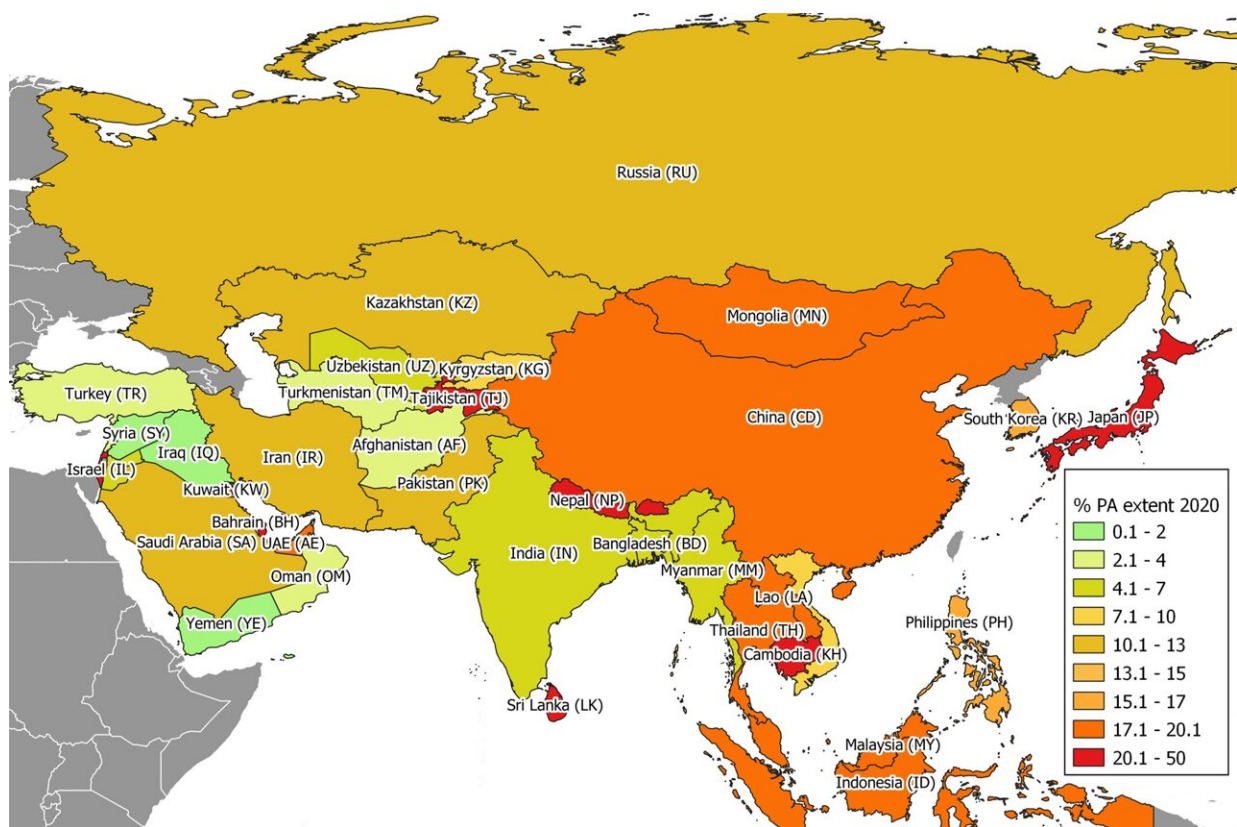


# Most Asian countries are far behind biodiversity targets for protected areas, finds study of 40 countries

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Asian countries and the percentage of protected areas (PA) in 2020. The full and abbreviated names for all Asian countries analyzed in this study are shown. The map projected using WGS 84 EPSG: 4326 coordinate reference system. Credit: *Communications Biology* (2022). DOI: 10.1038/s42003-022-04061-w

Protected areas are one of the most effective tools for safeguarding biodiversity, but new research published today has found that most Asian countries failed to achieve a global minimum target of protecting at least 17% of land by 2020. Under current trends, the outlook for achieving the Global Biodiversity Framework's 2030 target to protect at least 30% of land is bleak, with Asia set to miss this by an even greater margin.

Asia is one of the richest places on earth for biodiversity and hosts many of Earth's most charismatic animals, including the giant panda, snow leopard, and Asian elephant. In many areas, however, these species are threatened by some of the world's highest rates of habitat loss, driven by rapid population growth.

To counter the global biodiversity crisis, at the 2010 UN Convention on Biological Diversity, almost 200 countries pledged to protect at least 17% of their terrestrial environments by 2020 (known as Aichi Target 11). To investigate whether they achieved this, researchers from the Universities of Oxford and Cambridge, with collaborators in Asia, analyzed data from official reports submitted to the World Database on Protected Areas. The results, based on data from 40 individual countries, have been published in *Communications Biology*.

## **Key findings:**

- Only 40% of Asian countries achieved the target of a minimum of 17% coverage for protected areas by 2020. In particular, very few countries in West and Central Asia achieved the target.
- Overall, Asia was the most underperforming continent, with just 13.2% of land being designated as a terrestrial protected area in 2020 (compared with a global average of 15.2% protection).
- Only 40% (16) of Asian countries, mainly in East and South Asia, had met the 17% protection target by 2020. However, 14 out of 19 West and Central Asian countries had not met the

target.

- Asian countries also tended to have a slower year-on-year increase in the amount of land protected for conservation, at just 0.4% per year on average. Between 2010 and 2020, some countries showed no change, or even small decreases, in protected area coverage.
- Countries that had a higher proportion of agricultural land in 2015 had a lower protected area coverage in 2020. This may imply that rapidly expanding agriculture may be hindering the establishment of new protected areas.
- Only 7% of protected areas in Asia had any kind of assessment for their management effectiveness.
- For 241 highly at-risk mammal species across Asia, on average 84% of their ranges fell outside protected areas.

Based on these results, the post-2020 Global Biodiversity Framework goal to protect 30% of the planet for conservation by 2030 will be missed by an even greater margin.

The researchers calculated that almost all Asian countries will fail to meet the 2030 target unless their rate of establishing protected areas increases by up to six times faster. Under the current trajectory, Asia as a whole would only achieve 18% coverage by 2030—far below the target of 30% protection. The outlook was worst for West and South Asia, projected to achieve 11% and 10% coverage respectively by 2030.

Lead author Dr. Mohammed Farhadinia of the Department of Biology and Oxford Martin School, University of Oxford, said, "Asia is a challenging continent for setting targets for protected areas, since areas of high biodiversity typically conflict with dense human populations and rapid economic growth. While this research demonstrates the need for more investment in protected areas in Asia, it also shows the importance of establishing realistic, achievable goals that take into account socio-

geographical restrictions."

The findings carry important significance ahead of the 15th meeting of the Conference of the Parties (COP 15), when the governing body of the Convention of Biological Diversity will convene in Montreal, Canada (December 7-19, 2022). At this meeting, government representatives will review the achievement of the Aichi Biodiversity Targets and discuss strategies for meeting the post-2020 Global Biodiversity Framework targets.

The authors make three recommendations to support Asian countries trying to meet the 2030 biodiversity targets, which they hope will influence decision-makers ahead of COP 15:

- Documenting and reporting on other effective area-based conservation measures governed by local communities that conserve biodiversity. These can include privately conserved areas or farmlands with a high value for nature.
- Restoring disturbed landscapes, such as land from abandoned farms and logged rainforests.
- Strengthening protected areas that cross international borders. Many rare species exist in trans-boundary regions (such as the snow leopard, whose habitat spans twelve countries), yet increasing border obstacles threatens their movement.

Despite the bleak overall outlook, the study identified some success stories among Asian countries. Nepal, for example, increased its coverage of protected areas by almost 40% between 2010 and 2020, and these now cover nearly 24% of the country.

"The political will to preserve the country's biodiversity, favorable [environmental policies](#), and international commitment made under Aichi

targets by the government made this significant achievement possible," says Gopal Khanal, a conservation officer at Nepal's Ministry of Forests and Environment, and a co-author of this study.

Dr. Aishwarya Maheshwari, an India-based co-author of the study, said, "Asia is a highly complex region with great variability in human population densities, biodiversity richness, and geopolitics. This makes it unlikely that a 'one size fits all' approach to improve the coverage of [protected areas](#) would be successful. Instead, careful and targeted planning is needed if we are to meet post-2020 [biodiversity](#) targets while balancing human demands."

**More information:** Mohammad S. Farhadinia et al, Current trends suggest most Asian countries are unlikely to meet future biodiversity targets on protected areas, *Communications Biology* (2022). [DOI: 10.1038/s42003-022-04061-w](#)

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