

## Final Evaluation Report

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Your Details	
<b>Full Name</b>	Pham Thi Nhung
<b>Project Title</b>	Conservation of Endangered Francois' langur ( <i>Trachypithecus francoisi</i> ) in Huu Lien nature reserve, Vietnam
<b>Application ID</b>	43176-1
<b>Date of this Report</b>	31/3/2025

**1. Indicate the level of achievement of the project's original objectives and include any relevant comments on factors affecting this.**

Objective	Not achieved	Partially achieved	Fully achieved	Comments
Evaluating the population size and distribution of the Francois' langur within Huu Lien Nature Reserve.				We conducted two field surveys in June and November 2024 to assess the population size of Francois' langur in Huu Lien NR. The protected area was divided into 20 grid squares, and each grid was surveyed continuously for 3 days during each survey period. Our results indicated that there are approximately 7-8 langur individuals belonging to two groups in Huu Lien NR.
Predicting suitable habitat map for Francois' langur in Huu Lien NR.				Due to the limited observations of langurs in the field despite our considerable efforts during the surveys, we were only able to assess the preferred areas of the langur in Huu Lien NR. We will continue to collect more occurrence data to predict the species' suitable habitats.
Identifying the primary threats to the Francois' langur population and its habitat.				We identified five major threats to the langur and its habitat in Huu Lien NR: blasting to extract the roots of the Himalayan cypress ( <i>Cupressus torulosa</i> ), ecotourism, illegal hunting, livestock grazing, and the extraction of non-timber forest products.
Providing appropriate recommendations for the protection				We provided three sets of recommendations to conserve the langur in Huu Lien NR. These recommendations could serve as

and monitoring of the Francois' langur in the study area.			a foundation for developing conservation plans for the species in both Huu Lien NR and northern Vietnam.
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## 2. Describe the three most important outcomes of your project.

### a) Population size of the Francois' langur in Huu Lien NR

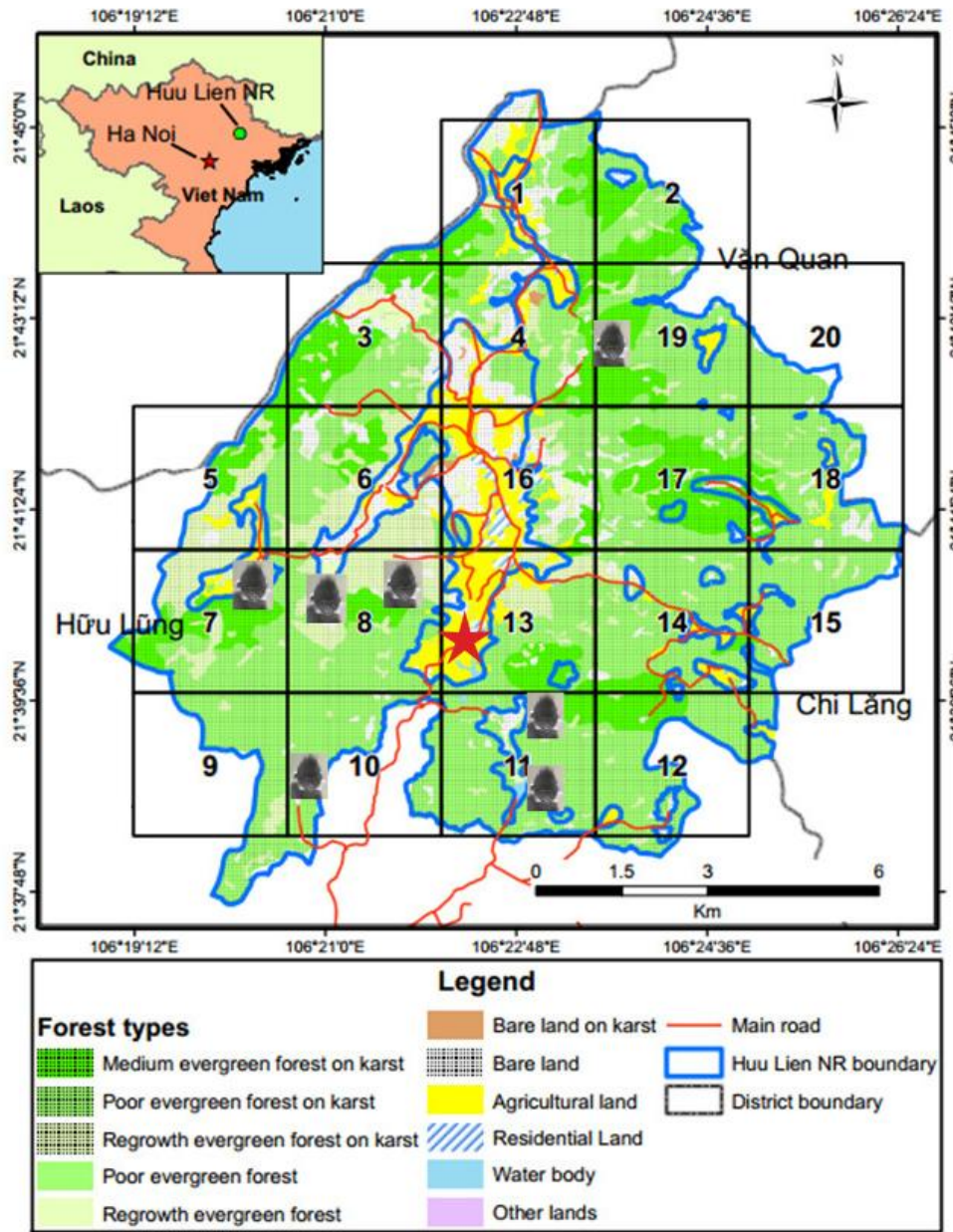
The interview results show that in recent times, local people have observed the Francois' langur at least 6 times. Specifically:

- At Lan Ruoi (grid number 19; Figure 1), 1 individual was observed in May 2021.
- At Lan Diec (grid number 8), 2 individuals were observed in 2019.
- At Lan Ty (grid number 11), 2 individuals were observed in June 2023.
- At Lan Lay (grid number 11), 3 individuals were observed in February 2024.
- At Lan Gia (grid number 8), 1 individual was observed in February 2023.
- At Lan Khao (grid number 10), 1 individual was observed in 2022, and 4 individuals were observed in October 2024.

The field survey results at 20 grid squares (each surveyed for at least 3 days) covering Huu Lien NR recorded only one direct observation of the Francois' langur, with one individual at Lan Meu (grid number 7; figure 1) at 17:40 on June 28, 2024. Therefore, our survey showed that a very small population of 7-8 individuals of Francoi's langur in two different groups may be living in Huu Lien NR.

### b) Distribution of the Francoi's langur in Huu Lien NR

Based on the interview and field survey results, we identified the main distribution areas of the Francois' langur in Huu Lien NR, including Lan Ruoi -1 (grid number 9), Lan Diec (8), Lan Gia (8), Lan Lay (11), Lan Ty (11), Lan Khao (10), and Lan Meo (7). Notably, we confirmed the presence of the Vooc at Lan Meo (grid square number 7) through direct observation (Figure 1). It can be seen that the distribution of the Francois' langur is concentrated in the southern part of the Huu Lien NR, where the Reserve's headquarters is located. In the northern areas, which are farther from the headquarters, we did not record the presence of the langur. This may be because areas near the headquarters experience fewer human activities, making these areas considered safer for the langur.



**Figure 1. The distribution of Francois' langur in Huu Lien NR (the red star: Headquarter of Huu Lien NR).**

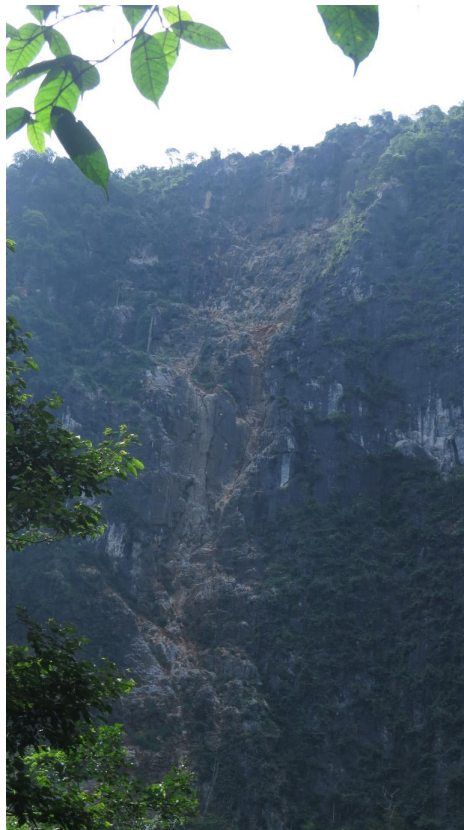
**c) Main threats to Francois' langur in Huu Lien NR**

Through field surveys, we identified five main threats to the langur and their habitat in Huu Lien NR, including blasting to extract the roots of the Himalayan cypress (*Cupressus torulosa*), ecotourism, illegal hunting, livestock grazing, and the extraction of non-timber forest products. Among these, the use of explosives to extract the Himalayan cypress' roots and illegal hunting are considered the most impactful activities affecting the langur population in Huu Lien NR.

The blasting activity to extract the Himalayan cypress' roots has been recorded in grid number 11, 13, and 14 (Figure 1). According to our observations, this

activity occurs daily, peaking at grid square 14 with nine explosions per day. Blasting causes rock slides, destroys vegetation, and leads to the loss of natural habitats, leaving only rocky mountains and shrubs.

In Huu Lien NR, illegal hunting and trapping of wildlife continue, including the use of hunting rifles. Ecotourism activities within the protected area, such as camping, fire-making, mountain climbing, noise generation, and smoke, frighten animals and reduce biodiversity. Our observations indicate that areas affected by these activities show fewer signs of animal presence compared to other areas.



**Figure 2. Mountain peak after locals used explosives to extract the roots of the the Himalayan cypress' roots .**

**3. Explain any unforeseen difficulties that arose during the project and how these were tackled.**

Our project was implemented smoothly as our plan.

**4. Describe the involvement of local communities and how they have benefitted from the project.**

The local community plays a vital role in our project. Firstly, 26 local people from 5 communes, including forest rangers and former hunters, were interviewed to gather information about the status of Francois' langur. They were enthusiastic about sharing their knowledge of the langur with us. Secondly, 4 individuals (including 2 forest rangers and 2 local guides) participated in our field surveys. During the surveys, local guides received training on using field survey equipment,



such as super-zoom cameras, compasses, and GPS devices. Lastly, our project also provided conservation recommendations to Huu Lien Nature Reserve, laying the groundwork for developing conservation plans for the endangered primate and other wildlife in Huu Lien NR

**5. Are there any plans to continue this work?**

Yes, there are. We have a plan to continue the conservation of Francois' langur in northern Vietnam. First, we aim to extend our field surveys to accurately determine the population size of the primates in Huu Lien Nature Reserve. Second, raising awareness among local communities about langur conservation is both necessary and urgent. Third, we plan to expand our study sites to Thai Nguyen and Tuyen Quang provinces to assess the population status of these threatened primates in northern Vietnam.

**6. How do you plan to share the results of your work with others?**

We will share our results with Huu Lien Nature Reserve and the Lang Son Department of Forestry. A technical report will be submitted to the management board of Huu Lien NR upon project completion. Additionally, we will share our findings with lecturers and students at the Vietnam National University of Forestry, as well as with other NGOs.

**7. Looking ahead, what do you feel are the important next steps?**

The most crucial step for conserving Francois' langur in northern Vietnam is to accurately assess the species' population size and protect its habitat.

**8. Did you use The Rufford Foundation logo in any materials produced in relation to this project? Did the Foundation receive any publicity during the course of your work?**

Yes, we use the logo of The Rufford Foundation in our report, and also introduce The grant to the staff of nature reserve.

**9. Provide a full list of all the members of your team and their role in the project.**

Ms. Pham Thi Nhung (Principal Investigator): Ms. Nhung participated in all project activities, including project planning, field surveys, interviewing local people, data analysis, and report writing.

Mrs. Ta Tuyet Nga (Member): Mrs. Ta Nga took part in the field surveys and conducted interviews with local people.

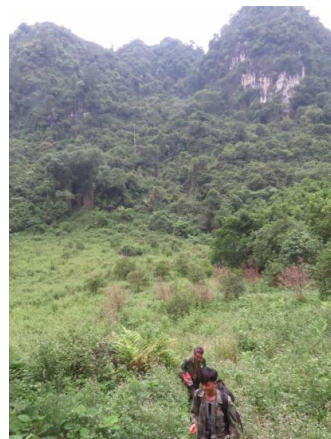
Mr. Giang Trong Toan (Member): Mr. Giang Toan participated in the field surveys and interviewed local people.

Mr. Phan Viet Dai (Member): Mr. Phan Dai took part in the field surveys, conducted interviews with local people, and was involved in data analysis..

**10. Any other comments?**

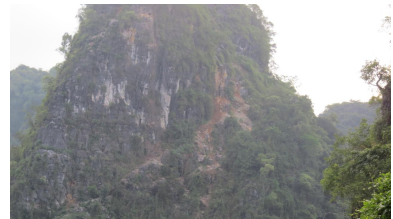
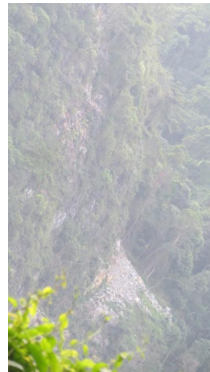


APPENDIX



Appendix A. Field Investigation Images





**Appendix B. Main threats to Francois' langur in Huu Lien NR**