

# THE PARTICIPATION OF THE PEOPLE IN THE BUFFER ZONE IN THE MANAGEMENT AND PROTECTION OF TAM DAO NATIONAL PARK.

**Hoang Lien Son**  
**Forest Economics Research Division**  
**Forest Science Institute of Vietnam, Vietnam**  
**Tel: +84-4-8362230**  
**Fax: +84-4-8345722**

## **Abstracts**

The paper generally presents the system of special-use forests in Vietnam, main functions of special-use forest system in general and of the Tam Dao National Park in particular. Tam Dao is one of the 10 national parks in Vietnam with rich and unique flora and fauna.

The paper briefly mentions some typical features of the people's life, socio-economic conditions in the buffer zone of Tam Dao National Park; The advantages and challenges serving as a base for the elaboration of the action plan that has been positively responded and participated in by the people to lessen the pressure on the forests of Tam Dao National Park. New effort has been made for closer co-operation between the National Park with the local people, attracting better participation of the people in activities for the Tam Dao National Park management and protection. The people's participation is considered as indispensable for successful establishment and development of this national park model.

## **Introduction**

Vietnam with 3/4 of its land area being mountains and hills is endowed with a biodiversity of rich forest plant and wildlife resources. For a very long time till 1943 the forest area in Vietnam was 14 million ha, with a forest cover of 43%. In 1995 the remaining forest area was only 9.3 million ha. of which 1.1 million ha. was forest plantations; forest cover: 28 - 30%. The protection function of the forests was critically diminished.

Forest and forest land area in Vietnam is divided into 3 categories: protection forest, production forest and special use forest. System of special use forests consists of National Parks and Nature Reserves that are significant to the biodiversity conservation, as standard national forest ecosystem samples. In 7/1962 the government of Vietnam decided the establishment of the Cuc Phuong National Park, the first national park in Vietnam where the originality of a tropical natural forest ecosystem is preserved.

Subsequently the planning and establishment of other national parks and nature reserves has been proceeded. Up to now there are already in Vietnam 105 special use forest units with total area 2,092,527 ha. included in:

- National parks, 252,290 ha in area.
- Nature Reserves, 1,692,351 ha. in area.
- Cultural, historical and environment protection sites, 147,886 ha. in area.

The above-mentioned forests are distributed in many regions in the whole country representing different climatic belts of Vietnam with following main functions.

- Nature reserve, national standard forest ecosystem samples.
- Conservation of plant and wildlife genes.
- Scientific research.
- Historical, cultural relics and scenery spots.
- Serving recreation, ecological tourism.

In the forest development strategy, total area of special use forests will be brought to 2.2 million ha. by the year 2000, representing 10% of total forest cover in the whole country. This is a great effort of the government of Vietnam in the conditions of a developing country that is in the process of the renovation in the direction of industrialization and modernization.

For the effort to be successful the government has it in the "Biodiversity Action plan of Vietnam" that there need be a close co-operation between the National Parks and Nature Reserves management board and the people living in buffer zones in the management of national parks and nature Reserves.

### **1. General situation of Tam Dao National Park.**

Tam dao is one of the famous geographical names of Vietnam. It possesses a superiority in culture, tourism, scenery and environment protection. It is one of the 10 national parks established by the decision on 6/3/1997 of the Premier.

Tam Dao mountain range has 20 peaks of which Tam Dao is the highest one, 1,592m above sea level. The centre of Tam dao National Park is 80 km far from Ha Noi in the North West Tam Dao National Park lies within in the boundaries of 3 provinces: Vinh Phuc, Tuyen Quang, Thai nguyen with total area of 52,398 ha in which:

The National park is 36,383 ha

The buffer zone is 15,515 ha

The Tam Dao National Park is divided into three divisions:

- Strict protection division from the 400 m elevation upward
- Ecological restoration division, from 100m to 400 m elevation
- Summer holiday and tourist division, about 2,000 ha in area, lying at the 900m elevation

- Buffer zone

Natural forests of Tam Dao National Park are grouped into two main forest types:

- Evergreen monsoon tropical forest, distributed below 700 m a.s.l
- Closed evergreen monsoon sub-tropical forest, distributed above 700 m a.s.l

In addition there is on Tam Dao peak an ecosystem of "stunted forest" It is of unique nature and called by the local people: "fairy forest". Due to the condition of violent wind, highly steep slopes, thin soil layer and permanent mist the tree trunks here are crooked, twisted, tree trunks and branches bear much lichen, creating an unique landscape of highly scientific significance

Zoologist have found in Tam Dao 58 mammal species, 158 bird species, 46 reptile species and 19 amphibian species, most typical is the toad fish (Salamander: *Paramesotriton delosutani*) that lives both on the ground and under water and has high medicinal value.

## **2. People's life and socio-economic conditions in the buffer zone.**

The buffer zone of Tam Dao National park has 23 communes lying in 3 provinces: Vinh Phuc, Tuyen Quang and Thai nguyen. Total population is 90,000 with mean population density of 550 persons/km<sup>2</sup>. Total labour force is 35,000 people representative 39% of the total population. Kinh ethnic group represents part of the buffer zone population but the majority of the population is of the ethnic minority groups: Tay, Nung, Dao, San Diu that have long been associated with forest and mountains of Tam Dao National Park. Minority ethnic groups represent 12%, 62%, and 48% of the population in Thai nguyen, Tuyen Quang and Vinh phuc provinces respectively

### **Advantages of the buffer zone.**

- Land potentiality in the buffer zone is still favourable for forest activities especially the potentiality of forest land is not effectively exploited to bring about benefits to the buffer zone's households.
- The population in the buffer zone is big with abundant labour force. This is a great resource for exploiting the land potentiality of the buffer zone.
- Tourist resource of Tam dao National Park is great with many famous sceneries and cultural relics attractive to tourists and holiday makers at home and abroad.

### **Constraints and challenges.**

- Crowded population, the forest area in the buffer zone is too little to supply common use timber and firewood for daily cooking required by local people. This exerts great pressure on forest resource of Tam dao National Park.
- Low per capita income, 1,400,000 d/year (Report of socio- economic survey, 6/1996); main income source is agricultural production.

- The economy is still of self-sufficient nature, no plenty of commodities for exchange in the market.
- Lack of capital, technical skill and knowledge.

### **3. Activities responded by the people in the buffer zone.**

Buffer zone is a cradle, the protection belt of the National Park. Positive and negative impacts all stem from the buffer zone. The objective of all policies towards the special-use forest system as well as of activities of Tam dao National Park in the buffer zone is to enhance socio-economic development, raising the educational level of the people living in the buffer zone to lessen the pressure on the forest resource of the National Park.

- Agricultural production: Agricultural land has been allocated to each household for long-term use and this does create a motive force in production, intensive management of crops, raising crop productivity.
- Forest protection and forest regrowth tending on contract: The areas allocated for forest protection and forest regrowth tending are 3,100 ha and 500 ha respectively. This activity was positively responded by the people and they wished to participate in. As a result 76 households received forest for protection on contract and 8 households received forest regrowth area for tending on contract.
- Establishment of home forest, forest farms: Some models have been established in some communes in the buffer zone with the support in capital and technology of the National Park such as those in Tam quan, Ho son, Minh quang communes. These models make full use of land potentialities and rational assignment of work in the families to develop household economy.

### **4. New efforts to attract the people's participation in the National Park management and protection.**

A seminar with the participation of the local people was organized in Dao tru commune in the buffer zone of Tam dao National Park to collect the people's opinions on the National Park management aimed at curbing the impacts causing the deterioration of the natural forest resources of the National Park. The people in the hamlet wished to make effective use of forest land areas and improve the inferior mixed gardens, enhance the households economy and improve the immediate income sources and create long-term ones for the households by:

- Reallocation of forest land to the households ensuring equity and solidarity among people, attracting more household to forestry activities.
- Forest planting, creating long-term benefits for the households.
- Planting of fruit trees, improving the inferior mixed gardens of the households, creating immediate and long-term income sources.

**Based on their experience and liking, the people selected trees to be planted:**

- Forest trees: Pine, Eucalyptus, Acacia, *Chukrasia tabularis*, *Erythrophleum fordii*, *Cassia* sp, *Canarium* sp, *Draconmelum duferreanum*.
- Fruit trees: Litchi, Longan, Custard-apple, Persimmon, Pineapple.

**Techniques to be applied:** Sloping agricultural land technique (SALT), agroforestry system and traditional experiences of the people.

**Nursery activities:** There need be the organization of nursery production at household scale. Each household produces only from 500 to 1,500 saplings depending on each household's capability. This is an effective measure contributing to the creation of employment and income, attracting the participation of many households in the project activities and at the same time an opportunity for technology transfer to the households.

- The National Park needs to co-ordinate with the local authority to help the people grasping the importance of the National Park and the laws concerning forest resource protection.
- The National Park together with the Woman Association Branch in the hamlet carry out effective propaganda on family planning.

**Conclusions**

1. Tam Dao National Park enjoys many strong positions in culture, tourism and natural sceneries that have great value in nature reserve, conservation of the diversity of forest ecosystems.

2. There need be strengthening of scientific research, perfecting the organisational and managerial mechanism for the protection and development of endemic, rare and precious plant and wildlife gene sources of Tam Dao National Park.

3. The people's participation is indispensable for the successes in the establishment, protection and development of this national park model.

**References**

1. Decision 136TTg of the Premier dated 6/3/1997 on "Feasibility study on investment in establishment of Tam Dao National Park"

2. Decree 02/CP of the Government on 15/1/1994 on Land allocation to organizations, household, individuals for long term use in forestry.

3. Economic and technical facts for Tam Dao Nature Reserve, 1992.

4. Law on forest protection and development, 8/1991.

5. Plan of " Strong development of forest planting and revegetation of bare

land and denuded hills as a step towards banning of natural forest exploitation". Ministry of Agriculture and Rural Development, 1997.

6.Result of survey on real socio-economic situation in the section of the buffer zone lying in Vinh phuc province of Tam Dao National Park. Dr. Prof Bui Minh Vu and members, 1996.

7.Report on the results of the work of Tam Dao National Park. Tam Dao National Park, 1996,1997.

