

Belt and Road Initiative may create new supplies for illegal wildlife trade in large carnivores

To the Editor — Southeast Asia is a major hub of illegal wildlife trade, with supplies arriving from many parts of the world. Most west and central Asian countries have hitherto been less engaged in this supply chain¹, possibly because of remote locations, less-developed transportation networks and easier availability of other sources of supply, but China's Belt and Road Initiative (BRI) has the potential to dramatically change that situation. The planned BRI and its southern tributary, the China–Pakistan Economic Corridor, traverse key habitats for large carnivores, which are highly marketable species in China and Southeast Asia. By creating new access to wildlife and supply corridors, the BRI poses a significant risk of increasing illegal wildlife trade in the region.

The BRI is China's most ambitious infrastructure development project, linking China to Europe via land and maritime networks, including through west and central Asia (Fig. 1). Concerns have already been raised regarding the risks the BRI poses to environmental sustainability and biodiversity landscapes^{2–4}. Facilitating wildlife trade through the region⁵ and creating new supply sources^{6,7} is a further threat to west and central Asia's biodiversity posed by the BRI.

As well as trade in live animals and animal parts, traders are also seeking alternative sources for substituting species to be used in traditional Chinese medicine⁵. For example, geographically distant African lions *Panthera leo*, African leopards *P. pardus* and jaguars *P. onca* are traded allegedly to supply the substitute tiger *P. tigris* bone market in Southeast Asia^{6,7}. Such trade could increase following the recent recognition by the World Health Organization's World Health Assembly of traditional Chinese medicine and the probable adoption of the 11th version of the *International Statistical Classification of Diseases and Related Health Problems*, which includes 400 diagnoses pertaining to traditional Chinese medicine⁸.

Increased demand can encourage a transition from a supply-driven to a demand-driven market through the conversion of opportunistic poaching into organized crime^{7,9}. Large carnivores, which are currently marketable in China and Southeast Asia and which are implicated in human–wildlife conflict in some regions,

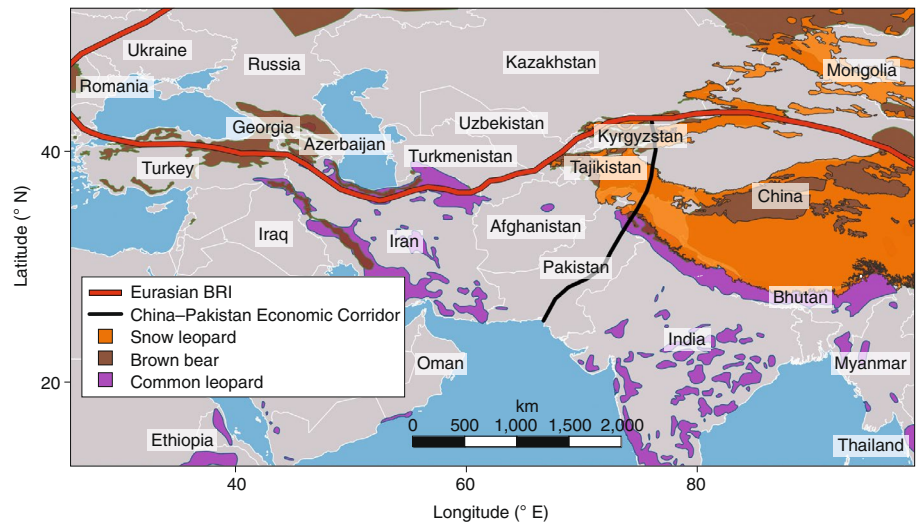


Fig. 1 | The BRI in west and central Asia. The Eurasian BRI and its deviating southern China–Pakistan Economic Corridor cut through key landscapes of threatened large carnivores in west and central Asia, which can potentially convert them into new sources for the illegal wildlife trade. Species distribution maps obtained from www.redlist.org.

may create a new supply for illegal trade. The BRI largely overlaps with key habitats accommodating large populations of Persian leopard *P. p. saxicolor* and Asian brown bears *Ursus arctos*^{10–12} (Fig. 1). The BRI and the China–Pakistan Economic Corridor may also ease smuggling of snow leopards *P. uncia* in the region's inhospitable landscapes¹³.

In addition to existing assessments of the environmental and social impacts of the BRI^{2,3}, we present four specific recommendations to mitigate the potential effects of the BRI on illegal trade in large carnivores. First, conflict-mediated retaliation towards large carnivores may fuel and facilitate informal markets for body parts, and consequently incentivize targeted poaching^{7,11,12,14}. Therefore, mitigation and financial incentive programmes for coexistence are needed to reduce human–carnivore conflict in west and central Asia. Second, more effective mechanisms are needed to detect illegal wildlife trade, through strengthening legal frameworks and customs regulations as well as training border- and law-enforcement personnel. Third, transboundary partnerships should be promoted to facilitate sharing of

information and management practices. Finally, a better understanding of species movement, distributions and demography can inform mitigation plans. □

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Competing interests

The authors declare no competing interests.