

Supported by:



SGP The GEF
Small Grants
Programme



based on a decision of the German Bundestag



POLICY RECOMMENDATION

FOREST MANAGEMENT AND PROTECTION
INTEGRATED WITH SUSTAINABLE BON BO PLANT
DEVELOPMENT AS SOURCE OF LIVELIHOOD
& THAI ETHNIC CULTURE CONSERVATION
IN QUE PHONG, NGHE AN

7 / 2019



The publication was developed by the Nghe An Forestry Development Consultation Center and Global Environment Facility, Small Projects Grant Program – United Nations Development Program (UNDP - GEF/SGP) in collaboration with Que Phong District People's Committee, Nghe An province

Authors:

*Nguyen Thanh Nham
Nghe An Forestry Development Consultation Center*

*Nguyen Thi Thu Huyen
UNDP - GEF/SGP*

*Bui Van Hien
Que Phong District People's Committee, Nghe An Province*

*Pham Van Hanh
Production Forest Development Department, General Department of Forestry*

Artwork Image

Dang Lam – Thanh Nham

TABLE OF CONTENTS

PREFACE 5

PART I

QUE PHONG DISTRICT - NATURAL, ECONOMIC, SOCIAL CHARACTERISTICS 8

1. Natural characteristics 9

2. Social characteristics 10

3. Economic characteristics 10

PART II

**CONNECTIONS BETWEEN FOREST RESOURCES AND THE THAI ETHNIC PEOPLE'S
LIVELIHOODS AND TRADITIONAL CULTURE IN QUE PHONG DISTRICT 12**

2.1 Characteristics of natural forest resources and the implementation
of the policy on closing natural forests 12

2.2 Ethnic Minority People's Culture (customary laws, indigenous knowledge; forest god
worship rituals and traditional culture in the utilization of forest resources) 15

2.3 Thai ethnic people's livelihoods connected to the protection of natural forests 18

2.4 Relationship between forest management, protection and livelihood development
and Thai ethnic culture preservation to promote sustainable forest management 20

PART III

POTENTIAL ADVANTAGES FOR BON BO PLANT DEVELOPMENT 24

3.1 Bon Bo plant: Ecological characteristics and distribution 25

3.2 Techniques for forest protection, zoning, tending, and rehabilitation process
by growing Bon Bo plants 25

3.3 The harvest, processing, and consumption of Bon Bo seeds	26
3.4 Potential advantages and socio-economic and environmental effects of Bon Bo plant development	28
3.5 Constraints and remains of the development of Bon Bo plants	29

PART IV

POLICY RECOMMENDATIONS	30
------------------------------	----

4.1. Implementing the policy on the allocation of land and forests and granting the land use right certificate to ensure the rights and duties of the user	30
4.2. Bringing into full play the Thai ethnic people's cultural characteristics and traditional festivals in association with the management, protection and sustainable use of forests	32
4.3. Coordinating sustainable Bon Bo plant development under natural forest canopy, and linking the value chain with the selling of the products for the local community's livelihood improvement	33
4.4. Mechanisms and policies applied to support and promote forest management and protection and the linkage in the production and sale of the products	37
4.5. Replicating the UNDP-GEF/SGP Project's model to areas where there are similar conditions	37

APPENDIX

RESULTS GAINED FROM THE IMPLEMENTATION OF UNDP-GEF/SGP PROJECTS IN QUE PHONG DISTRICT	40
--	----

REFERENCES	50
------------------	----

PREFACE

Bon Bo, also known as Bo Bo or Mac Ca plant (in Thai ethnic language) is a species (Alpinia blepharocalyx Kschum) of the genus alpinia in the family ginger (Zingiberaceae). It is a wild plant widely distributed on forest land. This species grows well under the canopy of natural forests and creates jobs and income for local ethnic minority people contributing to poverty reduction and forest and environmental protection in Que Phong district in particular and Nghe An province in general.

Que Phong is a mountainous district in northwestern Nghe An province. It is endowed with a natural forest area of 140,237.30 ha, including 35,185.50 ha of special- use forest, 43,878.70 ha of protection forest and 62,173.00 ha of production forest. The district has a population of 70,000 people (as of 2017), of which the Thai ethnic people account for 80.33%, living in villages throughout 13 communes and towns.

Sponsored by the Global Environment Facility - Small Projects Grant Program - United Nations Development Program (UNDP-GEF SGP), the Nghe An Forestry Development Consulting Center has collaborated with Que Phong District People's Committee (DPC), and Communal People's Committees (CPCs) of Nam Nhoong, Nam Giai and Chau Thon communes in implementing two projects: Developing a community-based models for Bon Bo plant conservation, development and sustainable use to contribute to biodiversity conservation in Que Phong district, Nghe An province (project code number: VMN / SGP / OP5 / Y4 / STAR / 2014/13); and Enhancing the capacity of the Thai ethnic community in forest management and protection integrated with local livelihood and cultural improvement in Que Phong District, Nghe An province, (project code number: VMN / ICCA- GSI / 2017/01).



The compilation of this paper is one among activities designed and implemented in the work-plan of the project VMN / ICCA - GSI / 2017/01 in order to introduce, disseminate and recommend relevant policies towards achieving sustainable development by integrating the management and protection of natural forests with the development of Bon Bo plant based livelihood and the preservation of the Thai ethnic people's good cultural identity.

Although the contents contained in the paper have been summarized based on the local community's practices and results produced by the project, and contributions and comments made by the team of experts, local agencies and communities; it is inevitable that the paper may have certain limitations and shortcomings.

On the occasion of publishing the paper, we sincerely thank the UNDP-GEF SGP Office, especially Ms. Nguyen Thi Thu Huyen, National Coordinator, Mr. Pham Van Hanh, Production Forest Development Department, General Department of Forestry, Mr. Bui Van Hien, Vice Chairman of Que Phong DPC, relevant line agencies, local officials and the community of communes implementing the project for their valuable supports, contributions and comments.

For the Project Executing Board

Nguyen Thanh Nham

Director



NATURAL, ECONOMIC, SOCIAL CHARACTERISTICS **QUE PHONG DISTRICT**

1. NATURAL CHARACTERISTICS

The district has a total natural area of 189,086.45 ha including 155,061.48 ha of farming land, accounting for 82.01%; 5,932.01 ha of non-agricultural land or 3.14%; 28,092.96 ha of unused land or 14.86%; and 453.9 ha of residential land or 0.24%.

The district is located between the latitudes 19°26' and 20° N and the longitudes 104°30' and 105°10'E within the Biosphere Reserve of Western Nghe An. It shares borders with Thanh Hoa province to the north; Tuong Duong and Quy Chau districts of Nghe An province to the south and the east respectively; and Sam To district, Hua Phan province, Lao People's Democratic Republic to the west. It has an important and strategic position in terms of national security. It is 180 km from Vinh city and has a less developed infrastructure with only 15 km of the highway No. 48 running through the district.

The topography of Que Phong district is quite complicated, mainly with mountains and hills, accounting for 70% of the natural area. Climatically, there are two prevailing winds from southwest (or Laos wind) from April to September and from northeast

from October to March. The district is located in a tropical monsoon climate zone, with 2 different climate sub-regions. The highland areas have high rainfall and humidity and low temperature, while in the lower areas the climate is mild. The biggest climatic difference between the two sub-regions is daytime temperatures that are usually 2-3°C higher and lower humidity in summer causing hot and dry weather in the lower areas. The district's annual average temperature is from 22 to 24°C. The average air humidity is 84%. The average annual rainfall is 1,800mm seasonally distributed throughout the district.

Regarding rivers and streams, there are four major rivers including Chu River, Nam Viec River (upstream of Hieu River), Nam Quang River and Nam Giai River running from northwest to southwest of the district. There are six hydropower projects under construction, including Hua Na, Nhan Hac, Ban Coc, Sao Va, Song Quang and Chau Thon plants with a total capacity of nearly 280 MW. The district has Sao Va multi-step waterfall of 7 tiers that is an ideal tourist attraction.

2. SOCIOCIAL CHARACTERISTICS

Que Phong district is administratively divided into 13 communes, one town and 194 villages throughout three residential areas. Specifically there are three communes (including Thong Thu, Dong Van and Hanh Dich) in the northwest area; six communes (including Tri Le, Nam Nhoang, Plug Muon, Quang Phong, Chau Thon and Nam Giai) in the southwest area; and five communes (including Kim Son, Muong Noi, Chau Kim, Que Son and Tien Phong) in the centre.

The district has 14,857 households including 911 urban and 13,946 rural households. Its total population is 70,000 people belonging to seven ethnic groups, of which the Thai ethnic people account for 80.33%, while the Kinh is 11.21%, the Mong 4.82%, the Kho Mu 3.62%, and the Tho 0.02%. The district's population density is 33 people/km². Its natural population growth rate is 1.216% annually. Its total number of labourers is 41,760. And its poverty rate was 44.39% as of 2015

3. ECONOMIC CHARACTERISTICS

Que Phong is one of the 62 districts (of the Government Program 30a) across the country. Its economy mainly relies on agriculture and forestry and in its uplands where local people are dependent on forest resources for livelihoods.

In recent years, the district's economy has grown better due to positive changes in its economic restructuring. In 2017, its revenues were VND 564.48 billion, exceeding by 23.1%



of the plan and increased by 13.2% compared to 2016; the per capita income was estimated at VND 22.1 million, exceeding the plan 2017 and increased by 8.1% compared to that of 2016; The rate of poor households as estimated, decreased to 40.59% (at a rate of 5.36% compared to 2016), the growth rate (of all economic sectors throughout the district) was 7.3%, while the growth rate of economic sectors under the management of the district was 5.7%, the agriculture,



forestry and fishery sector reached 2.81%, the industry & construction sector 8.1%, and the services sector 7.3% compared to 2016).

In 2018, the total revenues of all the economic sectors throughout the district was estimated at VND 597.53 billion, increased by 19.8% compared to that of 2016, while the district's revenue was VND 28.5 billion, increased by 3.4% compared to the estimated revenue assigned by the District People's Council, increased by 99.1%

compared to that of 2017, and the per capita income was estimated at 27.2 million, 12.8% higher than the plan and increased by 13.8% compared to 2017; The poverty rate in the district is estimated to decrease to 32.9% (6.58% lower compared to 2019), the growth rate in the district's economic sectors is 11.7%, the Agriculture, Forestry and Fishery sector reached 4.7%, the Industry - Construction sector increased by 6.8%, the service sector increased by 8.6% compared to 2017).

CONNECTIONS BETWEEN FOREST RESOURCES AND THE THAI ETHNIC PEOPLE'S LIVELIHOODS AND TRADITIONAL CULTURE IN QUE PHONG DISTRICT



1. CHARACTERISTICS OF NATURAL FOREST RESOURCES AND THE IMPLEMENTATION OF THE POLICY ON CLOSING NATURAL FORESTS

Que Phong district is endowed with 145,004 ha of forest by total. Of which 141,237.2 ha including 140,237.3 ha of natural forest; and 999.9 ha of forestry plantations, were planned based on original forests for the development of three types of forests, which include 35,185.5 ha of special-use forests, 43,878 ha of protection forests and 62,173 ha of production forests. There remains a forest area of 3,767.2 ha excluding from the planned forest area. The forest coverage now reaches 76.7% and Que Phong is one of four districts endowed with the largest forest area and cover in Nghe An province.

Forest and forestry land areas allocated by the management and/or tenure include 89,627.64 ha to the special-use forest management boards of Pu Hoat and Pu Huong Protected Areas (PAs); 3,752.04 ha to the state-owned enterprises (Que Phong Forestry Plantation Enterprise under the Song Hieu Agri-Forestry Company); 2,907.99 ha to the non-state enterprises - Thanh Thanh Dat Co., Ltd.; 27,280.69 ha to households and individuals; 11,891.13 ha to local communities; 2,379.49 ha to other organizations; and 39,396.22 ha (being allocated now) to the CPCs for management

Especially, Que Phong has Pu Hoat PA which has been designated from protection forests managed by Que Phong Protection Forest Management Board since 2013. On February 19, 2014 Nghe An Provincial People's Committee (PPC) issued Decision 590 / QD - UBND on the approval of the planning of Pu Hoat PA in the period of 2013-2020. According to the planning, Pu Hoat PA has an area of 85,769.53 ha; including 34,589.89 ha of special-use forests; and 51,171.54 ha of protection forests. The forest reserve of the conserved area is 10.147 million m³ of wood and 58.2 million bamboos widely distributed through a range of ecosystems, i.e. evergreen tropical rainforests occur on high, medium and low mountains; closed evergreen broadleaf forests on limestone mountains; secondary bamboo forests; mixed forest; and plantations. An inventory made by the Pu Hoat PA indicates that there are 1,248 higher floral species belonging to 174 families and 603 genera; 127 species of mammal, 362 species of bird, 82 species of reptiles, and 77 species of amphibians occur in the conserved area. Especially, there are 113 species of rare and precious species of flora and fauna according to the Vietnam Red Book, 507 species according to IUCN 2012; 78 species according to the Government of Viet Nam (GOV) Decree No. 32; and 61 species according to CITES. In addition, there are two species of SaMu tree (*Araucaria cunninghamii*) and Phay tree (*Duabanga*) which have been designated as the Viet Nam Heritage Trees.

Regarding the management of forests and forest land, there are 64,675.90 ha out of 178,213.80 ha or 36.3%, granted the land use right, of which 37,527.70 ha to the special-use forest management board of Pu Hoat and Pu Huong PAs; 3,749.90 ha to state-owned

enterprises (Que Phong Forestry Plantation Enterprise under the Song Hieu Agri- Forestry Company), 18,353.20 ha to households and individuals; 267.20 ha to local communities, 2,379.49 ha to other organizations and 3,799.30 ha of forest to the CPCs for management.

Implementing the the Prime Minister's policy to close natural forests according to Decision No. 2242 / QD - TTg dated December 11, 2014, Que Phong district has halted the logging of natural forests since 2014. Forest protection and management have been increasingly improved in the district and violations against laws of forest protection and management have decreased.





2. ETHNIC MINORITY PEOPLE'S CULTURE (CUSTOMARY LAWS, INDIGENOUS KNOWLEDGE; FOREST GOD WORSHIP RITUALS AND TRADITIONAL CULTURE IN THE UTILIZATION OF FOREST RESOURCES)

In Que Phong district, Nghe An province, the ethnic minorities have mainly resided in remote highland areas, practised their unique cultural and religious taboos and rituals such as the worship of forests, and utilized and protected forest resources by using their indigenous knowledge and through their traditional customs for a long time. Customary laws are ways or rules of behaving established and accepted by the village community members, and passed on from generation to generation. Customary laws can be said as the law of village communities or of an ethnic minority community. Those customary laws that are in accordance with social progress and create the fairness, justice and social order are recognized by the State. On the contrary, those are antiquated practices and/or superstitious beliefs that are banned by the State.

Traditional or indigenous knowledge is "practical knowledge that refer to the understandings, initiatives and practices of indigenous and local communities around the world. Developed from the experience gained over centuries and adapted to the local culture and environment, traditional knowledge is orally passed down from generation to generation." Traditional knowledge is manifested in a variety of ways, such as food, biodiversity and environment conservation, folk remedies, typically traditional herbal remedies of ethnic minorities.

The traditional cultural factors of ethnic minority people's cultural, social and physical life and their economic practices are closely connected to the cultural space of forest, and dependent on forests and forestry land for livelihood.

For many generations, forests and forestry land are natural resources that have been very essential to the Thai ethnic people's life and their culture and beliefs in Que Phong district. In the past, there were sacred forests of 2-5 ha each within their villages. The Thai ethnic people consider sacred forests to be places where deities reside, and ghost forests or cemeteries where the dead rest. In addition, they also consider a number of ancient trees and banyan (both small and big trees) occurred in other forests to be sacred trees that are not allowed to log.

Among the sacred forests considered by the Thai ethnic people the places of deities' residence within their traditional boundaries, some are located nearby their villages, where big trees and shrines built serve as places for worshipping deities. These are places where villagers come to worship the forest, land and water gods every year. When settling and establishing their villages, the first thing that the Thai people do is to choose sacred forests as a place to worship forest. If they do not worship the forest gods and the genies of the earth for permission to live when moving in a new place, there would be life's uncertainties such as sickness, loss of crops, and/or dead cattle, etc. facing them, said village patriarchs. Previously, in each village the area of this type of forests was 1-2 ha large. But now the area of the spiritual forests has been shrunk due to the village's administratively dividing and/or merging processes and the implementation of land policies. The spiritual and/or religious forests are strictly managed and protected

(as special-use forests) by the village community.

Available data indicate that Que Phong district is endowed with several sacred forests including two in Dong Moi village, Dong Van commune: (i) Hue Ngan Waterfall (or "Pha Ngan" in Thai language) forest of about 4-5 ha allocated to Pu Hoat PA Management Board by the State; and (ii) The Huoi Pung



Stream forest of only 50 - 80m² and with big trees and a shrine for worshipping gods, managed by local households. In Na Chao village, there is a sacred forest of 5 ha with big trees for worshipping the forest god, which was allocated by the State to Mr. Luong Van Chung's household for management in 2002 - 2003. Currently, the village community only uses an area of 100m² with big trees and a shrine for worshipping the forest god. Previously in the former settlement where villagers of Pang and Tuc villages used to worship the forest gods at a large sacred forest of about 2-3 ha with many big and ancient trees (commonly banyan). At present, there is no forest to serve as a place for worship in the resettlement area because they have not been allocated forest by the resettlement project. Previously, there were sacred forests in Pieng Lang, Meo and Puc villages of Nam Gai commune. According to their village heads and patriarchs, except the Pom Che

sacred forest of about 2.5 ha, the Pu Lau sacred forest is about 10 ha now being under the management of the Pu Hoat PA as planned. According to the research results of the Southeast Asian Center for Cultural Identity and Resource Use Management (CIRUM) every year, the Thai ethnic people from villages of Dong Van commune hold ceremonies to worship the forest, land and water gods praying for a peaceful life and good crops. The villagers only come to the sacred forest nearby their villages for worship. The place chosen to worship all the forest, mountain, land and water gods is usually a location with big trees and a shrine near their residential areas.

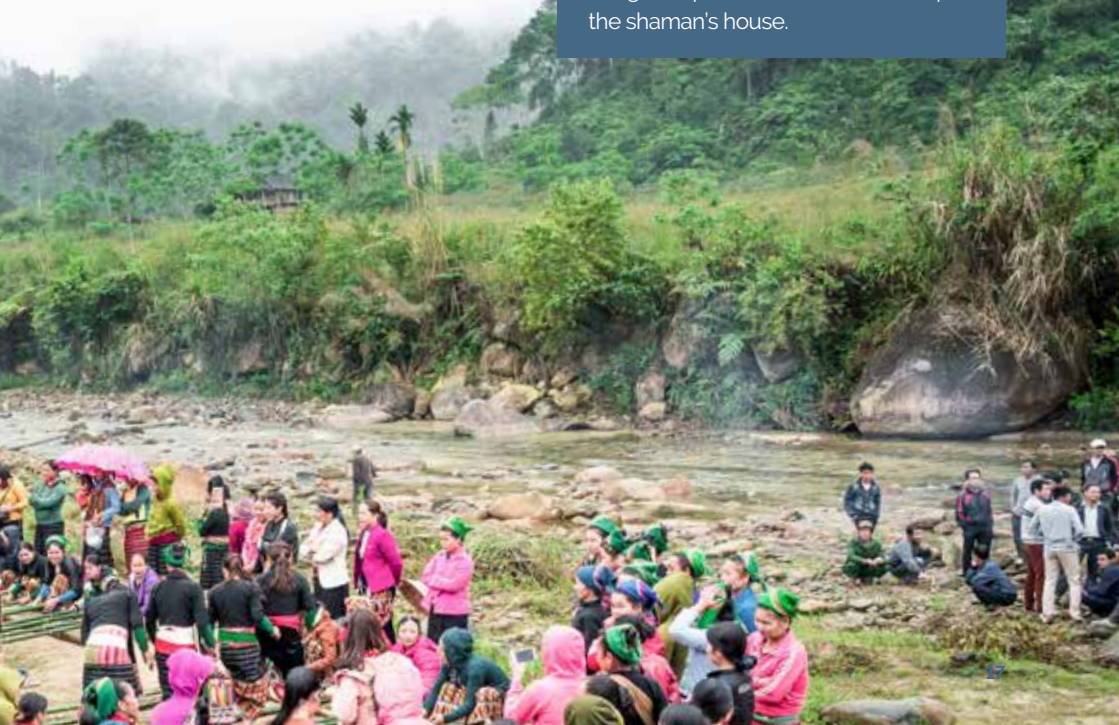
The long-lasting rituals of forest worship had been undermined during the period of the centrally planned economic (subsidy) system, 1982-2010. Since 2010, the worship of the forest god has been restored in some Thai ethnic people's villages. At



present, such villages as Na Chao, Pang and others organize the worship of the forest god three times a year (on the 2nd and 3rd day of the Kinh people's Lunar New Year, and in lunar months of March and August; but in other villages such as Dong Moi village where villagers offer up their prayers for the forest god only one time a year (on the 2nd - 3rd day of the Lunar New Year). The offerings usually include pork, fish, chicken, sticky rice, wine (contributed by households), and even sticky rice cakes if the worship is organized during the lunar new year. The village patriarch and the monk organize and perform the worship of the forest god. All villagers are allowed to enjoy the ceremony. The annual forest worship festival is a traditional culture of great significance for improving the local social cohesion and solidarity in the village community and educating the villagers' descendants on their cultural traditions.

According to Mr. Ngan Van Tho, the patriarch of Meo village in Nam Giai commune

The worship of the forest god has been practiced in Puc, Meo and Pieng Lang villages for a long time. Today the three villages together organize the forest worship ceremonies (three small scaled ceremonies organized in three successive years and then a large scaled festival is celebrated in a following year). Offerings include pigs for the small worships and buffaloes for the large ones. The date of the forest worship is fixed by the shaman, but often after the date of the district's "Chinh Gian" temple festival. After worshipping together in Ta Ma, all participants enjoy drinking and eating in the morning and in the afternoon they come back to their villages to practice their own worship at the shaman's house.



3. THE THAI ETHNIC PEOPLE'S LIVELIHOODS CONNECTED TO THE PROTECTION OF NATURAL FORESTS

Based on indigenous knowledge and experiences consolidated from their practical situation and life organically attached to natural forests, and their management and use of forest resources through generations, the Thai village community has formed their customary laws to regulate the harmonious connections between people and nature.

The Thai ethnic people's conception of land, forests and water sources where they believe that there exist souls administered by gods and thus, people have to perform religious rituals and say prayers for permission for exploitation. This religious taboo significantly contributes to the protection of forests and natural resources. In other words, people have "taken advantage" of the spiritual world to protect the community's resources (where deep forests exist is a source of livelihood reserved by Heaven and Earth Gods for people, and watershed forests are the home of sacred ghosts so that natural resources are not rashly harvested – The Black Thai ethnic people's customary laws in Thuan Chau).

According to Vi Van Son's study (The Thai ethnic people's customary laws and the state management of the Thai ethnic communities in the North Central provinces of Vietnam - Law Doctoral Thesis, 2015); the Thai ethnic people's livelihoods are closely and harmoniously connected to the protection of natural forests for sustainable forest development and exploitation. Accordingly, logging and slash-and-burn cultivation are not allowed in watershed, ghost and/or sacred forests. The logging of bamboos for housing and/or making fences is also prohibited from bamboo shoot forests. Farming activities are only allowed to take part in young forests, bamboo forests and other areas but not in old forests and/or forests of big and precious trees as specified by the village. In areas where slash-and-burn farming is allowed, it is necessary to make corridors to prevent and fight fires and the burning of plants/ crops cut down, must take place on one or





two specific days agreed by the village community to enable to fight fires and control the spread of fires together. For instance, to ensure good harvest of cogon grass from forests for roofing, the head of the village assigns villagers to burn the grass in December and January every year to enable cogon grass to regrow well in spring. To ensure palm trees to regrow well after harvesting their leaves for roofing, villagers are not allowed to harvest their new green shoots and/or cut down the palm trees. When harvesting bamboos, villagers have to cut down bamboos at their foot leaving their stumps to be regenerated. The hunting of animals is not allowed in the breeding season. Destructive fishing by using leaves containing poisons is prohibited. And villagers are encouraged to protect natural resources from risks of fires, epidemic diseases and pollution. To protect water resources, various rules and/or regulations have been developed to handle any violations against the protection of water resources, illegal fishing, and specify sections of rivers/streams for washing and swimming; and villagers are encouraged to instill in their children a respect for nature, water, land and forest resources: "if they love water source and rice fields they shall have fish and rice to eat" or "black soil is pearl, red soil also is jade"etc.

“

THESE QUOTES OF THE ESSAY
DEMONSTRATE THAT THE THAI
ETHNIC PEOPLE'S LIVELIHOODS
ARE CLOSELY CONNECTED
TO SUSTAINABLE NATURAL
RESOURCES CONSERVATION
AND UTILIZATION.

”

4. RELATIONSHIP BETWEEN FOREST MANAGEMENT AND PROTECTION AND LIVELIHOOD DEVELOPMENT AND THAI ETHNIC CULTURE PRESERVATION TO PROMOTE SUSTAINABLE FOREST MANAGEMENT

In Que Phong, the Thai ethnic people reside in mountainous areas with rich and diverse forest and other natural resources. The relationship between forest management and protection and local livelihood development and cultural preservation is a close and dialectical one that serves as a basis for promoting sustainable forest management. Customary laws and indigenous knowledge are the two basic pillars making up the Thai cultural background, which constitutes the Thai culture. The system of customary laws plays a very important role in linking communities together, promoting the community's self-government, and regulating social relations in the preservation and promotion of the Thai ethnic people's cultural identity. And the positive sides of the Thai ethnic culture are manifested as follows:



01

Behaving harmoniously and respectfully towards nature, especially by emphasizing the importance of forest management and protection, land and water resource management.



02

The customary laws confirm that the community is a public owner of natural resources such as land, forests and rivers, thus rationally exploits and/or uses their natural resources. Accordingly, forest and land resources which are under the ownership and management of the village are traditionally divided into forest areas commonly managed by the village and other forest areas allocated to households for management and use to meet their needs (for example, the area of mixed forests and fields where the forest is restored after farming).

03

The customary laws are of great significance for the education and admonition, urging the village community to manage and protect forest and natural resources sustainably, and handling violations. Accordingly the customary laws prohibit logging and slash-and-burn agriculture in watershed, ghost, and bamboo shoot forests (as described in details in section 2.3).

04

Forest protection and management through customary laws are very effective. The Thai ethnic people have recognized and respected natural boundaries (of land, forest and water resources) under their ownership/ management, which are considered their existential and cultural spaces. Traditional boundaries between their villages are topographically demarcated based on the physical features of the village, especially its position of rivers, streams/rivers (watershed), rocks and mountains, etc.



Na Chao and Dong Moi villages in Dong Van commune for example, had experienced the merging and separating of village for many times but still preserve their cultural customs and habits of worshipping the forest. When settling down and establishing a village, the first thing villagers do is to select a forest with big trees (especially banyan trees) near their village as a place to celebrate the worship of the forest and land gods asking for permission to live and demarcate boundaries with the neighboring villages to claim the sovereignty over their land and forests.

There are two deciding factors that ensure by the village community's effective forest protection and management. They are: (i) the village's social organization that has achieved self-government is respected and trusted by villagers and (ii) the protection and management of forests are voluntarily undertaken by the villagers with using indigenous knowledge and through their customary laws.

In the past, the administration of the Thai ethnic people's traditional society was composed mainly of the patriarch, the shaman, and the heads of lineages, households and family members in the village. The village's patriarch was a person who came from the prestigious lineage, and was fully respected and elected by

the village community. At present, the village patriarch still plays an important and prestigious role in the community. He is usually supported by the shamans and other patriarchs from other lineages in the village. In each village there is an association of village elders who also participate in meetings held by the village's council of patriarchs. The village's patriarch is the head and primarily responsible for the administration of the village community's social affairs and the management of natural resources. All issues arising from the village's life and natural resources management are dealt with by the village patriarch and other elders through the village's customs, habits and conventions.

Nowadays, in addition to the village's traditional administration, there is a state



management system that is composed of the head of the village, the secretary of the village's communist party and the representatives from social organizations, etc. However the village's patriarch and the village's council of patriarchs are still fully respected and trusted by the village's social organizations and authorities at local level. Thus the village's patriarchs very often are consulted with by cadres of the state management agencies and/or socio-politic associations about policies and/or issues related to the villagers' lives prior to implementation.

Through annual forest worship rituals and stories passed on by their grandparents and parents by oral tradition, the village's descendants have become well aware of

forest protection and sacred forests and trees (ancient and/or banyan trees) that must be protected from logging. As the result, the sacred and water protection forests are voluntarily managed and protected by all the villagers. Those who violate the forest trees, and slash and burn forest trees for farming in the water protection forests and/ or defile the sacred forests shall be punished by the community as specified by the village's regulations and/or conventions.

Thus, it can be seen that the religious taboos are of great significance for the lives of all the Thai ethnic people in Que Phong district. The religious forests provide a solid foundation for strengthening the Thai ethnic minority community's cultural life and social stability.



“

FROM THE ABOVE ANALYSIS,
WE CAN CONCLUDE
THAT FOR ACHIEVING
SUSTAINABLE FOREST
MANAGEMENT, THE WORK OF
FOREST MANAGEMENT AND
PROTECTION MUST TAKE
INTO CONSIDERATION LOCAL
LIVELIHOOD DEVELOPMENT
AND TRADITIONAL CULTURE
PRESERVATION.

”

POTENTIAL ADVANTAGES IN THE DEVELOPMENT OF BON BO PLANTS



Bon Bo, also known as Bo Bo or Mac Ca plant (in Thai ethnic language) is a non-timber forest product (NTFP). Its scientific name is *Alpinia blepharocalyx* Kschum that is of the genus *alpinia* in the family ginger (Zingiberaceae)

Bon Bo plants are used by the Thai ethnic people as a herbal remedy to cure stomach ache and flatulence. Its young leaves/buds are used as vegetables while old leaves are spread in animal cages to make fertilizer and control mosquitoes. With its broad leaves, large canopy and polyrhizous roots, Bon Bo plant helps retain moisture in soil and preserve soil from erosion. In particular, its seeds are used as medicinal herbs for export. With the support of the UNDP-GEF SGP and the Que Phong Extension Station, Bon Bo plants are conserved and widely cultivated in communes of Que Phong district and neighbouring places in Ky Son and Tuong Duong districts.

1. BON BO PLANT: ECOLOGICAL CHARACTERISTICS AND DISTRIBUTION

Bon Bo plant is widely distributed on forestry land in areas of Nam Nhoang, Nam Giai, Chau Thon, Chau Kim communes across Que Phong district. However, the plants can only grow well and bear numerous fruits in wet soil and forest areas along streams, especially under the canopy of poor natural forests. In areas without forest canopy where the sunbeam stunts the growth of the plants and the bearing of fruits. The plants grow well but produce few fruits in rich forests with higher canopies. Their fruits are rather heavy so that their seeds are not scattered far. Buds of the Bon Bo plant appear and grow quite well, so that they are often distributed in appropriate forest ecosystems.'

2. TECHNIQUES FOR FOREST ZONING, TENDING, PROTECTION AND ENRICHMENT BY GROWING BON BO PLANTS

There are two approaches to the development of Bon Bo plant. The first is to improve the quality of existing forest areas with low Bon Bo plant density by further tending and protecting existing plants; and the second is to grow new Bon Bo seedlings in suitable forest areas.

Usually local people gather young Bon Bo plants that have grown from the base of the parent ones and/or the seedlings that have naturally regenerated from seeds in the forests. Also local people can sow the Bon Bo seeds to produce seedlings for planting. As required by standards of Bon Bo seedlings, those young plants that have grown from the seeds must be 30 cm in height, and those strongly and well grown seedlings separated from the parent plants must be more than five months old, with their stem of 0.3-1m in height and their base of 1-1.5cm in diameter.



Depending on specific characteristics of local weather and climate, it is better to grow Bon Bon plants in rainy season than in dry season. In Que Phong, the growth of Bon Bo plants should be taken place in the spring crop (from February to March) and in the autumn crop (rainy season) from June to

September of the year. The plant-by-plant growing density should be within the most rational distance of 3.5 to 4.0 meters x 3.5 to 4.0 meters.

The clearance of vegetations under forest canopy for growing Bon Bo plants: in a duration of one to two months before growing, vegetation is cleared within an area of 1m² around each hole. Only trimmings, branches and/or plants cut down are chopped and spread around but not burned.

Digging and filling holes and growing: one month before growing, local people reclaim soil by digging holes and the size of each hole for planting is 0.4 x 0.4 x 0.4 m. All the holes are arranged in contour lines. Humus and fertilizer are mixed and composted and filled two-third of a hole in 15-20 days before growing a young plant and then fill up the hole with soil.

In a duration of one or two months after growing young Bon Bo plants, those that are died are removed and new young plants with the same size are grown instead. The tending of Bon Bo plants usually takes place once a year during the first two years by weeding within a 0.5 - 0.75m radius from the base; plowing soil 10-15 cm deep and earthing up to retain moisture in root zones; clearing climbers and shady trees, and adjusting a proper shade to help Bon Bo plants grow.

The trimming and cleaning after reaping Bon Bo fruits: The harvest of Bon Bo fruits takes place from October to December (in dry season) every year. Technically, branches from which fruits were reaped, are trimmed with a knife and chopped into 2-3 pieces to produce fertilizer to help Bon Bo plants grow.



3. THE HARVEST, PROCESSING AND CONSUMPTION OF BON BO SEEDS

Ripe Bon Bo fruits are orange and/or brown yellow, and round. Seasonally they get ripe in August and September of the calendar year. The harvesting tools include sharp knives and sickles for cutting each bunch of fruits. And the young fruits are not harvested because of their quality and low prices, and low rate of seeds contained.

KEEPING BON BO FRUITS WARM

After harvesting, Bon Bo fruits are kept warm to reach their physiological maturity. The way of keeping the fruits warm is to pile the fruits up on the ground floor, and cover the pile of fruits with or without canvas for two or three days to create a uniformly physiological maturity



BOILING BON BO FRUITS AFTER RIPENING

The ripe fruits are cut from the bunch and put in a large pot or pan for boiling (with $\frac{1}{3}$ of its water volume for 10-20 minutes). After boiling, boiled fruits are cooled down and peeled to collect their flesh and seeds that are cleaned with water.

DRYING BON BO SEEDS

After cleaning, Bon Bo seeds are dried in the sun or dryers (charcoal or coal fired kilns). Depending on weather conditions, the drying must ensure of the seeds to be uniformly ripened and brown, and not moldy.



AFTER DRYING, BON BO SEEDS CAN BE SOLD IN THE MARKET OR STORED IF THEIR MARKET PRICE IS LOWER

There is a need to establish a network of local purchasers of Bon Bo seeds. The growers of Bon Bo plants should be linked up together to share and/or exchange relevant information and agree together about the selling prices in order to avoid getting into a situation where they are forced by traders to sell Bon Bo seeds at low price.

4. POTENTIAL ADVANTAGES AND EFFECTIVENESS OF BON BO PLANT DEVELOPMENT



“

THEREFORE, IT CAN BE SAID THAT THE DEVELOPMENT OF BON BO PLANTS UNDER NATURAL FOREST CANOPIES BRINGS ABOUT GREAT BENEFITS IN TERMS OF ECONOMY, SOCIETY AND ENVIRONMENT.

”

Bon Bo seeds are a source of medicinal materials for export, which by average, can bring about VND 8-10 million per ha annually.

At Nam Nhoi, Chau Thon and Nam Gai communes, there are households that have earned a high income of VND 30-40 million/year from the sale of Bon Bo seeds; and others with average and less incomes accounting VND 10-15 million and 3-4 million/year respectively. This is a good source of income for upland ethnic minority people.

From the origin of wild plant, Bon Bo plant has been zoned and cultivated and protected for commercial purpose. The Bon Bo plant development has become a career in agricultural production in highland areas. The potential advantages include an abundant source of Bon Bo seedlings, low investment and planting techniques that are not too complicated, low rate of pests and diseases and all together enable ethnic minorities including the Thai ethnic people to develop Bon Bo plants.

Bon Bo plant is the bushy plant that grows thickly with leaves, large canopies and a system of polyrhizous roots to effectively retain moisture in soil and protect the environment and soil from erosion and washing away on the slopes in mountainous areas. The best way to enrich depleted natural forest areas with moist soil and suitable sunlight is the development of Bon Bo plants under forest canopies to increase income for those households who rely on forests for livelihood. The development of Bon Bo plants also brings a dual benefit to local people (income earned from the sale of the seeds) and improved forest biodiversity conservation.

5. CONSTRAINTS AND REMAINS OF THE DEVELOPMENT OF BON BO PLANTS

In addition to the advantages, the development of Bon Bo plants faces with some constraints and remains as follows:

- *Values of Bon Bo seeds in terms of medicinal ingredients:* in addition to traditional values domestically used by local ethnic minorities and the pharmaceutical chemistry characteristics of several species of the genus *alpinia* in the family ginger described in a study (Doctoral Thesis by Le Huyen Tram, Hanoi National University and other works), the pharmaceutical and medicinal values of Bon Bo seeds have not adequately been studied and published by Vietnamese scientists.
- *The processing of Bon Bo seeds:* the boiling and peeling of Bon Bo fruits are almost manually operated and labor intensive. So far no study on the mechanization of the processing has been in place.
- *Bon Bo seed market:* : currently, Bo Bo seeds are being exported mainly to China without import quota and as the result, the export is more risky with various commercial barriers and markets.
- *Regarding ecological conditions:* Bon Bo plants only grow well and bear a lot of fruit in suitable forest areas with moist soil and suitable shade and thus it is necessary to locate and zone specific suitable areas for growing and avoid the psychology of rampant growth of Bon Bo plants. Bon Bo plants no longer grow well and bear a lot of fruits in enriched natural forests with their well-developed canopies and reduced sunlight.



SOME RECOMMENDATIONS ON POLICY



1. IMPLEMENTING THE POLICY ON THE ALLOCATION OF LAND AND FORESTS AND GRANTING THE LAND USE RIGHT CERTIFICATE TO THE LOCAL COMMUNITY, THE HOUSEHOLDS AND THE INDIVIDUALS WHO ARE THE ETHNIC MINORITIES

Speeding up the land and forest allocation process: According to Nghe An PPC's Decision 4213/QQĐ - UBND dated 20 Sept. 2018 on the approval of the project to allocate land and forests, for the 2018-2021 period, to the individuals and the households and the communities inhabiting in the province, Que Phong district, which is one of the critical districts in the provincial land and forest allocation work, has to allocate and grant the rights to use land and forest of the total area of 48,837 ha (including 48,776 ha of natural forest and

61 ha of forestry plantation) out of 265,771 ha in the entire province, accounting 18.37% of the plan of the province. Specifically, the district shall have to allocate the forests on the allocated land, and grant certificates on the right to use forestry land totaling 17,732 ha (including 17,706 ha of natural forest and 26 ha of forestry plantation); allocate forests and land and grant the right to use forestry land of the total area of 31,105 ha (including 31,070 ha of forestry plantation and 35 ha of natural forest). As the district workloads on this aspect are enormous, and in order

to accomplish the task so as to meet the people's need, it is necessary to strengthen the close coordination and collaboration between and among the District Division of Natural Resources and Environment, the District Office for Registration of the Right to Use Land and the District Forestry Inspectorate in speeding up the process

Socialising the expenses for the work of land and forest allocation by mobilising the contributions from the households such as manual work in clearing the land, contributing some expenses; especially in areas where there are favourable conditions

for forestry production and production forest planting and where there are families who badly need forestry land for production.

Paying due attention to the allocation of land and forest to the community including religious forests. In reality in the province and the district, the management and protection of forests have been very effective, in conformity with the cultural practices of the ethnic minority people; the allocation of land and forest to the community has only recently received financial support from non-governmental and international organisations.

2. BRINGING INTO FULL PLAY THE THAI ETHNIC PEOPLE'S CULTURAL CHARACTERISTICS AND TRADITIONAL FESTIVALS IN ASSOCIATION WITH THE MANAGEMENT, PROTECTION AND SUSTAINABLE USE OF FORESTS.

Recovering and maintaining the forest worship festival, raising the local people's awareness of managing, protecting and sustainably using the forests: These are the need and the long-lasting fine cultural practices of the Thai ethnic people in Que

Phong district. Over the past recent years, due to several changes that have taken place such as the planning of 3 types of forest, the relocation of the people for the construction of hydro-electric power stations, the socio-economic planning,



and the resettlement of the local people, many of these fine cultural characteristics and practices have been diminishing and those still alive are present only in some remote villages. As seen in the reality of the UNDP-GEF SGP-funded project at Nam Giai village, it is very necessary that the village authorities provide support in such a way as to recover and maintain the community's forest worship festivals in these villages in order to promote awareness of managing, protecting and sustainably using the forests among the village community, especially among the young generation.

Developing and organising the implementation of Village Rules and Conventions on managing, protecting and sustainably using the forests: The Thai ethnic people's customary laws and cultural practices in managing, protecting and sustainably using the forests and natural resources have many progressive aspects and in conformity with the requirements in sustainably managing the forests in the context of increasingly changing climate. Therefore, it is very necessary to conduct reviews and examinations in order to continue the implementation of village rules and conventions on managing, protecting and sustainably using the forests in the community. This is the approach to the legislation to ensure customary laws to be in conformity with laws in managing and protecting the forests in the areas inhabited by the ethnic minority peoples.

Working out and organising the implementation of the regulations on coordinating the work of protecting the

forests, signing contracts on forest protection, making payments for forest environmental services, etc. between the Management Board of the Pu Hoat PA, the district Forestry Inspectorate and the local communities and people. Special-use and protection forests are types of forests established by the State and mainly managed by the State for common purposes. On the edge and inside of the protection and special-use forests in the Pu Hoat and Pu Huong PAs in Que Phong district are where the local people are living scatteredly. Therefore, in order to well protect the special-use and protection forests of the State, and at the same time pay due attention to the development of the local people's livelihoods and the preservation of the local people's culture, it is very necessary to work out and implement the regulations on coordinating the work of protecting the forests, signing contracts on forest protection, making payments for forest environmental services done by the local community and people.

Given the situation in which the values of the Thai ethnic people's customary law are facing a diminishing challenge, the authorities in many villages have not really paid attention to the application of the Thai's customary law in their performance of the State management work. The community needs the application of the Thai's customary law in the performance of the State management of the community. To do away with such a situation in order to bring into full play of the Thai's cultural identity in the work of managing and protecting the forests, the following solutions are proposed:

- Solution to the organisation: Establishment of a Consulting Team that consults on customs and practices at the hamlet level, and establishment of the Consulting Board at the village level, which provides technical consultations for the authority
- Group of technical solutions: To link some areas of State management in Forest Management and Protection, in Forestry, in Resources and Environment, in Education, in Health Service, in Culture with a view to working out Regulations on Coordination.
- Group of solutions to the enhancement of the capacity of the concerned entities such as the community, the administrative cadres at hamlet and village levels, and the mass organisations.
- Group of solutions to the financial resources: mainly by socialising and with necessary supports.
- Solution to implementation arrangement: Clear-cut division of specific assignments of work and with good coordination.

3. COORDINATING IN SUSTAINABLE BON BO PLANT DEVELOPMENT UNDER NATURAL FOREST CANOPY, AND LINKING THE VALUE CHAIN WITH THE SELLING OF THE PRODUCTS SO AS TO IMPROVE THE LOCAL COMMUNITY'S LIVELIHOOD

Working out the plan for sustainable Bon Bo plant development under natural forest canopy in accordance with the Regulations on Forest Management. In 2016, Que Phong DPC issued Decision No. 204/QĐ - UBND dated 11 April 2016 to approve the Project to preserve and develop high economic value herbal medicinal plants for the period 2016-2020 with special attention to the 3 types of plants namely Bon Bo, Dang San and Che Hoa Vang. According to the Project, the development of Bon Bo plants should be in 7 villages of Châu Thôn, Nm Nhóong, Nm Gii, Tri L, Mng Nọc, Châu Kim, Tin Phong totaling 235 hectares. In implementing the Project, with the participation and support from UNDP-GEF SGP, the Bon Bo plants enjoyed the

fullest and special development. It is noted that after a number years, it is necessary to review and assess the implementation of the Project. Also on the basis of the result of the 2015 inventory of the forest and the knowledge of the ecological characteristics of the Bon Bo plant, a detailed, reasonable and most effective zone planning for the development of the Bon Bo plant should be considered



Applying different forms of production and business units in keeping with the economic cooperation and coordination in producing and selling Bon Bo seeds.

The households who produced Bon Bo have met many difficulties in expanding the area for planting because of the shortage of labour force used in collecting and processing the products (boiling, peeling). They have also been forced to sell their product at a low price. So, in order to overcome these difficulties, the following actions should be taken in developing the production:

- Promoting various forms of cooperation in production in the community so as to cooperate in using the labour force and in sharing market information. The lowest form of cooperation is to set up community teams, then upgrading to Cooperative Groups, Cooperatives, and business enterprises which can perform all production chain from protecting, planting, tending, collecting, processing and selling the Bon Bo seeds. Thus, the above-mentioned forms of production units may be established so that they can avoid the situation in which Bon Bo products are only collected and processed in a short period of 1 or 2 months in a year.

At the present time, within the district and in its neighbouring areas, there are rather many households who buy Bon Bo seeds, but there have not been small-scale and medium-scale business enterprises that cooperate with the farmers to invest in producing and commercialising Bon Bo seeds in such a way as to lengthen the value chain. Therefore, it is very necessary that there are mechanisms in place to provide support and encouragement.

In a situation in which there are difficulties in developing the cooperative economy in the mountainous areas, it is very necessary that there are legal entities in the membership of the cooperatives as stipulated in the 2012 Law on Cooperative. These legal entities, first of all, should be attached to the community's organisations such as the Village's Association of Farmers and Women's Union so as to strengthen the capabilities of the cooperatives.





- Setting up all forms of collaboration such as collaboration contract and collaboration project on developing Bon Bo plants that links with the processing and selling of Bon Bo seeds. First and foremost is the model of horizontal collaboration between and among the households whose work is to protect the forests where they plant, protect and collect Bon Bo seeds in their area. Then the vertical collaboration according to the value chain with all links of the production chain such as producing, collecting, processing, selling, exporting.
- Investing and supporting the investment in the transfer of technology in processing, preserving, reducing post-harvesting losses, improving standard and quality of Bon Bo seeds, and establishing a trade name for Bon Bo seeds in accordance with the One Commune - One Product (OCOP) Programme. As the processing of Bon Bo seeds performed with the Project's advanced dryer model is a new practice, it is necessary to review this

practice in order to draw experience and transfer this type of technology to the community, especially the cooperatives, the cooperative groups and business enterprises. Bon Bo seeds produced in Que Phong district has now established its name in the province and on the market with a fairly great output, and greater and greater with every passing year. Therefore, the DPC's directions are very necessary in order to implement the OCOP Programme approved by the Prime Minister in his Decision 490/QĐ - TTg dated 7 May 2018. Those villages such as Nam Nhong and Nam Giai with plenty of Bon Bo products should be given priority in order to have an established trade name that would attract the resources of the Programme for the enhancement of the product quality and the standardisation of the product.



- Participating in the commercial promotion and advertising of Bon Bo seeds in accordance with the OCOP Programme which is a new one that is being encouraged and supported by the State. On the basis of the high quality and the homogeneity of the Bon Bo seeds, the product shall be standardised with the harmonious appearance of its sample, container, trade mark, packing so that the product can be promoted and introduced under the OCOP Programme.
- About the consumption and the market of Bon Bo seeds: The Bon Bo seeds are at present time being exported to the Chinese market where there is a high risk in their pricing as they are normally in the situation in which there exists "a good harvest but a drop in price" pattern. So, whether there should be surveys in an effort to find new and diversified markets while trying to improve their quality in their preservation and storage so that they can be sold during a longer period.

4. MECHANISMS AND POLICIES APPLIED TO SUPPORT AND PROMOTE THE MANAGEMENT AND PROTECTION OF FORESTS AND THOSE FOR COOPERATION AND COLLABORATION IN THE PRODUCTION AND SALE OF THE PRODUCTS

The State is currently employing many mechanisms and policies on the allocation of land and forests, on the management and protection of the forests, on payment for forest environment services, on supporting the poor ethnic minority people in their work of protecting the forests, and on encouraging the cooperation and collaboration in producing and selling the products, and the OCOP Programme etc, which all shows the Party's and the State's attention paid to the ethnic minority people and the people in remote highland regions. However, the fact that there are many policies and many management agencies has made the management work complicated and the effectiveness of the investment limited. So, whether there should be a revision of the situation in order to have a common set of policies that is put under the direction of only a few number of



sectors so that the management work can be facilitated and the use of resources can be more effectively improved.

The mechanism for the use of the Revolving Livelihood Fund for Bon Bo plant development: This Fund, applied by the UNDP - GEF/SGP Project in Que Phong district, is a sustainable model which provides support for the local people and at the same time promotes their sense of self-reliance and helps the people not in a small number in the community do away with the dependent idea of waiting for assistance from others. Therefore, the use of the Fund should be varied and expanded to other forms of support which include, among others, the method of "giving the fishing rod and telling them how to fish" rather than "giving them the fish"

5. REPLICATING THE MODEL OF THE UNDP-GEF/SGP PROJECT TO AREAS WHERE THERE ARE SIMILAR CONDITIONS IN NGHE AN PROVINCE.

The Project for developing Bon Bo plants through the value chain, which is integrated with the protection of the forests, the conservation of biodiversity resources and the preservation of the ethnic Thai people's culture in Que Phong district has been rather successful in many aspects. It is thought that these successes should be widely replicated by the local authorities, line departments and communities to other parts where there are similar conditions across the province.





Copyright (c) Lam I

RESULTS GAINED FROM THE IMPLEMENTATION OF UNDP-GEF/ SGP PROJECTS IN QUE PHONG DISTRICT

I. PROJECT VMN / SGP / OP5 / Y4 / STAR / 2014/13.

1. PROJECT TITLE

Developing a community-based models for sustainable Bon Bo plant conservation, development and use to contribute to biodiversity conservation in Que Phong district, Nghe An province.

2. PROJECT SITES AND DURATION

communes Chau Thon and Nam Nhung of Que Phong district. From December 10, 2014 to February 28, 2017

3. PROJECT OBJECTIVES

Overall Objective:

the ethnic minority farmers' and women's knowledge and capacity be improved in natural resources and environment protection and biodiversity conservation on the basis of Bon Bo plant development for local economic development and poverty reduction in the highland areas in Nghe An province.

Specific objectives:

A community based model for the conservation, development, management, harvest and sustainable use of Bon Bo plant species with an area of 54 ha (including 14 ha for concentrated planting and 40 ha for the tending, zoning and enrichment of Bon Bo plants) be successfully developed for replication; and the ethnic minority farmers' and women's knowledge and capacity in Bon Bo plant protection and development be improved and translated into action for economic development, job creation, income generation, poverty reduction, environmental and forest protection and biodiversity conservation in the highland areas of Que Phong district, Nghe An province

4. PROJECT ACTIVITIES AND RESULTS



Developing a model for sustainable Bon Bo plant conservation, development and utilization: a model for the conservation, development and sustainable use of Bon Bo plant species was successfully developed in an area of 54 hectares including 14 ha for newly planting by 15 households and 40 ha for additionally planting by 37 households in 5 villages of Nam Nhung and Chau Thon communes.

Training and workshops: the project provided two training courses on Bon Bo plant growing, management, conservation and development techniques for 52 households and 73 officials from communal and district level Women's Unions, Associations of Farmers, agricultural extension stations and forestry administrations and Inspectorate, the Program 30A and the District Division of Agriculture and Rural Development and the Pu Hoat PA. The project also successfully organised a district level workshop on Bon Bo plant conservation and development attended by 82 participants to share the results gained and experience and lessons learned.

Communication to raise awareness of and improve capacity for Bon Bo plant conservation and development associated with forest protection among the community: There were 21 news and/or articles about Bon Bo plant conservation and development broadcast by provincial and district radio and television stations and 14 communal and town radio stations. Two bulletin boards were constructed and posted in the center of two communes Nam Nhung, Chau Thon; 1000 calendars were produced for disseminating relevant information about Bon Bo plant development; and 2000 Q&A handbooks on Bon Bo plant conservation and development were compiled and published. Many news and/or articles relating to the project and the Que Phong DPC's attendance at the UNDP Green Initiative Fair and

Exhibition held in Hanoi, were published in Nghe An Provincial Newspaper and Nghe An Labor Newspaper, and posted on websites of the Department of Agriculture and Rural Development (DARD), the Western Nghe An Biosphere Reserve, the Provincial Agricultural Extension Center, the Nghe Anh Provincial Fund for Forest Protection and Development

Raising and piloting a community based fund for Bon Bo plant conservation and development: with a financial support of VND 160 million initially provided by the project, a revolving credit fund was raised by the two communes and operated by a Fund Management Board chaired by the Chairman of the Communal Association of Farmers to give loans to households in need for Bon Bo plant development.

Establishing a Cooperative Group for Bon Bo plant conservation and development and Bon Bo seed consumption in Nam Nhoong commune: This cooperative group was established and composed of 24 members.

Project management and other activities: The project had been effectively and efficiently managed and performed to meet its designed objectives as required.

5. FUNDING FOR PROJECT IMPLEMENTATION

UNDP/GEF SGP funding: 1.016.353.058 VND.

Contributions from others: 1.208.082.644 VND.

- The participating households: 986.482.644 VND.
- The project implementation agency: 21.600.000 VND.
- Counterpart funding from PPC: 200.000.000 VND.

Grand total : 2.224.435.702 VND.

II. PROJECT VMN/ICCA- GSI/2017/01

1. PROJECT TITLE

Enhancing the capacity of the Thai ethnic community in forest management and protection integrated with local livelihood and cultural improvements in Que Phong District, Nghe An province.

2. PROJECT SITES AND DURATION

Nm Gii village, Nm Nhóong commune, Qu Phong district; from April 2018 to May 2020.

3. PROJECT OBJECTIVES

Overall Objective:

The capacity of the Thai ethnic community strengthened in forest management and protection integrated with local livelihood and cultural improvements in Que Phong District, Nghe An province.

Specific objectives:

- The knowledge and capacity of the Thai ethnic community improved in religious forest management and protection integrated with local livelihood improvement.
- The allocation of land and forests to local community be arranged and the collaboration of forest protection between local community and the Pu Mat PA management board be enhanced.
- The Thai ethnic people's good cultural taboos in forest management and protection be preserved and strengthened.
- The model for Bon Bo plant development through a value change replicated to create jobs and increase incomes from forest management and protection in Qu Phong district, Ngh An province.



4. PROJECT ACTIVITIES AND RESULTS



Improving the Thai ethnic people's knowledge and capacity in forest management and protection integrated with their livelihood improvement and religious forest protection:

ACTIVITY / RESULT 1

- 64 participants attended the project inception ceremony and seminars/dialogues on the improvement of the capacity in religious forest management and protection integrated with livelihood improvement.
- 203 households from 9 villages of Nam Giai and Nam Nhoong communes participated in a training course on Bon Bo plant zoning, tending, protection and additionally growing techniques.
- 198 people from four villages of Nam Giai commune attended seminars on the improvement of the capacity in religious forest management and protection integrated with livelihood improvement organized at village level;
- 67 people attended a preliminarily one-year project performance progress review meeting.
- 70 people attended a final project performance progress review meeting.
- About communication activities, a bulletin board was posted; 600 booklets on forest protection and management, community based forest management in association with the development of Bon Bo plant through a value chain and religious forests were compiled and published; and the District People's Committee (DPC) enacted a regulation on the promotion of public awareness of forest protection and management throughout the local political system for implementation.

ACTIVITY / RESULT 2

- There are 404,280 ha of forest and forestry land already allocated to the Thai ethnic communities in five villages of Meo, Pục, Cáng, Pòng, M in Nam Giai commune
- Regulations on strengthening forest protection cooperation between Nam Giai communities with the Pu Hoat PA Management Board in Que Phong district were developed, enacted and implemented.

ACTIVITY / RESULT 3

- The forest worship festival at the beginning of the year has been restored at Pục, Meo and Piêng Làng villages in Nm Gii commune to educate and raise local community's consciousness of forest protection;
- The Nam Giai CPC enacted regulations on the preservation and promotion of the Thai ethnic people's good cultural traditions on forest protection and management, and has directed the implementation of the regulations.

Replicating a model for Bon Bo plant development::

ACTIVITY / RESULT 4

- Bon Bo plant protection, tending and growing associated with the 200 ha forest protection and management have been carried out by 200 households from 9 villages of Nm Gii commune (Meo, Pục, Càng, Pòng, M) and Nm Nhóong commune (Bn Na, Na Hc 1, Na Hc 2, Pa Lâu)
- Two cooperative groups for Bon Bo seed consumption were established in Nam Nhoong and Nam Dung communes, and then scaled up to cooperatives;
- Two innovative dryers of Bon Bo seeds were built in Nam Nhoong and Nam Dam communes.
- Results and successes gained and experience and lessons learned from the project on the model for developing Bon Bo plants (UNDP - GEF/SGP - years 2015-2017) in Nam Nhoong, Chau Thon have been shared and exchanged with this project in Nam Giai commune.

5. FUNDING FOR PROJECT IMPLEMENTATION

UNDP/GEF SGP funding: 962.220.000 VND.

Contributions from others: 1.696.000.000 VND.

- The participating households: 800.000.000 VND.
- The project implementation agency: 36.000.000 VND.
- Counterpart funding from PPC: 300.000.000 VND,
- Counterpart funding from DDC : 200.000.000 VND,
- The Community Based Fund: 160.000.000 VND.
- Pu Hoat Reserved Area: 200.000.000 VND.

Grand total: 2.658.220.000 VND.

III. IMPACTS OF THE PROJECT

POLICY AND INSTITUTIONAL IMPACTS

- The Nghe An PPC issued Decision 15/2018/QĐ - UBND dated 30 March 2018 on the implementation of support policy on agricultural and rural society development across the province (developing medical herbs under the canopy of forests).
- In 2016, the Nghe An PPC provided a fund of VND 200 million for the Que Phong DPC for the implementation of the model for Bon Bo plant development, and co-funded an amount of VND 300 million in 2018 for the implementation of the project VMN/ICCA-GSI/2017/01.
- The Que Phong DPC issued Decision 204/QĐ - UBND dated 11 April 2016 on the approval of the project on the conservation and development of species of medical herbs with high economic values for the period of 2016-2020. These species of medical herbs include three species of Bon Bo, Đng Sâm và Chè hoa vàng plants.
- The Que Phong DPC issued Decision 474/QĐ - UBND dated 29 June 2016 on the approval of the Technical Procedures for Bon Bo plant growing and tending.
- The Que Phong DPC issued Decision... on the allocation of 404, 28 ha of land and forests to five communities in Nm Gii commune.
- The CPCs of Nm Nhóong, Nm Gii and Châu Thôn communes have issued decisions on the establishment of communal level steering committees for Bon Bo plant conservation and development; and approved plans for Bon Bo plant development in the communes.
- Nam Giai and Nam Nhung communes were granted license to establish their cooperatives by was the Finance and Planning Division of Que Phong DPC.
- With the financial support of VND 160 million provided by the project, the revolving credit funds for Bon Bo plant conservation and development were raised and have been effectively operating.
- Regulations on forest and natural resources management and protection associated with the community's cultural preservation were issued by Nam Giai CPC for implementation.
- Regulations on coordination in community forest management and protection between the Pu Hoat PA and the Nam Giai CPC were issued and implemented.
- Since 2016, the Bon Bo plant development model has been widely replicated by the Government's Program 30A and the Que Phong District Agricultural Extension Station to date. The model has been integrated with the training program delivered by the Vietnam Forest and Delta Project for several localities in the province, and included in the project on development of medicinal plants by Pu Hoat PA.
- As specified by Que Phong DPC's Decision 204 / QĐ-UBND dated 11 April 2016, the Bon Bo plant is one among the target medicinal herbs in the district's project on

the conservation and development of medicinal herbs of high economic value, the development of Bon Bo plants has been performed to meet the designed objectives and being expanded



ECONOMICAL IMPACT

Results gained from a survey undertaken by the project's team of experts in collaboration with Vinh University show that: each Bon Bo plant grows into a cluster with 10 - 12 individuals in the second year after planting; the number of Bo Bo plants bearing fruits is 6.4 plants per cluster, which provide 1.77 kg of fresh seeds or equivalent to 0.37 kg of dry seeds. Accordingly, the theoretical yield is: $800 \text{ plants/ha} \times 1.77 \text{ kg of fruit/plant} = 296 \text{ kg of dried fruit}$; and an income per ha is: $296 \text{ kg} \times \text{VND } 30,000/\text{kg}$ (average unit price for many years) = VND 8,080,000 earned from the centered growing model. The model for zoning, tending, protecting and additionally planting 200 plants/ha produces: $200 \text{ plants} \times 0.37 \text{ kg of fruit/plant} = 74 \text{ kg of dried fruits}$; an income of $74 \text{ kg} \times \text{VND } 30,000 / \text{kg} = \text{VND } 2,220,000/\text{ha}$ (not including the number of Bo Bo plants naturally grown in the same area).

The productivity of Bon Bo plants increases gradually in the fourth and fifth years because, each parent plant can grow in a cluster of 5-7 young plants / year, producing an output that is 2-3 times higher than that in the second and third years due to better tending, trimming and protection (adding nutrients in the soil and enlarging space for development ...).

In 2016, Nam Nhoong commune earned an income of VND 1 billion from the sale of 28.57 tons of Bon Bo dry seeds. This figure was VND 1.5 billion in 2017 and nearly VND 2 billion in 2018. According to the Que Phong DPC leaders, the income earned from Bon Bo seeds in the district reached more than 5 billion VND in 2018. This is an impressive outcome produced by such a mountainous district facing with many difficulties as Que Phong.

SOCIAL IMPACT

The project has brought social benefits as follows:

Improved technical capacity of local people and grassroots technical staff: With the support of the project (through communication, training, model and regulation development activities, etc.) The capacity and awareness of Bon Bo plant conservation and development have been enhanced among local people, technicians, authority officials, members of local Women's Union and Association of Farmer', and employees of the Program 30A, the Pu Hoat PA Management Board, and Forest Inspectorate .

A source of sustainable livelihoods created to enable poverty reduction: Bon Bo plants yield products in a short time, bringing a double benefit to protect forests and the environment and give a rather high economic value for forestry land.

Initially, the Bon Bo plant conservation and development fund of VND 160 million was established and has been operating effectively and efficiently. In 2016, local households with loans lent by the Fund, planted 32 hectares of concentrated Bon Bo plants. The Fund has helped ethnic minorities enable a shift in their new business thinking on loans that they borrow to expand the production and in return, the production must be profitable to pay back. Thus the psychology of relying on subsidies and/or donations provided by programs/ projects has been gradually overcome;



and their business and production activities must take into account costs and benefits, self- government and economic efficiency.

Replication of the project model: There are 193 households in Nam Nhung commune and 35 households in Chau Thon commune involved in growing, tending, zoning and protecting 174,4 ha and 40.7 ha of Bon Bo plants respectively. In Nam Giai commune, there are 160 households that have participated in the implementation of the project's model on a total area of 160 ha. Thus, the project has impacted greatly on the involvement of 388 households in the development of Bon Bo plant in a total area of 375.1 ha in the three communes





ENVIRONMENTAL IMPACT

Benefits arising from forest and environmental protection:

The Bon Bo plant growing and tending process facilitates the growth of target timber trees. Bon Bo plants that were centrally and additionally grown in both natural forest and poor and depleted forest areas are well developed in the two models. Otherwise the forests would not be timely protected and/or could be lost forever.

When the forest is protected and replanted, it shall ensure the natural development according to the succession of the depleted forest, after a while it shall grow into a medium forest. The intercropping of Bon Bo plants helps enable the development of forest structures and the return of worms, crickets and other animals in soil and wildlife in a larger number.

Income earned from Bon Bo plant and other NTFPs has helped ethnic minority households enable to stabilize their lives, reduce the conversion of forestry land to others, limit deforestation, protect and enrich the biodiversity, contributing to sustainable ecological environment protection.



REFERENCES

- 1.** Improving livelihoods associated with forest protection and development, practices and policy recommendations, UNDP-GEF SGP, Prof. Dr. Pham Van Dien and Nguyen Thi Thu Huyen, Hanoi, December 2017.
- 2.** Q&A Handbook on the conservation and development of Bon Bo plants, VMN / SGP / OP5 / Y4 / STAR / 2014/13 project document, published June 2016.
- 3.** Summary report on the violation of the Forest Protection and Management Laws, Que Phong Forest Inspectorate, 2015-2018.
- 4.** Document, the 2016 forest inventory in Nghe An province.
- 5.** Que Phong DPC's Report on socio-economic development, national defense and security, 2017-2018.
- 6.** The 2017 Forestry Law
- 7.** Documents of the projects VMN / SGP / OP5 / Y4 / STAR / 2014/13 and VMN / ICCA- GSI / 2017/01, Nghe An Forestry Development Consulting Center 2015-2019.
- 8.** Biodiversity values of Pu Hoat PA, Nguyen Van Hieu, Proceedings of Pu Hoat PA- Five Years of Its Operation and Development, November 2018.
- 9.** Legal analysis as a basis for assessing the impact of laws, policies and institutional frameworks on ethnic minorities and local communities in natural resource conservation and development- Vietnam Union of Science and Technology Associations, Pleiku Workshop Documents, September 27-28, 2018.
- 10.** The Thai ethnic people's customary law and its application in the state management of the Thai ethnic community in the North Central provinces of Vietnam - Vi Van Son, Law Doctoral Thesis in 2015.
- 11.** The Thai ethnic people's folk knowledge in using and protecting water resources, Vi Van An, the Nghe An cultural magazine, April 2011.
- 12.** Report on results gained from the research of the role of customary law and practices in the management and use of forest and water resources; and Report on traditional forests - the fulcrum of the Thai ethnic people's culture and livelihoods in Dong Van commune, Que Phong district, Nghe An Province - CIRUM, February 2011.
- 13.** Nghe An PPC's Decision 4213/QĐ-UBND of September 20, 2018 on approving the Project on the allocation of land and forests to individuals, households and communities in the province in the period of 2018-2021.

The Small Grants Programme (SGP) is a corporate programme of the Global Environment Facility (GEF) implemented by the United Nations Development Programme (UNDP) since 1992. SGP grantmaking in over 125 countries promotes community-based innovation, capacity development, and empowerment through sustainable development projects of local civil society organizations with special consideration for indigenous peoples, women, and youth. SGP has supported over 20,000 community-based projects in biodiversity conservation, climate change mitigation and adaptation, prevention of land degradation, protection of international waters, and reduction of the impact of chemicals, while generating sustainable livelihoods. SGP has been implemented in Vietnam since 1999 with more 150 projects in 40 provinces.



**NGHE AN FORESTRY DEVELOPMENT
CONSULTING CENTER**

152 Ha Huy Tap, Vinh City, Nghe An Province

Tel: 0904657347 | 0383851411

Email: thanhnamnna@gmail.com

Mr. Nguyen Thanh Nham, Director

**THE GLOBAL ENVIRONMENT FACILITY
SMALL GRANTS PROGRAMME**

304 Kim Ma, Ba Dinh, Hanoi, Vietnam

Tel: (+84) 24 3850 0150 | Email: gef-sgp-vietnam@undp.org

Website: www.undp.org | www.sgp.undp.org