Wood harvest puts pandas at risk

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A giant panda in the Wolong Nature Reserve

People and giant pandas are still coming into conflict.

So concludes a report into the firewood collecting habits of people living in one of China's largest panda reserves.

It found that over the past 30 years, people living in rural communities have ventured ever deeper into prime panda habitat to collect wood to burn.

Unless more is done to meet the needs of these rural households, the report says, they may continue to cut down prime forest, putting pandas at risk.

Collecting wood to use as fuel is extremely common around the developing world, with some reports suggesting that up to three billion people still rely on wood as a main source of energy to cook with and heat their homes.

That in turn significantly impacts wildlife habitats, which can become degraded and fragmented as trees are chopped down.

Guangming He of the Michigan State University in East Lansing, US led a team that examined how the collection of firewood has impacted panda habitat in the Wolong Nature Reserve in Sichuan Province, China.

More than 15% of the nation's land area is legally protected in thousands of nature reserves and national parks, and the Wolong Nature Reserve is one of the largest dedicated to protecting the giant panda, holding around 150, or roughly 10%, of the remaining wild population of pandas.
The team surveyed how the wood collecting habits of 200 rural households in the reserve had changed since the 1970s.

"The impacts of fuelwood collection on panda habitat over time and space were not known," says He.

His team found that over the past 30 years, residents have increasingly travelled further into the forest, to more remote and high elevations, to collect wood. Trees such as oak, maple, birch, spruce and larch are chopped down, and the logs driven home to be chopped down further into firewood.

"Collectors were travelling longer distances to physically challenging areas," says He. "In our case, to areas of high quality panda habitat."

The number of sites where people cut down trees for firewood increased threefold during the 1970s, 80s and 90s, says the report, published in Landscape and Urban Planning by He and colleagues based in the US and at the Chinese Academy of Sciences, Beijing and China's Center for Giant Panda Research and Conservation based in the Wolong Nature Reserve.

That's a problem for pandas, which occupy temperate montane forests with dense stands of bamboo at altitudes of 1,200 to 4,100m.

Since the 1970s, roads have been constructed within the reserve, including one that bisects it, to encourage local people to visit local markets rather than rely on the forest for resources.

However, these roads extended so far into the forest that they helped residents reach previously inaccessible trees, He's team found.

But "the most surprising result would be that many households were aware of fuelwood collection regulations and understood their importance to panda conservation, but many of them did not comply," He says.

China has recently provided extensive financial help to many rural households in the Wolong Nature Reserve, helping them switch to electricity rather than rely on firewood for their energy needs.

But more should be done to lower electricity prices to discourage people from collecting wood, says He.

Otherwise, he says, "if fuelwood collection continues, then all wild pandas in the reserve will be impacted."