

Final Report

project

Training Needs Assessment of Staff in Thakhek and Boualapha Hin Namno National Protected Area

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List of abbreviations used in the Report

FOF	Faculty of Forestry
GoL	Government of Laos
GIS	Geographic information systems
GIZ	Gesellschaft fur InternationaleZusammenarbeit
GPS	Global Positioning System
HNN	Hin Namno
NTFPs	Non-timber forest products
MCU	Mobile Conservation Education Unit
MOIC	Ministry of Industry and Commerce
MONRE	Ministry of Natural Resources and Environment
NPA	National Protected Area
NUoL	National University of Laos
PA	Protected Area
REDD	Reduction of emissions from deforestation and forest degradation
ToR	Terms of Reference
UNESCO	United Nations Educational, Scientific and Cultural Organization
UXO	Unexploded Ordinance
WCS	Wildlife Conservation Society
WHC	World Heritage Conservation
WWF	World Wide Fund for Nature (World Wide Fund)

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1 Executive summary

Strengthening capacity of protected areas staff through appropriate education and training as catalyst of human resource development could lead to a sustainable forest management of national protected areas. In addition, this assists the Government of Lao PDR (GoL) to achieve the National Growth and Poverty Eradication Strategy (GOL 2004), National Biodiversity Strategy and Action Plan (GoL 2004) and the World Bank Country Assistance Strategy. Sustainable use of forest resources achieves: (a) food security for current and future generations of rural Lao people; and (b) a sound resource base for conservation of biodiversity and implementation of eco-tourism. For these reasons, strengthening of management of protected area at local level is not only consistent with GoL's national policies, but also indispensable for improving the management of sustainable management of Hin Namno PA.

The Integrated Nature Conservation and Sustainable Management of Natural Resources in the Hin Namno National Protected Area (HNN NPA) is a project implemented by the Lao Government's Department of Forestry with financial support from GIZ (Gesellschaft für Internationale Zusammenarbeit). Technical Assistance is provided by IP-Consult from Germany.

This project helps the communities living in the HNN region to conserve the biodiversity of the HNN NPA in a co-management approach together with the NPA Management Authority. The goal of the project is to improve the economic and social living conditions of the poor rural population through sustainable management of natural resources.

The key components of the project include:

- (1) Harmonization of the legal and institutional framework
- (2) Strengthening of the HNN NPA management
- (3) Development of income generation opportunities for local communities

In order to achieve the goal of the project, human resource development is regarded as the main priorities of HNN NPA Management Project and it is necessary during the implementation of the project in order to have successful outcome to the project. Without the human resource development integrated into the project, off course, the implementation of the project will face difficult or unsuccessful.

This consultant study attempted to answer the following research questions: "what are the weakness and constraint that affect the human resource development of the HNN NPA Management Project? What is the need of human resource development of Hin Namno national protected Area Management Project?", what are necessary field equipments needed for the staffs and the priority infrastructure development plan in the Province and District?.

A field survey was conducted to gather primary data for the study. Selected respondents were interviewed individually to ensure unbiased responses. The survey was carried out for a period of 2 weeks for two districts namely Thakek District and Boualapha District.

The primary data gathered during the survey was supplemented with informal interviews with key informants from the Office of Natural Resource and Environment, Office of Information, Cultural and Tourism, as well as the Natural Resource and Environmental Unit under Provincial Natural Resources and Environment Department of Khammouane

Province. This was supplemented by secondary data, which includes the institution's profile and reports and some published papers, which were collected during the study.

The study reveals that the mechanism and capacity of PA management is relatively weak in terms of efficiency and effectiveness. This is because the current capacity of protected area staff is not relevant and sufficient, and therefore, the following recommendations are developed in order to tackle these issues.

At the Provincial and District Level, the Provincial Division of Forest Resources Management needs to have a comprehensive human resource development plan (both short-term and long-term).

- For the short-term plan, in order ensure the project sustainability beyond the project duration, a strong emphasis should place on a comprehensive training program which will be provided to the PA staff. The training should aim to equip the staff with skills and knowledge, which would allow them to be more effective and better staff to conserve the protected area. Furthermore, the training should not only focus on concepts and principles but rather a more practical approach and the needs of training should base on the findings of this study. The most pressing training needs are: **PA management, skills for practical conduct of conservation and extension works, basic knowledge in computer skills, project planning and management, biodiversity conservation & ecotourism, forest law enforcement & dissemination, Vietnamese language, NTFPs, GIS/Mapping and Compass, advance technique in wildlife and biodiversity plants survey, Education and Conservation Awareness activities.**
- In the long-term, the Division should develop a long-term plan on capacity building for advance degree levels for PA staffs. As mentioned in the section of the findings, the majority of staff obtained 'Diploma' qualification while very few achieved the Bachelor degree. Therefore, the Division should encourage the staff to upgrade their knowledge by continuing their study at the university level.

The study also suggested that skilled and experienced trainers from academic institutions are required in order to assist the HNN PA Management project. The Faculty of Forest Science (FOF) is the only institution in Lao PDR to offer forestry education up to the Doctor of Philosophy (PhD.) level. Furthermore, FoF also provides various packages of comprehensive and practical trainings in sound forest management practices. Training of trainer course on Nature conservation and ecotourism is another example of training programme offered by FoF. Therefore, the researchers from the Faculty of Forest Science (FOF), NUOLs should be better utilised and relationships between the HNN PA management project, Division of Forest Resource Management and FoF should be improved. It is recommended that a good collaboration should be developed between the project and Training programme developed by FoF so that they work together for the benefit of the HNN protected area.

The study also found that the Unit of Forest Resources and Environment Conservation in Boualapha District have 12 staffs but no office equipment and working materials namely computer, printing, desk and chair, folder, etc. These office supplies are indeed indispensable in their daily work. Furthermore, the Unit in Boualapha does not have any equipment used in patrolling and monitoring task such as vehicles, motorbikes, GPS and compass used in forest biodiversity survey and ecotourism trail survey.

Finally, a minimum of five check points needed to be constructed within the Hin Namno PA, which is an area of potentially high risk of illegal hunting and trade. Now, there is no any check points built at the all exit and access to HNN PA.

It should be mentioned that “the HNN project has given repetitive trainings on tourism awareness and ecotourism training to Ban Nong Pin. However, as long as the provincial government does not proactively create favorable framework conditions there, the given trainings are not followed by implementation.

The villagers need the support from government and the project to carry out land and forest allocation programme and land use planning in the villages since these could assist in the protection of national protected area and avoid deforestation in the HNN national protected area.

Other needs of the local communities are the necessary field equipments for forest patrolling and monitoring. These equipments include sleeping bags, tents, torches and mobile phone. Nongping village’s aspiration is to have the electricity (solar power) in the village since the electricity are necessary in organising village meeting and ecotourism services and it is indispensable for communication, i.e. recharging mobile phone battery, access to information through media, and the like.

2 Introduction

There is strong international evidence that high level of efficiency in resource use pays off or efficient utilisation of resource could bring about the success to the project or the programme. In general, resources include human resource, money, capital and technology. Of these, high level of efficiency of human resource plays a vital role in determining the success of the project implementation.

Human resource development is the most challenge Lao PDR faces. Both up-grading of the skills of the existing labour force, and improvements in the enrolment, retention and quality of education of Lao population play an important role in stimulating economic growth and sustainable development. Otherwise, the dramatic change from a natural resource- based economy to a human resource-based economy could be delayed for a generation or longer. The current natural resource export revenue and electricity export taxes revenue is significantly increasing the government's revenue and will provide an important avenue to increase investments in education and training of Lao people, and can be done through:

- Education: focus on strengthening the capacity of human resource in order to meet the labour market. In general, education is the main instruments used by institution to up-grading human resource. A Lao labour-force with higher education levels education is likely to find management and other skilled work and do very well in Laos or international labour market.
- Training, which emphasises on training at the workplaces in order to upgrade experience and skill in their work task
- Development: focus on having a change in the development process, which could bring output needed by organisation and society. Development is defined in broad sense and is responsibility of all stakeholders involved, including executive managers, project implementers and can be regarded as a long-term investment of certain organisations.

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The key components of the project include:

- (1) Harmonization of the legal and institutional framework
- (2) Strengthening of the HNN NPA management

(3) Development of income generation opportunities for local communities

As laid down in the PlanOps 2012/2013 workshop, in order to strengthen the HNN NPA Management on provincial and site level, the existing knowledge deficits should be identified and counter acted with proposed training measures in form of modules. In other words, in order to achieve the goal of the project, human resource development should be regarded as the main priorities of HNN NPA Management Project and it is necessary during the implementation of the project in order to have successful outcome to the project. Without the human resource development integrated into the project, off course, the implementation of the project will face difficult or unsuccessful.

With regard to the situations described above, the following research question arises: “what are the weakness and constraint that affect the human resource development of the HNN NPA Management Project?, and what is the need of human resource development of Hin Namno national protected Area Management Project ?”

The specific objectives of this study are therefore twofold:

- 1) To identify management deficits and identify technical deficits
- 2) To provide a training proposal to close the gaps

3 Lao PDR

3.1 Lao PDR and National Protected Areas

The Lao PDR is located in the heart of the Indochinese peninsular, in Southeast Asia, latitude 14 to 23 degrees north and longitude 100 to 108 degrees east. Laos is a landlocked country. It shares a 505 km border with China to the north, 435 km of border with Cambodia to the south, 2,069 km of border with Vietnam to the east, 1,835 km of border with Thailand to the west, and a 236 km border with Myanmar to the northwest. The country stretches for 1,700 km north to south, with an east-west width of over 500 km at its widest, only 140 km at the narrowest point. Laos covers 236,800 square kilometres, three-quarters of which is mountains and plateaux.

The Lao PDR has 18 provinces. Of these, Khammouane is one of the eighteen provinces, which is located in central part of Laos. Khammouane province is located in an area of moderately high mountains sloping down to Mekong valley. The province has an area of 16,315 Km² and shares border with Borikhamxay province in the north, Savanakheth province in the south, Vietnam (Annamite Chain) in the east, and Thailand (Panom Pehn district) in the west.

Figure 1: National protected areas in Laos



Laos is one of the few countries in South East-Asia, which allocated a large area of national protected areas in the early 1990s for major objectives of biodiversity conservation, water and environmental stability, protection of natural beauty for leisure, ecotourism and research. There are 20 protected areas in the country and covered over 12% of the total country area. These national protected areas distribute in all parts of the country (southern, central and northern), See Figure 1.

The national protected area is included forest and forestland classified for the purposes of conserving the nature, preserving plant and animal species, forest ecosystem and other valuable sites of natural, historical, cultural, tourism, environmental, educational, and

scientific importance (National Assembly 2005).

The area composes extremely natural resources such as, limestone plants and bird species. The area is classified as an important bird place as well as wildlife habitats with multi nature beauty such as, limestone cart, underwater and caves. Hin Namno is proposed to be on the list of the world heritage on natural diversity.

Hin Namno NPA possesses outstanding universal values similar to those already recognized by UNESCO. The HNN NPA consists of over 40 mammal species, over 200 bird species, 25 bat species, 46 species of amphibians and reptiles, over 100 fish species, and more than 520 plant species. Many of these species are considered as endangered or vulnerable not only in Lao PDR but also globally.

Figure 3: Signboard of Hin Namno national protected area (NPA)



3.3 Time schedule of the mission

The study made three visits to Hin Namno national protected area (NPA) as shown in Table 1. The data collection was divided in three levels: Provincial level (Thakek) focussing on Department of natural resource and environment and The Division of Forest Resource Management; District level (Boualapha) focussing on the Office for natural resource and environment as well as the office for Information and Cultural, and Ecotourism. For the village level, the assessment was undertaken in the protect target villages, namely Nong Ping and Dou Villages.

- On 18th November 2012, the consultant worked at the office, Faculty of Forestry (FoF), National University of Laos (NUoL) reviewing literature of the study and preparing for fieldwork. In this stage, questionnaire forms were developed.

- On 19th November, 2012, travelled from Vientiane to Thakak, Khammouane Province
- On 20th November 2012, the researcher met and worked with GIZ project, discussed and finalised working programme.
- On 21-22 November 2012, the researchers conducted the study at the Provincial natural resource and environmental Department. The assessment team introduced the working programme and activities to the head of department. Following this, the researchers conducted interviewing with the head of department (Mr Kham phay and his colleagues). Staffs and technician who are working at Hin Nam No national projected areas were also interviewed (a total of 11 staffs at the Provincial level).
- On 25-28 November 2012, the researchers worked in Boualapha District and conducted interview of staffs at the natural resource and environmental office and office for information, cultural, and tourism. There, the consultants interviewed district staffs (21), and villagers, including village heads (20).

Table 1: Time schedule for data collection

Days	Date	Activities	Place	Partners
1	18 November			
2	19 November	Travel (VTE-KM)		
3	20 November	Literature review and prepare field work in Khammouane	Thakak	Phongxiong & John, Khampoi
4	21 November	Introduce the program	Thakak	Mr. Sisomphone and staffs
5	22 November	Data collection (interview)	Thakak	Around 20 provincial staffs
6	23 November	Continues interview	Thakak	
7	24 November	Data entering and analysis	Thakak	
8	25 November	Leaving from Thakak to Boualapha	Boualapha	Phongxiong, Khampoi
9	26 November	Introduce the program to District staff and interview	Boualapha	District staffs
10	27 November	Continues interview District staffs	Boualapha	Around 20 staffs

Days	Date	Activities	Place	Partners
11	28 November	Target villages introduce for the program and interview	Boualapha	Around 20
12	29 November	Return back to VTE (travel)	VTE	VTE
13	30 November	DATA analysis and writing report	VTE	VTE
14	01 December	Writing report	VTE	Phongxiong, Dr Somvang and Dr Sengduene
15	02 December	Travel from VTE to Thakak	Thakak	Phongxiong, Dr Somvang and Dr Sengduene
16	03 December	Draft result presentation	Thakak	Phongxiong, Dr Somvang and Dr Sengduene

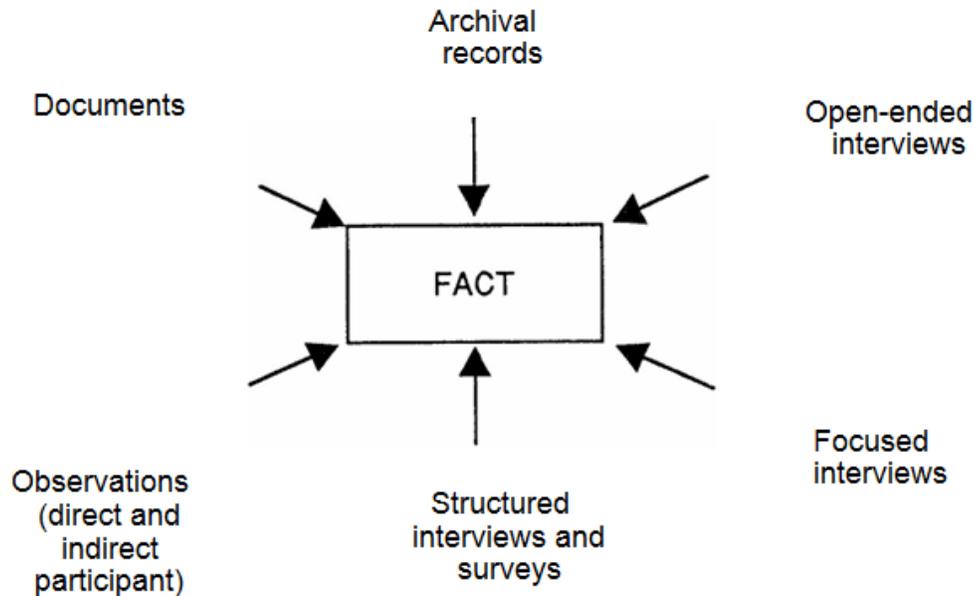
4 Methodology

4.1 A multi-method approach

This study utilised a multi-method approach (Figure 4). The main quantitative methods used were individual depth interviewing, focus groups meeting, observation, and documentary review. It is rather evident that in many circumstances multi-method approaches benefit from triangulation, which involves choosing different methods based on their individual strengths and compatibility (Boupha & Phimmavong 2006; Saignaleuth & Phimmavong 2008; Yin 2003).

Figure 4: Convergence of Multiple Sources of Evidence

I



Source: (Yin 1989)

Additionally, used in combination, these methods can assist in improving the consistency and validity of data, as well as improving their reliability and contextual value.

4.2 Research Process

A field survey was conducted to gather primary data for the study. Selected respondents were interviewed individually to ensure unbiased responses. The survey was carried out for a period of 2 weeks for two districts namely Thakek District and Boualapha District.

The primary data gathered during the survey was supplemented with informal interviews with key informants from the Office of Natural Resource and Environment, Office of Information, Cultural and Tourism, as well as the Natural Resources and Environment Unit under Provincial Natural Resources and Environment Department of Khammouane Province. This was supplemented by secondary data, which include the institution's profile and reports and some published papers, which were collected during the study.

Figure 5: Group discussion with staffs of Natural Resources and Environment Unit in Boualapha District



4.3 The Respondents

A total of 32 respondents were interviewed in addition to a group discussion with local villages (Figure 6). This was composed of directors, technical and administrative staff from Bouapha and Thakek District. **Table 2** presents the breakdown of the respondents:

Table 2: Survey Respondents

Institution	No of respondents
Thakek staff	11
Boualapha District	21
Interviews with selected villagers	Approx. 20 (group meeting)

In order to strengthen the aim of the study, group discussion was organised. Group discussion refers to situations in which the researcher facilitates discussions between individuals in relatively large groups. It provided opportunities to observe how villagers interact and respond to particular issues when in groups.

In this study, structured group meeting was organized after the personal interview was completed, when people have time to join. In the meeting, the group was asked to discuss urgent needs and concerns raised by the staff- respondents regarding the management of Hin Namno Protected Area.

Figure 6: Structured group meeting with villagers in Nong Ping village



4.4 Data Processing and Analysis

Data collected from the survey were managed using MS Excel and STATA program. Respondents' profiles and attitudes were displayed in percentage, and means. On the other hand, secondary data from the survey were compiled for qualitative (descriptive) analysis.

5 Key results and discussion

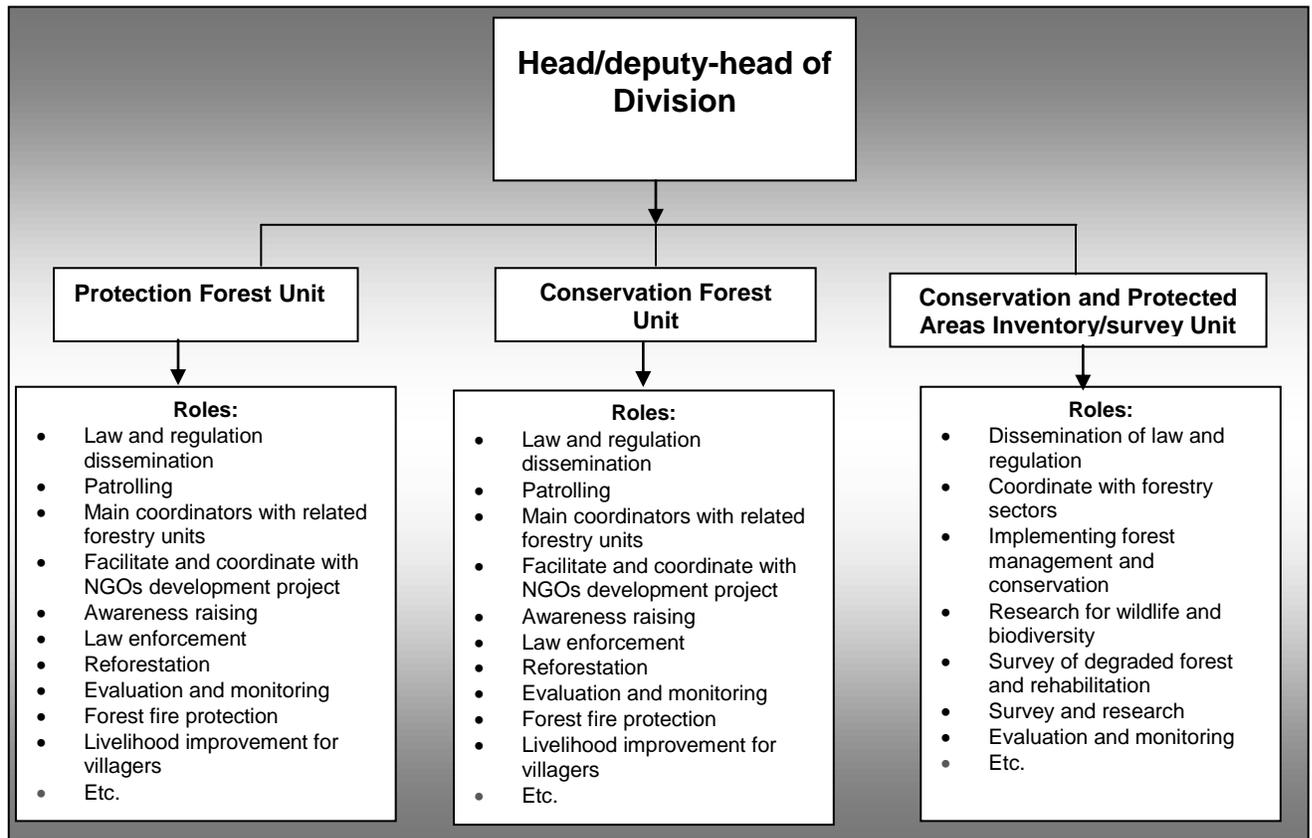
5.1 Structural organization at provincial and District levels

The Ministry of Natural Resources and Environment (MONRE) has been recently established in Laos. The role of MONRE is different from the Ministry of Agriculture and Forestry (MAF) in the sense that MONRE are responsible for conservation forest (national protected areas) and other activities relating to environmental issues. By contract, MAF is responsible for production forests. Due to the recent establishment of MONRE, both provincial and district Offices of Natural Resources and Environment are not well organised with regard to responsibilities, positions, functions, and structure. This affects the efficiency and effectiveness of the management of Hin Namno NPA Project.

5.1.1 Provincial Natural Resources and Environment Division

At the provincial level, Natural Resources and Environment Division is under the auspice of the Provincial Department of Natural Resources and Environment. Under the Division of Nature Resources and Environment, there are three working units which have different responsibilities, role and functions as shown in Figure 7.

Figure 7: Organisation structure of Provincial Division of Natural Resource and Environment



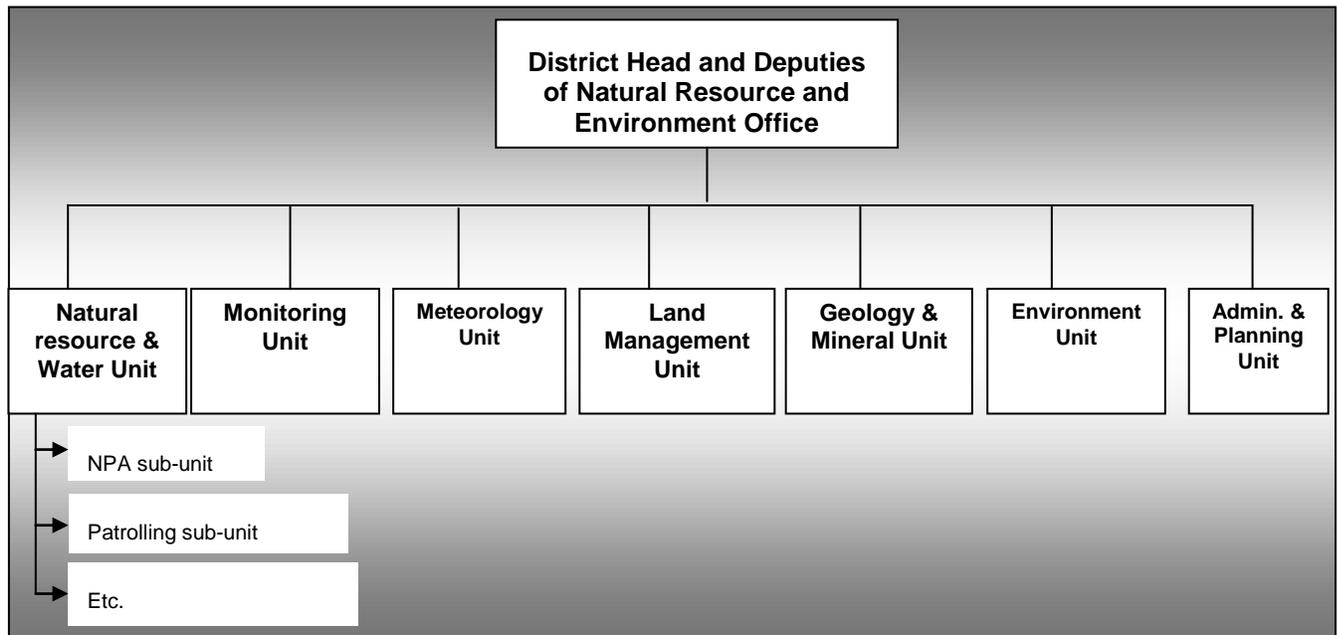
According to the agreement of the Ministry of Natural Resource and Environment (2012),

both the Unit of Protection Forest Area and Conservation Forest Area have the same roles and responsibilities, but the former is responsible for only Protection area while the later is responsible for the Conservation Forest.

5.1.2 District Office of Natural Resource and Environment

The District Office of Natural Resources and Environment is under umbrella of Provincial Natural Resource and Environment Department and Division. The Office of Boualapha District Natural resource is further divided into 7-sub units (Figure 8). According to the agreement of Office of District Natural Resource and Environment (2012), the NPA is a sub unit under the Unit of Natural Resource and water.

Figure 8: Organisation structure of District Office of Natural Resource and Environment



5.2 Characteristics of the respondents

The following sub-section presents findings on socio-demographic characteristics of the staff-respondents involved in the HNN NPA Management Project, namely age, gender, education level, ethnicity, responsibility, and employment status.

5.2.1 Age and Gender

In Thakek District, 11 staff-respondents were interviewed. Of these, 18 % were female while 82% are male (Figure 9). By contrast, in Boulapha District, 90% of the total respondents were male, and the female accounted for 10 %.

Figure 9: Gender Distribution of Staff Respondents

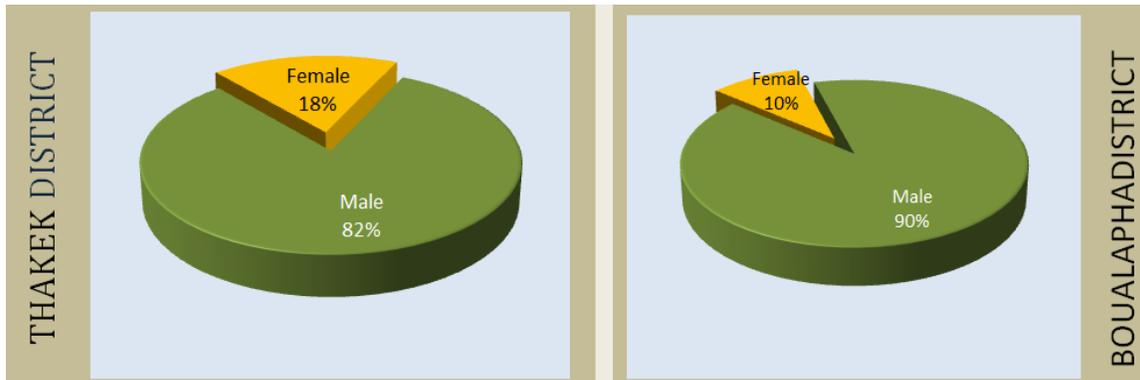


Figure 10: Age Distribution of Staff Respondents by District

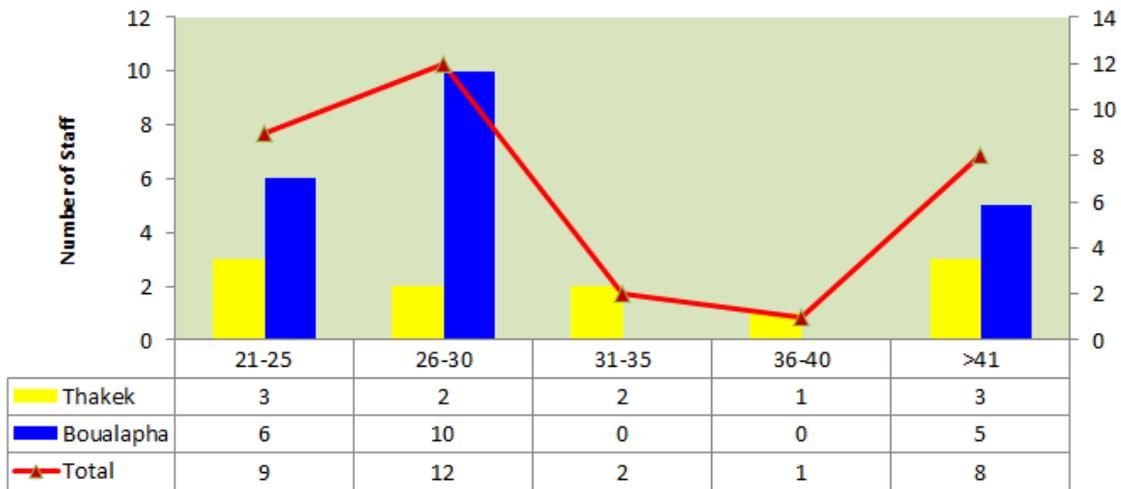


Figure 10 illustrates the age distribution of the staff-respondents of Boualapha and Thakek Districts. The age mode of the respondents was classified into five groups. The youngest staffs are 21 years old while the oldest belong to age bracket of more than 41 years old. Overall, staffs are relatively young, especially in Boualapha District, which means that they will still be around within the project life. However, the staffs are lacked of working experiences and they need to have more extensive training courses, which related to the management of protected area.

5.2.2 Education level

Figure 11 shows the highest education attainment of 32 staff-respondents interviewed in Thakek and Boualapha Districts. There were 21 staffs from Boualapha District while 11 from Thakek District.

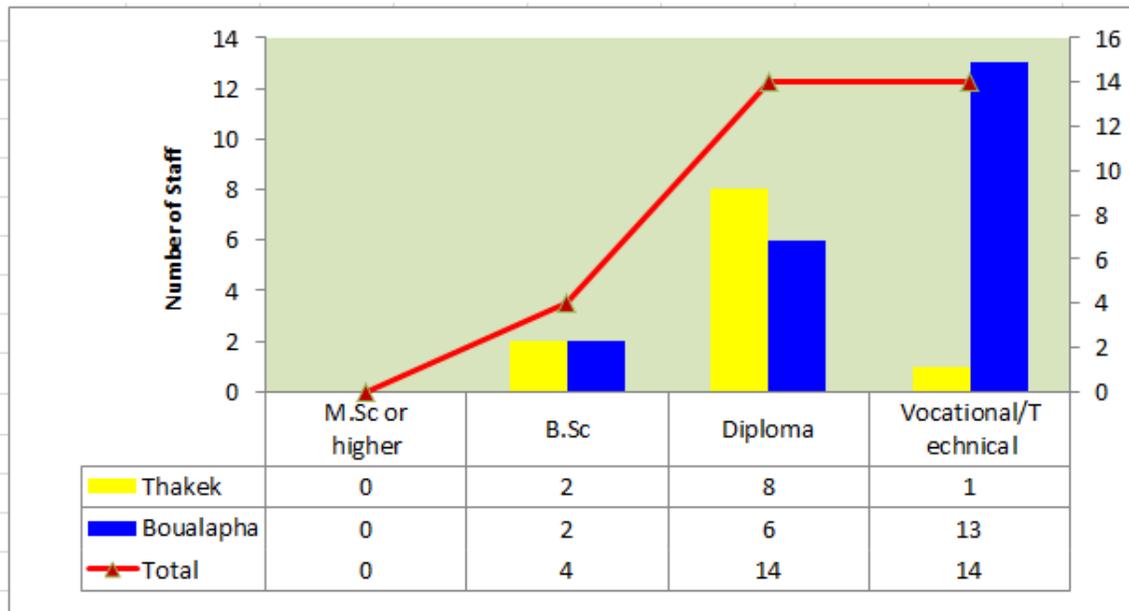
The analysis reveals that Thakek District employs staffs who are relatively better educated compared to those of Boualapha District. The analysis revealed that the majority (8 staff or 73%) of the total staff respondents in Thakek District has a Diploma

qualifications compared with less than half (29%) in Boualapha District. About 18 per cent of total staff respondents in Thakek achieved B.Sc. degree, compared to only 10% in Bouapha District.

Furthermore, in Thakek District, only 9% of the total staff-respondents hold vocational or technical school, compared to about 62 per cent in Boualapha District.

It is noticeable that no staff respondents in the two Districts hold M.Sc. or higher qualifications.

Figure 11: Education level of Staff Respondents by District

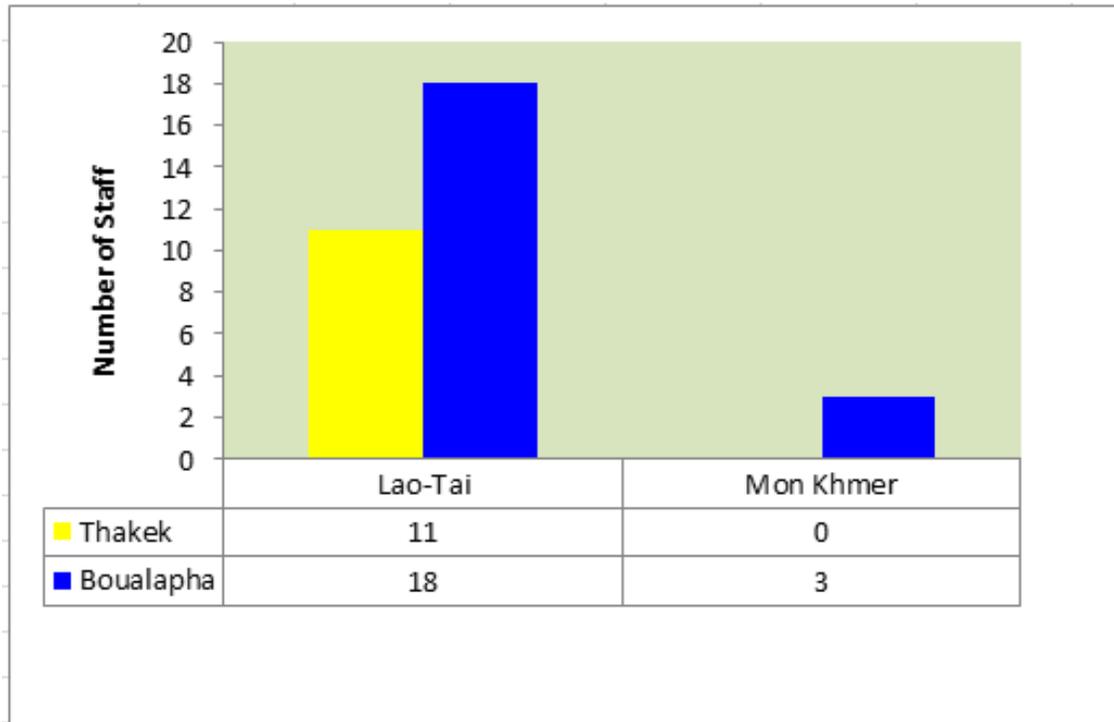


5.2.3 Ethnicity

The recent study of ethnics Groups in Laos showed that there are 49 ethnic groups, being classified into four different language groups such as Lao-Tai Language Family, Mon-Khmer Language Family, Chine-Tibet Language Family, and Hmong-lu Mien Language Family (Department of Ethnics, 2005). These ethnic groups are distributed throughout the country. The Lao Tai family consists of the Lao-Neua-Phouan, Tai/Phutai, Lue, and Nyuan. The Hmon Mien includes the Hmong while the Mon Khmer is composed of the Khmou, Katang, Makong, Souay, Ta Oy, Triang, Broa/ Lave, Katu, Lamet, Pray/ Thin, Halak/Alak, Oy, Kriang/ Nge, Cheng, and Ye. The Sino-Tibetan is comprised of the Singsily, Phou Noy, Lahu, and Akha. All these ethnic groups are represented in the sample study.

Figure 12 depicts the ethnic distribution of staff respondents in the two districts. There are only two main ethnic group in this study. The highest represented group for the two districts belongs to the Lao-Tai while the least represented is the Mon Khmer. In Thakek, all staff is Lao-Tai family group.

Figure 12: Ethnic group of Staff Respondents by District



5.2.4 Responsibility and employment status

The type of responsibility of respondents of the two districts consists of technical staff, administrative staff, Head and deputy heads of divisions and units. Figure 13 shows that about 36% of the total staff respondents in Thakek District, belong to technical staff while administrative task, head or deputy head of the unit, and the rest accounted for 9 per cent each. It should be noted it is typical in Laos one person could work for many responsibility and there is no exception in these two districts. In Bouapha, the majority of respondents belong to technical staff, accounting for 71% of the total staff respondents. It should be noted even though the head and deputy head of the division as well as Unit have experiences that are more extensive and they are much older than their technical staff, the field interview found that they are those who work in other sectors or do not have a basic knowledge in conservation principles and technique. Most of them specialised in other fields such electricity, transportation and the like.

The analysis (Figure 14) shows that the majority of respondents (73%) in Thakek District are permanent staff while almost half of staff respondents in Boualapha are voluntary. Since the voluntary staff cannot receive the salary or any financial incentives from the government, this could affect the efficiency of the work task.

Figure 13: Responsibility of Staff Respondents by District

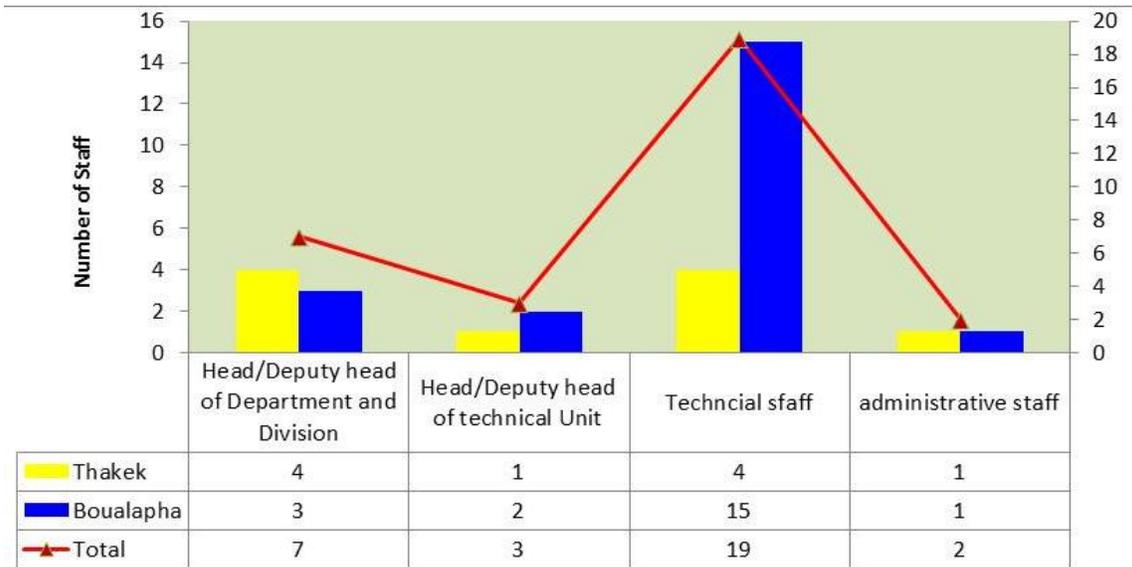
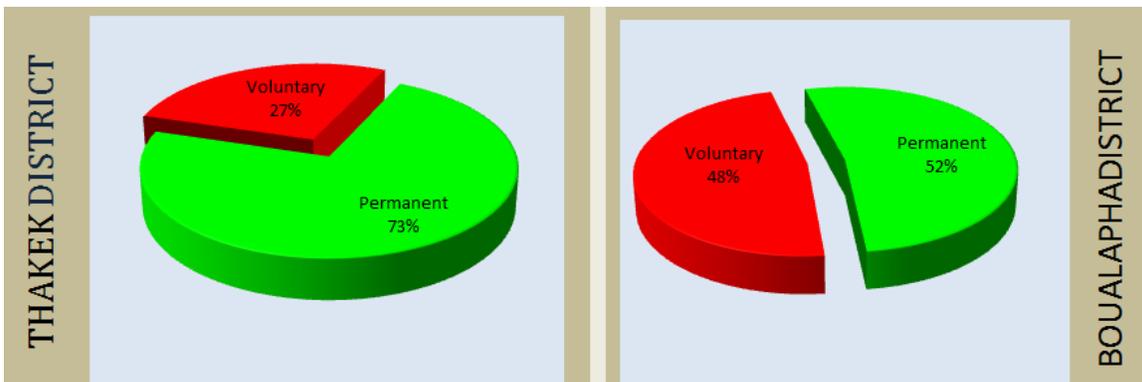


Figure 14: Employment Status of Staff Respondents by District

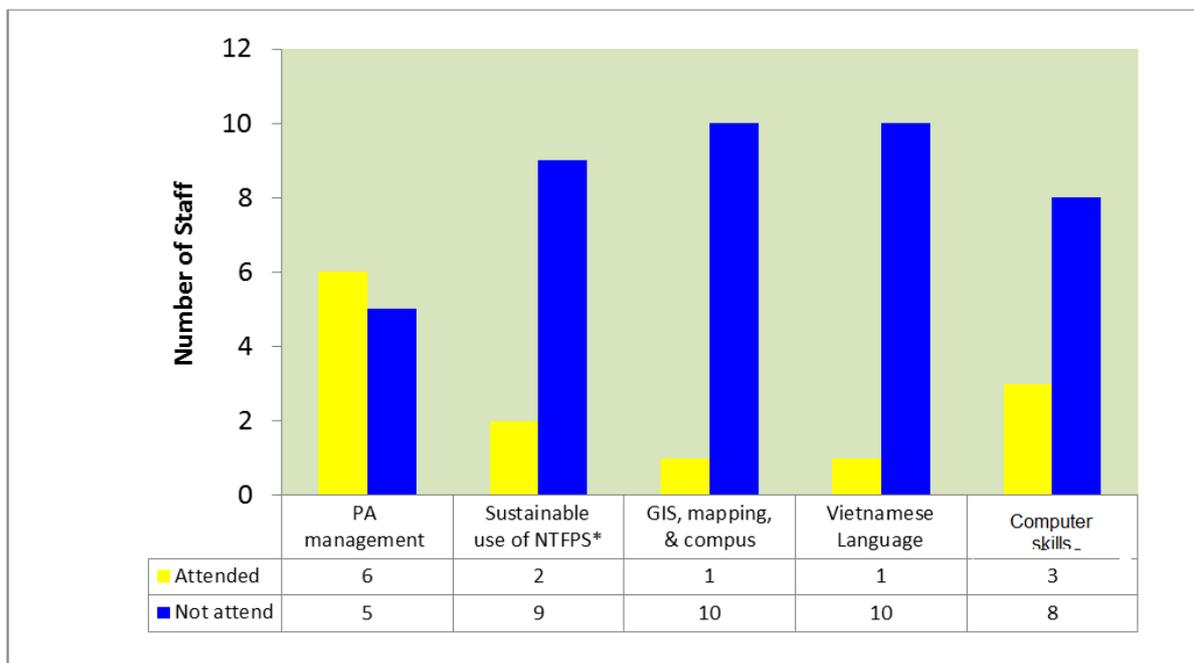


5.3 Assessment of the current capabilities of the human resource at HNN PA Management Project

5.3.1 Training attended and training program needed by HNN PA Management Project staff

Staff-respondents were asked about their experience in training on basic knowledge in conservation principles and approaches. The figure 15 shows that more than half (55%) of the total staff respondents in Thakek reported to experience a training in protected area management. The basic component of this PA management includes training on biodiversity monitoring, office management and filling, project planning and budgeting, raising awareness and law enforcement. The analysis also reveals that few staff participated in training in using GIS, mapping, and compass as well learning Vietnamese language. Learning Vietnamese is important as mentioned by many staffs since it is necessary to communicate effectively with Vietnamese PA staffs.

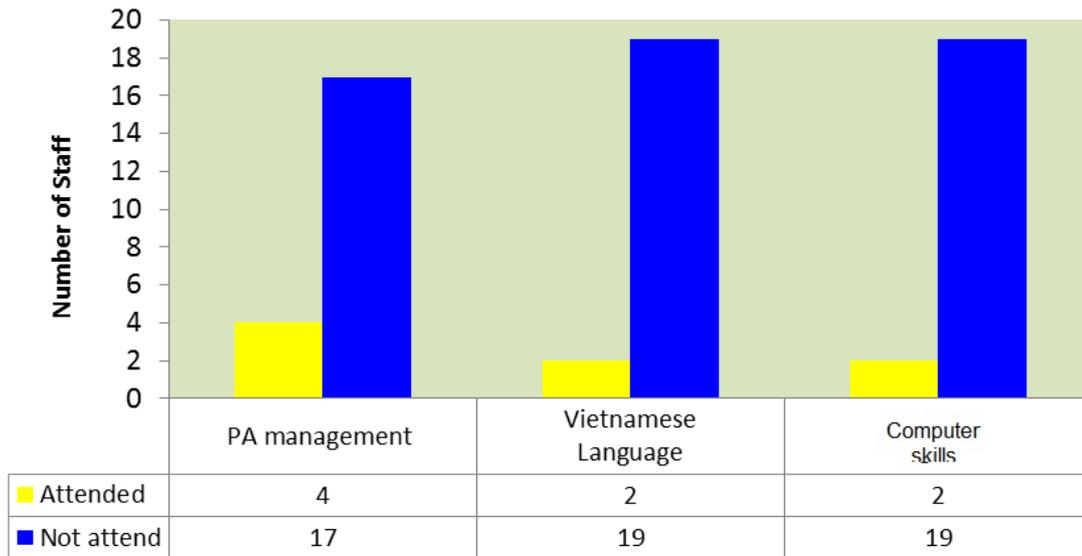
Figure 15: Training Programs Attended by Staff Respondents of Thakek District



Training programs attended by staff respondents of Boualapha District are shown in Figure 16. The analysis shows that about one-fifth of the total staff respondents in Boualapha reported to experience training in protected area management.

Furthermore, only 10 per cent each participated in learning Vietnamese and training in using basic knowledge in computer skills. The analysis of data also found that some respondents in both two districts are those who work in other sectors or do not have a basic knowledge in conservation principles and technique.

Figure 16: Training Programs Attended by Staff Respondents of Boualapha District



5.3.2 Training needs assessment of the staff

In relation to experience training assessment of staffs in Thakhek and Boualapha District, the 32 staff-respondents were asked about their training needs that will allow them to be more effective and better staff to the protected area that they are presently working.

Figure 17: Training Programs Needs by Staff Respondents

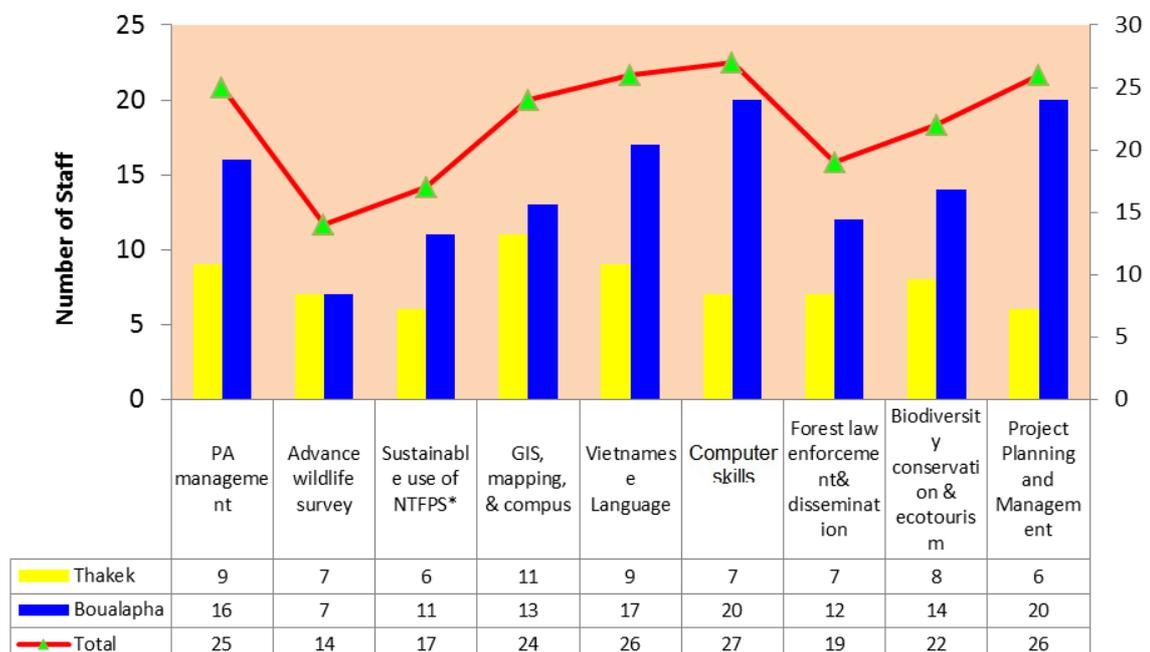


Figure 17 shows the training needs of staffs by District type. It reveals that 27 staffs or 73 per cent of the staff respondents in 2 Districts need to have short-term training on basic knowledge in computer skills, followed by Vietnamese language and project planning and management (70% each), protected area management (68%), GIS, mapping & compass (65%) and biodiversity conservation awareness & ecotourism (59%). The need that is least reported to be needed by staff is advanced training course on wildlife survey (38%).

5.3.3 Aspirations of staff

Aside from their training needs, the staffs were also asked on their aspirations for career development and further study in the higher education. Almost all of the staff respondents would like to undertake their undergraduate and graduate courses in Laos while some aspires to undergo their study abroad.

5.4 Problems, Issues and Concerns of Staff

The following are issues and concerns that affect the human resource development of Hin Namno PA Management Project.

1. Would like the project to support more office equipment and transportation;
2. I want to have a training in basic knowledge in computer skills, Mapping, GIS, and statistics;
3. Provide training about biodiversity management and conservation; and
4. Provide short-term training of project staff on natural resource management every year.
5. Need training for staff on forest law enforcement and dissemination technique
6. We would like the project to support to learn Vietnamese language. Learning Vietnamese language can greatly support the conservation of NPA since the NPA shares with Vietnamese border and Vietnamese villages often collect NTFPs in the protected area. Furthermore, it can assist the coordination with Vietnamese staff.
7. I would like to get the support to participate in training on how to write the project planning and administration since this will help us in writing NPA management plan
8. The project should provide more training for the project staff on patrolling and monitoring method, extension service.
9. Upgrade new working techniques and upgrading of staff at higher level;
6. Need training in using basic computer program: MS word and Excel, since this will support in reporting and analysis
7. I strongly need upgrading of my working skills in the design of education and awareness raising activity through training programs offered by NUOL;
8. Looking forward to participating in staff training program from the project on ecotourism and nature conservation;
9. Need to participate in higher level training program for the project;
10. Staff should have training about advance techniques in biodiversity survey;
11. Dreaming to the support of the project to continue on further higher education degree

The following are urgent needs and concerns raised by the staff- respondents regarding the development of management of Hin Namno Protected Area in Boualapha District:

1. The Unit of Forest Resources and Environment Conservation in Boualapha District (currently having 12 staff) seriously lack of office equipment and working materials namely computer, printing, desk and chair, folder, etc. This office supplies are

indeed indispensable in the reporting and planning. Figures 18-19 show the Boualapha office without office equipment and working materials. The office is just an empty room.

2. GPS and compass used in forest biodiversity survey and ecotourism trail survey are urgently needed because they are important for demarcation and mapping.
3. The forest natural resources and environment Unit in Boualapha District also needs vehicles (1 car and 2 motorbikes) used in the fieldwork. These are very important since they are used in forest NPA patrolling and monitoring in order to prevent hunting and illegal logging. Currently, the Unit has no public cars and motorbikes to work at the office and this seriously affects the efficiency and effectiveness of working quality.

Finally, the top development priority of the Forest Resources and Environment Conservation Unit in Boualapha District: is to obtain financial support to construct a minimum of five check points at the Hin Namno PA), which are areas of potentially high risk of illegal hunting and trade. Now, there is no any check points built at the all exit and access to HNN PA. This is an important factor attributed to logging and hunting in the protected area.

5.5 Village participation in the management of Hin Namno PA project

5.5.1 The findings on group meeting with local communities

Informal meeting were organised in Nong Ping village and Dou village in order to carry out discussion of issues and concern of the villages regarding their contribution toward the management of Hin Namno protected area. This is important because the Hin Namno villages and village clusters are important stakeholder and they are local ownership in the protected area. For instance, they can assist in guarding outsider pressures and the over-harvesting of forest resource in their protected area.

The discussion showed that villagers have good relations with government offices, the project, and neighbouring villages in general. Even if some have irregular contacts with authorities, the relationship is still good.

Village members and leaders closely work together. Based on observations, their cultural practice is to consult one another on whatever issues the community is confronted with. It appears that communities have a collective psyche. As much as possible the village head is the most respectful person in the village and can encourage everyone to contribute to the management of the protected area. While land and forest allocation program was conducted in Ban Dou Village, the program has not yet been done in Nong Ping village and the Nong Ping villagers have put upon themselves that the local authority should carry out the land and forest allocation in the village urgently in order to prevent the outbreak of shifting cultivation, forest destruction. They believe that forest and land allocation program could be a good instrument in the protection of their protected area.

In addition, the villagers were asked whether they know, which PA areas can be accessed for harvesting forest products and traditional hunting or which species are protected for hunting. It reveals that some villagers do not understand the forest law and regulations of the protected area and lack of education awareness of importance of PA conservation. This issue has been mentioned here since the education and conservation awareness campaigns activities and sufficient technical support from district officials such as forest law dissemination and training services to local communities are very critical in pursuing the successful management of Hin Namno Protected area.

5.5.2 Goals and aspirations of village

Local communities were asked what are their goals and aspirations for their communities. They all dreamt to have permanent village offices with complete facilities, equipment for patrolling tasks, toilets, training, better electricity, modern agricultural practices, and having a better life. The most apparent need is to have training course for the villagers themselves namely ecotourism service and management, basic infrastructure for ecotourism in their village as this will help reduce poverty. Table 3 presents the villages' goals and aspirations.

Table 3: Villages' goals and aspirations

Goals for villages	Strategies in achieving goals	Hindrances to achieving goals
the villagers need to participate in training course on namely ecotourism service and PA management, project proposal writing for village development, sustainable use of NTFPs, NTFPs marketing as this will help reduce poverty	Assistance from the project, more funds from donors, training experts should have knowledge on ecotourism such as experts from NUOL	no budget and lack of experts in many areas
have permanent village office	Villagers can provide labor and wood in addition to funds from the project	Lack of fund
have electricity (solar power electricity panels), and good roads as this will attract local and foreign visitors	ask assistance from district and the project	Lack of fund and knowledge
available clean drinking water for the Nong Ping village	provide labor in addition to funds from donor	lack of support from higher authorities
Would like to have financial support (phone, allowance) for forest patrolling committee as it will greatly assist in the patrolling in the sufficient manner	ask assistance from the project	Lack of funds and expertises
Need to have speaker for the village as it is necessary for village gathering and meeting	support from donor and government	Lack of funds
toilet, village committee office and have a small lodging for tourism near the cave and tourism sites	Village contribute labour and wood while need financial support from the project and government	No funds
Have a modern village	support from donor and government	remoteness and poverty of the village
Need land and forest allocation programme in Nong Ping village	Support from donor and government	Lack of funds and expertise
Lack of equipment and facility used in forest patrolling and monitoring: sleeping bags, tents, first aid box, etc.	Support from donor and government	Lack of funds and expertise

6 Conclusions and recommendations

Strengthening capacity of PA staff through appropriate education and training as catalyst of human resource development, could lead to the sustainable forest management of national protected areas. In addition, this assists the Government of Lao PDR (GoL) to achieve the National Growth and Poverty Eradication Strategy (GOL 2004), National Biodiversity Strategy and Action Plan (GoL 2004) and the World Bank Country Assistance Strategy. Sustainable use of forest resources achieves: (a) food security for current and future generations of rural Lao people; and (b) a sound resource base for conservation of biodiversity and implementation of eco-tourism. For these reasons, strengthening of management of protected area at local level is not only consistent with GoL's national policies, but also indispensable in order to improve the management of sustainable management of Hin Namno PA.

From the survey study, it reveals that the mechanism and capacity of PA management namely skills and capacity on biodiversity monitoring, office management, project planning and budgeting, raising awareness and law enforcement is relatively weak in terms of efficiency and effectiveness. This is because the current capacity of protected area staff is not relevant and sufficient, and therefore, we judge that the following approach will be appropriate to tackle these issues.

Provincial and District Level

The Provincial Division of Forest Resources Management needs to have a comprehensive human resource development plan (both short-term and long-term plans).

- For the short-term plan, in order ensure the project sustainability beyond the project duration, a strong emphasis should place on a comprehensive training program which will be provided to the PA staff. The training should aim to equip the staff with skills, which would allow them to be more effective and better staff to conserve the protected area where they are presently working. Furthermore, the training should not only focus on concepts and principles but rather a more practical approach and the needs of training should base on the findings of this study. The most pressing training needs are: **PA management, skills for practical conduct of conservation and extension works, basic knowledge in computer skills, project planning and management, biodiversity conservation & ecotourism, forest law enforcement & dissemination, Vietnamese language, NTFPs, GIS/Mapping and Compass, advance technique in wildlife survey, as well as Education and Conservation Awareness activities.**
- In the long-term, the Division should have a long-term plan on capacity building for advance degree levels for PA staffs. As mentioned in the section of the findings, the majority of staff obtained 'Diploma' qualification while very few achieved the Bachelor degree. Therefore, the Division should encourage the staff to upgrade their knowledge by continuing their study at the university level.

Although some PA staff reported to have experiences in PA management training course, it appears that skilled and experienced trainers are required in order to assist the

HNN PA Management project. The Faculty of Forest Science (FOF) is the only institution in Lao PDR to offer forestry education up to the Doctor of Philosophy (PhD.) level. Furthermore, FoF also provides various packages of comprehensive and practical trainings in sound forest management practices. For instance, the Mobile Conservation Education Unit under FoF has more than 10 years of experience in innovative and interactive methods of knowledge sharing and awareness raising activities. The trainers use puppet shows, songs, videos, plays, and audience participation to teach young people and adults, male and female, in remote rural villages about the importance of sustainable use of natural resources. The training offered by MCU significantly increase awareness of local communities in conserving the projected area (Hansel et al. 2010). The MCU's success and popularity was confirmed by the rigorous pre- and post-testing to determine how successfully knowledge and perceptions are transferred to target audiences over a longer period of time and whether they result in behaviour change. Their analysis shows a 21% improvement of student post-test scores. Indicators show the Mobile Conservation Education Unit met the program goals and objectives, despite the nature of Lao education and censorship of mass media.

Training of trainer course on Nature conservation and ecotourism is another example of training programme offered by FoF. For instance, researchers from FoF were hired by the Asian Development Bank to offer the training of trainers to the tourism staffs in many provinces.

The researchers from the Faculty of Forestry (FOF), NUOLs should better be utilised and relationships between the HNN PA management project, Division of Forest Resource Management and FoF should be improved. It is recommended that a good collaboration should be developed between the project and Training programme developed by FoF so that they work together for the benefit of the HNN protected area.

As discussed in the previous section, the Unit of Forest Resources and Environment Conservation in Thakek and Boualapha District have 12 staffs each. However, the Boualapha has no office equipment and working materials namely computer, printing, desk and chair, folder, etc. These office supplies are indeed indispensable in their daily work, while the Unit in Thakek District has sufficient office equipment such as 5 desktop computers, 3 printers, and one photo copy machine. Furthermore, the Unit in Boualapha do not have any equipment used in the office or patrolling and monitoring task such as vehicles, motorbikes, GPS and compass used in forest biodiversity survey and ecotourism trail survey.

Finally, a minimum of five check points needed to be constructed within the Hin Namno PA, which is an area of potentially high risk of illegal hunting and trade. Now, there is no any check points built at the all exit and access to HNN PA.

Village level needs

The HNN project has given repetitive trainings on tourism awareness and ecotourism training to Ban Nong Pin. However, as long as the provincial government does not proactively create favorable framework conditions there, the given trainings are not followed by implementation.

Furthermore, the villages lack of equipment and facility used in forest patrolling and monitoring: sleeping bags, tents, first aid box, etc (additional needs, see Table 2). The financial support will be necessary for the successful management of HNN protected area.

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8 Appendix

Figure 18: Bouapha Office for Forest Resources and Environment Conservation



Figure 19: the Boualapha office without office equipment and working materials.



Figure 20: Interview the Head of Forest Resources and Environment Conservation Department

