companies
Expected output (Achievement)	Monitoring activities for certified "Blue Sail" tourist boat is able to check the sustainability of eco-label activities by "Blue Sail" tourist boat. Commendation of "Blue Sail" tourist boat will be incentive for active participation of eco label and propaganda for "Blue Sail" Tourist boats. Propaganda on Eco label will increase the number of "Blue Sail" tourist boat. "Blue Sail" eco label will be apply to other areas in Vietnam.
Expected implementation agency/organization	DONRE, DCST, HBMD
Expected coordination agency/organization	To be decided
Implementation schedule	Mid – Long terms
Source of funding	Government (DCST), boat companies

Remark: Short term (2013-2014), Mid term (2015-2017), Long term (2018-2022)

Measure 5-4-1

Name of measure	Development of tourist information counter and space for presenting feature of Halong Bay by applying audiovisual system in tourist information center at Bai Chay Tourist Wharf
Project area/location	Tourist information center in Bai Chay Tourist wharf or other designated location
Purpose	Existing tourist information center (TIC) managed by HBMD at Bai Chay Tourist Wharf is not effectively used as TIC. The TIC basically provides information on cruising tour programs in Halong Bay and unique features of Halong Bay as UNESCO natural heritage site for tourists. Therefore it is necessary to improve its function as TIC.
Components of program (activities)	<ul style="list-style-type: none"> • Review of required function for tourist information center (TIC) • Plan of renovation work of TIC • Design of renovation plan • Necessary equipment and facilities • Cost estimation of renovation work and equipment • Preparation of display • Implementation of renovation work
Target/Beneficiary	HBMD, DCST, tourist, tour operator
Expected output (Achievement)	Tourist can receive information on tourist boat cruising and unique feature of Halong Bay from the tourist information center (TIC) at Bai Chay Tourist Wharf before tourist participating cruising tour. Awareness on environmental protection in Halong Bay for tourist is enhanced by presenting information and activities of environmental protection in Halong Bay at TIC.
Expected implementation agency/organization	HBMD in cooperation with DCST
Expected coordination agency/organization	To be decided
Implementation schedule	Mid term
Source of funding	Government (DCST)

Remark: Short term (2013-2014), Mid term (2015-2017), Long term (2018-2022)

Measure 5-4-2

Name of measure	Installation of display on feature of history, culture and nature of Halong area at tourist information center in Bai Chay
Project area/location	Tourist information center in Bai Chay
Purpose	There is a tourist information center (TIC) in Bai Chay operated by DCST. To enhance function of TIC and provide diversified tourism information on Halong area, TIC should be improved to provide information of history, culture, nature, tour routes and local tourism attractions in and around Halong area by putting display or audio visual system at TIC.
Components of program (activities)	<ul style="list-style-type: none"> • Review of required function for tourist information center (TIC) • Preparation of improvement plan of TIC • Collection of necessary information of improvement plan • Design of display • Necessary materials and equipment • Cost estimation of improvement plan and equipment • Preparation of display and presentation system
Target/Beneficiary	HBMD, DCST, tourist, tour operator
Expected output (Achievement)	Function of TIC will be improved by improvement of TIC. Tourist visiting TIC will receive not only tourist information of Halong Bay, but also various information on history, culture, nature and tour programs in and around Halong area.
Expected implementation agency/organization	DCST in cooperation with HBMD and relevant local gov. authorities
Expected coordination agency/organization	To be decided
Implementation schedule	Mid term
Source of funding	Government (DCST)

Remark: Short term (2013-2014), Mid term (2015-2017), Long term (2018-2022)

Measure 5-4-3

Name of measure	Development of roadside station in Bai Chay area
Project area/location	Bai Chay (to be selected)
Purpose	Bai Chay area is limited parking space for tourism transport and private cars for visiting Halong Bay. During tourism peak season and weekend, main road in Bai Chay area is congested with cars and buses which is negative impact to tourist and tourism activities. To reduce traffic and increase parking space, development of roadside station with parking facility along the main street of Bai Chay area. Roadside station is a rest facility for driver and visitors coming to the area including car park, information counter, exhibition space, rest room, meeting hall, restaurant, shop selling local products and souvenir and work place to develop and process local specialty products. The roadside station is multi-function visitor facility and benefit not only visitors but also for local business operators and communities.
Components of program (activities)	<ul style="list-style-type: none"> • Feasibility study on development of roadside station • Selection of site for development of roadside station • Preparation of scope of work for subcontract work • Design of basic plan for roadside station (Subcontract work) • Review of basic plan by working team, DCST and relevant agencies • Design of internal space (information, exhibition, visitor service, meeting rooms, event hall, restaurant and café, shop, toilet) and exterior space (Parking, open space, garden) (Subcontract work) • Detailed design of building and infrastructure (Subcontract work) • Construction work (building, external space) (Subcontract work) • Operation and management plan (Subcontract work) • Preparation of staff training plan and conduct training
Target/Beneficiary	DCST, DOT, Tourist, Tourism business operators, local communities
Expected output (Achievement)	Roadside station becomes a main tourist service facility in Bai Chay area to provide parking space, event space, restaurant, café and exhibition, shops for local products and tourism information in Halong area. Roadside station is benefit for local business and community groups to participate in community development and selling local products at the roadside station. Increase employment opportunity and revenue from selling products.
Expected implementation agency/organization	DOC, DOT, DCST in cooperation with Halong City, other local gov. authorities and tourism business operators
Expected coordination agency/organization	To be decided
Implementation schedule	Short - Mid – Long terms
Source of funding	Government (DCST, DOT, Halong City)

Remark: Short term (2013-2014), Mid term (2015-2017), Long term (2018-2022)

Measure 5-4-4

Name of measure	Improvement of display at small exhibit space for tourist in Vong Vieng floating village
Project area/location	Vong Vieng floating tourist facility
Purpose	Vong Vieng floating village becomes very popular tourist sites for cruising tour. Most of visitors to the village are foreign tourist. Small exhibition space at floating tourist facility at the village has potential tourist facility to serve foreign tourist for presenting local culture, traditions, lifestyle and unique feature of nature environment in Vong Vieng. This space is as suitable for presenting an information display on environmental protection and sustainable tourism development of Halong Bay.
Components of program (activities)	<ul style="list-style-type: none"> • Review of required display (information, products, photos, etc) • Preparation of improvement plan for display • Collection of necessary information and display materials • Design of display

	<ul style="list-style-type: none"> • Cost estimation of development of display • Preparation of display
Target/Beneficiary	Residents of floating village, operators of facility
Expected output (Achievement)	Small exhibition space becomes core of tourist facility at Vong Vieng floating village. Tourist visiting Vong Vieng village understand culture, traditional fishing, lifestyle and unique feature of nature environment in Vong Vieng. Additionally, tourist enhances awareness on environmental protection and sustainable tourism development by visiting the exhibition space.
Expected implementation agency/organization	Operator of facility
Expected coordination agency/organization	To be decided
Implementation schedule	Short - Mid terms
Source of funding	Government (HBMD)

Remark: Short term (2013-2014), Mid term (2015-2017), Long term (2018-2022)

Measure 5-4-5

Name of measure	Utilization and updating tourism database at tourism information center including training
Project area/location	Tourist information center in Bai Chay
Purpose	Tourism resource database (TRD) system was developed under activities of WG-3. TRD system plans to transfer into the database of DCST for utilizing tourism data at the tourist information center after the project. Before the transferring the TRD to DCST, utilization and updating of TDR including training for operation of TRD need to be discussed with the responsible section of DCST.
Components of program (activities)	<ul style="list-style-type: none"> • Preparation of TRD utilization and transferring TDR into database of DCST • Training on operation and updating data • Conduct data collection and survey • Updating of TRD
Target/Beneficiary	Tourism information center and section in charge of database (DCST)
Expected output (Achievement)	Tourism information center can extract and rearrange necessary information and data on tourism resources and facility through TRD. TRD can use for tourist information searching for visitors, preparation of tourist map and brochure and tour programs for TIC.
Expected implementation agency/organization	DCST
Expected coordination agency/organization	To be decided
Implementation schedule	Short - Mid terms
Source of funding	Government (HBMD, DCST)

Remark: Short term (2013-2014), Mid term (2015-2017), Long term (2018-2022)

Measure 5-4-6

Name of measure	Improvement, maintenance and management of toilet facilities for tourist at tourist sites and floating villages in Halong Bay, and Bai Chay area
Project area/location	Bai Chay area, Titop island, Cua Van and Vong Vieng floating tourist facilities, Thien Cung, Dau Go, Sung Sot
Purpose	There are two public toilets at area along Bai Chay beach. These toilets are not properly maintained and sufficient to serve foreign tourists. There were found many defects and no water running at existing toilets at major tourist sites and tourist service facilities in floating villages. Toilet is basic service facility for tourist so that existing toilet facilities should be improved and properly maintained at tourist sites. Additional public toilet should be developed at the area along Bai Chay beach.
Components of program (activities)	<ul style="list-style-type: none"> • Survey on condition of toilet facilities at tourist sites and tourist facilities at floating villages • Improvement and management plan for public toilet and signboard • Selecting site for additional toilet facility • Design of public toilet • Cost estimation (design, improvement, development, management) • Planning and design • Conduct improvement work and construction works • Operation and maintenance of toilet facilities
Target/Beneficiary	Tourists, management agency for facility at tour sites, tour operators
Expected output (Achievement)	Sanitary condition on the Bai Chay beach area and level of satisfaction using toilet facility by tourists will be increased. Clean and maintained toilet facility gives good image on tourist site.
Expected implementation agency/organization	Halong city, facility operators
Expected coordination agency/organization	To be decided
Implementation schedule	Short - Mid terms
Source of funding	Government (HBMD, DCST, Halong City)

Remark: Short term (2013-2014), Mid term (2015-2017), Long term (2018-2022)

(6) Strategy 6

Measure 6-1-1

Name of measure	Development of brand name and slogan of sustainable tourism destination for Halong area
Project area/location	Halong area

Purpose	Creating brand name, logo and slogan for sustainable tourism destination of Halong area is one of effective measures to appeal and promote for creating image of Halong area as sustainable tourism destination in Vietnam and overseas.
Components of program (activities)	<ul style="list-style-type: none"> • Discussion with concerned departments and stakeholders on development of brand name, logo design and slogan • Preparation of plan of brand name, logo design and slogan • Design of local brand logo (Subcontract to designer) • Receiving comments and opinions on design of brand naming, logo and slogan from relevant stakeholders including representative of local communities and tourism business operators • Revising and finalization of brand name, logo design and slogan • Submission of prepared brand name, logo design and slogan to QN PPC for approval and registration • Preparation of regulation on usage of brand name, logo design and slogan and licensing system
Target/Beneficiary	Tourism business companies, DCST, relevant sections at local government
Expected output (Achievement)	Image and attractiveness of Halong area as sustainable tourism destination is enhanced by creating brand name, logo design and slogan for sustainable tourism destination of Halong area. Created brand name, logo design and slogan will be utilized for authorized local tourism product and tour programs, which is beneficiary for tourism product producers, shop owners and tourism business operators.
Expected implementation agency/organization	DCST in cooperation with HBMD and relevant dept. and Halong city and relevant local governments
Expected coordination agency/organization	To be decided
Implementation schedule	Short term
Source of funding	Government (HBMD, DCST)

Remark: Short term (2013-2014), Mid term (2015-2017), Long term (2018-2022)

Measure 6-1-2

Name of measure	Propaganda on media, press conference for brand name, logo and slogan of sustainable tourism destination for Halong area
Project area/location	Halong city in Halong area, Hanoi and Ho Chi Minh
Purpose	Brand name, logo and slogan of sustainable tourism destination for Halong area should be given publicity through propaganda on newspaper, TV and magazines and press conference in order to promote image of Halong area as sustainable tourist destination.
Components of program (activities)	<ul style="list-style-type: none"> • Preparation of plan for propaganda and press conference • Design of propaganda on brand name, logo and slogan for medias (Subcontract to designer) • Propaganda on brand name, logo and slogan for medias • Arrangement of venue for press conference
Target/Beneficiary	Halong area
Expected output (Achievement)	Halong area will be recognized the tourist destination with sustainable tourism products for travel medias, tourism industries and tourists.
Expected implementation agency/organization	DCST in cooperation with HBMD and relevant dept. and Halong city and relevant local governments
Expected coordination agency/organization	To be decided
Implementation schedule	Mid - Long terms
Source of funding	Government (HBMD, DCST)

Remark: Short term (2013-2014), Mid term (2015-2017), Long term (2018-2022)

Measure 6-2-1

Name of measure	Updating information and data on floating villages, other major tourist sites in Halong Bay on existing website of HBMD
Project area/location	Halong bay
Purpose	HBMD is responsible for collect and provide information on floating villages and other tourist sites in Halong Bay on the website of HBMD. The current website is limited information on tourism resources including floating villages in Halong Bay. To enhance value of Halong Bay and provide more information on tourism resources for Halong Bay for tourist, HBMD should update information and data of tourism resources, facilities on the website regularly. For updating the information on website, data and information in tourism resource database (TRD) developed under the project can be used.
Components of program (activities)	<ul style="list-style-type: none"> • Confirmation of updating data and information • Collecting necessary data and information for updating of website • Conduct survey on collecting necessary data and information • Preparation of data and information for website • Updating work for data and information on the website
Target/Beneficiary	HBMD, Quang Ninh Tourism Association, tourism business operators, tourist
Expected output (Achievement)	Tourist and users will receive update information and data on tourism resources, facilities, tour programs and events through the website. Attractiveness of Halong Bay as UNESCO World Natural Heritage Site will be enhanced by updating website.
Expected implementation agency/organization	HBMD
Expected coordination agency/organization	To be decided
Implementation schedule	Short term
Source of funding	Government (HBMD, DCST)

Remark: Short term (2013-2014), Mid term (2015-2017), Long term (2018-2022)

Measure 6-3-1

Name of measure	Development of tourism information and promotion materials for tourist and tour company
Project area/location	Halong area
Purpose	In Halong area, tourist information materials such as tourist map, brochure and guide book are not sufficient in terms of contents, design, quality, interpretation in other languages. Tourist information materials is used and provided not only tourist but also tourism business operators (travel agents, hotels and transportation companies) for promotion and marketing of Halong area. Therefore, it is necessary to develop various tourism information and promotion materials including tourist map, leaflet of tour programs, tourism resources, and tourism products (handicraft), eco-tour and general tour guidebook.
Components of program (activities)	<ul style="list-style-type: none"> • Preparation of plan and work schedule for development of tourism information materials (Tourist map and leaflet of general tourist information for Halong area, leaflets on area specific information, tourism product, eco tour, activities, DVD) • Cost estimation of tourism information materials • Preparation of contents and specification of each materials • Collecting data and information for development of materials • Photo shooting (Subcontract to photographer) • Design of information materials (translating foreign languages)(Subcontract to design office) • Producing and printing of materials
Target/Beneficiary	Hotels, tour operator, tourists, DCST and HBMD, Quang Ninh Tourist Association
Expected output (Achievement)	By created various tourist information and promotion material, DCST and tour companies can promote Halong area as sustainable tourism destination for various markets and countries. Tourist can have diversified tourism information and tourism attraction including eco tours from tourist information materials. Length of stay for tourists and number of repeater to Halong area will be increased.
Expected implementation agency/organization	DCST, HBMD, relevant local government authorities
Expected coordination agency/organization	To be decided
Implementation schedule	Short – Mid terms
Source of funding	Government (HBMD, DCST), private (tourism business companies)

Remark: Short term (2013-2014), Mid term (2015-2017), Long term (2018-2022)

Measure 6-3-2

Name of measure	Promotion on sustainable tourism destination of Halong area through mass media
Project area/location	Halong area
Purpose	Using mass medias such as newspaper, TV, magazine for PR is effective measures for promotion of tourist destination in general. Promotion through mass medias should be conducted with taking into consideration of target promoting market for Halong area and timing.
Components of program (activities)	<ul style="list-style-type: none"> • Preparation of plan for propaganda activities (Selection of mass media) • Design and description of PR on sustainable tourism destination (Subcontract to design office) • PR (Advertisement) for mass medias
Target/Beneficiary	Hotels, tour operator, tourists, DCST and HBMD, Quang Ninh Tourist Association
Expected output (Achievement)	Halong area will be recognized not only UNESCO World Natural Heritage site with enjoying tourist boat tour in Halong Bay but also sustainable tourism destination through PR on mass media. Length of stay for tourist in Halong area will increase.
Expected implementation agency/organization	DCST, HBMD, relevant local government authorities
Expected coordination agency/organization	To be decided
Implementation schedule	Mid – Long terms
Source of funding	Government (HBMD, DCST)

Remark: Short term (2013-2014), Mid term (2015-2017), Long term (2018-2022)

Measure 6-3-3

Name of measure	Holding promotion seminars and events for sustainable tourism destination of Halong area in Halong, Hanoi, Ho Chi Min and other areas
Project area/location	Halong city in Halong area, Hanoi and Ho Chi Minh, other cities in overseas
Purpose	Holding seminars and events are most effective measure for promotion campaign of tourist destination inviting target stakeholders such as MCST, DCST, relevant departments in QN PPC, local governments, tourism business operators, NGOs. Seminars and events should be held in Halong City, Hanoi, Ho Chi Min and other cities in overseas. For holding promotion seminar and event, various promotion materials should be prepared and provided for invitees.
Components of program (activities)	<ul style="list-style-type: none"> • Preparation of contents (activities) and schedule for seminar and event • Preparation of promotion materials (posters, banners, DVD, brochure, souvenir, etc) • Preparation of presentation and exhibition materials for seminar and event • Preparation of exhibition space • Arrangement of venue and sending invitation letters • Confirmation of presenters and lectures • Propaganda for seminar and event • Implementation of seminar and workshop
Target/Beneficiary	Hotels, tour operator, tourists, DCST and HBMD, Quang Ninh Tourist Association
Expected output	Halong area will be recognized as sustainable tourism destination with diversified tourism products.

(Achievement)	Awareness of environmental protection for Halong area will be enhanced. Investment for sustainable tourism development with partnership of local tourism business will be promoted and increased.
Expected implementation agency/organization	DCST, HBMD, relevant local government authorities
Expected coordination agency/organization	To be decided
Implementation schedule	Mid – Long terms
Source of funding	Government (HBMD, DCST)

Remark: Short term (2013-2014), Mid term (2015-2017), Long term (2018-2022)

3. Implementation Plan

3.1 Evaluation of Proposed Measures

All proposed measures under strategies were evaluated by following evaluation criteria with rating.

(1) Evaluation criteria

In order to evaluate proposed measures, evaluation criteria needs to be set in terms of assessment of prioritization, urgency of implementation, possibility of realization and sustainability of measure. After discussion among members of WG-3, evaluation criteria are set following 3 criteria.

- Emergency/needs
- Realization
- Sustainability

(2) Rating

Each evaluation criteria is set following 3 ratings from High (A) to Low (C). An overall evaluation for each measure was rated from A+ (3) to B- (1.7). For selecting the priority measure, the overall ratings, A or A- are considered as priority measure. The overall point evaluation Ratings for measures are shown in section of evaluation, Strategies and Measure of Sustainable Tourism Development. Attachment-X

- A=High (3points)
- B=Medium (2points)
- C=Low (1points)

(3) Implementation period

The total length of implementation period for measure is 10 years after completion of the Project. Proposed implementation period is divided into following 3 periods as shown below. Selected priority measures will be implemented during Short and Mid terms. Implementation period for each measure is shown in Implementation Schedule for Proposed Measure for STD, Appendix: 2.

- Short term (2 years): 2013-2014
- Mid term (3 years): 2015-2017
- Long term (5 years): 2018-2022

(4) Priority measures

Based on the overall evaluation of measures, following measures are selected as priority measure rated more than A-. All measures are proposed to be implemented in the short term.

Strategy	Measure	Rating
Strategy 1	Measure 1-1-1: Preparation of the zoning plan and management guideline for tourism development in Bai Chay and Hung Thang areas	A-
	Measure 1-1-3: Preparation of tourism site management guideline for major islands in Halong Bay	A
Strategy 2	Measure 2-1-1: Formulation of regulation on promotion of Ecotourism in Quang Ninh	A-
	Measure 3-2-2: Lecture on environmental protection and activities for floating villages	A-
	Measure 3-2-4: Support for preservation of traditional culture of floating village	A-
	Measure 3-3-1: Upgrading operational capacity of local wastewater treatment facility and sewerage collection system	A
	Measure 3-4-1: Development of guideline of inspection and monitoring of tourism resources and pollution level at tourist sites, wharf and jetties and anchoring sites in Halong Bay	A
	Measure 4-1-4: Boat tour in mangrove area with mangrove planting in Quang Yen and Bai Chay bay	A-
Strategy 4	Measure 4-3-1: Training and issue of certificate for Halong Ecotour narrator	A
	Measure 4-5-1: Development of local tourism products with design and quality guideline	A-
Strategy 5	Measure 5-1-1: Training on improvement of customer services and hospitality for local tourism business	A-
	Measure 5-3-1: Finalization of developing Eco-label for tourist boats in Halong Bay	A

	Measure 5-3-2: Recognition of "Blue Sail" tourist boats and propaganda on Eco-label for tourist boat	A-
	Measure 5-4-5: Utilization and updating tourism database at tourism information center including training	A-
Strategy 6	Measure 6-1-1: Development of brand name and slogan of sustainable tourism destination for Halong area	A-

Remark: Regarding Measure 3-2-1 and Measure 3-2-2, in case relocation of floating houses is implemented according to "Draft Plan on relocation of floating houses in Halong Bay (Relocation Plan) (No. 2969/BCD)", these measures will be excluded from measures under Strategy 3 as well as priority measures.

3.2 Implementation Process of Proposed Measures

Implementation agencies/organizations for measures are tourism related agencies such as DCST and HBMD as shown in the list of Implementation Schedule (Appendix 1). Task Force Group-3 in charge of Sustainable Tourism Development (STD) in Halong Bay Environment Protection Committee (HLEPC) will be responsible for prepare a proposal on priority measure with support of relevant implementation agencies and submit the proposal to Quang Ninh PPC for requesting the budget for preparation and implementation of measure. Some measures with requiring a large budget for implementation of project will be necessary for applying the financial support from foreign donors or international funding agencies and private sector. After receiving the budget for measure, each responsible implementation agency has to prepare the implementation plan and carry out project or program in accordance with implementation plan and schedule. Task Force Group-3 is responsible for monitoring and supervision of project implementation, and coordination with other Task Force Groups.

3.3 Implementation Schedule for Proposed Measures

Implementation schedule for proposed measures are planned with name of implementation agencies/organization, source of funding and implementation period from short to long terms as shown in Appendix 2. Selected priority projects shall be implemented during the short and mid terms. Implementation period includes preparation work such as planning and designing of measure and implementation of work and activity after the source of budget is allocated. Implementation schedule should be followed by policies and strategies in QN Tourism Master Plan and other relevant plans.

Most of proposed measures will be implemented by DCST, HBMD and local governments. Some measures need to have collaboration with local communities and private stakeholders. When the budget is secured for implementation of measure, it is necessary to prepare detailed work schedule and clarify responsibility of implementation agencies.