

phong nha-ke bang

Natural World Heritage Site



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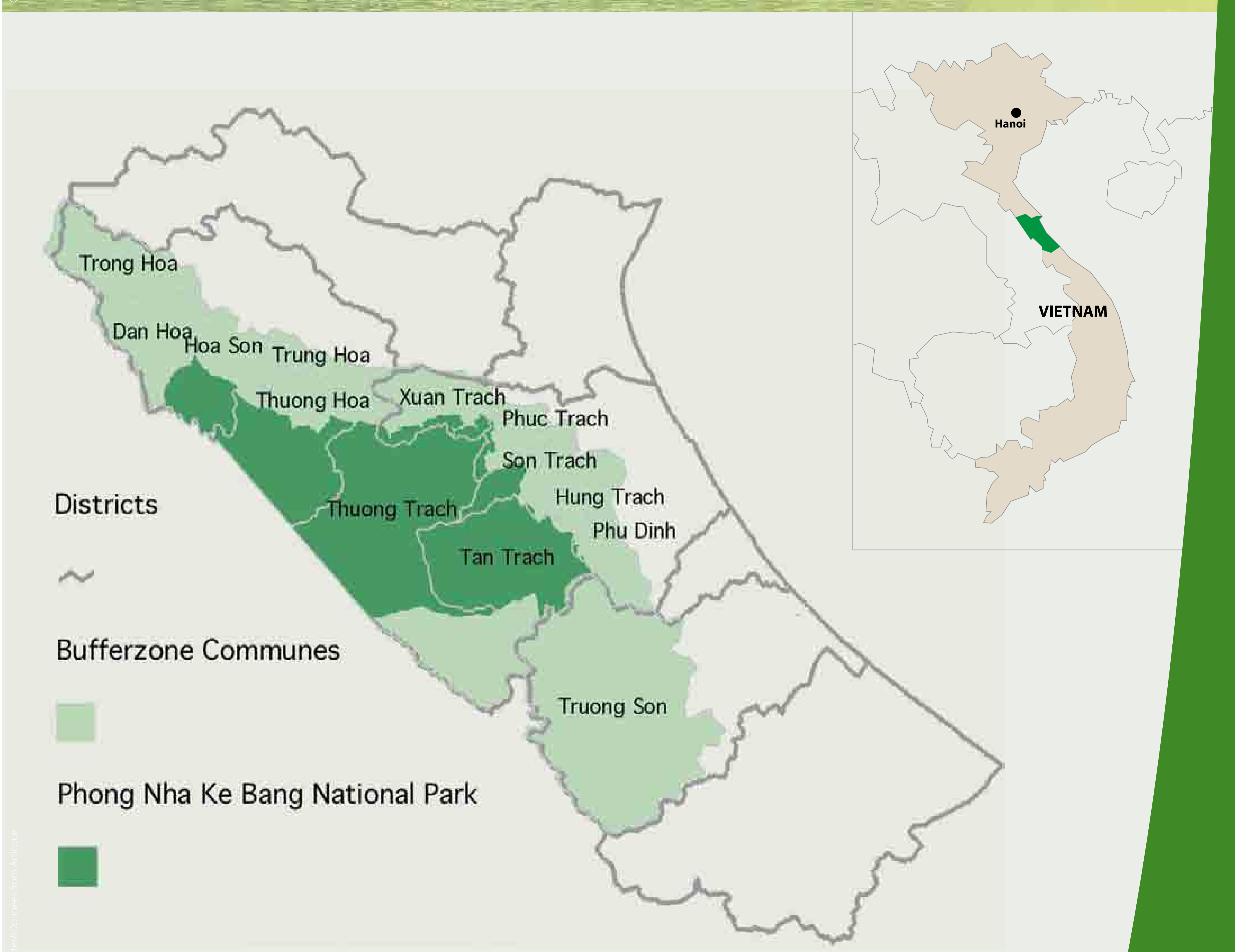


Joint Efforts for Conservation and Development

The scenic beauty and scientific value of the Phong Nha-Ke Bang National Park can hardly be matched by any other protected area in South East Asia. Located in Central Viet Nam at the border to Lao, about 500 kilometers south of Hanoi and 200 kilometers north of Hue, it is truly a place of superlatives. Scientists have recognized it as one of the 200 most important eco-regions of the world: It contains one of the largest karst formations on earth and has the highest diversity of orchids in Indochina. Many plant and animal species are endemic to this area with an extraordinary biodiversity.

There is also a remarkable cultural value to be discovered: Within the park boundaries, four of the 54 minorities of Viet Nam still live their traditional life, with little contact to the outside world. In order to protect the outstanding scenery of the area, the Vietnamese Government established Phong Nha-Ke Bang National Park in 2001. Two years later, UNESCO recognized the extensive cave system as one of the most unique places on earth and declared it a World Heritage Site.

But: this pristine heritage is in danger. Poaching and illegal logging threaten the integrity of the park. The Vietnamese efforts to protect this nationally and internationally cherished heritage are supported by different German organizations, such as Cologne Zoo and the Zoological Society of Frankfurt. They carry out research, protection and restoration actions, together with the park administration and Vietnamese scientists. German Development Cooperation engages in initiatives of ranger training, land-use planning and capacity building for law enforcement. Big joint efforts are made to help develop the buffer zone in a sustainable way. By offering income possibilities to the mainly poor local populations, it is hoped to lessen the pressure on the park area.



PNKB Region Project Area
Bufferzone Communes and Phong Nha Ke Bang National Park



Tourism activities can offer important sources of income for locals. However, they should be carefully monitored to prevent destructive impacts on the sensitive ecosystems.



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Income Generation

More than 50,000 people live in the buffer zone of Phong Nha-Ke Bang National Park, half of whom depend directly on the resources of the park. Many of the rural dwellers are poor and don't have any options, other than hunting within the protected area, gathering twigs and branches for cooking purposes or illegal felling of trees, for maintaining their families and generating a little income. In order to ensure the long-term conservation of the park, the administrators need rigorously to enforce the anti-poaching and logging laws.

This however, will not be enough: people need to have prospects for the future. For this, they need to find alternative sources of income. A prerequisite for this is that the local inhabitants and the park administration see each other not as enemies but as allies. Yet, bringing together conflicting development and preservation interests is no easy task; the challenges are enormous. Together, Vietnamese and German organizations are trying to find ways to conserve the treasures of the region for future generations.

The outstanding features of the Phong Nha-Ke Bang National Park have been recognized as a World Natural Heritage Site – this can offer interesting development options for local people in nature-based tourism. Local pride in this world renowned region will rise, if the inhabitants can make a decent living which is in keeping with nature's needs. Agriculture is both important for subsistence and also the main source of income in the region. Families are growing, yet there is no extra land which can be cultivated – the hilly slopes are steep and soils are poor. They deliver only limited outputs. What's even worse: most of the agricultural land can't be irrigated because of water shortages and limited resources for building channels and dams. The Vietnamese-German projects are, therefore, focusing on options for generating additional income within the given limits.



The population in the buffer zone of the National Park needs to generate additional sources of income, thus allowing them to maintain the park's features while also being able to cover the needs of their families.



Artisanal fishery is a traditional form of resource use in the area. Promising options for additional sources of income include: bee keeping, pig breeding, communitarian forestry, and ecotourism. All of these options require the willing cooperation of many different partners.



Germany has been supporting initiatives in the field since 1996. Lessons learned from the first project, "Sustainable Management of Natural Resources", offer important insights for new ways of income generation in the Phong Nha-Ke Bang region.



Wildlife in the Phong Nha-Ke Bang region still suffers the impact of illegal poachers and traders. Therefore income generation activities have to be combined with strict measures of law enforcement in order to ensure long-term conservation of the site.



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Tourism for Conservation and Communities

Nguyen Thi Lan lives in Chay Lap, a little village close to the National Park. Many people in the small farming communities in the region have a rather difficult life, without many alternatives. Some of them have to enter the park illegally to hunt animals for a living or illegally engage in logging trees.

The family of Nguyen Thi Lan chose another way. With support from Counterpart International (CPI) they built their own business: a simple but well done home-stay which blends in perfectly with the superb surrounding nature, and with their way of living. This initiative not only supports this family but some of the generated income goes directly to community development. The family offers simple but welcoming dormitory rooms, clean beds, exquisitely decorated bathrooms, a nice relaxed atmosphere and a place at the kitchen table, the center of family-life. Nguyen Thi Lan believes in a good future for her grandson: „People have to protect the National Park because in doing so, we and our children can generate good incomes with visitors who come to see the caves, animals and plants.“

The home-stay of Nguyen Thi Lan is a good example of how people in the buffer zone can benefit from the protected area. Tourism is an option to protect the National Park – by providing for income, it prevents local people like Nguyen Thi Lan’s husband and sons from logging and hunting. And it can be a model for developing the area in a sustainable way. The Chay Lap home-stay is located just a few kilometers outside of Son Trach, the entry point of Phong Nha-Ke Bang National Park. It is also very close to the Eco-Trail of Nuoc Mocc, which shows the beauty and splendor of the protected area.



The Nuoc Mocc Eco trail offers a guided tour through the outstanding environment of Phong Nha-Ke Bang National Park.



A picnic, prepared by the local community, invites to see, smell and taste the exquisite dishes of the regional Vietnamese cuisine.



The community project „Rustic Chay Lap“ provides important incomes for local families, who welcome national and international visitors.



In a superb natural setting with unspoilt atmosphere, visitors of Chay Lap gain insights into a rural family’s life in the heart of Central Viet Nam.



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Pig Breeding

Normally it needs a long time and serious investments before people can generate more income. Most families in the buffer zone of Phong Nha-Ke Bang National Park, however, are poor and cannot afford to wait for years. For example 36-year-old Pham Van Duy, who together with her husband and their two little children does not own enough land to feed her family. On their two hectares they grow rice, peanuts, maize, cassava and grass. She was lucky: meanwhile she additionally owns a little pigsty where two pigs grunt for food.

Pham Van Duy received the piglets and food powder as a start-up incentive of the Vietnamese-German Project "Sustainable Management of Natural Resources", supported by the German Technical Cooperation (GTZ). In addition Pham Van Duy took part in a workshop where she learned how to raise pigs in a different way. "In former times we raised and fed the piglets during five months. Now we use another species and breed them only two to three months", she says. The countrywoman also follows a strict schedule in feeding the animals and keeping the pigsty clean. "Today, we no longer use food leftovers and kitchen wastes, but rather feed rice powder because that way the pigs grow faster." Whenever she has problems, she can ask the community worker and project-technicians for help. "This advice and guidance is even more important than the piglet incentive", Pham Van Duy insists.

After two to three months she sells the pigs to a wholesale buyer or on the local market. On average she makes a profit of one million Dong (some 50 to 60 US-Dollars). By this, she almost doubles the income of her family. The idea of the development project: Since the family receives the initial piglets without any financial costs, with the gains from the sale they can buy more little pigs and raise the family-income. Thus the starting investment could be a step towards a better living perspective for rural families.



Doan Thi Hien uses the additional income to pay school fees for several of her six children.



Pham Van Duy has learned to no longer feed food residues but rather rice and vegetable powder. Pigs grow faster then.



Pigs and piglets have to be kept very clean, otherwise they easily fall ill or catch diseases.



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Bee Keeping

Honey is a highly esteemed product in Central Viet Nam. Since he was a boy, 58-year old Dinh Xuan Hien has gone to the forests to harvest what wild bees have produced. It was always a time-consuming work. He could never be sure to find honey at the hidden places he has known since his childhood. Then he took part in a workshop of the Vietnamese-German project "Sustainable Management of Natural Resources" where he learned how to keep bees in his garden. Today he owns 24 wooden boxes, each one of them giving home to a bee population. A kilogram of honey is worth around 120.000 Dong, more than six US-Dollars. Good money in Central Viet Nam. And the demand for honey grows faster than what is being produced.

The start was not easy though, since he had to cope with the bees and with all the diseases and threats a bee keeper has to be aware of. "But with the help of the project I learned to deal with these problems, step by step", he says. Twelve years later he trains other people of his region in bee keeping. Around 1.200 people have been trained to become bee keepers, a lot of them with the help of Dinh Xuan Hien. More people are now to follow within the buffer zone of the protected area of Phong Nha-Ke Bang.

Nguyen Van Hue is one of them. In former times he went hunting and logging into the National Park. He sometimes managed to earn a fortune – but often enough he caught nothing, leaving him and his family with no income at all. He is not the only one in the Phuc Trach commune located directly at the park borders. Many of the local people want to make a change and avoid going into the forests. They fear being punished. And they want to have an income they can rely on.

Bee keeping can generate additional incomes for a lot of families, especially since the bees can be kept without having to own the land. But this is possible only, if the forests are not logged and farmers do not apply pesticides intensively on their crop-land.



"There is no way to earn more money than by illegal hunting within the National Park. But often enough you can't find anything – and apart from that you run the risk of being caught by the park wardens. That's why I now prefer having a stable and legal income. I got into the bee keeping business, hoping to make a living from it."

Nguyen Van Hue



Dinh Xuan Hien has started to build an Association of Bee Keepers in the region with the help of the German Technical Cooperation, GTZ.



He complains: "Ongoing logging and felling of trees is diminishing plants and blossoms in our old-growth forests. That's why the bees can produce less honey in our region."



Dinh Xuan Hien's Association will help to defend the bee keepers' interests, maintain them informed about the market and prices, and show them how to deliver enough honey in good quality to the consumers.



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Rangers

“Ranger Post 40” is located at kilometre 40 on the Ho-Chi Minh Highway, which crosses the Phong Nha-Ke Bang National Park from North to South. The road was essential during the Viet Nam War. From a ranger’s perspective, however, the national highway causes a lot of threats, because it is used by many poachers and loggers to enter the park. That’s why two control stations have been built at both ends of the park. Park warden Tran Xuan Viet though, does not control the trucks and cars when they pass the post, but together with his ten colleagues patrols the forests.

It is hard work: there are almost no paths, the forests are dense, the mountains steep and there are millions of leeches – many of which climb up every leg in astonishing speed to suck the ranger’s blood. The leeches, however, do not keep Tran Xuan Viet from liking his job. He carries on patrolling the park, looking for illegal traps, hunters and loggers. When they come across the poachers, they confiscate the meat and logged wood.

“The last ten days we have not found any signs for activities so far”, he says. This doesn’t mean much, however, since the park is huge and the geography favours illegal activities. Moreover: the loggers are often better equipped than the park representatives.

It is a matter of fact, that law enforcement plays a crucial role in long-term protection of the park. The rangers simply need better tools to do a better job. And they have to be trained properly. There is help to come. Zoological Society Frankfurt with support of a German press initiative (“GEO schützt den Regenwald”) and Cologne Zoo has already equipped four out of ten ranger stations with GPS-systems. The German KfW-Development Bank on the other hand finances better equipment as well as training courses for all the rangers.



“Local people have always depended on the resources of the forests. They have little other options to make a living. Therefore, it is not a good solution to restrict their access to the now protected areas too strictly or immediately. On the long run, we rather want to gain them as allies in the conservation of the park.”

Tran Xuan Viet



The scientists of Cologne Zoo and the Zoological Society Frankfurt closely work together: “We have noticed a lot of progress during the past three years. Progress is notable only little by little, but the management-steps taken lead towards the right direction and show serious efforts and outputs.”



The law enforcement within the protected area has to become more efficient. That is why German development organizations invest heavily into the park infrastructure.



Many conflicts can arise between park authorities and local dwellers within buffer zones around protected areas: Solutions can only be found over time and with the cooperation of all stakeholders.



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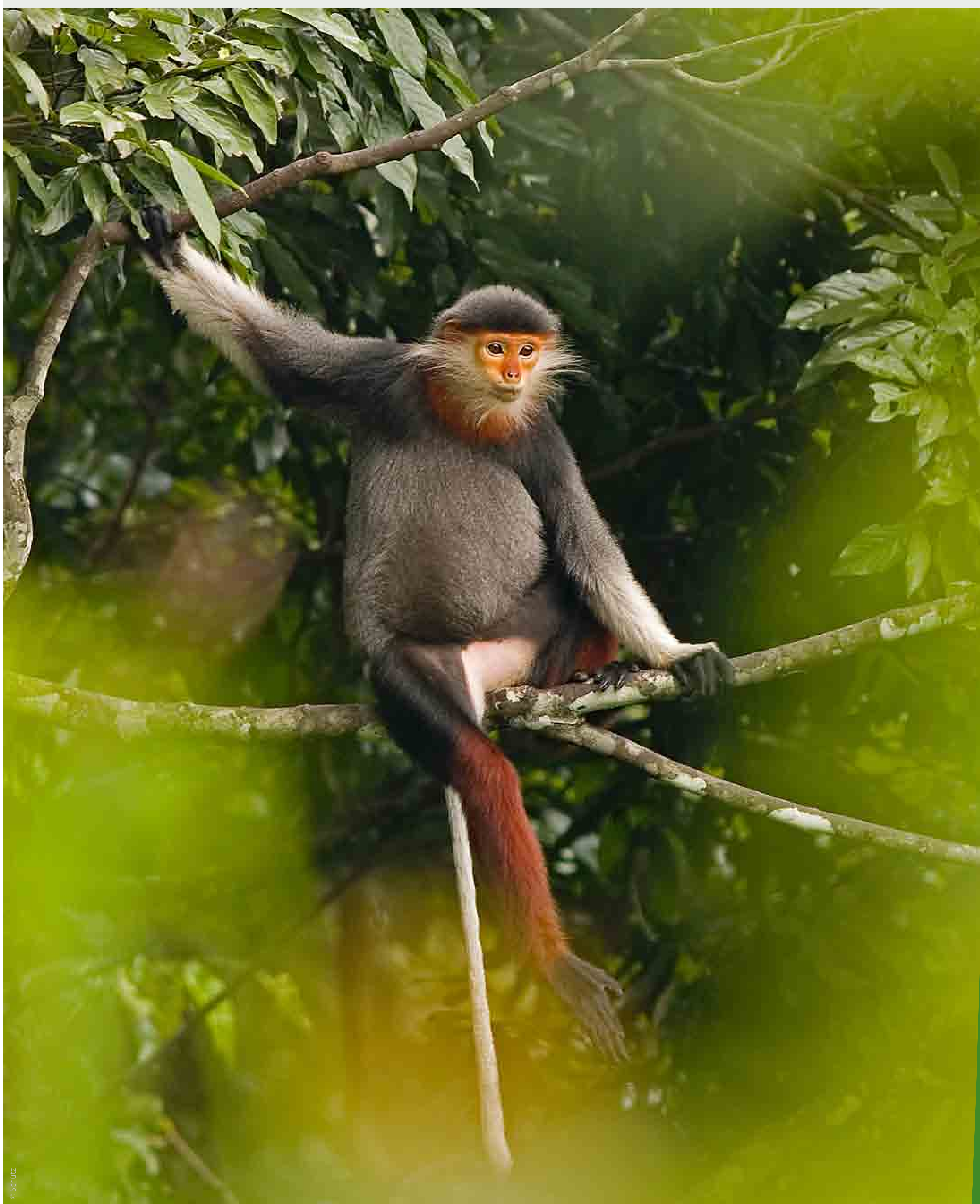
Fauna and Flora

The richness of biodiversity in the Phong Nha-Ke Bang region is outstanding. The Park is one of the 200 most diverse regions on earth. More than 90 percent of the Park area is covered by forests, most of which still comprise primary forests. This constitutes the highest forest coverage of all protected areas in Viet Nam. The diversity of more than ten different forest types in Phong Nha is an important factor in the biodiversity of fauna and flora within the Park borders.

In fact, Phong Nha-Ke Bang represents the transition between two big floristic regions: the northern and the southern regions. Not surprisingly, more than 876 plant species and 568 animal species have been detected already. Moreover, Phong Nha-Ke Bang is a center of endemism. Some 38 plant species and 68 animals are listed in the Plant Red Data Book of Viet Nam. The area is very rich in animal species because of the numerous caves that offer shelter, abundant food sources and the low human population density – all of which provides for a good habitat.

Vietnamese and German scientists are working closely together to intensify research in the Park. In 2005, for example, a bi-lateral expedition of biologists discovered a new species of gecko named *Lygosoma boehmei*. Cologne Zoo and the Frankfurt Zoological Society (FZS) in particular are involved in the Phong Nha-Ke Bang National Park. Cologne Zoo researches reptiles and amphibians. The Frankfurt Zoological Society focuses on primates. The Park is home to at least nine species, such as macaques, gibbons and langurs.

But research alone is not enough. Poaching threatens primates and other animals. Therefore, FZS together with the National Park has started a rescue centre for freed primates and installed a semi wildlife enclosure where these primates can be reintroduced into the wild. Finally, Cologne Zoo, FZS and the KfW German Development Bank support the Park Administration in law enforcement. They train the rangers and equip them with modern radio technology. In keeping with the motto: what you want to study you have to protect.



In the semi wildlife enclosure scientists can study animals under good conditions. And there the primates can relearn how to behave in the wild. The Park is probably home to the largest population of Hatinh langurs and Black langurs in the world



Phong Nha-Ke Bang is an important bird area featuring large populations of several restricted range and threatened species.



As more research is done within the Park, more animals and plants are discovered. One of the mammals which recently have been found is the Saola or Vu Quang ox. It is one of the world's rarest mammals and can be found only in Laos and Viet Nam.



This newly discovered Gecko is native to the Phong Nha-Khe Bang region and was named after the Park: *Cyrtodactylus phonghakebangensis*. Its joint scientific description reflects the successful German-Vietnamese cooperation.



Vegetation surveys describe the Park as a global center for plant diversity. Phong Nha-Ke Bang might feature the highest diversity of orchids in Indochina.



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Karsts and Caves

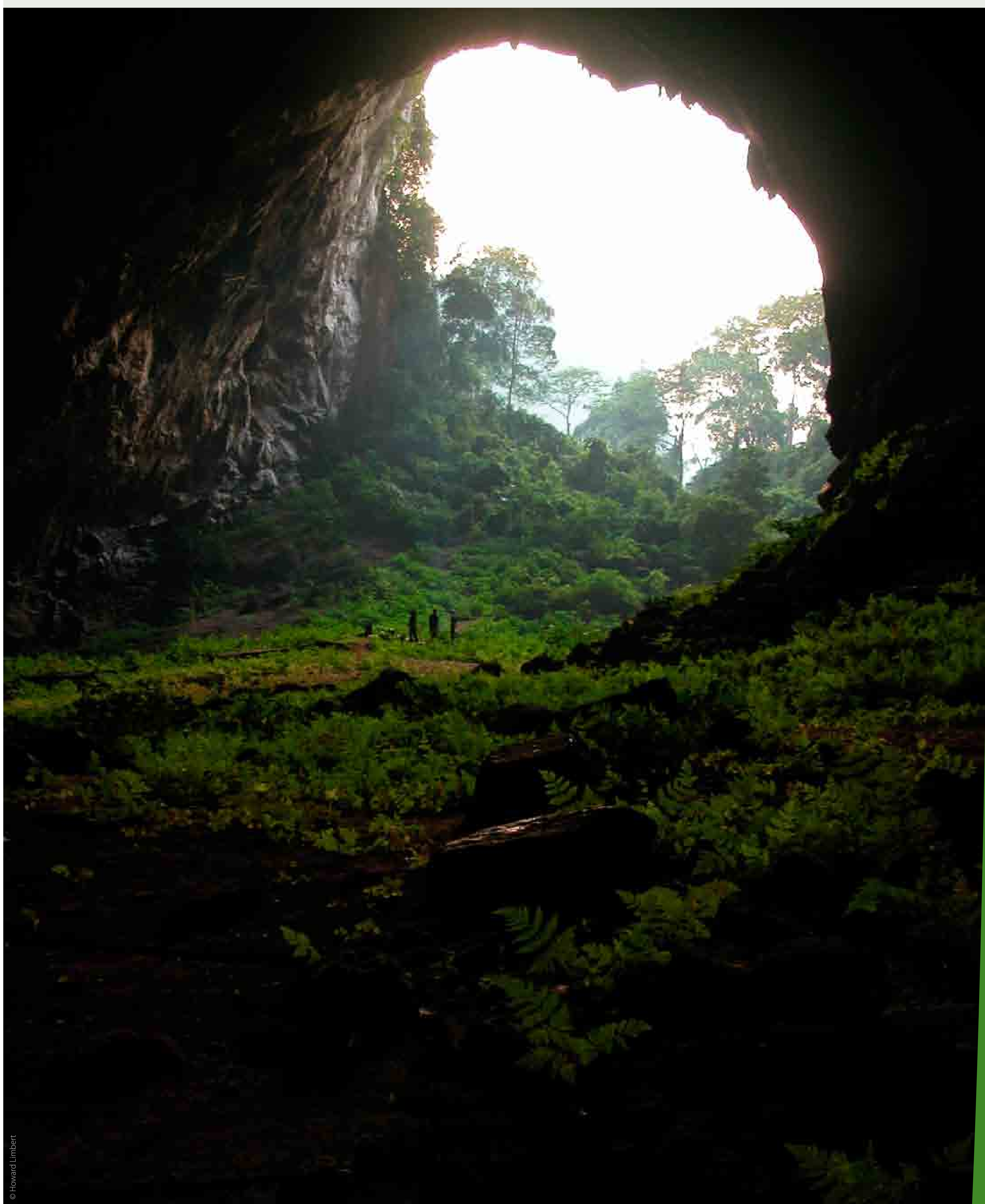
The Phong Nha-Ke Bang region consists of karst formations that have evolved since the Palaeozoic age (some 400 million years ago). Thus it is the oldest major karst area in Asia and offers an impressive inside view into earth's history. Phong Nha is part of a larger dissected plateau, which also encompasses the Ke Bang and Hin Namno karsts. With its coverage of 200,000 hectares in Viet Nam and an additional 200,000 hectares in neighbouring Laos it also constitutes the biggest limestone area in South Asia.

The limestone is not continuous, but demonstrates complex interbedding with shales and sandstones due to several tectonic uplift cycles, responsible for forming this special karst landscape. On the surface, there is a striking series of landscapes, ranging from deeply dissected ranges and plateaux to an immense "polje", a large elliptical depression typical for karst regions, mostly with steep walls and sometimes containing a marsh or small lake.

Due to mechanical and chemical processes, the limestone karst contains hundreds of caves, many of them with fantastic stalactites and stalagmites. Several of the grotto systems reach down hundreds of meters below the surface. In June 2009, a British Expedition of Cave Specialists explored Son Doong Cave which had been discovered by a Vietnamese farmer. It is considered to be the biggest cave in the world. Its impressive dome is some 140 meters high and 140 meters wide.

The outstanding features of the cave system gave UNESCO good reason to add Phong Nha-Ke Bang 2003 to the World Heritage list. A lot of people visit the area – at present around 300.000 per year. Many of them enter Phong Nha cave by boat.

Tourism plays an important role in raising awareness about nature conservation, and it offers job opportunities for locals. The Park administration, though, faces challenges in balancing the aspirations of the visitors and the locals with the conservation needs of the fragile cave and forest ecosystems. In order to better combine these needs in a sustainable way, the Vietnamese-German cooperation has developed a Tourism Management Plan.



The Son River flows into the mouth of the cave and keeps flowing underground for almost 14 km, where it is referred to as the Nam Aki River. It emerges again at a site far to the south, near Pu Pha Dam Mountain.



Before Son Doong Cave was found, Phong Nha cave was regarded as the most important cave in the world. It held the record for the longest underground river, the highest and longest cave, the broadest and most beautiful fine sand beaches inside the caves, the most spectacular stalagmites and stalactites.



The Phong Nha cave is almost 8 km long, contains 14 grottos, and a 14 km-long underground river. Tourists can penetrate to a distance of 1.5 km.



Many tourists visit the "Cave of the Eight Volunteers", close to the Ho Chi Minh Highway. During the Viet Nam War the cave gave shelter to many people. In 1972 it collapsed due to delayed effects of the war bombings. Eight Vietnamese were trapped there and died. Thus it became a place of pilgrimage.



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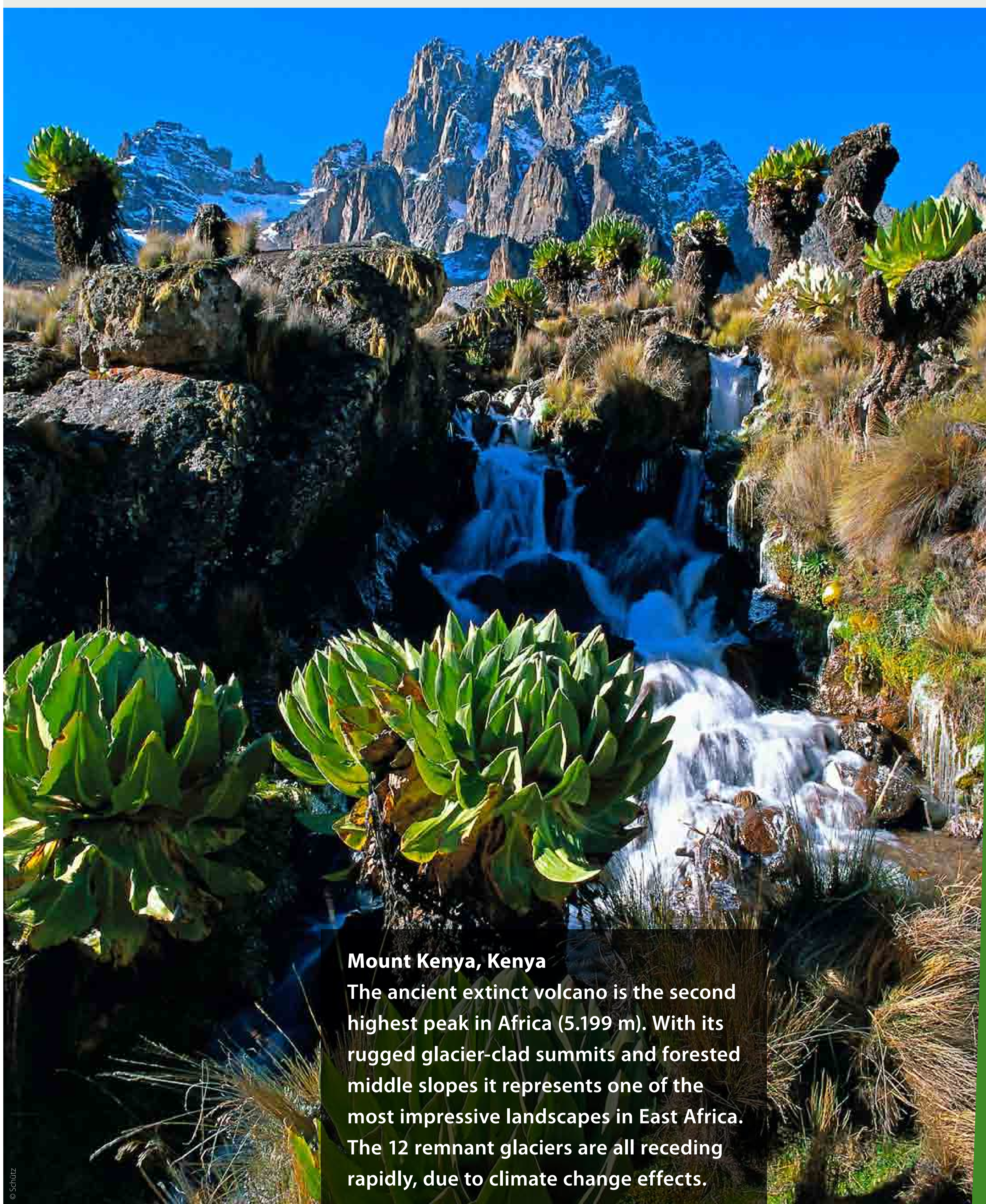
World Heritage

The Phong Nha-Ke Bang National Park is the fifth site in Viet Nam to have received the honour of becoming an UNESCO World Heritage Site. Three sites – Hué, Hoi An, My Son Sanctuary - have been designated as cultural heritage sites, while Phong Nha-Ke Bang National Park and the Ha Long Bay have been recognized as natural heritage sites.

But what do we mean by World Heritage? Firstly: a heritage is a gift from the past to the future. Cultural and natural heritage are both irreplaceable sources of life and inspiration. There are countless places which constitute the natural and cultural heritage of a country or region. But only sites with an “outstanding universal value” can become World Heritage Sites. At present, in 148 countries around the world, there are 689 cultural and 176 natural sites, as well as 25 mixed sites, recognized for both, cultural and natural criteria. The total number of World Heritage Sites featuring outstanding natural values is therefore 201.

The idea of protecting sites of outstanding universal value arose after the Second World War. In order to save the Abu Simbel Temples from being flooded due to the construction of the Aswan Dam in Egypt in 1959, UNESCO launched an international campaign for funding. This was the starting point for a process which culminated in 1972 with the adoption of the World Heritage Convention. It is important to emphasize that the Convention is the only inter-governmental agreement addressing both, cultural and natural values. So far, 186 states have ratified the declaration. Viet Nam added its signature in October 1987.

In 2003, the UNESCO declared Phong Nha-Ke Bang a World Natural Heritage Site. The World Heritage Committee concluded, the Site “displays an impressive amount of evidence of earth’s history. It is a property of great importance for increasing our understanding of the geologic, geomorphic and geochronological history of the region.” It also has great biodiversity values, many of which remain to be discovered. This may also be formally recognized under the Convention in the future, provided the integrity of the park and its surroundings can be maintained.



Mount Kenya, Kenya

The ancient extinct volcano is the second highest peak in Africa (5.199 m). With its rugged glacier-clad summits and forested middle slopes it represents one of the most impressive landscapes in East Africa. The 12 remnant glaciers are all receding rapidly, due to climate change effects.



Machu Picchu, Peru

Some World Heritage Sites also reflect the close interrelationship of Nature and Man. This Sanctuary stands in a spectacular natural setting, in the middle of a tropical mountain forest. It was probably the most amazing urban creation of the Inca Empire at its height.



Rainforests of Atsinanana, Madagascar

The relict forests with their high rate of endemic animal and plant species are critically important for the survival of Madagascar’s unique biodiversity. Many of the spectacular species are rare and threatened, especially primates and lemurs.



Galapagos Islands, Ecuador

Several factors led to the development of this unique ‘living museum and showcase of evolution’ that inspired Charles Darwin’s theory of evolution by natural selection: ongoing seismic and volcanic activity, the confluence of three ocean currents, and the extreme isolation of the islands.



Banc d'Arguin, Mauritania

The mix of harsh desert conditions, coastal swamps, small islands and a rich marine zone has formed a land- and seascape of extraordinary ecological significance. Millions of migrating birds spend the winter in its shallow coastal waters.



Messel Pit, Germany

The site is unique for understanding the living environment as it existed some 50 million years ago, providing information about the early stages of evolution.

