

## National park to drive revival of China's wild pandas



China plans to build a Giant Panda National Park spanning three provinces to help the endangered animals mingle and enrich their gene pool.

[Photo/Xinhua]

China plans to build a Giant Panda National Park spanning three provinces to help the endangered animals mingle and enrich their gene pool.

Pandas isolated on six mountains in Gansu, Shaanxi and Sichuan will be able to come together in the proposed national park.

The park will cover 27,134 square kilometers, three times the area of America's Yellowstone National Park. It will have a core area, protecting pandas in 67 current reserves as well as another 8,000 endangered animals and plants.

Like many other endangered species, pandas are suffering habitat loss and fragmentation due to natural disasters, climate change and expanding human activity.

Multiple administrations in three provinces worsen the situation. When a panda crosses a provincial boundary, jurisdiction becomes blurred.

The park will resolve such troubles. When it is complete, pandas will roam freely between the current far-flung habitats. It also means a lot of people will have to move – at least 170,000 people in Sichuan will have to relocate to establish the core protection area.

“Unlike nature reserves, the park does not stand alone. China will formulate an overall plan for the national park system. It will be a haven for biodiversity and provide protection for the whole ecological system,” says Hou Rong, director of Chengdu Research Base of Giant Panda Breeding.

China’s national park system comprises the Giant Panda National Park and eight others devoted to endangered species and the headwaters of major rivers. The central authorities last year endorsed reform plans to “advance ecological progress,” which included the plan to establish national park system.

Hou says the park will offer residents new homes and work. It could, for example, hire them as guides for tourists and as workers to build infrastructure, so people and nature will benefit together.

People have lived in panda reserves for generations, but they cut bamboo shoots and grazed livestock on hills, eating into the pandas’ habitat and disrupting their lives.

Qubie Mazi, of the Yi ethnic minority, has lived in Sichuan’s Hei Hezi Village for 40 years, making a living by growing potatoes and collecting herbs. A panda reserve in the village is a key corridor connecting populations in Liangshan Mountain.

Poverty once drove the villagers to poach pandas, but after a penalty and bonus system was introduced, they learned to value national treasure and they now cherish them.

“I saw a panda in one of the village houses a month ago. I guess he came to look for food or company. I know when they need to mate, they will go to the other side of the mountain. When I find something unusual about the pandas, I report it to the reserve,” says Qubie.

Asked how he feels about making way for pandas, he says, “I will move, if I can have a new home and a new job.”

“We should lead locals to protect the environment, not to spoil it,” says Heng Yi, senior staff of China Conservation and Research Center for the Giant Panda (CCRCGP). “The key measure is to help people live a sustainable life and to get them out of poverty.”

“Once they have access to electricity, they will stop cutting bamboos. If they have a decent job and steady income, they won’t risk to poach pandas,” he added.

## RETURN TO THE WILD

The national park plan has had to address significant economic and practical challenges, Hou says. Panda conservation work has gone through three major stages: breeding, reintroduction to the wild and the national park.

“We had to start captive-breeding programs in the late 1990s, as the number of pandas dropped dramatically in the 1980s, partly because of a periodic

natural die-off of bamboo," says Hou.

Chinese scientists toiled to breed the reclusive animal in captivity, overcoming some early failures. Last year, 64 cubs were born and 54 survive in nature reserves and zoos, according to the State Forestry Administration.

Scientists are also troubled by the pandas' inbreeding. For many years, they worked with international research teams to make pandas one of the most genetically diverse animals in captivity.

In order to enrich the gene pool, CCRCGP started the reintroduction program in 2003. It has reintroduced seven pandas into the wild, but two died.

Keeping them behind the bars is the last thing CCRCGP director Zhang Hemin wants. "The goal of breeding and reintroduction is to eventually put the animals back into bamboo forests and expect them to mate with their wild cousins."

Thanks to these dogged conservation efforts, 1,864 pandas remain in the wild, 17 percent more than a decade ago, according to the most recent national survey in February 2015.

The aim is to raise the wild population to more than 2,000 by 2025. This requires a large protection area and an upgraded eco-system. "That's why many scientists and conservation experts support the building of a national park," says Hou, who made the suggestion in 2014.

Few people are aware of how pandas live in the wild, says Hou. Much of their range is fragmented, and only a few large continuous tracts remain where the animals can roam freely.

According to a report by WWF, roads and railroads are increasingly fragmenting the forest, which further isolates panda populations and prevents mating, while forest destruction reduces their access to the bamboo they need to survive.

Some sub-populations number fewer than 10 members. This makes them vulnerable to disease and reproductive problems, and less able to adapt to a changing environment.

While the park paints a wonderful picture for the conservation of pandas and the restoration of the ecological system, it also faces challenges and risks.

Restoring effective corridors for panda migration is no easy job. Twenty corridor plans across the six mountains have been proposed since 1988, but few came to reality.

"China still needs to do more empirical studies and to carry out conservation activities to put these corridors into real use," says Melissa Songer, a conservation biologist from the Smithsonian's National Zoological Park.

In 2015, China's National Development and Reform Commission and the Chicago-based Paulson Institute signed a cooperation framework protocol to carry out

pilot programs and case studies.

“Past experience has told us how much a national park can do for a country’s environment and ecology,” says David Wildt, a senior scientist from the Smithsonian’s Conservation Biology Institute.

“I am delighted to see China’s breakthrough in panda breeding and reintroduction programs. But it’s time to test if these measures work out in the new system of national parks.”