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India needs a biodiversity strategy that includes conserving landscapes that humans and wildlife share since only 15% of the country's top conservation priority areas are covered under the protected area network, a study published in the peer-reviewed journal Nature Sustainability has recommended.

The study titled "Prioritizing India's Landscapes for Biodiversity, Ecosystem Services and Human Well-being" has suggested a balance between the development and conservation of ecologically vulnerable areas.

Eighteen scientists led by Bengaluru's National Centre for Biological Sciences conducted the study, which was published on Monday.

The study said India needs a strategy that embraces a judicious mix of land sharing, where humans and biodiversity share space, and land sparing, as seen in protected areas.

The scientists have identified sites of high conservation priority that include those representing key and rare natural habitats. They have called for providing crucial ecosystem services such as carbon and water.

"Significantly, only 15% of the top 30% priority sites that included all the three conservation themes were encompassed within the current protected area network, while the majority were human-dominated landscapes," four authors of the study wrote in Nature's Earth and Environment Community website.

"Such a delineation further emphasizes the need for landscape-level conservation approaches that are inclusive of spaces shared between humans and wildlife."

Uma Ramakrishnan and Arjun Srivathsa (National Centre for Biological Sciences), Jagdish Krishnaswamy (Indian Institute for Human Settlements and Stotra Chakrabarti (Macalester College, the US) noted only about 15% of terrestrial habitats and 7% of oceans are under some form of legal protections.

"While conventional conservation paradigms and practices revolve around such land-sparing, spaces to spare are both limited and fast shrinking," they wrote. "Reimagining conservation by integrating 'land-sharing' wherein spaces shared between humans and biodiversity can be included and safeguarded."

The study comes against the backdrop of subsidence in parts of the Himalayas including Joshimath in Uttarakhand. It takes into account fragile landscapes that also include the Western Ghats, etc.

The scientists mapped threats to various ecosystems. Urban hot spots, representing major cities, and the agricultural belts of the northern semi-arid zone, the lowland plains of northeast India, and the western and southern parts of the Deccan peninsula were ranked the highest in terms of human pressures.

The study has recommended a participatory approach to protect such a large area under rich biodiversity.

"Developmental aspirations of a growing economy and climate change pose new challenges for the future of India's rich biodiversity. While preserving India's biodiversity is globally important for its intrinsic value, it is also critical to millions of Indians who depend on it for sustenance and livelihoods," the authors wrote.

"We propose an evidence-based and implementable pathway by which India can address this immense challenge through landscape-scale conservation."

The authors found 338 district boundaries play a key role in maintaining biodiversity and ecosystem services. Of these, 169 have been designated as high-priority districts, where natural habitats, biodiversity, and ecosystem services are at optimal levels and span a large area.

Seventy-two districts overlap with NITI Ayog's aspirational districts, where land use needs to be carefully planned, the scientists said.

"This will require deprioritizing mega-infrastructure projects while promoting equitable models of nature protection in addition to the demarcation of protected areas. Such approaches may entail community stewardship for biodiversity protection, co-management of habitats outside protected areas, and nature-friendly livelihood development within larger conservation landscapes," the study said.

It added the conservation approaches would hinge on equitable models of governance. "In India, this may be achieved through the implementation of existing frameworks, for instance, in locations where communities are granted Community Forest Rights, and by declaring areas as Critical Wildlife Habitats under the Forest Rights Act, provisions that, at present, remain extremely underused."

The Forest Conservation Rules, 2022, faced criticism last year for diluting certain provisions on recognising forest rights while clearing a project. The rules removed the obligation to get consent from concerned village councils.

Minister of state for environment Ashwini Kumar Choubey on Monday told Parliament the rules do not abrogate the provisions of the Scheduled Tribes and Other Traditional Forest Dwellers (Recognition of Forest Rights) Act, 2006, or the statutory powers of the village councils.

He was responding to Pradyut Bardoloi's question on whether the National Commission for Scheduled Tribes recommended placing the new rules on hold as they would amount to infringing on the tribal land rights.

Source: <https://www.hindustantimes.com/india-news/india-needs-strategy-for-conserving-landscapes-humans-wildlife-share-study-101675828120848.html>