

# The Sustainable Development Route of Tropical Rainforest-Asian Elephant, Sky Tree and the Die People

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**Abstract:** The protection of tropical rainforest is very important both for biodiversity study and sustainable development. As one of the two tropical rainforests in China, the tropical rainforest of Xishuangbanna has rich species of plants and animals which makes it an important scientific investigation site and an important research base. Asian elephant living in the tropical rainforest in Xishuangbanna China has received attention both at home and abroad in recent years. The northward migration of Asian elephants living in the rainforest has brought attention to the importance of coexistence and interrelation between humans and wild animals. Based on a seven-day field research and investigation in Xishuangbanna, Yunnan province, under the guidance of the Tie Project, a stardom path of tropical rainforest conservation was proposed by participatory observation, semi-structure interview, and practical experience on the past, nowadays and future of the Asian elephant, Sky tree and traditional culture of local Dai people. The rainforest protection should obey the natural rules, maintain the harmonious coexistence between man and nature. In this way, human civilization can develop sustainably.

**Keywords:** Rainforest Conservation; Asian Elephant; Natural Reserve; Sky Tree; Sustainable Development

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## Introduction

Since 2020, the COVID-19 epidemic has been raging around the world, not only hitting the global economy hard, but also bringing severe challenges and a series of difficulties to global poverty reduction, food security, energy supply and environmental and ecological protection. The 2022 Sustainable Development Goals Report, released by the United Nations, identified 17 Sustainable Development Goals (SDGs) that are at risk from the climate crisis, COVID-19 and growing conflicts around the world<sup>[1]</sup>. In the face of the grim situation of global biodiversity, the international community has taken positive actions under the framework of the UN Convention on Biological Diversity. The first stage of the 15th Conference of the Parties to the Convention (COP15) was successfully held in Kunming, China, October, 2021. At the meeting, the Kunming Declaration and the establishment of the Kunming Biodiversity Fund were announced<sup>[2]</sup>.

Tropical rainforests are special forest ecosystems located near the equator, and the tropical rainforest of Xishuangbanna is one of the two tropical rainforests in China. The rich species of plants and animals make it an important scientific investigation site and an important research base for biodiversity and sustainable development<sup>[3]</sup>. Here, the Asian elephant has made Xishuangbanna popular, and more tourists want to know about Xishuangbanna and the Asian elephant. People all over China are fascinated by an adorable baby elephant for a careless slide by Asian elephant named Goat Girl. Moreover, as the tallest tree in China and a typical symbol of the tropical rainforest, the seeds of the "Sky Tree" is carried into space by "Tiangong-1", which better illustrates the significance of the Xishuangbanna rainforest. From the Asian elephant to the Sky Tree, the path to conservation stardom has begun.

## The umbrella species

Since 1997, the Asian elephant has been listed as an endangered species by the International Union for Conservation of Nature (IUCN), and an animal under the first-class State protection of the People's Republic of China. At this time, the protection of Asian elephant in China has also begun. Each time human beings help Asian elephant, it is an opportunity for media publicity and promotion. So that the protection of Asian elephant and the maintenance of biodiversity will become popular and star.

The northward migration of Asian elephants went viral till April 2021, but the herd of 15 elephants had already left their original home in Xishuangbanna in March 2020, nobody knows the reason<sup>[4]</sup>. They made their way north to Pu'er city, where they stayed for about nine months. In December 2020, a female elephant gave birth to a calf, expanding the family to 17 members. Later, the elephants continued northward and migrated to Yuxi City in April 2021. It was also at that time, the major medias and even the ordinary people paid attention to them. According to a report by the Ministry of Ecology and Environment of China Daily on June 18, 2021, CNN, BBC, Associated Press, The Times, The Washington Post, the Guardian, Sky News, Reuters, the New York Times and other Western mainstream media have all made follow-up reports, making "Yunnan wild Asian elephant" become "international Internet celebrity"<sup>[5]</sup>. According to Yuan Shengdong, an engineer at the Xishuangbanna Tropical Botanical Garden of the Chinese Academy of Sciences and the National Field Academy of Sciences Research Station of Xishuangbanna Forest Ecosystem in Yunnan Province, the Asian elephant's true "popularity" at home and abroad is due to this northward migration. Yuan said that through this north migration, Asian elephants, which have the ability to "stir up trouble," have "turned themselves into stars," giving themselves a chance to "go viral," making the whole country, and even the world, pay attention to Asian elephants.

Xishuangbanna Nature Reserve was established in 1958, and the local management department has been strictly managed it in accordance with the regulations of the reserve, and has achieved good ecological benefits. According to the report of CCTV International Network (National Geographic Network) on October 29, 2002, China will start the Asian elephant protection system project at this time. It was also at this time that the conservation of Asian elephants entered people's vision. The Stage 1 meeting of the 15th Conference of the Parties to the Convention on Biological Diversity (COP15) was held from 11 to 15 October 2021 in Kunming, Yunnan Province. According to Yuan, the COP didn't approve Asian elephant conservation projects in the past five years because of insufficient social attention. And in the past, many people did not support the protection of Asian elephants, because they sometimes destroyed farmers' crops and destroyed people's homes<sup>[6]</sup>. It is the "popularity" brought by the migration of Asian elephants to the north that has triggered public opinion and made people and government realize the importance of protecting Asian elephants. Funding for conservation groups has since increased dramatically, and government policies have been enacted. After the establishment of the Asian Elephant National Park, the government provided more insurance money to farmers. The government has also arranged defensive measures to ensure the safety of people. All this is an incentive for Asian elephant conservation.

Chen Jiming, an "elephant father" at the Yunnan Asian Elephant Breeding Center, has been engaged in the conservation of Asian elephants for more than 22 years and has personally participated in 15 rescue operations. The staffs in at the Yunnan Asian Elephant Breeding Center summarize each rescue story into articles or post short videos online, which attract many people to read and watch, and let them have a deeper understanding of Asian elephants. In August 2015, Yangnu, a young elephant with bruises all over her body, rushed into a home in Pu'er city. The rescue workers rushed to help in the first time after receiving the notice. Later, a video of her "slide" went viral online, showing her sliding down a soft, muddy hillside with a kick. Because of the video, she became an "Internet celebrity elephant", with one person commenting "how cute and healing the slide looks!" "It feels like a child, playing on a slide!" As of August 5, 2022, "Yangniu" has reached 357,000 followers and 9.747 million likes on Douyin, with a single video reaching 758,000 likes at its highest point. The

Douyin followers of Xishuangbanna's Wild Elephant Valley has reached 1.115 million and 20.17 million likes, with the highest number of likes for a single video reaching 979,000.

Nicolas Lainé<sup>[7]</sup> revealed the elephantocentric vision adopted by mainstream conservation project in direction to Asian elephant from Asian elephant (*Elephas maximus*) conservation in Laos. He proposed ecocentric approach of elephant conservation by highlighting links between biological and cultural diversity through the deep investigation on local population who daily live and work with pachyderms. Asian elephants play an extremely important role in biodiversity. Human's help is necessary to protect the Asian elephant and the biodiversity of tropical rainforests. In this era of rapid Internet development, the "star" of these activities is a very effective way to promote these activities.

## The great rainforest

Since the CBD COP15 Xishuangbanna Asian elephants protection and biodiversity research project activity begins, we arrived at the fourth day Sky Tree Scenic Area, is located in Bubang national natural protection zones in the north east of Mengla town in Xishuangbanna of Yunnan province. There is a natural tropical rain forest where there are tens of thousands of types of plants and animals living inside, including our main character - the Sky Tree. Walking into the scenic area, you are greeted by vast tracts of strange tropical creatures. It is said that there are about hundreds of sky trees rows and rows standing on the edge of the cliff from the far view and growing straight from close view can't see the top. In order to get a better view of the scenery, a skywalk has been opened, which is located 30 to 40 meters above the ground and people walking below look like a swarm of ants. The two ends of the rope are tied to two tree cadres, respectively, each plank road has a rest platform. The longest plank road between two trees can reach 100 meters.

Sky tree is regarded as a kind of "blessing tree" in the local area. There are one or two trees among dozens of sky trees are used as a tourist blessing tree hung with people's wishes and has been a very special scenery in the Sky tress scenic area. After the establishment of Sky tree scenic area, many tourists from home and abroad came to watch. At the same time, the establishment of this scenic spot has made the world see the indelible contribution of this ecological reserve to the ecological diversity. A large number of insects stop on the fence of the plank road looking for food. Meanwhile, the scenic spot has also set up ecological education courses in Xishuangbanna, so that local and non-local children can know and understand the ecology of Sky Tree Scenic spot at their early age.

Sky tree is a most representative plant of tropical rainforests which was discovered in the expedition of forests in Xishuangbanna by Yunnan Forestry Expedition team in 1975. This discovery overturns foreign scholars' claim that "China has no rainforests"<sup>[8]</sup>. Most of the places where the tree grows are primitive rain forests and mountain rain forests. They grow in patches, generally up to 60 meters high, and are known as the "giant in the rain forest". Straight tree trunks pointing into the clouds form a unique landscape in the rainforest. In 1986, Prince Philip, the president of the World Wide Fund for Nature, visited Mengla Town of Mengla County in Xishuangbanna and discovered patches of adult overgrown trees and young trees ready to grow, which shocked the world and thus overturned the international calim that China has no tropical rainforests. Walking along Philip's Trail, I as though see Prince Philip studying here. Sky tree scenic spot is one of the few scenic spots named after a tree. The sky tree has the innate advantage of being able to survive, grow and be "superior" in the vast rainforest. Walking on the skywalk, you will have a wonderful view over the vast rainforest.

As the "lungs of the Earth" rainforests decline, scientists are forced to take action to protect endangered species in these rainforests. And space is a good place for the seeds of these endangered species to mutate. Because in vacuum environment, a lot of radiation hitting seeds can mutate their genes and find a way to protect endangered species. The seeds of Sky tree were selected and sent into space on Tiangong-1 in 2011, along with *Rhododendron*, *Putuo hornhornus* and *Davidia involucrata*. Scientists hope to improve the survival and reproductive success of the seeds in this way. The launch of Tiangong No.1 provided the world with many experimental data and announced to the world a great progress in China's

space technology. In the Sky tree scenic area, there is another not particularly remarkable scenery, "Tiangong-1" memorial tower. On the roots of Sky tree, a model of Tiangong-I hangs. It represents a big step forward in China's aerospace filed and the protection of endangered plants.

## **Eat rice do not forget the field, eat fish do not forget the river**

On August 4, 2022, we arrived at the Sky tree Scenic Spot, the tour guides "Carefree flower" and "firefly" told us about a proverb unique to the Dai ethnic group, which roughly means, " Forest to water, water to field, field to grain, grain to man". The Dai people have a very good concept of ecological environment from the very beginning. In 1986, when Queen Elizabeth II visited China, Prince Philip planted a sky tree and got close to an Asian elephant at the Xishuangbanna Tropical Botanical Garden. In fact, Xishuangbanna is sending a message about its rich biodiversity to all parts of the world.

Speaking of water, water is an important part of the life of the Dai people. The Dai people are a water-loving people. On Aug 5, 2022, while eating Laowo hotpot, local fellow Mr. Luo taught us an honorific at the table. When it's time to toast or celebrate, shout "Doguo, Shui Shui Shui Shui Shui Shui Shui", which means to celebrate or toast. According to the local people, in the Dai people's mind, water is holy, beautiful, and is a symbol of bright, water can drive away all pollution, water can give the Dai people all hope. In the heart of the Dai people, most people have a kind of worship for water, the supreme psychology. A good example of this is the annual Dai Water-Splashing Festival, when people splash water on each other in a way to drive away all bad images, all evil thoughts and bad thoughts in the New Year <sup>[9]</sup>. Here in Xishuangbanna, when people move house, many people come to congratulate, in bursts of firecrackers shouted "water water", as a celebration. Therefore, the local people believe that only when the rainforest is protected can there be enough water for better development and life.

When the Dai people had water, they began to focus on the origin of everything, namely the original appearance of the ecosystem. Just, when we were in the Sky tree scenic area, the visit guide told us "eat rice do not forget the field, eat fish do not forget the river", this sentence is to let us not forget the original, the most primitive ecological environment system. The Dai people know how to live in harmony with nature. According to a local elder, "keep the evergreen trees on the mountains and the fresh water flowing from the bottom of the ditch every year". Local people need firewood, they planted a kind of tree called "black heart tree". Black heart tree grows fast, when the branches are cut off there will be new branches soon. Every year they are cut, they grow, year after year. Therefore, people there made more valuable things, such as bamboo tower, bamboo basket, bamboo shoots food. In Xishuangbanna, the phrase "Don't forget the field when you eat rice, don't forget the river when you eat fish" is not only marked in Chinese and English, but also in Dai characters beside it. Three forms of language help more people know about this place. The government wants more people to know about the original ecosystem of Xishuangbanna in an advertisement way. Later, the government made signs on the streets of Xishuangbanna, all of which were written with such a spoken word or slogan by three languages. By this method, more people would understand and begin to protect the ecological environment.

## **Conclusion**

The Asian elephant research activities organized by Global Youth Tie Program CBD COP15 Team held just after the first stage of COP15 in Kunming provided a meaningful practice for the protection of Asian elephants and the harmonious coexistence of human and elephants. Based on the seven-day field research by interview, and practical experience on the past, nowadays and future of the Asian elephant, Sky tree and traditional life of local Dai people, this paper proposed a stardom path of tropical rainforest conservation. Through a variety of media, the Asian elephant, the tropical rainforests and the simple lifestyle of the Dai people will come into people's view, thus stimulates people's awareness of the protection of tropical rainforests and their biodiversity. In the process of global building back from COVID-19, the rainforest protection

should obey the natural rules, maintain the harmonious coexistence between man and nature which will play a positive role in promoting sustainable global economic and social recovery.

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