

Formal protection reduces loss of natural land-cover at IBAs across Africa

Title

A new study [1] led by conservation scientists from the BirdLife Africa Partnership and the RSPB (BirdLife in the UK) has provided the most robust evidence yet available that legal protection protected status is effective at reducing the loss of natural land-cover within sites of high conservation importance.

The study, which also involved researchers from the University of Cambridge, UNEP World Conservation Monitoring Centre and the Joint Research Centre of the European Commission, compared sets of protected and unprotected Important Bird and Biodiversity Areas (IBAs) in Africa, which had been matched to ensure that they had similar characteristics. Annual rates of loss of natural land-cover in protected IBAs were less than half of those in IBAs with no legal protection.

Previous assessments of protected area effectiveness have compared changes between sets of protected and unprotected sites but are difficult to interpret because the sites have often differed in other characteristics that might influence habitat loss, such as altitude, remoteness or accessibility. They have usually looked just at forests. The present study used a dedicated land-cover change assessment tool to examine high resolution satellite imagery, to provide accurate data on all types of vegetation.

“We compared rates of change in natural land-cover over a 20-year period at a large number of points across 45 protected IBAs to those from sets of corresponding points in 48 unprotected IBAs”, explained Graeme Buchanan, Senior Conservation Scientist at the RSPB. “The rate of loss of natural land-cover at sample points within protected IBAs was just 42% of that at matched points in unprotected IBAs.”

Rates of loss in 20-km buffer zones around protected IBAs and unprotected IBAs were, however, similar, with no evidence of displacement of conversion from within protected areas to their immediate surroundings (a phenomenon known as leakage).

In 2010, the Parties to the Convention on Biological Diversity (CBD) agreed to increase total coverage of land in Protected Areas (PAs) from current levels of around 13% to 17% by 2020. However, a recent estimate suggests that that meeting this target, and protecting the world’s most important sites for biodiversity, might cost in the region of \$76 billion annually. This

would represent a substantial increase in current levels of spending, and to justify it, the effectiveness of PAs in reducing deleterious land-cover change needs to be quantified.

“This study is an advance on previous work on the effectiveness of PAs that which has considered just forest loss, single sites, or included sites not of high conservation importance”, said Graeme Buchanan. “Our results suggest that the proposed expansion of the global terrestrial protected area network, especially if appropriately targeted, will be an effective means to of reduceing habitat loss, and so conserve biodiversity.”

[1] Alison E. Beresford, George W. Eshiamwata, Paul F. Donald, Andrew Balmford, Bastian Bertzky, Andreas B. Brink, Lincoln D. C. Fishpool, Philippe Mayaux, Ben Phalan, Dario Simonetti & Graeme M. Buchanan Protection Reduces Loss of Natural Land-cover at Sites of Conservation Importance Across Africa. *PLOS One*.