



## VITAL SITES: PROTECTED AND CONSERVED AREAS OFFER SOLUTIONS FOR BUILDING BACK BETTER

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### ABSTRACT

The COVID-19 pandemic presents both challenges and opportunities for nature conservation. This paper reviews the social and economic values of protected and conserved areas—in water supply, food security, carbon storage, climate change adaptation, and human health. IUCN is well placed to advocate for a green recovery with protected and conserved areas playing a critical role as cost-effective nature-based solutions, along with better ecosystem management and ecological restoration. The Post-2020 Global Biodiversity Framework of the Convention on Biological Diversity offers a unique moment in time to agree on new priorities for biodiversity conservation and a more sustainable future.

**Key words:** biodiversity, green recovery, nature-based solutions, IUCN, WCPA

The year 2020 has been both extraordinary and worrying. The global COVID-19 pandemic has exposed humankind's critical dependence on nature and healthy ecosystems and what can go wrong when we abuse our natural environment. This has been a wake-up call to humankind that we need to reset our relationship with the natural world. There is good evidence that the pandemic is linked to environmental degradation and we are beginning to see a new understanding of the importance of retaining intact, natural ecosystems and the value of protected and conserved areas (PCAs).

As discussed elsewhere in this volume, the COVID-19 pandemic presents both challenges and opportunities for nature conservation. There is a new appreciation of nature and natural settings as places for physical and mental respite during lockdown, especially in cities and towns. At the same time the pandemic has curtailed travel and tourism to PCAs and other wild places, severely restricting tourism revenues which are vital for employing staff, funding management operations and providing livelihoods for surrounding communities. Paradoxically, the contrasting value and vulnerability of PCAs exposed by the pandemic allows for much better

understanding of their potential as a foundation for human security and social, economic and environmental sustainability.

Over the past decades, science and practice have underlined two fundamental truths:

- Natural ecosystems conserve biodiversity and deliver ecosystem services that underpin human health, welfare and well-being. These processes help to maintain a stable climate, water provision, food security, protection against disaster risk, and also contribute to human health and well-being, and even to peace and security.
- Protected and conserved areas when governed and managed effectively are able to maintain intact, functioning and resilient natural ecosystems, halt the loss of biodiversity and maintain essential ecosystem processes and services.

The social and economic values of PCAs have been well documented (Dudley et al., 2010; Stolton & Dudley, 2010). Many major cities, including New York, Melbourne, Sydney, Karachi, Dar es Salaam and



Field rangers rescuing a pangolin in the Pu Mat National Park, Viet Nam © Pu Mat National Park

Mumbai, are dependent on PCAs for their domestic water supplies. For example, the Colombian capital Bogota, a city of 8 million people, derives most of its water from the Chingaza National Park. In South America, several water funds are funding local communities in high-altitude protected areas to enhance ecosystem management and secure water supplies. The 11 interconnected protected areas of the Australian Alps conserve catchments which deliver essential water for agriculture in Australia's food bowl, the Murray-Darling Basin, a service which benefits more than 2 million people and has an estimated worth of AU\$10 billion per annum. Marine protected areas also contribute to food security, providing recruitment zones for fish stocks and other marine harvests. Strategically expanding the existing global network of marine protected areas by just 5 per cent could improve future catch by at least 20 per cent (Cabral et al., 2020).

The role of natural ecosystems and PCAs in storing carbon and helping people to cope with climate change is now well recognised (World Bank, 2010; Dudley et al., 2010). Several countries including many in South America, and Madagascar and Mexico have recognised the valuable role that PCAs can play in storing carbon and have integrated PCAs into their climate change strategies, planning and programmes. But PCAs also deliver many other benefits, underpinning human health, well-being and welfare. Research in Victoria, Australia, has demonstrated the positive benefits of public recreation in parks and protected areas for human health and well-being with avoided health-care costs offsetting most of the costs of maintaining the protected area system (Townsend et al., 2015).

Many governments are expressing their intentions to build back greener and better in their recovery programmes post-pandemic (Golden Kroner et al.,

2021). IUCN has a key leadership role to play here, both through the work of the PCA programmes but also through promoting more sustainable nature-based solutions in production landscapes and seascapes and key development sectors. It is clear that many PCAs can deliver multiple goods and services, contributing to human health and recovery from the pandemic. These benefits depend on areas being well managed, well governed and well connected. The IUCN Green List standard provides an important tool for promoting effective management and governance, with more than 30 countries globally already involved in applying the standard. The investment required to achieve effective systems of protected and conserved areas is relatively small when compared with the estimated value of the ecosystem services they provide (Bovarnick et al., 2010).

For the moment, the world is focused on the COVID-19 pandemic, but we shouldn't forget that we are also facing two other longer term, and even more serious crises related to biodiversity and climate change. As countries try to build back better, the greatest gains will come from strategies and programmes that explore and expand the synergies between these agendas. Climate change will require new strategies for conservation and sustainable PCA networks, protecting areas important for biodiversity and carbon, maintaining habitat connectivity in the wider landscape, and encouraging more restoration and sustainable and 'biodiversity-friendly' practices in surrounding landscapes and seascapes. The roles and benefits of natural ecosystems as green infrastructure will become even more important with climate change.

Protected and conserved areas have a vital role to play as part of green infrastructure and a greener economic future: protecting key watersheds; incorporating riverine forests and wetlands into flood abatement strategies; maintaining and restoring natural habitats for coastal protection. But much more also needs to be done in the broader landscape and seascape to stop overexploitation and habitat degradation and promote more sustainable use. While much lip service is given to the concept of mainstreaming biodiversity, few countries consider the values of ecosystem services in national accounts, and yet the economic benefits are clear. Effective mainstreaming will require integration of nature conservation into land-use and marine spatial plans, harmonised with other development sectors. We need to promote investment and regulation to support the development of green infrastructure, address threats, halt the degradation of land and ocean ecosystems, and remove incentives for unsustainable uses. Maintaining natural ecosystems and services is a





A family living in the Matsés Natural Reserve in Perú © Luis Miranda

smart investment option since habitat restoration and/or hard infrastructure are likely to be far more costly.

Achieving these ambitions will require a more rigorous understanding of the economic values of nature conservation and the conditions under which solutions for conservation and development are effective and complementary. There are already some good examples of innovative programmes that provide multiple benefits to people, livelihoods and biodiversity. The Working for Water programme in South Africa, a country faced with chronic water shortages, used levies on water consumption to invest in massive programmes to clear water-hungry invasive alien species from key watersheds. The programme not only improved both the flow and quality of water supplies for domestic use, industry and agriculture but also created new and diverse forms of employment for disenfranchised and marginalised communities, while simultaneously restoring globally significant biodiversity. The success of this approach has promoted its replication to wetlands, coasts, oceans and to the management of fire risk countrywide.

IUCN is well placed to advocate for a green recovery and to promote good practice in PCAs, ecosystem management and ecological restoration. Programmes like #NatureForAll and the Urban Alliance can help to strengthen the relationship between people and nature. Maintaining, restoring and connecting natural spaces should be a priority for urban planning, including better understanding of cities' dependence on surrounding landscapes and the services they provide (MacKinnon et al. 2019). It will be important to have improved valuation of economic benefits from individual sites and protected and conserved area networks to underpin arguments for strengthened support and innovative conservation financing strategies, including payments for ecosystem services, additional government budgets and financing through major development projects and biodiversity offsets. It is encouraging that some countries, such as New Zealand and Finland, are already investing heavily in conservation as part of their post-COVID-19 recovery plans, strengthening conservation work and creating new employment opportunities. Pakistan, too, has announced an ambitious new project to strengthen and expand its national parks system as part of a green stimulus package designed to provide

new employment opportunities and address climate change.

The Post-2020 Global Biodiversity Framework of the Convention on Biological Diversity offers a unique moment in time to agree on new priorities for biodiversity conservation and a more sustainable future. IUCN is ready through its Members, Commissions and Secretariat-led programmes to take a leadership role in promoting greener economies, with an emphasis on conserving and restoring healthy ecosystems for healthy societies.

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## RESUMEN

La pandemia del COVID-19 plantea tanto desafíos como oportunidades para la conservación de la naturaleza. En el presente artículo se examina los valores sociales y económicos de las áreas protegidas y conservadas en términos del suministro de agua, la seguridad alimentaria, el almacenamiento de carbono, la adaptación al cambio climático y la salud humana. La UICN se encuentra en una posición idónea para abogar por una recuperación verde en la que las áreas protegidas y conservadas desempeñen un papel fundamental como soluciones rentables basadas en la naturaleza, junto con una mejor gestión de los ecosistemas y la restauración ecológica. El Marco Mundial de la Diversidad Biológica Posterior a 2020 del Convenio sobre la Diversidad Biológica ofrece un momento concreto en el tiempo para acordar nuevas prioridades para la conservación de la biodiversidad y un futuro más sostenible.

## RÉSUMÉ

La pandémie COVID-19 présente à la fois des défis et des opportunités pour la conservation de la nature. Cet article passe en revue les valeurs sociales et économiques des aires protégées et conservées - en ce qui concerne l'approvisionnement en eau, la sécurité alimentaire, le stockage du carbone, l'adaptation au changement climatique et la santé humaine. L'UICN est bien placée pour plaider en faveur d'une restauration verte avec des aires protégées et conservées jouant un rôle essentiel en tant que solutions rentables fondées sur la nature, ainsi qu'une meilleure gestion des écosystèmes et une restauration écologique. Le Cadre mondial de la biodiversité pour l'après-2020 de la Convention sur la diversité biologique offre une occasion unique pour s'accorder sur de nouvelles priorités pour la conservation de la biodiversité et un avenir plus durable.