ASSESSMENT OF THE SPECIAL-USE FOREST SYSTEM AND ITS MANAGEMENT IN THUA THIEN-HUE PROVINCE

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the Thua Thien-Hue Provincial Working Group

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- Thua Thien Hue People’s Committee
- People’s Committee of Phu Loc District and People’s Committee of Nam Dong District
- Board of Directors of Thua Thien Hue Science, Technology and Environment Department
- Board of Directors of Thua Thien Hue Agriculture and Rural Development Department
- Thua Thien Hue Forest Development Sub-department
- Board of Directors of Bach Ma National Park
- North Hai Van Management Board of special use forest
- Forest Protection Section of Nam Dong District and Phu Loc District
- People’s Committee of the following communes: Loc Hoa, Loc Tri, Loc Thuy, Loc Hai (Phu Loc district); Huong Phu, Thuong Lo (Nam Dong district)
- Heads and local people of the following hamlets: Hamlets 3, 4 and 10 (Loc Hoa commune); Hoa Mau, Khe Su (Loc Tri commune); Thuy Yen Thuong, Thuy Cam (Loc Thuy commune); An Cu Tay, Hoi Dua
We would like to express our heart-felt thanks to the agencies, organizations and those who have made great contribution in the process of implementation, assessment and presentation of this report.

We do hope that the spirit of co-operation, responsibility and experience presented in this report will contribute to the feasible and effective establishment of the management strategy of special use forests in Viet Nam.

On behalf of the research team,

**Hoang Ngoc Khanh**

Director
Thua Thien Hue Forest Protection Sub-department and
Chairperson
Thua Thien Hue Provincial Working Group

**ACRONYMS**

NP National Park
NR Nature Reserve
SUF Special use Forests
MARD Ministry of Agriculture and Rural Development
DARD Department of Agriculture and Rural Development
FDD Forest Development Department
FPD Forest Development Department
DoSTE Department of Science Technology and Environment
GO Government Organization
NGO Non-Government Organization

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1. Introduction of Thua Thien Hue province

1.1. Natural condition

* Geographical location

Located in the northern part of Central Viet Nam, which is one of the eight ecological regions of the whole country. Thua Thien Hue is also the last province belonging to the geographical region of North Truong Son.

Thua Thien Hue is adjacent to Da Nang City and East Sea to the East; to Lao and Quang Tri province to the West; to Quang Nam province and Da Nang City to the South; and to the East Sea to the North.

Geographical location:

- Latitude: 16°18' - 16°33' North
- Longitude: 107°09' - 108°18' East

* Topography:

Located on a narrow strip of land with 127km length and 60km width on average, Thua Thien Hue owns an area of different kinds of topography: mountains, hills, plains, lagoons and sea (mountains and hills make up 70% of natural area). In general, the topography of Thua Thien Hue is much separated and is inclined from West to East. Its topography can be divided into five areas as follows:

- Mountainous area: A strip of land in the West, from A Luoi district to Hai Van Pass, consisting of consecutive ranges of mountain with the height of 1,000 meter on average (especially 1,500 meter such as Bach Ma Peak). The average slope is 35°. There are two valleys known as Nam Dong and A Luoi with even and flat terrain.
- Hilly area: A zone between mountainous area and plain area, consisting of wavy ranges of hill with the height of under 300-meter. The average slope is 15° - 25°. This area is mostly covered with bare hills. The remaining area mainly includes forests.
- Plain area: A narrow strip of land along National Highway No. 1A. The area gets narrower to the South. This area is mostly covered with alluvium from rivers and streams.
- Lagoon area: Consisting of big lagoons such as Tam Giang, Cau Hai, An Cu etc. from Phong Dien district to Phu Loc District. These lagoons have inlets from the sea.
- Coastal sandy area: Consisting of coastal flat sandy beaches from Phong Dien to Lang Co. Depending on the level of sea erosion, it has different widths, creating interior areas of sandy land.

* Climate, hydrographic

Thua Thien Hue falls into tropical monsoon climate. There are two seasons in a year:
Rainy season: Usually lasting from September, October of this year to February, March of the following year. During this season, the rainfall is very high with low temperature and high humidity. This season is "sensitive" to West East monsoon. Therefore, Thua Thien Hue climate is most prone to be effected by the West East monsoon or tropical low pressure of the northern area. Most of storms in the year come in this season.

Dry season: Usually from April to September. During this season, the temperature goes high with long-lasting heat. Especially in the spells of South West monsoon (Laos monsoon), the temperature can reach 39 - 40°C. The annual average temperature is 24 - 28°C in plain and low area; and 22 - 23°C in the mountainous area. The lowest average temperature is recorded at 22°C (December), the highest average temperature is 33,8°C (July).

Table 1. Statistics on climate in Thua Thien Hue

<table>
<thead>
<tr>
<th>Norm</th>
<th>Year</th>
<th>Unit</th>
<th>1996</th>
<th>1997</th>
<th>1998</th>
<th>1999</th>
<th>2000</th>
</tr>
</thead>
<tbody>
<tr>
<td>Average annual temperature</td>
<td>°C</td>
<td></td>
<td>24.6</td>
<td>25.1</td>
<td>25.7</td>
<td>24.8</td>
<td>24.7</td>
</tr>
<tr>
<td>Highest temperature</td>
<td>°C</td>
<td></td>
<td>38.8</td>
<td>39.3</td>
<td>39.5</td>
<td>38.0</td>
<td>37.7</td>
</tr>
<tr>
<td>Lowest temperature</td>
<td>°C</td>
<td></td>
<td>11.4</td>
<td>12.6</td>
<td>14.8</td>
<td>9.5</td>
<td>13.5</td>
</tr>
<tr>
<td>Sunny days per year</td>
<td>day</td>
<td></td>
<td>189</td>
<td>275</td>
<td>188</td>
<td>185</td>
<td>182</td>
</tr>
<tr>
<td>Rainy days per year</td>
<td>day</td>
<td></td>
<td>176</td>
<td>150</td>
<td>177</td>
<td>180</td>
<td>183</td>
</tr>
<tr>
<td>Average annual rainfall</td>
<td>mm</td>
<td></td>
<td>3,303.5</td>
<td>2,765.2</td>
<td>3,453.1</td>
<td>5,640.0</td>
<td>3,490.9</td>
</tr>
</tbody>
</table>

Source: Thua Thien Hue Statistics Directory 2000

The monthly average humidity in the dry season is 62.9% and 69.4% for annual average humidity. July has the lowest humidity (55.1%).

* Hydrographic

The system of main rivers of Thua Thien Hue is inclusive of Huong River, Bo River, O Lau River, Truoi River and Nong River. This system is regularly distributed in the province. Huong River is the most important, consisting of 28 rivers in different sizes. The system of Huong River includes three main springs known as Ta Trach, Huu Trach. These rivers are short and sloping with a lot of waterfalls and rapids. Their estuaries are narrow. In the rainy season, the water rises up, causing floods. Meanwhile, in the dry season, salt water inundates, causing bad consequences to agricultural production activity.

Table 2. Characteristics of rivers in Thua Thien Hue

<table>
<thead>
<tr>
<th>Name</th>
<th>Length (km)</th>
<th>Width (m)</th>
<th>Area of valley (km²)</th>
<th>Rainfall (m³/s)</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td></td>
<td></td>
<td></td>
<td>Flood season</td>
</tr>
<tr>
<td>O Lau river</td>
<td>50</td>
<td>50-160</td>
<td>280</td>
<td>4,000</td>
</tr>
<tr>
<td>Bo river</td>
<td>80</td>
<td>50-200</td>
<td>680</td>
<td>4,000</td>
</tr>
<tr>
<td>Huong river</td>
<td>120</td>
<td>50-160</td>
<td>1,310</td>
<td>12,000</td>
</tr>
<tr>
<td>Truoi river</td>
<td>14</td>
<td>30-60</td>
<td>56</td>
<td>2,000</td>
</tr>
<tr>
<td>Nong river</td>
<td>11</td>
<td>30-50</td>
<td>22</td>
<td>2,000</td>
</tr>
</tbody>
</table>

The system of rivers, streams, canals and lakes covers an area of complicated topography. Water-holding
capacity of the upper section proves very low so therefore, the water runs very fast to the lower section, causing floods in rainy season. This will result in bad consequences to the living of local people as well as production activity. Especially, big floods cause a lot of damages and erosion to cultivation land and residential land along the rivers. Therefore, the local people are badly affected psychologically.

1.2. Land resource:

According to the land statistics in 2000, Thua Thien Hue has a natural area of 505,399ha which is utilized as follows:

Table 3. Statistics of sorts of land in 2000 in Thua Thien Hue

<table>
<thead>
<tr>
<th>Sorts of land</th>
<th>Area (ha)</th>
<th>Ratio (%)</th>
</tr>
</thead>
<tbody>
<tr>
<td>Total area of land</td>
<td>505,399</td>
<td>100.00</td>
</tr>
<tr>
<td>1. Agricultural land</td>
<td>58,997</td>
<td>11.67</td>
</tr>
<tr>
<td>2. Forest land</td>
<td>224,525</td>
<td>44.42</td>
</tr>
<tr>
<td>3. Special-use Forests</td>
<td>21,113</td>
<td>4.18</td>
</tr>
<tr>
<td>4. Rural land</td>
<td>2,865</td>
<td>0.57</td>
</tr>
<tr>
<td>5. Urban land</td>
<td>1,092</td>
<td>0.22</td>
</tr>
<tr>
<td>6. Unused land</td>
<td>196,808</td>
<td>38.94</td>
</tr>
</tbody>
</table>

Source: Report on land planning and utilization in 2001 of Thua Thien Hue

1. Agricultural land:

Thua Thien Hue owns an area of 58,997ha of agricultural land, presenting 11.67% of natural land. The agricultural land is 564m² per capita on average.

At present, the agricultural land in Thua Thien Hue is distributed as follows:

- Land for annual crops: 44,880ha (in which land for food-grains and paddy field makes up 30,621ha).
- Land for mixed gardens: 8,682ha
- Land for long-term crops: 3,396ha
- Land for pasture: 102ha
- Wetlands for aquaculture: 1,937ha

The agricultural land is mainly distributed in some districts of plain area such as Phong Dien, Phu Vang, Huong Tra, Phu Loc, and Quang Dien (accounting for 70% of agricultural land of the whole province).

Table 4. Status of agricultural land utilization according to administrative system

<table>
<thead>
<tr>
<th>Sorts of land</th>
<th>Land for annual crops</th>
<th>Land for mixed gardens</th>
<th>Land for long-term crops</th>
<th>Pasture</th>
<th>Wetland for aquaculture</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>Total</td>
<td>Rice, food-grain</td>
<td>Total</td>
<td>Rice, food-grain</td>
<td>Total</td>
</tr>
<tr>
<td>Whole province</td>
<td>58,997</td>
<td>44,880</td>
<td>30,621</td>
<td>8,682</td>
<td>3,396</td>
</tr>
<tr>
<td>Hue City</td>
<td>2,710</td>
<td>1,734</td>
<td>1,297</td>
<td>872</td>
<td>78</td>
</tr>
<tr>
<td>A Luoi district</td>
<td>4,534</td>
<td>2,901</td>
<td>653</td>
<td>801</td>
<td>581</td>
</tr>
<tr>
<td>Huong Thuy dist.</td>
<td>5,631</td>
<td>4,771</td>
<td>3,618</td>
<td>653</td>
<td>164</td>
</tr>
<tr>
<td>Huong Tra dist.</td>
<td>7,848</td>
<td>5,875</td>
<td>3,690</td>
<td>1,308</td>
<td>512</td>
</tr>
<tr>
<td>Phu Vang dist.</td>
<td>9,761</td>
<td>7,641</td>
<td>6,840</td>
<td>1,375</td>
<td>42</td>
</tr>
<tr>
<td>Quang Dien dist.</td>
<td>6,614</td>
<td>5,570</td>
<td>4,471</td>
<td>641</td>
<td>20</td>
</tr>
</tbody>
</table>
+ Forested land:

The area of forested land is 224,525ha, making up 44.22% of natural land. Rich and medium forest accounts for 48%. The area of natural forests presents 78.57% of forested land. Natural forests are mainly concentrated in mountainous area: A Luoi district owns an area of 68,841ha, accounting for 39.2%; Nam Dong District covers an area of 39,959ha, making up 22.65% (compared with natural forests area of the whole province) and several other districts such as Phong Dien, Huong Thuy, Phu Loc, etc.

In recent years, many combination models of agriculture-forest-farm economy have been effectively formed through the combination between the forest protection, zoning and tendering of recovered forests, forestation and resettlement program. Many sources of capital (such as joint-venture capital, aid capital, as well as capital from local people’s contribution, program PAM, 327, 5MHRP and many others) have been mobilized. 13,008ha of forest has been planted and tendered (in which there are 2,235ha of plantation forest and 2,850ha of forest plots, and 7,923ha of forest has been tendered). The area of planted forest has been increased to 48,092ha.

Table 5. Area, forestry land structure in the year of 2000

<table>
<thead>
<tr>
<th>Type of land</th>
<th>Area (ha)</th>
<th>Structure (%)</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>Forested land area</strong></td>
<td>224,525</td>
<td>100.00</td>
</tr>
<tr>
<td>1. Land of natural forest</td>
<td>176,416</td>
<td>78.57</td>
</tr>
<tr>
<td>1.1. Land of production forest</td>
<td>40,577</td>
<td>23.01</td>
</tr>
<tr>
<td>1.2. Land of protection forest</td>
<td>109,774</td>
<td>62.22</td>
</tr>
<tr>
<td>1.3. Land of special use forest</td>
<td>26,065</td>
<td>14.77</td>
</tr>
<tr>
<td>2. Land of planted forest</td>
<td>48,092</td>
<td>21.42</td>
</tr>
<tr>
<td>2.1. Land of production forest</td>
<td>25,909</td>
<td>53.78</td>
</tr>
<tr>
<td>2.2. Land of protection forest</td>
<td>16,132</td>
<td>33.55</td>
</tr>
<tr>
<td>2.3. Land of special use forest</td>
<td>6,051</td>
<td>12.58</td>
</tr>
<tr>
<td>3. Land of nursery garden</td>
<td>17</td>
<td>0.01</td>
</tr>
</tbody>
</table>

Source: Report on land planning and utilization in 2001 of Thua Thien Hue

+ Unused land:

The unused land in the whole province covers 196,808ha, accounting for 38.95% of natural land.

Most of unused land is bare land and bare hills (presenting over 80% of unused land). The whole province still owns 150,000 ha of unused land for utilization on different purposes. Although the unused flat land only makes up 10.35%, it is very important for it to add into the agricultural land source that has been reserved for special use in the process of socio-economical development. The unused mountainous and hilly land, which is appropriate to forest development, accounts for a considerable ratio of 71.11%, but in reality, this sort of land is scattered and its topography is very complex. Especially in the central areas such as inland sandy area and coastal sandy area, where there has not been forest communities and, therefore, it is very inappropriate for forest development.

Table 6. Area and structure of unused land

<table>
<thead>
<tr>
<th>Type of land</th>
<th>Area (ha)</th>
<th>Structure (%)</th>
</tr>
</thead>
<tbody>
<tr>
<td>Phong Dien dist.</td>
<td>10,254</td>
<td>8,369</td>
</tr>
<tr>
<td>Phu Loc dist.</td>
<td>8,427</td>
<td>6,307</td>
</tr>
<tr>
<td>Nam Dong dist.</td>
<td>3,218</td>
<td>1,703</td>
</tr>
</tbody>
</table>

Source: Report on land planning and utilization in 2001 of Thua Thien Hue
During the past years, when the renovation policy issued by the Party and the State has been put into practice, the economy of Thua Thien Hue has experienced a lot of changes. The average annual economic growth was recorded at 7.3% from 1991 to 2000. This proves to be a strong pace, approximating to the average growth of the whole nation (7.4%). The economic structure has changed in the tendency to development of industrial branches and services and reduction of agricultural branches. The GDP (Gross Domestic Product) per capita has been increased. The living standard of people has gradually been improved.

The population growth is still at high level. In addition, the speed of urbanization is very fast. Therefore, during the process of socio-economic development, the pressure on land proves to be high (especially in the coastal plain area, or area along the transportation axes), which is illustrated as follows:

- Land resource for annual socio-economic development and construction has been increased.
- Land resource for agriculture and forest has been reduced. To compensate the land area which has been reserved for special purposes, agricultural and forest land (especially production land for production activities) should be expanded. However, this expansion appears to be inadequate and in necessity of large financial input.

The process of land utilization should be appropriate to the requirements of socio-economic development. Therefore, in the near future, the effective, proper and scientific exploitation of the land resource should be paid a lot of attention in the cause of industrialization and modernization of Thua Thien Hue province.

### 1.3. Forest resource

According to the forest inventory of August, 1999, the area of land and forest resource of Thua Thien Hue is as follows:

Natural forests in Thua Thien Hue province account for approximately 78.6% of the total area of forested land, mainly localized in the two mountainous districts, remote areas where is thinly populated. There are two main sorts of forests: tropical evergreen rain forest and subtropical evergreen rain forest. These forests are of great biological diversity in which there are a lot of endemic species.

The area of planted forest up to now is mainly inclusive of trees and plants of rich growth brought from abroad for making materials. In recent years, the pilot model of growing native plants in replacement of exotic trees (Eucalyptus, Acacia and Pinus, etc.) has been applied in some places in the province and has proven to be successful. Currently, the area for growing native plants is recorded at 6,000ha. It is possible to say that this is a sustainable development direction in the utilization of forestland.

The area of SUF in Thua Thien Hue is 32,116 ha (not including the area of Phong Dien NR), makes up 14.3% the area of forested land and 6.35% the area of natural land.

### Table 7: Area of land and forest resource of Thua Thien Hue

<table>
<thead>
<tr>
<th>Total area</th>
<th>196,808</th>
<th>100.00</th>
</tr>
</thead>
<tbody>
<tr>
<td>Unused flat land</td>
<td>20,343</td>
<td>10.35</td>
</tr>
<tr>
<td>Unused mountainous and hilly land</td>
<td>139,953</td>
<td>71.11</td>
</tr>
<tr>
<td>Unused water land</td>
<td>26,183</td>
<td>13.30</td>
</tr>
<tr>
<td>River and stream</td>
<td>8,289</td>
<td>4.21</td>
</tr>
<tr>
<td>Rock mountain without forest</td>
<td>715</td>
<td>0.36</td>
</tr>
<tr>
<td>Other unused land</td>
<td>1,325</td>
<td>0.67</td>
</tr>
</tbody>
</table>

Source: Report on land planning and utilization in 2001 of Thua Thien Hue
1.4. Biological resource

Owing to geographical characteristics, Thua Thien Hue generally ranges between subtropical and tropical monsoon climate. Thua Thien Hue is also typical of a region of transition climate from North to South Vietnam. Therefore, the biological resource in Thua Thien Hue proves to be very abundant and diversified.

Apart from that, the uninterrupted strip of primitive forest stretches out from the sea to Truong Son range, currently belonging to Central Vietnam and Thua Thien Hue for the most part. This area (inclusive of Quang Nam province) is very important to the conservation of biological diversity because it is the shelter for many significant and rare species. There are three species of endemic big mammals recently discovered by scientists, found in this forest. They are Sao la (Pseudoryx nghetinhensis), Giant Muntjac (Megamuntiacus vuquangensis), and Truong Son Muntjac (Muntiacus truongsonensis). These animals were described in order in 1992, 1994 and 1997 (Vu Van Dung and others, 1993; Vu Van Dung and others, 1998). In addition, it is also the shelter of some species which were once thought to be extinct such as Edward's pheasant (Lophura edwardsi) (Nguyen Cu and Eames, 1993), Crested Argus (Rheinardia ocellata ocellata) and some others which are threatened with extinction (IUCN, 1996) such as White-cheeked crested Gibbon (Hylobates leucogenys), Tiger (Panthera tigris), Asiatic Black Bear (Ursus thibetanus), slow loris (Loridae), and Indian wild Dog (Cuon alpinus) (Eve, 1996; Wikramanayake, 1997; Duckworth and Hedges, 1998; Hoang Ngoc Khanh, 1998).

Furthermore, with the system of Tam Giang lagoon, the eco-system of this wetland area is of great significance for biological diversity where many rare and migrant species of birds have been recorded.

1.5. Socio-economic characteristics:

* Inhabitant - ethnic groups:

Thua Thien Hue province has one city of Hue, the capital of the province and eight districts; consisting of 21 wards, 7 towns, and 122 communes. There are two mountainous districts named A Luoi, Nam Dong; four districts of mid-mountain, mid-plain and midland known as Phong Dien, Huong Tra, Huong Thuy and Phu Loc; two districts of plain and coastal inland sandy area called Phu Vang and Quang Dien.

At the end of the year 2000, the population of the whole province was 1,074,683 people, including 208,200 households. The urban population was 315,803 people (29.39%) and rural population consisted of 758,800 people (70.61%).

The annual rate of population growth appeared rather high. In 2000, the natural rate was recorded at 1.74%.

The population is irregularly distributed. The population is mainly concentrated in Hue city and districts of coastal plain. The population density of the whole province is 212 people/km² (Hue city has the highest density of 4,117 people/km², meanwhile, A Luoi has the lowest density of 29 people/km²).

The main ethnic group is Kinh. In addition, there are some ethnic minorities living in the mountainous districts such as Ca Tu, Ta Oi, PaHy, PaCo, and Van Kieu.

* Labor force, employment and living standard:
Labor force and employment:

According to the statistics data in the year of 2000, total labor force in the province consists of 580,760 people, accounting for 54.04% of population. In which, the labor force at the age of working is inclusive of 565,200 people; and 15,560 people out of this age still take part in labor activities.

In general, Thua Thien Hue owns an abundant labor force with good basic knowledge and professional skill, making up the highest rate among central provinces. However, creating jobs for over 20,000 people per year really proves to be a great challenge.

Living standard of local people:

Together with the development of the country, the living standard of Thua Thien Hue people has gradually been improved for the past years. In 1995, the annual income was recorded at 179USD per person. But so far, it increased to 376USD, a higher rate compared to other provinces in the region. However, it is still low in comparison with the average rate of the whole nation.

The census on the poor and rich situation shows that the income between rural and urban area has a big gap. In the two mountainous districts of A Luoi and Nam Dong, most of households get an average standard of living. In general, the number of poor households is still very high in the province. Rich households are mainly families of cadres, of farmers and of fishermen who are engaged into other career or services for further living.

However, due to the lack of capital, the investment has not met the real requirements. To further improve the living standard for local people as well as effectively carry out the social equality in the strategy of socio-economical development in the term of 1996 - 2001, the province has put forward positive solutions. The priority targets are: mobilizing any administrative capacity to properly exploit the advantages in the province in the direction of aiming at economical effectiveness; paying attention to investment of infrastructure inputs for the poor areas so as to stabilize the production activity for local people, gradually narrowing the gap between the rich and the poor. In addition, the social policies should be well implemented such as enhancing family planning, reducing population growth rate and paying attention to education, health care and environmental sanitation.

The living standard of local people has so far been improved. The income of urban population or of those who are engaged in services for their living has been ensured. Some sectors of education, health care, culture and sport have been changed in line with the new mechanism, meeting the needs of local people as well as requirements of economic development. The number of pupils has been increased. 101/124 communes (presenting 81.45% of communes of the province) have access to electricity.

Production customs:

In the areas of special use forest, the local people are engaged in the agricultural and forest production for their living with backward production custom. In addition, the land cultivation technique is extensive culture. Due to the limited application of advanced techniques, the crop capacity and investment effect appears to be low. The main reason is due to lack of investment capacity in terms of capital and techniques. In these areas, there still exists the burning of forest for cultivation and burning of trees for collecting coal. This leads to forest fire, especially planted forests.

In some places, there still remains the customs of shifting cultivation of wandering people or shifting cultivation of settled people. However, there are some good customs such as the locals in the village always have a deep respect for the village patriarch. It is possible to utilise the beliefs of the local people as to some forests (sacred forests) with an aim to protect and tend the forests.

General introduction of Protected Areas in Thua Thien Hue

2.1. Bach Ma National Park

Bach Ma National Park is located in Central Viet Nam, between Hue City and Da Nang City. This is the last part of North Truong Son with a lot of mountains of over 1000m high from West to East and sloping to the East sea. There are many high peaks such as Truoi (1170m), Nom (1208m) and the highest is Bach Ma (1450m). From these peaks when the weather is fine, we can see Cau Hai and An Cu lagoons to the North and the
valleys of Ta Trach and Cude rivers to the South.

Geographical location:

- Latitude: 16°05' - 16°15' North
- Longitude: 107°43' - 108°05' East

*Legal background, area, boundary and function of National Park*

Bach Ma National Park was established according to the Decision No.214/CT issued on 15/07/1991 by Chairman of Ministers’ Council (now call Prime Minister). This legal document has clearly defined the boundary of the Park as follows:

Area: the total area under the management of National Park covers 22,031ha, being divided into three functional subdivisions:

- **Subdivision of strict protection**: functions as protection of the integrity of ecological systems of primary forest and almost-primary forest, of living and residing areas for forest fauna, and of natural landscape. The total area of this subdivision is 7,123ha (equivalent to 32%).

- **Subdivision of ecological restoration**: functions as protection and restoration of ecological systems, fauna and flora by means of conducting natural rehabilitation. The total area of this subdivision is 12,613ha (equivalent to 57%).

- **Subdivision of service-administration-tourism**: functions as service for managing activities of National Park. The total area of this subdivision is 2,295ha (equivalent to 11%).

Buffer zone of Bach Ma National Park with total area of 22,300ha almost covers on administrative region of 9 wards, 2 towns of Phu Loc District and Nam Dong District (Thua Thien Hue province) and Hoa Vang district (Da Nang city).

*Fauna and flora resource*

**+ Flora:**

Bach Ma National Park has 16,900ha of forest out of a total area of 22,031ha, accounting for 76.71%. The flora consists of either subtropical evergreen rain forest at 900m altitude around the top of Bach Ma mountain or tropical evergreen rain forest below 900m altitude.

The flora is very abundant and diversified. Primary survey shows records of 1406 species, including:

- Pteridophyta: 157 species of 70 genera of 22 families
- Gymnospermatophyta: 15 species of 10 genera of 6 families
- Angiospermatophyta: 1,235 species of 556 genera of 142 families, classified into:
  - Monocotyledonae: 233 species of 133 genera of 22 families.
  - Dicotyledonae: 1,002 species of 423 genera of 120 families.

This is only primary result, the number of species in Bach Ma National Park will prove to be more abundant and diversified if further research is conducted.

The survey also unveils a number of over 30 species in threat of extinction listed in Red Data Book of Vietnam. A lot of precious herbs in brink of extinction need protecting such as Coscinium fenestratum, Disporopsis longifolia, etc.; similarly some valuable species of flowering plants such as species of Orchidaceae, Rhododendron sinii; precious trees such as Aquilaria crassna, Dalbergia cochinchinensis; species of scientific value such as Cyathea talebrosa, Cephalotaxus manni, Elaeocarpus bachmaensis, Cisus bachmaensis.

**+ Fauna**

Bach Ma National Park has an abundant faunal system of precious and scarce species. Hitherto, it has been recorded at 931 species including 83 mammal species, 333 species of bird, 31 species of reptile, 21 amphibian
species (toad and frog), 39 species of fish, 218 species of butterfly, 178 species of beetles and leaf-eating insect, 28 species of termite. Of all classified species, there are up to 68 species listed in Red Data Book of Viet Nam in need of protection.

- **Mammal species:**

Consisting of 83 species in the monkey family such as Macaca arctoides, Pygathrix nemaeus, Nycticebus coucang; the Cat family such as Panthera tigris, Cotopumas temmincki and others...Especially, Bach Ma National Park is the shelter of Pseudorix nghetinhensiss, Megamuntiacus vuquangensis and Muntiacus truongsonensis, which were discovered in late 20th century new to Viet Nam and the world.

- **Species of Birds:**

In Bach Ma National Park, the density and species of bird are abundant and typical of different habitats. Findings from scientific surveys and investigation show the existence of various species typical of geography of Indochina, particularly to species of bird of the fowl family such as Rheinardia ocellata, Lophura edwardsi, Lophura diardi, etc.

If compared with other regional countries, Viet Nam is the second below Myanmar with 12 species of pheasants in which Bach Ma National Park itself presents 7 species of pheasants, equal in rank to Laos (7 species), Cambodia (5 species) and Malaysia (6 species).

- **Reptile and Amphibian species:**

Out of 31 species of reptile, there are 19 species of snake inclusive of valuable king cobra Naja naja; 4 species of tortoise, especially the box turtle Cuora galbinifrons; and 8 species of lizard. Toad and frog such as Rana verucosapinosa account for 21 species.

- **Species of Fish:**

There are 39 species being recorded until now, some of which are listed in Red Data Book of Viet Nam such as the eel fish Anguilla mauritiana in urgent need of protection.

- **Species of Insect:**

Despite no careful study conducted, primary report has defined 218 species of butterfly, 178 beetles and leave-eating species, 28 species of termite.

### 2.2. North Hai Van Landscape Area

* **Location:**

North Hai Van NR is located in the South of Thua Thien Hue province, borders Bach Ma National Park to the West, Da Nang city to the South and East Sea to the East.

Geographical location:

- Latitude: 16° 10’ - 16° 15’ North
- Longitude: 107° 51’ - 108° 12’ East

* **Legal background, area, boundary and function:**

Bach Ma - Hai Van National Park with total area of 40,000ha was established according to Decision No.194/CT dated 09/08/1986 by Chairman of Ministers’ Council (now call Prime Minister). According to investment plan, the project site was divided into three sub-regions: Bach Ma National Park and two complexes of culture-history and environment (North Hai Van and South Hai Van). However, according to Decision No.214/CT dated 15/07/1991 by Chairman of Ministers’ Council (now call Prime Minister), Bach Ma National Park was separated, exclusive of North Hai Van. Since then North Hai Van was under the management of Phu Loc Forest Protection Section.
In the list of Viet Nam SUF to be proposed for planning until 2010, North Hai Van is planned with total area of 14,547ha (Forest Protection Department -1998).

In 1994, investment project for North Hai Van according to Program 327 was approved with total area of 14,547ha by the People’s Committee of Thua Thien Hue province.

In 1999, investment project for North Hai Van according to Program of 5million ha of forestation was approved by the People’s Committee of Thua Thien Hue province with total area of 25,037ha, in which:

- Special Use Forest covers 12,149ha, inclusive of 12 compartments
- Protection Forest covers 12,888ha, inclusive of 15 compartments

North Hai Van NR serving as transition zone and green corridor for Bach Ma National Park is rich in value of protection, landscape and environment, culture, tourism and biological diversification of forest and sea with precious species of fauna and flora. North Hai Van is located in the top south of Thua Thien Hue, under administrative management of Phu Loc District (communes of Loc Hai, Loc Tien, Loc Thuy, Loc Vinh).

**Fauna and flora resource:**

North Hai Van NR is located in southern expansion part in the zone of Central Viet Nam lowland endemic birds (Stattersfield *et al.*1998). Site surveys on biological diversification still remain simple and insufficient, but some endemic species of bird have been recognized such as *Arborophila merlini*, *Lophura edwardsi*, *Rheinardia ocellata*. The real condition of these species has not yet been studied concretely.

### 2.3. Phong Dien Nature Reserve

**Location:**

Phong Dien Nature Reserve is being proposed for establishment. At present, investment project for Phong Dien has been approved by MARD and it is on progress to establish the Phong Dien NR Management Board. The Nature Reserve belongs to low mountainous area of Central Viet Nam, in territory of Thua Thien Hue province, adjacent to new-settled Dakrong Nature Reserve (Quang Tri province) and 40km from Hue city to Northern West. Proposed boundary of this Nature Reserve covers three communes of Phong Dien district (Phong My, Phong Son and Phong Xuan) and one commune of A Luoi district (Hong Kim) with total area of 41,548ha.

**Geographical location:**

- Latitude: 16° 21' 6" - 16° 34' 11" North
- Longitude: 107° 1' 28" - 108° 17' 30" East

This is where still remains low mountain evergreen forest and a suitable shelter for many endemic bird and mammal species; especially the only nature reserve of the world for Edward’s Pheasant (*Lophura edwardsi*).

**Fauna and flora resource:**

**Flora:**

The total area is covered with various kinds of closed evergreen forests. At an altitude of below 700m, there occurs tropical rainy humid evergreen forest and above 700m altitude is subtropical evergreen forest. Due to long period of impacts of human activities and war consequences, particularly the agent orange, the appearance of the forest has changed. Primary forest, which bears harmful impacts at different levels, has changed into dominant secondary forest.

There are 597 species of 366 genera of 118 families being recorded, including 175 species of wood, 159 species of herb and 41 species of exotic plant. There are 14 species listed in Red Data Book of Viet Nam, 5 species listed in Red Data Book of the World and 5 endemic species for Viet Nam.

Flora of Phong Dien Nature Reserve brings together various paths of flora distribution, including indigenous flora of North Viet Nam-South China typical of Fagaceae, Lauraceae, and emigratory flora of Malaysian and Indonesian features such as Dipterocapaceae, of Van Nam, Quy Chau features such as Pinophyta and some species of deciduous broad leaf plants.
Another specific feature of Phong Dien floral system is that among 118 families of flora, there are 18 families which have more than 10 species for each such as Moraceae of 27 species, Rubiaceae of 21 species, Euphorbiaceae of 54 species. Besides, there are other species to which scientific names have not yet been given. They could be new species, at least to Viet Nam, for example Calophyllum sp.

+Fauna:

The fauna of Phong Dien is representative of fauna of North Central Viet Nam and a part of fauna in the low mountainous area of Central Viet Nam.

- Mammal species:

44 species of 20 families of 7 orders have been defined. There are 19 species listed in Red Data Book of the World and 15 species in Red Data Book of Viet Nam. Besides, two species of Pseudoryx nghetinhensis and Megamuntiacus vuquangensis have been recently found in Central Viet Nam.

- Species of Bird:

There have been 172 species of 34 families of 13 orders identified, in which 17 species listed in World Red Book are in worldwide threat of extinction and 18 species listed in Red Data Book of Viet Nam. Besides, there are three endemic species for Viet Nam known as Lophura edwardsi, Arphorrophyla merlinii and Rheinardia ocellata.

Reptiles and Amphibians:

Statistics show a number of 53 species including 34 species of reptile and 19 species of toad and frog. There are 8 species listed in Red Data Book of the World and 19 species in Red Data Book of Viet Nam, such as Ptyas mucosus, Cistoclemmys galbinifrons, Cuora trifasciata, Rana microlineata. Some species have high economic value.

- Species of Butterfly:

System of butterfly of 143 species of 10 families distributes in three different biological zones: secondary forests, waterways of rivers and streams, plains and bare hills. There are 8 species recognized to be present only in Central Viet Nam.

Phong Dien Nature Reserve has an abundant system of fauna with same number of species as other nature reserves and national parks. Phong Dien Nature Reserve is a library of precious faunal gene to Viet Nam in general and to species of toad and frog in particular. Primary survey shows no proof of new taxon, however further study is believed to discover new taxon of Lycanidae and Hesperiidae families.

2.4. Tam Giang-Cau Hai Lagoon Wetland Nature Reserve

Thua Thien Hue Department of Science-Technology and Environment proposes this nature reserve. Presently, People's Committee of Thua Thien Hue Province has established a Project Management Board in aiming at preserving the habitat of lagoon system of fauna and flora and migratory birds.

* Area: 24,876 ha, in which wetland with floral cover represents 18.41%, wetland without floral cover accounting for 1.13%, permanent wetland making up 78.13% and other kinds of wetland representing 2.33%.

* Fauna and flora resource:

+ Floral system:

Ephemeral flora consists of 265 species of 6 branches such as Diatoma, Oystergreen, etc. Benthic flora contains 54 species of Diatoma. Seaweed has 46 species. Higher aquatic plants make up 15 species.

Flora of Tam Giang-Cau Hai lagoon consists of various ecological sub-systems such as ecosystem of estuary, of sea-grass, of soft benthophyte, of mangrove forest, of helophyte and of agriculture. The diversity of eco-system has created a diversity of biotic community.
+ Fauna:

Ephemeral fauna consists of 66 species, benthal fauna has 76 species, fish has 230 species (including 6 species listed in Red Data Book of Vietnam). Bird has 73 species of 29 families, inclusive of 34 resident species, 39 migratory species, 1 species listed in Vietnam Red Book known as the Asian dowitcher *Limnodromus semipalmatus* and 30 species in need of strict protection listed in Red Data Book of the World.

### 2.5. Sao La proposed Nature Reserve

Site area is planned to be approximately 58,000 ha in Nam Dong and A Luoi district.

### 2.6. Landscape-Culture-History Site in West of Hue City:

A total area of 1,700ha is being planned for protecting forests of landscape in complex of monuments of Nguyen dynasty.

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**PART 2**

**OBJECTIVES, METHODS AND CONTENTS FOR SURVEYING AND ASSESSMENT**

### 1. Objectives

Collecting information concerning analysis and assessment of present status and potential of management of protected area in Thua Thien Hue province, as well as providing documents to the central management project board for developing the national strategy for management of protected areas in Vietnam.

### 2. Methods

- Collecting information on the nature, social-economic condition and resource (land, biology, human) at the research sites for obtaining a general view of protected areas.
- Collecting information through direct interviews of the local authorities, relevant agencies and individuals by semi-structured questionnaire on identified contents as a basis for further evaluating the present status and potential of SUF management in Thua Thien Hue.
- Collecting information through meetings at village and commune levels, and the workshops at district level aimed at enhancing the accuracy of the document and participation of parties to strengthen knowledge and sharing experience as well as performing promised cooperation in the future.
- Evaluation of the system and assessing of present status and potential of management of protected area in Thua Thien Hue. Therefore, the advantages, difficulties and limitation should be found out so that we can promote effectively management of protected area; and providing necessary information to the Central management project board for developing the national strategy.

(For more details to see the annex 1, 2 & 3)

### 3. Contents on Survey and assessment

#### 3.1. The system of management of special use forest

Thua Thien Hue province currently has a system of management and organization of the following nature reserves:

- **Bach Ma National Park:** It was established in 1991 according to the Decision No.214/CP of Chairman of the Ministers’ Council (now called Prime Minister) dated on 15/07/1991. Bach Ma National Park is managed by the MARD.
- **North Hai Van Nature Reserve:** It was established in 1993 through activity of Program 327. At present, Phu Loc Forest Protection Section manages North Hai Van and it was proposed in the list of SUF
system of Viet Nam in the plan of 2010.

- **Phong Dien Nature Reserve**: Project of establishment of the Phong Dien Nature Reserve has been evaluated by the MARD according to the note numbered 2992/BNN-KH dated 08/10/2001. Presently, they are looking for investment approval by the Provincial Peoples’ Committee.

In the system of organization and management of SUF in Thua Thien Hue, Bach Ma National Park was an identified system. Therefore, in this report, we have selected Bach Ma National Park for specific survey and analysis.

3.1.1. Functions, tasks and system of management and organization in Bach Ma National Park

Pursuant to the Decision No. 73 QD/BNN/TCCB dated 05/05/1999 by the Minister of MARD which has regulated the functions, tasks and organization of Bach Ma National Park.

**+ Function and task of Bach Ma National Park**

- Conservation of natural resource, promotion of the system of natural biology
- Scientific research for conservation
- Implementation of environment and ecology training program
- Co-ordination with the local authority to stabilize the living for inhabitants at the buffer zone as well as encouraging their participation to protect nature resource.
- Management and using effectively the assets materials and budget of the government

**+ System of management and organization in Bach Ma National Park**

Based on the tasks, the Bach Ma National Park has established a system of management and organization as outlined in the following diagram:

**Diagram 1. Organizational structure of Bach Ma National Park**

![Diagram of Bach Ma National Park's organizational structure]

**+ Analysis of relation between Bach Ma National Park and local authorities**

**Diagram 2. Analysis of relation in the system of organization between Bach Ma National Park and local authorities**

![Diagram showing the relationship between Bach Ma National Park and local authorities]
3.1.2. Some comments on relationships

- Organizational mechanism of the agencies under the National Park are comprehensive and clear.
- The Bach Ma NP Forest Protection Section was established into an independent agency and Vice-director takes charge of supervising and directing. It means that director highly appreciates control and protection of resource. Although Vice-director only takes charge of one part among six units, the quantity and nature of the work are very difficult. As well, the Vice-director has to substitute as the authorized director to decide on works while the director is absent.

However, we thought that for this organization mechanism sometimes overlapped and to be unclear such as:

- Center for community development includes 2 sections: Section of General Silviculture and community development. For us these two sections could not be integrated into center for community development. Because the Section of General Silviculture belongs to technical forestry and the section for community development has the nature of a social field. Moreover, the section of community development must be ensured as an important activity in the strategy of human resource development. There are many projects and programs that should be separated to implement them better.
- Center for ecotourism and environment training: There are two units in this center: Unit of ecotourism and Unit of environment training. Implementation of ecotourism is mainly on scientific service, through tourist service to train, improving and strengthening the knowledge of tourists. And environment training is not only extending for tourist but also for many others. Besides, there are some functions and tasks of this unit that are not appropriate (For example: the participation in the exchange and international relation program).
- International cooperation is very important to Bach Ma National Park. It was one of the key points of parks of the whole country and many foreign organizations paid attention to it. During the past years, international cooperation has been very useful in the activities of Bach Ma NP, although the system of organization is not mentioned, or its function and task as well as responsibility of activity.

3.1.3. Analysis on the capacity of the system of management and organization in Bach Ma National Park

In general, the staff of the system of management and organization in Bach Ma National Park have been trained regularly. Many people have been trained through specialized courses at home and abroad in conservation, ecotourism and community development... Therefore, the organization mechanism of Bach Ma National Park has full capacity to complete the functions and tasks of current requirements. However, the staff of the Park have no opportunities to take part in technical courses. This is a limitation of conservation
management.

Although, the organization of Bach Ma National Park has full capacity to complete the functions and tasks of the National Park (according to the Decision No. 73/1999/QDBNN/TCCB by the Minister of Agriculture and Rural Development), some problems need to receive attention such as:

- Center for community development is an important section, it takes charge of management mode with the participation of community base. Although, there are two staff they have tried to make efforts but they cannot meet demands of work. Then section of general- bio-forest has to take charge of scientific research. The community development center currently operates as a section under the National park. From our point of view, this is a reasonable change.
- There are 12 staff and 5 contracted workers in the center for ecotourism and Environment training section. Those people have done well in some of activities. Ecotourism and environment education has just been formed and some of the staff have been technically trained but they cannot meet the demands on ecotourism and environment training. Therefore, the program of technical training to the staff should be given. As well, the relationship with the local authorities and concerned agencies at home and abroad should be paid attention.
- The scientific research section has carried out of research and cooperation with internal and international organizations for implementation of conservation. However, with 5 technicians in charge of research on the conservation in the National Park, they cannot meet the actual situation demands. Therefore, technical capacity and human resources should be enhanced and further coordinated with other agencies.
- Pursuant to the Decision No. 73/QD/BNN/TCCB dated on 05/05/1999 by the Minister of Agriculture and Rural Development, the section of planning was founded under the management of the system of organization Bach Ma National Park, However, because of limitation of human resources, this section was integrated into the administrative and organization section to implement some of works such as making planning on basic construction. This is an inadequate matter. The planning section is of great importance in the organization mechanism of administrative agency. In our opinion, the resource capacity should be added to do this work.
- The Bach Ma NP Forest Protection Section takes charge of forest protection management. This is the most important task in the National Park. With 40 forest guards takes charge of management of an area of 22,031 ha of forest (average of 550 ha/person) and this is enough. However, it is a complicated area and the facilities are not improving. Therefore besides of increasing the material for them the quality of staff should be enhanced to meet the demands of work.

In short, The system of management and organization of Bach Ma NP should be improved to abide by functions and tasks according to the Decision No. 73/1999 QD/BNN/TCCB promulgated by the Minister of Agriculture and Rural Development.

Bach Ma National Park needs to propose to MARD supplementation for functions and tasks of the Section and Center to meet actual situation requirements.

PROPOSALS TO IMPROVE THE SYSTEM OF MANAGEMENT ORGANIZATION

- Environment training should be integrated in the Center for Community Development, because the main task of the community development is education to enhance the knowledge of the community on environment, in order to change their opinions supporting positive changes.
- Activities of science research in all spheres should be taken into the unit of Scientific Research including the Section of General Silviculture currently existing in the Center for Community Development. Research activity should be divided into specific fields.
- An independent section is needed for activities on international cooperation under the Board of Directors or integrated in the scientific research section to assist the Board of Directors making plans for international cooperation.
- It is necessary to have a united mechanism of management among the management boards of protected areas in the whole province, creating a common relationship to have a close coordination for activities among the protected areas. It will help to accelerate the effectiveness and minimize the cost during the implementation process of all functions and duties and each agency. For example: Through the united mechanism and the close relationship, experience sharing and information exchange can be done, which makes the managerial effect much better.
- During the process of training, through improvement of skills for officials, the quality of activities in all agencies will be better and expenditure for training will be minimized with coordination and experience sharing.
3.2 Details of Administration resources of Bach Ma National Park

3.2.1. Human resource in Bach Ma National Park

From Table 8 we can see that:

- The number of staff graduated from university and postgraduates account for more than 46% which includes 3% of postgraduates.
- The rate of forestry engineer is 63% (20/32).
- There are 23 staff who have been trained at the technical training level.
- There are 40 staff directly involved in the activity of forest protection management.

Table 8. Evaluation of human resources in Bach Ma National Park

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</tbody>
</table>

Source: Bach Ma National Park

* Some comments on administrative responsibility resource of Bach Ma National Park

- The human resource of Bach Ma National Park is still limited and cannot meet the demands of development of a key National Park.
  - There are two postgraduated staff who cannot meet the demands of all needed scientific research and international cooperation.
  - The number of staff graduated from university is still low (46%) while the rate of technical training level and primary levels are rather high, more than 51% (36/70).
For Bach Ma National Park Forest Protection Section:

- Due to the complicated topography and the limitation of staff, with 40 regular staff they have to manage an area over 22,000 ha of forest (average 550ha/person). Therefore, they have met difficulty in the management of the forest resource.
- The education level of forest protectors are not equal. Among 40 staff of forest section trained in forestry, there are only 11 staff of university level (making up 1/4 staff of section). It is clear that the forest protection staff qualifications cannot meet the demand of work.

Human source for scientific research:

- One of the important functions of the National Park is scientific research of multi branches including of many categories. So that it is necessary to have highly qualified staff.
- However, there are only 5 staff at graduate level in biology who are working in the Bach Ma National Park. Due to limitation of work experience and young age, they cannot meet the demand of work.

3.2.2. Other administration resources in Bach Ma National Park

Annual capital from the Government budget was VND 2-2.5 billion, which included:

- Administrative agencies: Provided according to the regular staff and norm by the MARD.
- Construction: average of every year is VND 1-1.5 billion.

Capital from projects:

* For domestic projects:

- Project 327 was implemented from 1993 - 1998 with the investment capital of VND 23,807,000,000. The objective is for re-afforestation and forest protection
- Project 661 was implemented in 1999 with the investment capital of VND 9,905,000,000. Mainly carried out re-afforestation and forest protection and infrastructure construction.

* Foreign projects:

- Project VIE 91/G31 is supported by UNDP with capital of VND 600,000,000 for forest guards training and leaders of communes of buffer zone in the Central provinces involving the knowledge of biological diversity.
- Project VN 0012.01 WWF/EC was supported by WWF with USD 200,000 for supplementation on Eco-Technical thesis of Bach Ma National Park from 1995 -1996.
- Project GEF/SGP with capital of VND 400,000,000 to increase awareness and improving economic condition of community of buffer zone.
- Technological Cooperation Project DED for local community in Phu Loc District with the capital of VND150,000,000 for irrigation dam construction.
- Project for research of red-shanked Douc's langur supported by the NAGAO foundation with capital of Yen 1,000,000 in 1999.
- Tiger Conservation project supported by WWF with USD 5,000 from 1999-2000.
- Tiger Ecological project was supported by US Fish and Wildlife Service with capital of USD 10,000 from 2001-2002.

Revenue resource: Mainly from ecotourism services.

* Some comments on other administration resource of Bach Ma National Park

- The existing facilities meet the demands of activities quite well.
- The facilities, transportation and information are sufficient.
- The capital from the government budget to serve for activities in terms of basic construction, administration, especially, the cost for scientific research of the national park is still limited.
- Although there is assistance from domestic and international projects for community development in the buffer zone, they have not provided enough to all communes in the buffer zone.

3.3 Analysis of Relationships and Co-operation Capacity

Diagram 3. Co-operation relationships in Bach Ma National Park
To make the above diagram clear, we have demonstrated the main points in the 4 boxes below:

<table>
<thead>
<tr>
<th>Conduct and implement instruction of forest development programs</th>
<th>Protection of forest resource</th>
</tr>
</thead>
<tbody>
<tr>
<td>- Management of forestry land using for forest development</td>
<td>- Management of forest by functions in which paid attention for protection and special use forest.</td>
</tr>
<tr>
<td>- Management and implementation of afforestation projects (especially project of 5 million ha forests). (I)</td>
<td>- Management of law violations.</td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>Concerned parties: Police, Education, DOSTE, CRES, Universities, etc.</th>
<th>Provincial People’s Committee directing and instruction of resource management.</th>
</tr>
</thead>
<tbody>
<tr>
<td>- To coordinate with authority agencies to promote management of forest.</td>
<td>+ Administrative management</td>
</tr>
<tr>
<td>- Coordination for information and training to community in management and forest protection</td>
<td>+ participation of personnel together with MARD</td>
</tr>
<tr>
<td>- Together with relevant agencies to prevent and manage forestry law violations.</td>
<td>+ Approval investment projects</td>
</tr>
<tr>
<td></td>
<td>+ Peoples Committee of District as one the highest agency to manage the whole district</td>
</tr>
</tbody>
</table>
3.3.1. Cooperation between Bach Ma National Park and relating agencies

* For the local authorities:

- Provincial People’s Committee has paid attention to nature conservation and Bach Ma NP is considered as an asset that may bring positive effects in terms of economy, society, and environment in the locality. Therefore, during the past years the leaders of Provincial People’s Committee have frequently been paying attention to activities, such as:
  
  o Frequently attending meetings, workshops on the National Park’s activities.
  o Providing support and creating favorable conditions for activities to make use of its potential for ecotourism.
  o Encouraging and supporting efforts to raise awareness of the local community.
  o Together with MARD, drawing out the action plan and evaluating annual activities of the National Park as well as providing human and financial support.

However, the coordination itself still has problems:

- Bach Ma National Park is under the direct management of MARD, the Provincial People’s Committee is responsible geographically. The coordination for guidance to the National Park’s activities have not been institutionalized and there have not been any specific guidelines on responsibilities, competence and management between MARD and Provincial People’s Committee.
- However, during the past years the coordination in some certain fields was not actually effective. Mainly the National Park’s Management Board carried out some of the activities. The provincial authority support would not go further than policy and guidelines. There was not any cooperation in terms of the meaning of "responsibility sharing".

In the apparatus of the PPC there isn’t any unit or officer specializing in monitoring and supervising the park’s operations. Thus, the direction and involvement of the PPC have not been close enough.

- District and commune authorities: The cooperation between the district and commune authorities and the Bach Ma National Park has attained some remarkable results. All the activities are contributing to annual socio-economic development plans as well as long-term in the locality. Their cooperation takes place in the following fields:
  
  o Planning for land utilization and land allocation.
  o Enhancing forest protection and management (forest fire prevention, negative effect reduction to forest resources, establishment of forest protection groups)
  o Raising awareness of local community. (integrated communication, competitions, inhabitant meeting, etc.)
  o Providing capital through socio-economic development programs and projects
  o To bring into play the community participatory ecotourism potential.

+ Relevant branches and agencies:

During the past years, the Bach Ma National Park has cooperated with relevant agencies and initially creates cooperative relations regarding the National Park’s management.

- The National Park has cooperated with the University and scientific research organizations, both domestic and foreign, in the fields of biodiversity conservation and enhancing the capacity of staff.
- The community development and environment education have been coordinated with the associations, unions in the buffer zone (Women’s Union, Farming Association, Youth Communist Party) aimed at increasing awareness of biodiversity conservation through establishment of conservation clubs and contests.
• Together with the relevant provincial agencies (Sub-FDD, Sub-FPD, and forest enterprises, etc.) to share and exchanging experience in management and forest protection, land allocation in the locality.
• Coordination with the GOs and NGOs holding training courses, conferences and workshops on conservation.
• Cooperative relations were established to share and exchange experiences with the National Parks and Nature Reserves in Viet Nam as well as around the world.

However, in this relation attention should be paid to some problems:

- In the cooperation with relevant agencies, the National Park did not make use of administration resource and ideas in the Institutes and Universities of the province, especially, in spheres of scientific research.
- It has not yet got a strategic plan to enhance the effectiveness of management between National Parks and relevant parties.
- It has not yet got a regulation or an agreement on responsibility as well as benefits of parties.
- They have no plan as well as activity to share experience and scientific information and technology transfer.

3.3.2. The strong points in this relation

- The Bach Ma National Park Management Board was clearly aware of cooperative relationships with the relevant parties in the management issue. They themselves cannot take full responsibility and, therefore, they need the cooperation of relevant agencies and local people.
- There are many effective and positive activities such as:
  - The environment education for community: It was very important to change behaviors and attitude of local people in management and utilization of natural resources, retaining the biodiversity and environment protection.
  - Coordinating with the local authority to organize the training courses on forest fire prevention.
  - A small cost was supported to mobilize the participation of community and local people in management and forest protection.
  - The leaders of local authorities and relevant agencies have attended in the final reviews as well as workshops in the National Park to review activities for appropriate regulation.

3.3.3. The weak points in this relation

* For Bach Ma National Park:

According to the results of survey and interview the concerned parties and Management Board of Bach Ma National Park especially in the buffer zone identified constraints:

- We do not yet have a policy for buffer zones. There are only some circulars and instructions on management of buffer zone. The management of buffer zone is the main task of the relation between the National Park and local government and concerning agencies. However, due to lack of legal documents to regulate functions, tasks and authority of concerned parties in management of buffer zones, especially in the planning, land utilization and allocation, co-ordination has met with difficulties.
- Investment in programs and projects for buffer zone are not satisfactory and limited, therefore the necessary capital for implementation of protection and development of buffer zone are lacking.
- The coordination with the local authority have been established as above mentioned but in any way, because of limitation of time or of their conception the local authorities and the relevant parties have not paid enough attention to this coordination. Although it is not always the thinking that the National Park management is the job of the National Park alone, but to some points, this attitude is not a positive behavior from the local authorities and the National Park in this activity.
- For Bach Ma National Park, although they have recognized the significant and important of the coordination of local authority and the relevant parties, they do not have plans and solutions to enhance this relationship effectively.
- The limitation on qualifications in the nature resource management in general, and in some of senior staff in Bach Ma National Park as well as relevant agencies in particular, caused ineffectiveness in coordination.
- The activities of the National Park was concentrated in protection of main areas and carried out to study of conservation on biological diversity. However, they do not have resources to implement activities outside the main areas.
* For North Hai Van Nature Reserve:

The transfer of North Hai Van NR to Phu Loc Forest Protection Section is very much favoured. This forest is located near to other forests in the area managed by the Forest Protection Section. The function of the forest section is to manage the SUF. Moreover, if this function is allocated to other section they should have responsibility to coordinate implementation of forest protection management in Phu Loc District.

However, there is not an official document in the allocation of North Hai Van SUF to Phu Loc Forest Protection Section (to replace Decree No. 194/CT by the Council Ministry). Therefore, this system of organization has not brought into play its role and function of North Hai Van NR, although there are some priority projects for North Hai Van such as Project 327 phase of 1995-2000, 5MHRP phase of 2000-2010 (Project 661).

Through survey and interviews with some senior relevant staff, improvement of system of organization in North Hai Van SUF was briefly explained as follow:

- If a complete plan of establishing a green corridor is implemented to link with Laos and expand to the East Sea, and up to the natural conservation area of Ba Na - Nui Chua of Da Nang City, North Hai Van NR is part of the green corridor. Therefore, to ensure an integrated and comprehensive management, the Management Board of Bach Ma National Park should be assigned to manage North Hai Van NR. This also depends on the management capacity of the Management Board and the existing staff of the National Park.
- North Hai Van NR is managed by Phu Loc Forest Protection Section immediately, however it has not been regularized. One Decision or a Regulation on function and task should be regularized. It will be necessary to establish a management agency that does not depend on Phu Loc Forest Protection Section (may be under the Sub-FPD). The functions and tasks as well as management mechanism of this organization should be identified. Therefore, we should have investments appropriately in implementation of activity linking in the system of protection Bach Ma - Hai Van.

* The Phong Dien Nature Reserve:

This was established pursuant to the document numbered 2992/BNN-PTNT dated 08/10/2001 by the MARD on evaluation of the project of Phong Dien NR with the area of 41.548 ha. It was divided into 3 small parts and buffer zone. The total capital estimated for initial construction is 13.800 millions Dong (from 2002 to 2006).

The most important thing is establishing the Management Board to carry out the functions and tasks of the approved document.

### PROPOSALS TO ENHANCE CO-OPERATIVE RELATIONS

- Need to have a mechanism or internal regulation which clearly assigns the responsibility and authority of relevant agencies to implement the co-management mechanism by legal document aimed at bringing into play the resources and advantages of parties (including strengths in organisation and decision-making).
- The Management Board of Bach Ma National Park (and other SUF) need to discuss and draw out a plan of action for the future, involving the main key activities of the national park. Planning needs to be agreed by the parties to promote effective cooperation.
- Timely holding of relevant participatory meetings and workshops to evaluate and learn by experiences from the plan implementation process as well as to monitor the appropriate plans to determine their status.
- It is necessary to have a specific policy in management of (co-management) SUF. Especially the benefits from participation must be paid attention to mobilize the social power resource in management of SUF of the community and local people.
- It was necessary to have short term training (in the meaning of training course or workshop) to raise awareness on biodiversity for senior staff of the local authority and relevant parties.
- The National Park should exchange information on the urgent issues in terms of conservation and topics of scientific research for relevant parties.
- Establishment of close relations between the agencies.
- It is necessary to have plan and programs for environmental education with participation of the relevant parties in the locality.

3.4 Assessment on the participation capacity of the community
Concept of community means a limit within the locality and their people, besides the concept of community has the meaning of an authority or an organization, we can use phrase "relevant parties".

To assess on the participation capacity of community, the team has carried out a survey on the economic condition of the local people at the survey sites.

The objective of this survey is:

- Understand the present status of the people living in the limit of SUF, especially, the people in the buffer zone to analyse the participation capacity (the cause motivation and limitation...)
- The participation capacity of the local people in the nature reserve was closely combined to their living, especially in the demands of land and biological resource... Being aware of this relation for a basis to proposals on the effective participation of the local people, that is one of the strategic solutions for the nature reserve.

Table 9. Statistics on the career structure and economic income of the local people

<table>
<thead>
<tr>
<th>Target</th>
<th>District</th>
<th>Unit</th>
<th>Phu Loc</th>
<th>Nam Dong</th>
</tr>
</thead>
<tbody>
<tr>
<td>1. Total average income</td>
<td>1,000 dong</td>
<td>10,400,000</td>
<td>35,531</td>
<td></td>
</tr>
<tr>
<td>2. Average income/person/ month</td>
<td>1,000 dong</td>
<td>200</td>
<td>146.6</td>
<td></td>
</tr>
<tr>
<td>3. Rate of poverty household</td>
<td>Household</td>
<td>5,550</td>
<td>1,377</td>
<td></td>
</tr>
<tr>
<td>- % household</td>
<td>%</td>
<td>19.3</td>
<td>35.4</td>
<td></td>
</tr>
<tr>
<td>4. Career structure</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>4.1 Agriculture</td>
<td></td>
<td>15,837</td>
<td>7,308</td>
<td></td>
</tr>
<tr>
<td>- Number of household</td>
<td>Household</td>
<td>%</td>
<td>57</td>
<td>72</td>
</tr>
<tr>
<td>4.2 Forestry</td>
<td></td>
<td>114</td>
<td>292</td>
<td></td>
</tr>
<tr>
<td>- Number of household</td>
<td>Household</td>
<td>%</td>
<td>0.5</td>
<td>3.0</td>
</tr>
<tr>
<td>4.3 Handicraft</td>
<td></td>
<td>2,168</td>
<td>655</td>
<td></td>
</tr>
<tr>
<td>- Number of household</td>
<td>Household</td>
<td>%</td>
<td>7.8</td>
<td>6.5</td>
</tr>
<tr>
<td>4.4 Trade service</td>
<td></td>
<td>2,286</td>
<td>917</td>
<td></td>
</tr>
<tr>
<td>- Number of household</td>
<td>Household</td>
<td>%</td>
<td>8.2</td>
<td>9.0</td>
</tr>
<tr>
<td>4.5 Others</td>
<td></td>
<td>7,359</td>
<td>969</td>
<td></td>
</tr>
<tr>
<td>- Number of household</td>
<td>Household</td>
<td>%</td>
<td>26.5</td>
<td>9.5</td>
</tr>
</tbody>
</table>

From Table 9 we can see that:
The rate of poverty of households in the Districts is rather large: Nam Dong District is 35.4% and Phu Loc District is 19.3%.

The average income per one person is 200,000 dong (in Phu Loc District) and 146,600 dong (in Nam Dong District). It was very low compared to that of income in the whole province.

Sector structure: According to the results of the survey the data of the two districts are equal, agriculture production is about 72%, trade service is about 9% and the others about 9.5%. In which forestry production is only 3%.

For communes of buffer zone: Poverty of households increases up to 54.70% (Loc Hoa commune) and 61.50% (Thuong Lo commune). The commune with the lowest rate of poverty is Loc Hai Commune.

Inhabitants taking part in the forestry activity is still low, maybe because the forestry revenue does not attract them or they haven’t received enough supporting investment resources of there haven’t been suitable measures to implement forest redevelopment policies in place.

Environment of production especially the output is very important, and the geographic location is a significant factor. The Loc Hai Commune is a typical example, it is located along the national road IA with many advantages to expand trade services. Therefore, should we, and how can we, mobilize the resource of the local people while they meet many difficulties in earning a living.

The results of the survey on present status of land utilization in Nam Dong District and Phu Loc District (see annex 6 and 7) illustrates that: The area of unused land in the districts are rather big about 30-39%, in which the area of unused land appropriate for production of forestry is 17-27% of the total natural area of every district. However, there are some existing problems identified through interviewing:

- Most of unused land is located in the remote areas.
- Some of unused land areas in Nam Dong District will be used for forestry purpose by local people if they could invest adequately.

3.4.1. Benefits for local people from their participation

* Material benefits:

- From the reforestation activity, contract-based forest protection as well as seedling plants assistance, many jobs have been created. Therefore, the income of local people has been improved. The material life of 61% of participating households has been bettered through the participation of forest activities.
- The local people have access to loan with preferential interest for agricultural and forest activities. There are 38% of households use this loan effectively.
- On the basis of the orientation of Bach Ma National Park, the local people in the survey communes have taken part in the ecotourism activities through the exploitation, investment of many services, typically Eco-tourism Sites of Nhi Ho (Loc Tri commune), Suoi Tien (Loc Thuy commune), Suoi Mo (Loc Hai commune), Thac Truot (Huong Phu commune). Among these, Nhi Ho Ecotourism Site has been in operation for 2 years and contributed to increase the income for over 30 households which used to be engaged in illegal activities of wood exploitation, hunting for their living. In addition to increasing the monthly average income of VDN 500,000 - 700,000 for each participating household, the ecotourism sites have also make contribution to improve other works such as rural transportation, electricity for daily life, enhancing the cultural, social and economical situation of the locality.

* Knowledge improvement:

- Through training courses or meetings, the local people can learn a lot of technical advances. 42% of households has successfully applied the technical advances to raise productivity.
- Local people can have access to information on policies, documents issued by Government relating to management and protection of forests.

Nevertheless, on the whole, the benefits for local people from participation in the activities of protection and development of forests, especially special use forest, are not satisfactory. There are some objective reasons such as forest production and trade has a slow effect. Apart from that, it is difficult to apply new technical methods. Especially, the products are not appropriate to "supply and demand" (Wood from natural forests is more popular in the market than wood, which is the main product in the forest production, from planted forests. This is a limitation in the participation of local people).

3.4.2. Advantages and disadvantages in the participation process of local people and relevant parties

* Advantages:

- Material benefits:

- Knowledge improvement:
Thanks to the renovation in the approaches to resources management made by specialized agencies as well as authorities at different levels, the role of community and local people has been satisfactorily valued. Therefore, many opportunities have been brought to local people in the participation in management and protection of forests.

The strategy on forest development of the Government has been transformed: from traditional forest, state-based forest to local people-based forest (social forest) through a couple of concerned policies (policies on land allocation for contract-based forest development, resettlement, aid to mountainous areas, credit incentive and many others). This strategy has facilitated the positive participation of local people.

The local people have made a great deal of progress in awareness of the role and significance of forests in general and SUF in particular. Accordingly, they are more responsible for management and protection of forests. It is emphasized that: This area usually suffers from natural disasters and annual floods (the flood in November 1999 proved to be a lesson for local people), so the local people here witnessed the consequence of deforestation as well as deterioration of environment and biological diversity.

The local people can receive concern and support from local authorities and provincially based agencies.

Due to the extreme natural conditions, low economic development, the local people can receive the assistance from international organizations through direct investment projects and programs. Therefore, they have a lot of opportunities to effectively participate in the protection and development of forests.

Disadvantages:

- The policies, especially beneficial policies, prove not to be concrete and synchronous to encourage the participation of local people in the management of SUF. These policies seem to be general, so they have not drawn the attention of local people. Most of SUF are natural forests. Meanwhile, regulations on management of natural forests appear not to be close to current reality (for examples, the local people use what they produce from forest products or exploit forest products beyond wood).
- The payment for those who take part in the management and protection of forests is still at low level (VND 50,000/year/ha). The payment for forestation as well as maintenance of forests is also low while the work is very hard. Hence, it limits the participation of local people.

### Table 10. Community participation level (%) in surveyed communes

<table>
<thead>
<tr>
<th>Participation level</th>
<th>Attending meetings on management and protection of forests</th>
<th>Reception of contract-based forest protection</th>
<th>Planting and tendering forests</th>
<th>Attending training courses</th>
<th>Eco-Tourism services</th>
<th>Attending fire forest prevention and control</th>
</tr>
</thead>
<tbody>
<tr>
<td>1. Passive</td>
<td>40</td>
<td>0</td>
<td>0</td>
<td>2</td>
<td>0</td>
<td>0</td>
</tr>
<tr>
<td>2. For material benefits</td>
<td>2</td>
<td>20</td>
<td>57</td>
<td>10</td>
<td>7</td>
<td>0</td>
</tr>
<tr>
<td>3. Consulting</td>
<td>0</td>
<td>0</td>
<td>0</td>
<td>0</td>
<td>0</td>
<td>0</td>
</tr>
<tr>
<td>4. Responsibility</td>
<td>22</td>
<td>3</td>
<td>0</td>
<td>7</td>
<td>0</td>
<td>0</td>
</tr>
<tr>
<td>5. Co-operation</td>
<td>0</td>
<td>0</td>
<td>0</td>
<td>0</td>
<td>0</td>
<td>0</td>
</tr>
<tr>
<td>6. Interaction</td>
<td>0</td>
<td>0</td>
<td>0</td>
<td>0</td>
<td>0</td>
<td>0</td>
</tr>
<tr>
<td>7. Attraction</td>
<td>0</td>
<td>0</td>
<td>0</td>
<td>0</td>
<td>0</td>
<td>0</td>
</tr>
<tr>
<td>8. Voluntaries</td>
<td>36</td>
<td>20</td>
<td>3</td>
<td>3</td>
<td>0</td>
<td>100</td>
</tr>
<tr>
<td>9. Co-action</td>
<td>0</td>
<td>0</td>
<td>0</td>
<td>0</td>
<td>0</td>
<td>0</td>
</tr>
</tbody>
</table>

Source: Interviews with farmer families in the surveyed communes

The above table shows that:

- The local people take part in the above mentioned with a high number of volunteers. It means that their awareness has been improved. However, there is the causal relation between material benefits and volunteers (On account of benefits, there are volunteers).
There is no participation of local people in the role of consulting, co-operation and interaction. Maybe the approaches of project program have not brought a lot of opportunities yet. Or perhaps, the local people have an inferiority complex about their limited capacity. Especially, in their participation, there is no sign relating to the role of "mutual action". It is possible to say that the activities of the management of SUF have not directly involved the local people.

+ The main motives drawing attention for the participation of local people are as follows:

- Participating for money, earning living.
- Participating by reason of obligation and responsibility (according to the assignment and mobilization of local authorities).
- Voluntarily participating with material benefits. In awareness of the fact that protection of forests means protection of themselves (e.g. forest fire control and prevention) or means improving their living standard (e.g. allocating land for forestation).
- Other participation levels such as co-operation, interaction or co-consultant, decision-making and many others are mostly missing on account of objective and subjective reasons.
- Objective reasons: Local authorities have not created the activities, which are necessary and beneficial to the local people during their participation. Moreover, the supportive policies seem to be unattractive.
- Subjective reasons: The local people themselves lack basic facilities (such as investment capital, land, knowledge, and advanced technology). Apart from that, their awareness is not mature enough. They only pay attention to the immediate and material benefits (due to their living needs). They, therefore, have not realized the long-term and comprehensive value of forests, especially immaterial value.

3.4.3. Limitations from local people

To take part in the forest activities, the local people should equip themselves with basic conditions in terms of administrative capacity, knowledge and institutions. With this, administrative capacity and knowledge play the role of inborn conditions. Nevertheless, the people living in this area still have a lot of difficulties. Hence, their resource capacity for forest development is limited. Although the management agencies of SUF have opened some training courses for providing local people with basic knowledge, they still meet a great deal of difficulties as to training cost. They mostly depend on financial support from programs and projects, which are mainly from international organizations.

3.4.4. Limitations from mechanism

The participation of local people in the management of natural resources is a new approach. From then to now, the authorities are familiar with the management according to functions and assigned tasks (internal and centralized management). Thus, to mobilize the positive participation of local people, this direction should be changed in line with the principle of co-management and mutual benefits.

There are some policies, which have emphasized the role of local people in the management of natural resources. However, the implementations of these policies have not yet been institutionalized. It is necessary for institutions to pay attention to the benefits.

3.4.5. Allocation of forest land

The annex 8 relating to Situation of forestland allocation in Nam Dong District and Phu Loc District shows that the allocation of forestland has been implemented well. However, until now, only 137 households of Thuong Lo commune, Nam Dong District have been given a Red Book (land use right). Meanwhile, other households just receive the Decision issued by the District People’s Committee. This also gives an insecure feeling to the land receivers, preventing the local people from investing their capacity in the land they have received.

In Thua Thien Hue and other places in the whole country, there still exists the situation of land disputation between landowners. The land allocation faced a lot of difficulties because the planning of land utilization has not been carried out. The difficulties are known as:

- Areas and lines of land sorts have not been defined.
- The concrete planning for the purposes of land utilization has not been made.
- The users have not been determined.
It is necessary to combine land utilization planning and the management and protection of special use forest. Currently, there are many difficulties in the management of land utilization such as the inexactness in landline, land area, and landowner. Furthermore, the land utilization planning has just been worked out at first phase of master plan. The next action that should be done is to implement the concrete planning to lay the foundation of building the action plan. Previously, land utilization planning could be made according to approaches which were handed over to the local people from those who were in charge of management or from experts (top down). Now it is necessary to have specific planning with the participation of local people.

Due to the lack of condition for effective assessment on the participation of the local people in forest activities, the illustrative figures for the effectiveness of each activity have not been realised. However, it can be clearly shown that: The land utilization planning and forest land allocation stop at the level of only “allocation and reception”. Meanwhile, the effectiveness of its utilization as well as the disadvantages and necessary support has not taken into consideration and assessment. Therefore, it proves to be essential to make surveys, assessment on the effectiveness as well as the impacts of the activities with the participation of local people. On this base, many lessons can be learnt from reality so as to mitigate the obstacles and challenges, so the participation of local people will be more effective and positive.

There is a need to institutionalize the participation of local people in accordance the regulations stipulated by the Government on the basis of internal commitments appropriate to the concrete conditions of each region, each task and each kind of forest (local regulations are a typical example). At the same time, the management agencies and the specialized agencies as well should have to create a good co-operation with the local authorities and local people to carry out the target of co-management.

It is necessary to bring more opportunities to the local people for them to take part in managing natural resources. Women should be encouraged to participate in the activities to get gender equality.

There is a need to open more training courses to provide local people with related knowledge to enhance their consciousness in management and protection of forests. At the same time, community education should be implemented for them to further understand the role of SUF. In addition, combined activities should be planned so as to save time, cost for the enhancement of their awareness.

An existing difficulty is that the local people are short of investment capital. Some agencies, which are in charge of the management of SUF also, have access to the capital from Government budget. However, except for some financial sources from international projects, this capital source proves inadequate. Therefore, it is our proposal to the Government to issue satisfactory investment policies, not only to the management of SUF, but also to the program of information, education and assistance to the local people in the concerned activities.

3.5 Assessment on the enforcement of law

With reference to relevant laws and by-law documents (see Annex 9), and based on the present situation in the research areas, we have the following comments on enforcement of forestry laws:

- Bach Ma National Park and North Hai Van NR have implemented all relevant laws and policies without errors.
- Staff have known how to apply decrees as well as Circulars to concrete conditions. Some examples are the exploitation of eco-tourism potential, implementation of some scientific study work relating to biological diversity and buffer zone management in collaboration with scientific agencies.
- Management has paid attention to human resource strategy which proved to be the right direction in the sustainable management of natural resources through training courses relating to knowledge improvement, environmental education for community and for relevant individuals.
- Management has arranged integrated activities between documents of law and by-law documents such as having the assistance policies for some community organizations in the economic development of buffer zone as well as environmental education through the movement named “Green-Clean-Beautiful” of the pupils.
- Staff have paid attention to timely dissemination of documents of law or law related documents for local people through meetings among local people or meetings conducted by local authority (such as the matters relating to forest fire prevention and control, Law on protection and development of forests).
- The impact of documents of law seems to be very clear. The awareness of respecting and abiding by the lawful regulations, by-law documents of organizations, agencies and relevant individuals has been better improved. To illustrate, the cases of forest violation of law have been reduced in terms of number of cases and their sizes. The local people have supported the competent agencies in enforcement of law. For example, they have informed forest protection agencies about the cases of violations of law.
Nevertheless, during the process of enforcement of law, there are some restrictions due to the subjective or objective causes:

- Even those who are involved in law enforcement have not even had a real understanding of all contents of laws because there are many documents of laws with a lot of modification. Therefore, its dissemination and implementation are difficult.
- Law documents have been issued on a large-scale. Therefore, to put it into force in different localities as well as concrete cases, the appropriate adjustment should be made without law breaking. Only a few qualified cadres can effectively manage this adjustment. So, the enforcement of law proves to be confusing.
- Documents relating to guidance on the enforcement of lawful documents and by-law documents present some items, articles which are not very clear and concrete. Thus, it is very easy for misunderstanding by those who take charge in the enforcement of law.
- The enforcement of law just proves to be effective when there is co-operation among relevant agencies and organizations at the locality. But in reality, the co-operation appears not to be close and regular.
- Laws always reflect the political, socio-economic development in a fixed term. In despite of advanced laws, an undeveloped society has also an influence on the enforcement of law. In some localities, especially remote areas, the socio-economic development has not been in line with the progress in law.

<table>
<thead>
<tr>
<th>PROPOSALS TO FURTHER ENHANCE THE ENFORCEMENT OF LAW</th>
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<tr>
<td>Management Boards of special use forests need to have close combination with local authorities and relevant branches (such as Court of Investigation, Court of Justice...) to make a plan on dissemination and implementation of the relevant documents of law for the community and local people as well as other concerned agencies to have an understanding about it.</td>
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<tr>
<td>It is necessary for agencies, organizations and individuals who are involved in the management of SUF to have a grasp of the key and basic contents of documents of law as well as by-law documents through training courses on the guidance of their enforcement. The Management Board of special use forests should consider this enforcement as a necessary and regular activity in aiming at enhancing the capacity of their organizations.</td>
</tr>
<tr>
<td>Local authorities and concerned agencies need to collaborate with the Management Board of special use forests for timely solutions for acts of law violation and state regulations. To those who are engaged in actions of law violation, the public, democratic, equal and strict principles should be abided by.</td>
</tr>
<tr>
<td>Timely commendation and reward to those who effectively take part in the protection and management of forest resource. The positive activities of local people should be paid a lot of attention. Material reward appears to be an important motive to encourage the participation of local people. Therefore, a proper budget for this is necessary.</td>
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<tr>
<th>PROPOSALS TO THE ISSUANCE OF LAW DOCUMENTS</th>
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<tbody>
<tr>
<td>Before the issuance of laws, decrees, instructions etc., their contents, articles and terms should be taken into consideration. Particularly, it is necessary to pay attention to some undesired cases occurring during the enforcement. The supposed cases should be foreseen to avoid the misunderstanding of contents as well as wrong enforcement of documents of laws.</td>
</tr>
<tr>
<td>Instructions and Circulars relating to documents of law should be accompanied by the issuance of documents of law (in some cases, the guidance documents are issued after the valid day of documents of law).</td>
</tr>
<tr>
<td>During the process of the enforcement of law and by-law documents, due to the lack of synchronism, these documents themselves result in failure in the enforcement of law. Therefore, a systematical issuance of a document of law or by-law document should be taken into thorough consideration so as to reduce obstacles as well as difficulties during the enforcement process. For example: The law on land is related to the planning of land utilization. Meanwhile, the planning of land utilization is related to land allocation. And last, land allocation is, in its turn, related to the plan on local socio-economic development.</td>
</tr>
<tr>
<td>Law and by-law documents need to be of high stability. By this reason, their enforcement proves to be more effective. The reality shows that it takes a long time from the issuance to dissemination of a document on law. A document of law is subject to modification and supplementation from the day it is issued to the day it comes into practice. This also brings a great deal of difficulties during the process of the</td>
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</table>
3.6. Assessment on the situation of forestry law violation

3.6.1. Progress of the situation of forestry law violation

In recent years, the living standard of local people in the surveyed site has been further improved. However, due to different reasons, there are still many cases of forestry law violation. The number of forest violation cases in the two districts of Nam Dong and Phu Loc, and Bach Ma National Park (1995 – 2000) appears very high, recorded at 4,545 cases in which administrative violations make up 4,539 cases and criminal action in 7 cases. The quantity of wood to be seized recorded at 4,587m³ (see Annex 10).


Source: General data of Thua Thien Hue Forest Protection Sub-Department

(For more details see Annex 11)

* Some comments on the acts of violation:

+ Illegal wood exploitation:

Number of cases and quantity of wood illegally exploited in Nam Dong District (286 cases/333.8m³) are more than that of Phu Loc District (228 cases/14.09m³). The number of illegal forest exploitation cases in Bach Ma NP (263 cases) accounted for 57% of the total (458 cases).
+ Illegal transportation and purchase of wood:

In comparison with the illegal wood exploitation, the cases of illegal transportation and purchase of wood in the two districts are rather high (Phu Loc: 2,381 cases; Nam Dong: 485 cases). The amount of wood to be seized is very large, especially in Phu Loc District (2948 m$^3$). In Nam Dong District, the amount of wood that was seized due to illegal exploitation is approximately equal to the seized amount due to illegal transportation and purchase (333.8m$^3$/335m$^3$). It is very easy to realize that Phu Loc District includes a part of Highway No. 1A as well as many provincial roads where there are a lot of transportation means from North to South and vice versa. Therefore, the illegal purchase of wood proves to be more convenient. In addition, wood that is illegally exploited from other province are transported through the district. This amount appears to be larger than that of Phu Loc District itself. Apart from that, the disclosure and penalty of law violation cases have been well carried out by Phu Loc Forest Protection Section. An experience to be seen in this Section is the effective establishment of grass-root collaborators. Hence, there is the participation of the local people in the disclosure of forestry law violation cases. A lesson to be learnt is that if the staffs of forest protection are qualified enough in management, the acts of forestry law violation will decrease a lot.

In Nam Dong District, there is just one provincial road connected to Highway No. 1A. Moreover, Nam Dong is a mountainous district that is very far away from urban area. Its topography is more complex and dangerous than that of Phu Loc. Therefore, the illegal exploitation, transportation and purchase of wood are also less.

In general, the above number of cases of violation is much less compared to that in reality. The reason is that the acts of Forestry Law violation are very sophisticated in different forms while the forest protection staffs are limited with inadequate working facilities.

Illegal wood exploitation in Nam Dong District

+ Hunting, transportation and purchase of wildlife:

- In Phu Loc District, this situation has tended to increase from 1996 up to now in terms of quantity and species (from 90kg of forest animals in 1996 to 1,031.7kg of forest animals in 2000). It is emphasized that most forest animals that are seized are from other localities.
- In Nam Dong, there are not many cases of hunting of forest animals (14 cases of violation/178kg of forest animals). The main reason is that the ethnic people snare animals for protecting their fields or improving their meals.
- In Bach Ma National Park, the cases of hunting of forest animals have been inclined to increase for recent years, especially in 1998 with 14 violation cases.

In summary, in the period of 1995-2000, the violation of hunting, transportation and purchase of forest animals have clearly increased. Despite the great efforts being made by the forest protection staffs, there still exists this situation in the National Park.

3.6.2. Forestry law violators

In the period of 1995-2000, considering Diagram 4 relating to the situation of forestry law violation in Phu Loc and Nam Dong Districts and Bach Ma National Park, some additional comments are as follows:

- The three main violating groups are enterprises, units in the forest sector and individuals. Among these objects, the rate of violating individuals was the highest (93%). There were only 31 cases relating to enterprises and units.
- Among three survey sites (Nam Dong, Phu Loc and Bach Ma NP), Phu Loc owns a largest number of cases (3,066 cases), and the cases in Bach Ma NP appear to be least of all (458 cases). Especially, Phu Loc District has 16 cases of deforestation out of 18 cases. Meanwhile, there are no cases recorded in Bach Ma NP.
- Two main forms of violation are illegal exploitation of forest products and illegal transportation and purchase of wood. Through the surveys, it is possible to see that the rate of illegal transportation and purchase of wood is higher than illegal exploitation of wood (2,999 cases/776 cases).
- The solving of forest violations has been well worked out. Total cases solved was 4,545 (100%).

Among the violators, there are 18 cases relating to the forestry sector. It means that the forestry sector itself needs to increase education as well as management of violation acts in the internal branch.
3.6.3. Causes of forestry law violation

Finding out the causes of violation is aimed at solving the social conflicts, especially in the rural social life where the socio-economic development proves to be lower than anywhere. It is not only helpful for making effective proposals through forest-related programs and projects but also for stabilizing the living for local people, bringing a developing impetus for this area. Understanding the causes of violation acts will contribute to the orientation of sustainable management of forest resources.

Through the surveys, some main causes of violation are as follows:

- The main cause is due to the difficult conditions of living, poverty and starvation (according to the socio-economic survey). The statistics on violators also presents this situation.
- Some organizations, enterprises and individuals in the forest branch still violate the laws of forest protection in their processing of production.
- For the purpose of profits: After the promulgation of Instruction numbered 90/CT issued on 19/03/1992 by the Chairman of Ministers’ Council relating to the urgent acts against deforestation, wood and forest animals are considered as a rare kind of product in the market (especially precious and rare kinds). As a result, the price of forest products has risen. The profits from the purchase of forest products from natural forests appear rather high, drawing the attention of a lot of profiteers.
- Other causes are the unconsciousness of the local people or due to the lack of forest production land (burning forest for cultivation causes forest fire).

3.6.4. Some comments on the situation of forestry law violations

- The management and protection of forests have been implemented well in the two districts of Nam Dong and Phu Loc in recent years. Although there are still many organizations, units and individuals who are involved in forestry law violation, this situation has decreased in terms of number of cases and their sizes.
- Objectively, the conclusion is that the rate of illegal exploitation of wood in these two districts is not very high (in the period of 1995 - 2000, there was just 14.09m$^3$ of wood illegally exploited in Phu Loc and 433.8m$^3$ in Nam Dong). However, the violation cases relating to illegal transportation and purchase were high in the two districts (in the period of 1996 - 2000, there are 2381 cases with an amount of wood seized recorded at 2948.4m$^3$ in Phu Loc and 485 cases with an amount of 333.5m$^3$ in Nam Dong).

The survey results show that the forest agencies are not only responsible for the management and protection of forest resources in the scope of their administrative area but also for the violation activities from the outside localities. Therefore, the forest protection force are entrusted with the hard work of controlling and solving violation acts. The forest protection force alone cannot manage such a heavy task by itself. A practical lesson to be learnt is that the effective management and protection of forests will fail if there is no combination between related agencies, units and organizations and especially the participation of local people.

- In recent years, the solution of cases of violations of the law on forest protection and development proved firm and in line with the law. There were no complaint cases or accusations.

The education and training for those who directly involved in the management and protection of forests in these two districts can be considered as a good example not only in the province but also in the whole country in the task of building up a force of forest protection. It proved to be a good experience to enhance the effectiveness of the management and protection of forest.

### PROPOSALS TO CONTROL AND PREVENT THE ACTS OF FORESTRY LAW VIOLATION

- It is necessary to have a better collaboration between the forest protection staffs and local authorities as well as related agencies. This is a practical lesson of great significance in the management of forest resource. Therefore, the local authorities should consider their participation in this management as their responsibility, like other tasks of the locality. Especially in the heated point of time, this task need to be taken into consideration as a first priority (for example, forest fire prevention in the dry season).
- There is a need to renovate the approach of the management of forest resource. We have usually been familiar with the management mode from high level to low level and then to the local people on the basis of the promulgation and implementation of law documents, Decrees, Circulars, Instructions etc. We almost have not paid attention to the questions such as “What do the local people need? What do they want? What is
1. Bach Ma National Park

In Bach Ma National Park, the legal management system has been stabilized. The organization mechanism has been established and has been working for ten years with determination. Nevertheless, it is necessary to further enhance the following issues:

- Much more attention should be paid to the co-ordination with the local authority and concerned agencies in the management as well as scientific study.
- It is important to provide solutions and proposals to the competent agencies for their consideration in aiming at building up specific policies appropriate to each buffer zone.
- Some of the staff still lack professional skills and ability. The Board of Directors should plan a sustainable strategy for human resource development.

2. North Hai Van Nature Reserve

We would like to propose to the responsible agency to establish the organization system in two forms. The first form is to establish a separate Management Board under the guidance of sub-FPD. The second is to add up the Management Board of Bach Ma NP. In one way, North Hai Van NR is a part of Bach Ma NP. However, in our opinion, although the second form is very simple and comfortable in terms of organization, function and task etc., its management will be less effective. The current management capacity cannot meet the required needs.

- After the issuance of Decision relating to its administrative management, it is necessary to build up an organization system and plan of actions.
- It is necessary to make technical and economical feasibility study for the development of North Hai Van NR.

3. Phong Dien Nature Reserve
On 08/10/2001, the Ministry of Agriculture and Rural Development has taken the investment project of Phong Dien Nature Reserve (correspondence numbered 2992/BNN-KH) into consideration with all important contents such as project name, target, site, scale, current status, action plan, investment capital estimation and project efficiency. Next priorities which are necessary to be done immediately are:

- It is essential to establish the Project Management Board and Board’s members who will be the staffs of the Management Board of Nature Reserve later.
- The initial investment budget for the construction of Phong Dien Nature Reserve has been approved by the Ministry of Agriculture and Rural Development. Therefore, it is necessary to establish a Committee which is in charge of the implementation of construction items as soon as possible.
- With the participation of related partners, it is necessary to define the site of the Nature Reserve by setting up landmarks.
- When making the action plan for the project implementation, it is necessary to pay attention to financial planning.
- Together with the above-mentioned items, it is necessary to implement technical and economical feasibility activities for immediate targets and the long-term strategy (2001-2005).

S.W.O.T ANALYSIS ON SPECIAL USE FORESTS IN THUA THIEN HUE

<table>
<thead>
<tr>
<th>1. Strong points (S)</th>
<th>The awareness of the role and value of special use forests of the specialized agencies and concerned partners is quite good.</th>
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<tbody>
<tr>
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<td>For recent years, there has been a close co-ordination and relation between forest agencies (especially the force of forest guards) and relevant units and organizations in the local area.</td>
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<td>The direct force relating to the management of special use forests has a grasp over the &quot;special use&quot; of special use forests.</td>
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<td></td>
<td>The capacity of some cadres who take charge of the special use forests has been enhanced through short-term training courses at home or abroad.</td>
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<td></td>
<td>The Management Boards of special use forests have collected a lot of experience in the management of SUF.</td>
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<tr>
<th>2. Weak Points (W)</th>
<th>Some of the staffs, especially those who are working at the North Hai Van Special Use Forest, have not been systematically trained in terms of professional knowledge and ability in the management of natural resources or biological diversity etc.</th>
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<tr>
<td></td>
<td>Only some of staffs have access to some essential skills (such as skills in survey, interview, data-processing etc.)</td>
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<td></td>
<td>The ability of recognition, estimation and classification of fauna and flora is still limited.</td>
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<td>There is no access to new approaches to the management of natural resources with the participation of local people.</td>
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<td>The foreign language and computer qualifications of some cadres have not met the requirements of the job.</td>
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<tr>
<th>3. Opportunities (O)</th>
<th>Authorities at different levels and relevant branches have realized the significance of role of special use forests.</th>
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<td></td>
<td>The State has issued policies to better protect and manage forest resource as well as the exploitation of forest land.</td>
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<td></td>
<td>A lot of international organizations (Governmental and Non-governmental) have invested in some programs relating to the conservation of biological diversity, the management of National Parks, the support for buffer zones (such as WWF - Indochina Program, Netherlands Development - SNV...).</td>
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<tr>
<td></td>
<td>Local people and specialized staffs have witnessed the bad consequences due to deforestation, especially Special-use Forests and Catchment Protection Forests.</td>
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<td></td>
<td>Thua Thien Hue boasts a high biodiversity of species richness, which makes this a place for a lot of opportunities for research.</td>
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<tr>
<th>4. Threats (T)</th>
<th>The extreme climatic conditions</th>
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<td></td>
<td>Due to the low socio-economical development, the living conditions present a lot difficulties, especially the remote areas where people’s lives are directly related to forest resource.</td>
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<td></td>
<td>The policies lack synchronisation and updated information due to the limited environment for the implementation of policies.</td>
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Based on the process of investigation, interview, analysis and assessment of the results which have been presented in this report, we would like to have some initial ideas with an aim to provide further information for the draft of the national strategy to make the management of special use forests more effective and appropriate to the current socio-economic context of our country.

1. Management mode

Many countries in the world have applied the two following modes in the management of natural forests:

1.1. Centralized management

Centralized management is known as a management mode that is implemented on the basis of the organization system of the State, through the Ministry in charge and specialized authorities from central to local level. The main characteristics of this management mode are as follows:

- Centralizing the power and responsibility to the authority in charge
- Implementing the management in accordance with the set plan
- The approach being worked out from high to low level
- Management being carried out on a large scale (nation-wide, area, etc.)
- Having the participation of authorities at different levels.

1.2. Decentralized management

Decentralized management is known as a management mode that is handled by the community, households or individuals. The main characteristics of this management mode are as follows:

- Decentralization: the power and responsibility are decentralized to the most basic social unit - household.
- Being implemented in a clear, abundant and feasible mechanism.
- Management being carried out on a small scale
- The approach being worked out from low to high level: decision, participation, plan making, implementation, monitoring, assessment and benefits are implemented by the local people (in line with the law).
- Having support from the authorities: Legalization of the right of natural resources use, investment assistance, encouragement of new technology application.

Many countries in the world (such as Thailand, Nepal, China...) have applied the two above mentioned management modes and got a lot of considerable achievements. They have a great deal of experience in this management mode with the decentralization policy.

In our country, in recent years, there has been a transformation in the management of forest resource on the basis of the development strategy issued by the Party and State with the related law documents and policies. The State has laid down as a policy the socialization of forest career with the two main approaches. The first is known as the centralized approach (from high to low level) which is usually called the traditional forest approach. The second is decentralized approach (from low to high level) that is usually called the social forest approach.
approach. However, the latter has just started. Therefore, it needs to build up policies, institutional documents to create the legal corridor in the implementation process of the effective management of forests in general and special use forests in particular.

* It is necessary to encourage other forms of approach in the management of forest resources: In addition to the two above-mentioned forms, there are several others such as:

- Co-ordinated approach: This is a form of approach which is implemented from high to low level and vice versa in a process. In spite of the pre-eminence of the approach that is implemented from low to high level, it should be in accordance with the large-scale development strategy under the guidance of the State. It is impossible to consider this form of approach as "unique" one and as a "non-governmental" activity in the management of natural forests.
- Internal community approach: This is a new form of approach that is called the approach "from farmer to farmer". This form of approach is based on the Vietnamese culture. It presents the hierarchy in the community. This form of approach is demonstrated through regulations stipulated by the community as well as village patriarchs. This approach is based on the native knowledge of the local people through their practical experience to enlarge the helpful activities for the management of natural resources (land, creature, labor force).

According to us, the first priority of great concern in the national strategy on the management of SUF is to orient the management mode through specific solutions (not only within the frame of guidance documents, Circulars, Instructions...). Further attention should be paid to the decentralized management mode because this proves to be a new matter that is more diversified and complex than the centralized management mode.

2. Strategy on the development of administrative resources:

It is necessary to conserve the important ecosystems that play a key role in the existence and development of human being. The SUF with the diversity of species, in ecological systems and in its effects is considered as the first and essential object to be impacted. SUF contain in itself the complexity and multi-branch. Therefore, effective management of SUF requires staff with good knowledge and skill on practical matters that have hardly been trained and acquired systematically and basically from university. This could be fulfilled only when we build up a feasible and practical strategy of human resource development.

According to us, the strategy should focus on:

- Proposals should be made to the Ministry of Education and Training and private universities to have study branches majoring in ecological management and protection of forests. Attention should be paid to basic knowledge relating to nature conservation.
- Enhancing professional ability of the staffs through training courses.
- Opening training courses on necessary skills related to intensive activities (such as community development, eco-tourism, investigation of biological diversity etc.)
- Providing the related partners with up-to-date knowledge and environmental education through training courses.
- Building up a network of collaborators in the management of SUF.

The strategy of human resource development should aim at both short-term and long-term objectives, not only protecting SUFs successfully but also enhancing ultimately the "special use" in aiming at giving strong impetus to social settlement and development.

3. Policy on the management for Special Use Forests:

Law documents and policies relating to the protection and development of forests are very general. There are some legal documents and policies separately stipulating requirements for management of SUF. However, they are rather vague and not specific in content. Thus, we find it difficult to apply and implement these legal documents.

The management of natural forests in general and SUF in particular currently includes some obstacles:
Subjects of forestry law violation are mainly the local people or community. In other words, it is the local people and the community who are the subjects of a lot of deforestation. The causes may derive from the difficulties of living or lack of awareness. However, a latent cause is that the local people are not the owner of that forest, so they do not have benefits as well as responsibility for it. Therefore, to effectively manage the forests, it is necessary to draw attention to the participation of the local people with specific policies, especially the beneficial policies and the mode of co-management.

Should it be permitted to properly exploit the natural forests or not? In our opinion, the best way to effectively manage the SUF is to absorb the participation of local people with the permission to properly exploit the natural forests. "Properly" means the intensity of human exploitation to limited extent which strictly obeys the principle: no breach of forest ecology, no reduction of natural forests but, on the contrary, with living activities of foresters giving access to the enrichment of SUF. On the other hand, inhabitants in some regions exploit resource of forest as their main means of living, and with prevailing structure of forest management, it partially affects forest-based lives. This could lead to difficulties in preventing law violations. Thus, proper forest exploitation shall give access to reduction in negative criminal behaviour. Such a kind of proper exploitation could be understood as land potential, fauna and flora of natural forest, production activities in legally-assigned regions which bring profit from non-wood or permitted wood-based products.

In case of "co-management" for special use forest, it is essential to institute concrete process and norm, which verify dos and don'ts inside and outside of sub-regions of strict protection. Special attention should be paid to the interests of both sides, particularly to the inhabitants.

4. Establishment of process and norm for the management of special use forest

Up to date, the Vietnamese Government and State have paid a lot of attention to the protection of forests as well as biological diversity through issued law documents relating to the protection of SUF in Viet Nam. Nevertheless, it is necessary to build up a special system of regulations for this kind of forest.

Process and norm for the management and utilization of SUF should concentrate on these main contents:

- Classifying systematically types of SUF; defining clearly aims, objectives, procedures of every type. This serves as background for establishing processes and norms.
- Verifying objects of forest ecology and different levels of preservation (it is not legally permitted to exploit and utilize any product of the forest).
- As for the SUF, it should take "protection, tendering and zoning, and enrichment of forests" as the main objectives. It is necessary to build up a system of technical solutions.
- Process and norm for the management of SUF should focus on not only field of preservation (protection) but also the aspect of development. The SUF is not a completely-locked natural resource.
- In this process it is necessary to show the participatory approach in SUF management.

5. Coordination of policies and activities:

We are still familiar with the self-contained management without co-ordination, so the State policies that are concretized in international and national investment programs and projects and every province seems to be solely independent. Sometimes, in the same field and site there are even two or three organizations operating individually. Programs and projects that are different in field or objects, but the same in expected results and goals, are distant. In our opinion, the cause of this problem comes from lack of legal enforceability in guiding the co-operation between all relevant sides operating in the same field. Thus, the State has not yet built up a system of managing SUFs.

As to the co-ordinate policies for management (inclusive of investment policies), attention should be paid to:

- Institutionalizing the co-ordinated policies between the Management Board of SUF and local authorities at different levels, especially commune level.
- As regards the related agencies: It is necessary to issue compulsory regulations in the co-ordination between the Management Board of SUF and related agencies, organizations and units sharing the same purpose, interest as well as support capacity to the management of SUF (such as universities, research institutions, related organizations, etc.)
- It is possible to co-ordinate the rural development policies which have been implemented by the investment projects and programs with the management of land and forest recourse utilization through the educational programs, training, information, technical support and many others.

6. Buffer zones:
It is necessary to draw up a "strategy for buffer zone" which is considered as an important part in the strategy on management of SUF. The strategy on management of SUF need to be clear in the following contents:

- Concept and boundary in accordance with principles and roles...
- Main objectives/goals and contents of the management.
- Responsibilities of related partners.
- Mode and mechanism on management and utilization of land and natural resources in the buffer zones.
- Orientation for buffer zone development.
- Action plans for buffer zones.
- Investment in buffer zone development.
- Solutions for the co-ordination between the conservation of central zones and development of buffer zones.

7. Establishment of a model of sustainable management

The strategy is the most useful and fundamental matter to achieve the objectives. To carry out the strategy, it is essential to build up the action plan and find out the solutions for concrete objective of each item and phase.

The management of SUF, however, proves to be a new matter to our country. In other words, we lack experience in this field. Therefore, it is necessary to test it to find out some models of the sustainable management mode of SUF.

To build up the test model, the questions are:

- Selecting the test sites in terms of indicators and information on natural, socio-economical conditions, value of biological diversity and many others which are typical of each region.
- Selecting types of forest on the basis of objectives and goals of their utilization management.
- Defining the necessary contents in the process of test implementation. Attention should be paid to the decentralized management mode.
- Setting up the approaches to affect the natural resources as well as the community in the process implementation.
- Selecting and applying the appropriate technical solutions for each kind of SUF to lay the foundation for the establishment of later process and norms.
- Drawing up plans for the improvement of the organization system (if any).
- Drawing up plans for capital investment, equipment, staff, etc. for the test process.

The establishment of model on the basis of a test can only be implemented after the strategy has been developed. This establishment is regarded as the national strategy on the management of SUF. It is possible to consider the test result as the initial confirmation of the strategy. On this base, further modification and adjustment would be made for the perfection of the strategy later.

Part 4:

CONCLUSION

The process of survey, analysis and assessment of the management system of SUF in Thua Thien Hue has been presented in this report. The results, analysis, assessment as well as proposals in this report are based on the current status and development potential of the SUF in Thua Thien Hue.

It is our hope that these results will provide the information and data which are helpful for a draft of a national strategy on the management of SUF in our country.

It is possible that the information and data being presented in this report are not adequate, or a little bit inexact due to time limitation or information providers. However, in terms of objective and target, it has partly brought an overview of the management system of SUF in our country. On that base, the related agencies within the competence will have access to the necessary information and data to be able to build
up a strategy which is appropriate to the current situation of Viet Nam and to best enhance the potentials for a sustainable and effective management of SUF.

We are very available to welcome all contribution of ideas expressed by those who are really interested in this report.

REFERENCES USED

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   Ministry of Agriculture and Rural Development - Forest Department - Publishing House of Agriculture.


3. Information of existing protected areas and proposals in Viet Nam.


   Thua Thien Hue Statistics Department.


8. General report on land planning and utilization of Thua Thien Hue province until 2010. Thua Thien Hue People’s Committee.


11. Annual General Reports of Thua Thien Hue Sub-forest Protection Department.


14. Report on survey site result of Sao La (Pseudoryx nghetinhensis) in Thua Thien Hue - Thua Thien Hue Sub-Forest Protection Department.

15. Report on survey site result of Sao la (Pseudoryx nghetinhensis) and Lophura edwardsi in the area of West Phong Dien - Thua Thien Hue Forest Protection Sub-department.


ANNEX 1: PURPOSE OF THE STUDY

1. Background summary

1.1. Status of the management of special use forest

☐ To date, in our country, no strategy for the management of SUF has been built up to lay the foundation of the action plan.

☐ SUF proves not to be typical of "special use" due to the fact that their management is as same as the management of forests of protection and even as forests of production.

☐ There have been no criteria on the classification of SUF, and clear boundary of buffer zones.

☐ The abundance and multi-effect of SUF have not been paid much attention in the investment strategy.

☐ The system of SUF itself contains the complexity relating to economic, social and environmental aspects as well as scientific and biological issues. However, the ADMINISTRATIVE capacity for the management has not met the necessary requirements (human resource, finance, equipment, technology and others).

☐ The role of SUF appears not to be sustainable and effective due to the present management mode of SUF.

1.2. Tendency of socialization of the natural resources management and utilization

☐ The State has issued the policy on socialization of forestry (social forest). Socialization of the management and utilization of SUF is a new issue of great difficulty.

☐ The approach to the natural resources has been subject to a lot of changes. There has been no approach through State-based agencies.

☐ In reality, in many countries over the world, especially regional ones, there are a lot of changes in the management of forests and forestland. This is an approach, which absorbs the participation of many related sides, particularly the local people with a great deal of positive effects.

We, therefore, have worked out the survey and assessment on the management system of SUF in Thua Thien Hue according to the following issues:

2. The initiative
Annex 2: SUBJECTS FOR THE SURVEY AND ASSESSMENT

To meet the objectives the provincial team carried out a survey of 6 components.

Content 1
System of organisation of the protected areas

- Organisational mechanism of the management system of protected areas.
- Management methods of activities
- Constraints and their cause in the management system of protected areas
- What potential and advantages can enhance the effectiveness of the organisational system
- Basic needs to improve the organisational system in the management of protected areas

Identification of resources

- Evaluation of the existing resources of the management boards of protected areas which included: human resources, facilities, capital source, others (quantity and quality)
- Problems regarding the management and using the existing resources of the management boards of protected areas
- Major needs aimed at enhancing the management and use of resources effectively
- Major activities that need to be carried out to have development resources in the future

Identification of resources

- Evaluation of the existing resources of the management boards of protected areas which included: human resources, facilities, capital source, others (quantity and quality)
- Problems regarding the management and using the existing resources of the management boards of protected areas
- Major needs aimed at enhancing the management and use of resources effectively
- Major activities that need to be carried out to have development resources in the future

Evaluation of the capacity participation of the community

- Surveying the people’s living in the area.
- Investigation capacity participation of the community dealing with the management of protected area
- The roles of the parties and their beneficiaries.
- The constraints in the participation of community
- Major issues needed to strengthen the participation of the community in the management of protected area
- Needs and demands for community to participate in action and needed conditions.
Annex 3: SURVEY AND ASSESSMENT METHODS

1. Process

- The legal documents have been implemented in the nature reserves.
- The roles and effectiveness in the implementation of documents.
- Policies, schedules and its influences upon the management of the system the nature reserves
- Evaluation of the appropriate relevant policies. Constraint and its cause in the implementation of policies.
- What and how can we bring into play the implementation of relevant policies.
- Opinions concerning specified policies.
- Regulatory documents of the locality dealing with the management of nature reserve (i.e. Local regulations, internal regulations)

- Searching for violations of exploitation, transportation and purchase and wood processing and others in the nature reserves.
- The causes and Categories of forestry law violation should be searched.
- Surveying on the punishment regulations of the authorised agencies.
- Evaluation on the relationship between the locality and the authorised organs in the education and training aimed at reducing violations in the implementation.
- Proposals to minimize violation as well as coordination between agencies in the management of protected area.
Besides the above mentioned steps, the provincial team and two site-teams together with specialists often held internal meetings for solving the relevant issues.

2. Category for survey:

We have selected the following people for survey after obtaining a brief survey from the local teams regarding the SUF.
2.1 For the system of government management levels

- The Provincial Peoples’ Committee: (Vice-Chairman in charge of Agri- Forestry- Fishery)
- The District Peoples’ Committee: (Chairman or Vice Chairman in charge of Agri- Forestry)
- The Commune Peoples’ Committee: (Chairman of commune)
- Hamlet: The head of hamlet, a person who can provide information about that hamlet.

2.2 For the system of technical agencies should be divided into 3 levels

+ The provincial level:
  - The Department of Agriculture and Rural Development (Director and Vice-director)
  - The Department of Science, Technology and Environment (Director)
  - Center for Environmental Resources - Hue University (Director)

+ The district level and sub-department levels
  - The Section of Agriculture and Rural Development (Chief - bureau or deputy)
  - The Section of Land and Administration (Chief - bureau or deputy)
  - The Statistics office (Chief - bureau or deputy)
  - The Forestry Development Sub-department (Head of department)
  - The forest protection section of two districts (Head of Section)
  - The Forestry Enterprises of districts (Director)

+ Commune level
  - The cadre who takes charge of agriculture and land administration
  - People’s Committee Office

2.3. Identification of samples and survey sites

+ Selection of two districts relevant to Bach Ma National Park, North Hai Van forest for use of Phu Loc and Nam Dong Districts.

  - Each district selected from 2 to 3 communes for survey and interview.
  - Each commune selected from 2 to 3 hamlets for survey and interview
  - Each hamlet selected 15 households for farming level survey

3. Criteria of sample selection

+ For individual (at all levels)

Select people who directly take charge of work relating to the management of forest in general and forest for special-use in particular; and the people who have a thorough knowledge of management of natural resources and biological diversity.

+ For survey sites:

Select the nearby places or inside the buffer zone of Bach Ma National Park and North Hai Van dealing with the management of forest and nature reserve.

+ For relevant agencies:

Select agencies that directly take charge of forest management or supervising relevant activity plans.

+ For inhabitants:

Select every commune of 30 households according to the following criteria:

  - Having activities relating to the management of forest
- Paid attention to age level (old, young)
- Accounting for gender (with male and female)
- Interested in income (fair, medium, poverty)
- Having ability of expressing their opinions and attitude
- Pay attention to the minority (Kinh, Ca Tu ethnic)

4. Methods of data and information collection

+ Requirement of data and information collection

Due to the limitation of time and the staffs involved in the survey and due to the objectives as well as the nature of the work, the information collected cannot be completely exact. In another word, this is not a survey to collect figures that can orient a specific field but rather a qualitative survey. It means that the figures are used to demonstrate the nature of activities related to the management of special use forest. The information and data in this document cannot be used as a base for an action plan. However, they are correct and reliable as a base for strategy building, for "strategy" can be considered as the focal element of the action.

+ Minor information and data collection

Through the archived document, records made by relevant agencies and individuals (including the inhabitants), we can understand the general situation and the local potential in the management of SUF.

+ Direct interview by semi-structural questionnaire according to interviewer

Questionnaire extended to the provincial leader level.

This questionnaire is divided into two categories

- The leader of provincial government
- The leader of provincial relevant agencies.

- Questionnaire extended to the leader of district level: Authority district level, relevant sections, forest protection sections, forestry enterprises (these sections are managed by the Forest Protection Sub-departments and Department of Agriculture and Rural Development)

- Questionnaire for commune and hamlet levels: including components regarding the direct influence to the forest and their needs as well as proposals to these policies.

- Questionnaire for inhabitants: including the matters relating to the forest resource utilization, earning for living and their participation in the forest management.

+ Organization of workshop at the district and commune levels

Carrying out of three workshops:

- The Commune -level workshop: with the participation of the commune authority, representative from hamlets and inhabitants (with the interviewee and others).
- The district level workshop: with the participation of the district authority, relevant agencies, representatives of Bach Ma National Park, board of management for use of North Hai Van and others. People’s committee of communes was selected for survey.

Objective of the workshops:

- Re evaluation of the information in the survey process
- Obtaining the proposals from the relevant parties for correcting and supplementing the sites for survey.
- The provincial level workshop: with the participation of the Provincial Peoples’ Committee, relevant agencies, and Peoples’ Committee of Nam Dong, Phu Loc Districts, and communes.

Objective of the workshops:

- Evaluation of the achievements in the survey and interview process.
• To share experiences and information in the management of forest for use.
• Obtaining the opinions from the parties to complete the report and identifying the solutions
• Preparing for action plan and coordination between relevant parties in the management of SUF.

5. Organization of survey

The two site teams carried out the process for survey. Each team surveyed one district in which the component and categories are identified. There are four members in a team and it was divided into two small groups (there are two people in each small group) to directly investigate.

The minor data also collected by the two site teams from the relevant parties. After that the selected information determines the system of analysis.

Another team (including the head of provincial team, liaison staff together with the one cadre of the provincial team).

The whole survey, interview and collection of information were implemented according to four different questionnaires based on the six contents of the draft.

The teams developed information based on the unified draft after obtaining investigation results, writing reports, holding the meeting at the commune, then holding workshops at district level.

Annex 4:
DISCUSSION ISSUES IN THE PROVINCIAL - LEVEL CONFERENCE
ON 01.12.2001

1. Management modes of SUF

It is easy to realize that the participation of related partners and local people are very essential. It seems to be the “flavour” of many managers and researchers. However, it is very important to find out the way to mobilize the administrative resource to effectively take part in the management of SUF. This proves to be a difficulty. We are looking for the causes that will be the base for the researches to find out the solutions.

* Subjective causes:

Although the Management Boards of SUF can be aware of their role in the management and protection of forests, they are still confused in making the appropriate action plan to mobilize the power resource. The causes may be as follows:

• The capacity of staffs cannot meet the requirements.
• They are untrained in the new approach with the participation of related agencies and local people.
• The staff with a few people has to manage a pile of work. So they do not have time enough for this task.
• The mechanism for the management is obligatory. So, therefore, the creativeness has not been stimulated.

The questions to be put are:

• What in the management system of SUF needed to be adjusted?
• Is it necessary to improve the capacity for those who are directly involved in the management of SUF (through training courses on professional skills and ability)?

Approaches to natural resource:

It is needed to find out some solutions to provide the related staffs (authorities, organizations, agencies) with the effective approaches to the management of SUF.

* Objective causes:
The main causes are from the policies and management mechanism.

- It is necessary to have the specific policies for SUF (because SUF is typical of "special use", so are the policies).
- There still exists the overlap in terms of responsibility, competence and benefits in the mechanism of management of SUF. Therefore, should an institutional mechanism be built up in the process of management and co-ordination between Management Boards of SUF and related partners and authorities at different levels?

2. The combination between the management of SUF and some projects, programs

- The management and protection of SUF are related to the utilization of land resource and biological resource. Thus, it needs to have a synchronic co-ordination between the management of SUF and the planning of land utilization as well as forest land allocation in the concerned area, especially the buffer zone of Bach Ma National Park.
- In National Parks and Nature Reserves, except for some sites which are in need of strict protection, is it possible to allocate the remaining areas to the local people and community who take part in the management and protection of forests? How is contract-based land allocation done? And how is it possible to properly utilize the natural resources to contribute to the improvement of the living standard for local people?
- The development programs and projects with the financial support from national or international organizations at the locality are related to forest resource and forest land. Therefore, the combination of those programs, projects and the management and protection of SUF is very essential. However, we lack experience in this field.

Therefore, it is essential to build up a plan of co-ordination between programs and projects as well as solutions with an aim to enhance the investment effectiveness through this combination.

3. As to the establishment of nature reserves:

There is an opinion that apart from the nature reserves that are under the management of the Ministry of Agriculture and Rural Development, other nature reserves should be assigned to the Province for management. These nature reserves are usually small-scale and typical of the locality.

For example, Nature Reserve for scientific goals, protected area for historical and cultural monument site and many others.

4. As to the conservation of biological diversity

There are many different ideas on the priorities in the conservation of faunal and floral system. Some ideas say that it is necessary to pay attention to the conservation of faunal system, especially rare and precious species. On the other hand, other ideas shows that priorities should be given to the conservation of floral system and eco-system on account of "fauna derives from flora". The characteristic "rare, precious" is just a criteria for conservation. Nevertheless, on the basis of the theory on the system of food chain and energy flow in the ecological system, the floral system is a base for the creation, existence and development of faunal system. Therefore, it is necessary to pay attention to the conservation of "flora".

5. The "special use" of SUF

Some idea presents that it is needed to standardize the criteria of "special use" in the concept of SUF. Otherwise, a forest which proves to be a little bit special is considered a SUF. So the special forest will not remain anymore. Furthermore, if the characteristics of special use of SUF haven't been clarified, the SUF will lose its significance. As a result, it will have influence on the planning of land utilization as well as natural resources utilization.

6. As to the management process of SUF

Attention should be paid to sustainable management of forests. We have just approached to this field and lack experience about it. The sustainable management of forests seems to be one of the key contents in the forest development strategy of our country. Therefore, it is essential to build up the appropriate policies, human strategy, action plan with an aim to enhance the sustainable management of forests, particularly SUF.
In present reality, there exists a latent contradiction between the conservation and development for the improvement of living standard of the community. The two concepts of “conservation” and “development” seem to contradict each other in terms of phenomenon. But in fact, they are united in terms of nature with a close relation and mutual support. Nevertheless, “conservation” has more or less influenced the utilization of land and forest resources. Thus, much attention should be paid to the harmony of these temporary contradictions while drafting the policies, especially the investment policy.

7. Commune-level authority

Commune-level authority plays a key role in the management and protection of forests in general and SUF in particular. The State, authorities at different levels as well as related partners should have assistance and support in aiming at enhancing the role of commune-level authority in the management of SUF.

8. Should Bach Ma National Park be enlarged in terms of area or not?

This question is under discussion.

Annex 5:

SUMMARY OF OPINIONS IN PROVINCIAL TALK (December 1st-2001)

Focus 1: Assessment on present status of management of SUF

* Obstacles in management of SUF:
  - Low knowledge of community on management and protection of forest.
  - High growth of population.
  - Attention to popularizing law on forest in community.
  - Further national allocation for granting license on land-use right.
  - Form of management for developing ecological tourism in SUF?

Focus 2: Some suggestions for building a national strategy

- Decentralized administration on Reserve should be united nationwide.
- Congruently combining management of SUF, protection of environment and ecological tourism.
- Socializing management, protection and exploitation of forest.
- Establishing think-tank for providing advises on activities of Reserves.
- Defining the extent of SUF, which assures no influence on local plan for the development and stability of society and economy.
- Policies on land allocation and land-use right in SUF.
- Defining limit of buffer zone, regulation on management of buffer zone, concretely authorized administration in aiming at improving living standard and reducing the pressure of inhabitants on SUF.
- Policy on benefit and duty of residents living in buffer zone and involved in management and protection of SUF.

Some suggestions for improving system of management of special use forest

- Confirming the role of local authority in management of SUF.
- Assessing the biological diversity of Bach Ma National Park compared with other regional national parks. Planning the management of the biological potential.
- Granting land-use right for Board of Management of SUF and afforestation areas.
- Clearly regulating the use of land in SUF when undertaking constructions for tourist purpose.
- Necessarily establishing board of management for North Hai Van Bach Ma National Park should give periodical reports to the provincial authority.
- Paying more attention to the relationship between Bach Ma National Park and local authority, relevant administrative bodies, community.
- Some obstacles in conducting forest land allocation
  - incompatible co-ordination between land administration office and forestry.
  - restriction in expenditure on assignment of forest land.
- Improvement of forest expansion.
- Obstacles in socializing forestry still occur ahead, concrete and clear suggestions are required.
- Planning SUF should remain unchanged like present.
- Bach Ma National Park and North Hai Van should merge under one Management Board to improve task of management and biological diversity.
- Criteria defining SUF are needed, avoiding negligent expansion.
- Labor force has not presently met the practical demand of managing special use forest
- Local human resource should be mobilized in form of common management.
- Competent cadres should be provided with knowledge on forestry, environment, law, etc.
- Local authority should promulgate legal documents on obligations and duties of relevant parties in collaboration.

Annex 6:
STATISTICS OF FOREST RESOURCE IN PHU LOC DISTRICT AND NAM DONG DISTRICT

<table>
<thead>
<tr>
<th>TYPE OF FOREST</th>
<th>Phu Loc District</th>
<th>Nam Dong District</th>
<th>7 communes of buffer zone</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>Area (ha)</td>
<td>Ratio (%)</td>
<td>Area (ha)</td>
</tr>
<tr>
<td>Total area of natural land</td>
<td>72,808.3</td>
<td>100</td>
<td>65,051.8</td>
</tr>
<tr>
<td>1. Area of forestry land</td>
<td>33,276.3</td>
<td>45.7</td>
<td>41,850.7</td>
</tr>
<tr>
<td>+ Natural forest</td>
<td>17,723.7</td>
<td>24.3</td>
<td>39,958.8</td>
</tr>
<tr>
<td>Protection Forests</td>
<td>3,817.9</td>
<td>5.4</td>
<td>12,934.8</td>
</tr>
<tr>
<td>Production Forest</td>
<td>335.2</td>
<td>0.5</td>
<td>15,322.0</td>
</tr>
<tr>
<td>Special-use Forest</td>
<td>13,570.6</td>
<td>18.6</td>
<td>11,702.0</td>
</tr>
<tr>
<td>+ Planted Forests</td>
<td>15,552.6</td>
<td>21.4</td>
<td>1,890.9</td>
</tr>
<tr>
<td>Protection Forest</td>
<td>5,253.0</td>
<td>7.2</td>
<td>72.4</td>
</tr>
<tr>
<td>Production Forest</td>
<td>7,919.7</td>
<td>11.2</td>
<td>1,582.3</td>
</tr>
<tr>
<td>Special use Forest</td>
<td>2,379.7</td>
<td>3.3</td>
<td>236.2</td>
</tr>
<tr>
<td>2. Unused land appropriate for forestry production</td>
<td>12,996.7</td>
<td>17.8</td>
<td>16,567.4</td>
</tr>
</tbody>
</table>

Source: General statistics of land 2000 - Thua Thien Hue Land Administrative Department

There are 13 communes of buffer zone, according to the statistics above following surveys in 7 communes: Loc Hoa, Loc Tri, Loc Thuy, Loc Hai (Phu Loc District), Thuong Lo, Huong Phu, Huong Loc (Nam Dong District).

Annex 7:
PRESENT STATUS OF LAND UTILIZATION IN PHU LOC DISTRICT AND NAM DONG DISTRICT

<table>
<thead>
<tr>
<th>Type of land</th>
<th>Phu Loc District</th>
<th>Nam Dong District</th>
<th>7 communes of buffer zone</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>Area (ha)</td>
<td>Ratio (%)</td>
<td>Area (ha)</td>
</tr>
<tr>
<td>Total natural area</td>
<td>72,803.3</td>
<td>100.0</td>
<td>65,051.8</td>
</tr>
<tr>
<td>1. Agricultural land</td>
<td>8,426.6</td>
<td>11.6</td>
<td>3,218.5</td>
</tr>
</tbody>
</table>
Annex 8:
SITUATION OF FOREST LAND ALLOCATION
IN NAM DONG DISTRICT AND PHU LOC DISTRICT

<table>
<thead>
<tr>
<th>Norms</th>
<th>District</th>
<th>Unit</th>
<th>Phu Loc</th>
<th>Nam Dong</th>
</tr>
</thead>
<tbody>
<tr>
<td>1. Total area of the district</td>
<td>ha</td>
<td>72,808.30</td>
<td>65,051.80</td>
<td></td>
</tr>
<tr>
<td>2. Area of forested land</td>
<td>ha</td>
<td>33,276.30</td>
<td>41,851.00</td>
<td></td>
</tr>
<tr>
<td>3. Area of allocated forest land</td>
<td>ha</td>
<td>13,112.84</td>
<td>927.25</td>
<td></td>
</tr>
<tr>
<td>- Rate (compared to forest land)</td>
<td>%</td>
<td>33.5</td>
<td>1.5</td>
<td></td>
</tr>
<tr>
<td>3.1. Forest land to be allocated to organizations, units</td>
<td>ha</td>
<td>7,802.35</td>
<td>58.00</td>
<td></td>
</tr>
<tr>
<td>- Rate</td>
<td>%</td>
<td>19.9</td>
<td>0.1</td>
<td></td>
</tr>
<tr>
<td>- Amount</td>
<td>unit</td>
<td>47</td>
<td>04</td>
<td></td>
</tr>
<tr>
<td>3.2. Forest land to be allocated to households</td>
<td>ha</td>
<td>5,310.54</td>
<td>869.25</td>
<td></td>
</tr>
<tr>
<td>- Rate</td>
<td>%</td>
<td>13.6</td>
<td>1.5</td>
<td></td>
</tr>
<tr>
<td>- Number of households</td>
<td>household</td>
<td>3,561</td>
<td>744</td>
<td></td>
</tr>
<tr>
<td>4. Number of households with the Certificate of Land Ownership</td>
<td>household</td>
<td>0</td>
<td>137</td>
<td></td>
</tr>
</tbody>
</table>

Source: Statistics Division of Phu Loc District and Nam Dong District

Annex 9: RELEVANT DOCUMENTS OF LAW AND BY-LAW

1. Relevant documents of law:
   - Law on Land (modified) issued on 24/07/1993
   - Law on Protection and Development of Forests issued on 19/08/1991
   - Law on Protection of Environment issued on 17/12/1993
2. By-law documents:

- Decree numbered 18/HDBT issued on 17/01/1992 by the Chairman of Ministers’ Council stipulated the list of precious and rare forest fauna and flora as well as their management and protection.
- Decree numbered 17/HDBT issued on 17/01/1992
- Decree numbered 14/CP issued on 05/12/1992 by the Government stipulated the administrative violation penalty in the field relating to management and protection of forests.
- Decree numbered 02/CP issued on 15/01/1994 by the Government relating to the allocation of forest land to organizations, families and individuals for their long-term forest purposes.
- Decree numbered 77/CP issued on 29/11/1996 stipulated the administrative violation penalty in the field relating to management and protection of forests as well as management of forest products.
- Decree numbered 163/ND-CP issued on 16/11/1999 relating to land allocation and land for rent to organizations, families and individuals for their long-term forest.
- Decree numbered 39/CP issued on 05/04/1963 stipulated the provisional regulations on hunting forest birds and animals.
- Decree numbered 22/CP issued on 09/03/1995 stipulated the regulations on forest fire prevention and control.
- Decision numbered 202/TTg issued on 02/05/1994 by the Prime Minister of Government relating to the job-work of forest protection, tendering and zoning as well as forestation.
- Decision numbered 145/QD-TTg issued on 15/08/1998 relating to policies on management and utilization of planted forests through PAM Project.
- Decision numbered 245/QD-TTg issued on 21/12/1998 relating to the implementation of State management responsibility at different levels in terms of forest and forest land.
- Decision numbered 08/2001/QD-TTg dated 11/01/2001 by the Prime Minister of Government relating to the issuance of regulations on management of SUF, protection forests, production forests and natural forests.
- Instruction numbered 90/CT issued on 19/03/1992 by the Chairman of Ministers’ Council relating to the implementation of urgent solutions to prevent from deforestation.
- Instruction numbered 130/TTg issued on 27/03/1993 relating to the management and protection of precious and rare fauna and flora.
- Instruction numbered 359/TTg issued on 25/05/1996 by the Prime Minister of Government relating to urgent solutions for the protection and development of wild animals.
- Instruction numbered 286/TTg issued on 02/05/1997 by Prime Minister relating to the increase of urgent solutions for the protection and development of forests.
- Instruction numbered 287/TTg issued on 02/05/1997 by Prime Minister the inspection and abolishment of organizations and individuals concerned with deforestation.
- Inter-ministerial Circular numbered 74/TT-LD issued on 13/10/1945 stipulated the guidance on the utilization, management, issuance and balance of the forest land allocation cost.
- Inter-ministerial Circular numbered 06/TT-LB stipulated the guidance on plan - making, issuance, management and balance of cost for forest fire prevention and control.
- Inter-ministerial Circular numbered 12/TT-BLDTB & XH issued on 16/11/1998 stipulated the guidance on the policy for those who are in charge of forest protection in dry season by commune-level contract.

### Annex 10a:


<table>
<thead>
<tr>
<th>No.</th>
<th>Norms</th>
<th>Nam Dong District</th>
<th>Phu Loc District</th>
<th>Bach Ma N P</th>
<th>Total</th>
</tr>
</thead>
<tbody>
<tr>
<td>1</td>
<td>Total of violation cases in 5 years</td>
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### ASSESSMENT ON THE SITUATION OF FORESTRY LAW VIOLATION
### IN NAM DONG DISTRICT (1995 - 2000)

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Source: Six-year general data of Thua Thien Hue Sub-Forest Protection Department

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Source: Six-year general data of Thua Thien Hue Sub-Forest Protection Department
### Annex 10d:

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### Annex 11: DIAGRAMS

Diagram 1: The situation of forestry law violation at the survey sites (1995 - 2000)

Source: General data of Thua Thien Hue Sub-Forest Protection Department


Source: General data of Thua Thien Hue Sub-Forest Protection Department

Source: General data of Thua Thien Hue Sub-Forest Protection Department

Annex 12: INTERVIEW LIST OF AGENCIES AND BRANCHES

1. List Of Agencies and Branches at Provincial Level
2. List of Hamlets and Communes of Survey

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<td>2</td>
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<td>Hoang Ngoc Khanh - Director</td>
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<tr>
<td>3</td>
<td>Department of Sciences, Technology and Environment</td>
<td>Do Nam - Director</td>
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<tr>
<td>4</td>
<td>Department of Agriculture and Rural Development</td>
<td>Vo Van Du - Vice Director</td>
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<td>5</td>
<td>Forest Development Sub-department</td>
<td>Tran Huu Banh – Director</td>
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<td>6</td>
<td>Center for Environmental Resources and Biological Technology - Hue University</td>
<td>Le Van Thang - Director</td>
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3. Interview List of Agencies and Branches

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<td>Nguyen Xe</td>
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<td>Le Thi Niem</td>
<td>Director of Khe Tre Forest Farm</td>
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<tr>
<td>5</td>
<td>Dao Trong Son</td>
<td>Director of Nam Dong Forest Farm</td>
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<td>Mai Van Tam</td>
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<td>Ho Van Tin</td>
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<td>15</td>
<td>Tran Binh Trong</td>
<td>Chairman of People’s Committee of Loc Hai Commune</td>
</tr>
<tr>
<td>16</td>
<td>Le Phu Dung</td>
<td>Chairman of People’s Committee of Loc Tri Commune</td>
</tr>
<tr>
<td>17</td>
<td>Bui The Anh</td>
<td>Chairman of People’s Committee of Loc Thuy Commune</td>
</tr>
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