

Review

Framework for Sustainable Recovery of Tourism in Protected Areas

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Abstract: Tourism in protected areas was a fast-growing segment within the global travel and tourism industry prior to the economic fallout from the COVID-19 pandemic. As a development pathway, tourism generated foreign exchange for countries endowed with natural assets (protected areas, pristine landscapes, forests, oceans, wildlife), contributed to conservation revenues, and provided local development benefits for communities. However, the spread of COVID-19 and its associated travel restrictions severely impacted this sector. In this review, we describe the main challenges preventing the sector from achieving its development potential. We propose a framework to steer tourism in protected areas as a green recovery initiative, so that it may rebound sustainably and continue to support biodiversity conservation and socio-economic development.

Keywords: tourism; sustainability; protected area; biodiversity; COVID-19; recovery



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1. Introduction

The year 2020 was called the “super year” for biodiversity because several global conferences, including the Fifteenth Meeting of the Conference of the Parties to the Convention on Biological Diversity (CBD), had been planned to bring countries together to examine the progress made on the Aichi Biodiversity Targets, and negotiate a post-2020 global biodiversity framework [1]. This gathering was to follow the recently published Intergovernmental Science-Policy Platform on Biodiversity and Ecosystem Services (IPBES) global assessment of biodiversity and ecosystem services, which highlighted that over one million species are threatened with extinction, and there is a dire need for the global community to recommit to biodiversity conservation. As some of the world’s poorest communities are disproportionately affected by the loss of biodiversity and ecosystem services given their strong dependence on nature [2], the urgency for action is only greater.

Well-managed protected areas (PAs) have come to be recognized as a critical component of any biodiversity conservation strategy [3–5]. While countries have made progress towards—and came close to achieving—Aichi Target 11 of protecting at least 17% of terrestrial and inland water by 2020, the target was not fulfilled. Currently, about 20 million km² of terrestrial PAs, equivalent to approximately 15% of the world’s land, have been designated and brought under some form of protection [6].

There are calls from the international community to make the CBD post-2020 global biodiversity framework more ambitious by expanding protected area coverage [7,8]. For protected areas to serve as effective biodiversity conservation havens, it will take more than setting land aside. Conservation success depends on whether PAs are effectively managed and can mitigate threats to fulfill their role in enhancing biodiversity conservation. This is key in the face of growing pressures inside PAs from anthropogenic activity [9,10].

For PAs to be effective, adequate staffing and resources are critical [3,11,12]. Yet, many PAs remain underfunded [12–16]. Moreover, the economic fallout from COVID-19 has dried up another important source of revenue for PAs: tourism.

Tourism in protected areas had been rapidly growing until the emergence of the COVID-19 pandemic, which severely affected the sector. Tourism in protected areas contributes to gross domestic product (GDP), serves as an important source of fiscal and foreign revenues, contributes to local livelihoods, and helps raise funds for conservation in developing countries that are endowed with natural assets [17–19]. The world’s terrestrial PAs receive at least eight billion visits per year [17]. According to the World Travel and Tourism Council (WTTC), wildlife tourism directly contributed USD 120.1 billion in GDP to the global economy and sustained 21.8 million jobs in 2018 [20]. Tourism-dependent countries are now facing deep challenges from COVID-19. The real GDP for tourism-dependent economies in Africa and the Caribbean nations was projected to shrink by 12% in 2020 [21], which is much higher than the projected global average contraction of 4.4%. There is anecdotal evidence on both the positive and the adverse environmental impacts of COVID-19 [22]. For example, wildlife in some protected areas has been reported to benefit from reduced human activity [23] and attention to improving regulation and legislation on wildlife trade has increased [24,25]. On the other hand, since the tourism sector was the largest market-based contributor to the financing of protected areas [26], the lost revenues from tourism will likely reduce funds for PA management and, as a result, increase conservation threats [27].

Loss of revenues from tourism will also adversely affect communities who live around protected areas, many of whom were already in extreme poverty, dependent upon tourism benefits, and facing added challenges of food security, human welfare, and human–wildlife conflict. Protected areas in tropical regions are home to a disproportionately large share of the world’s biodiversity [28,29]. They are also areas that have high levels of poverty (Figure 1a,b). Due to the overlap between hotspots of global biodiversity and poverty [30], supporting developing countries in their efforts to conserve biodiversity can further conservation and development goals. Research has shown that households in developing countries living closer to protected areas with tourism are wealthier and have lower chances of being poor than households situated further away [31].

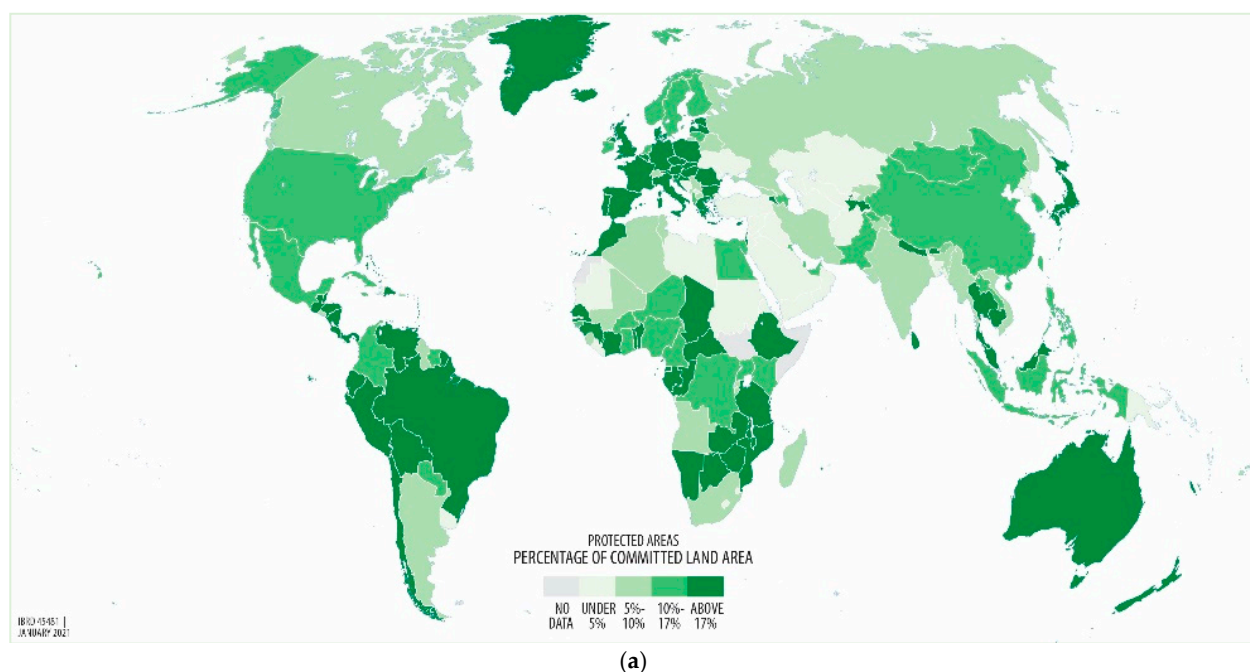
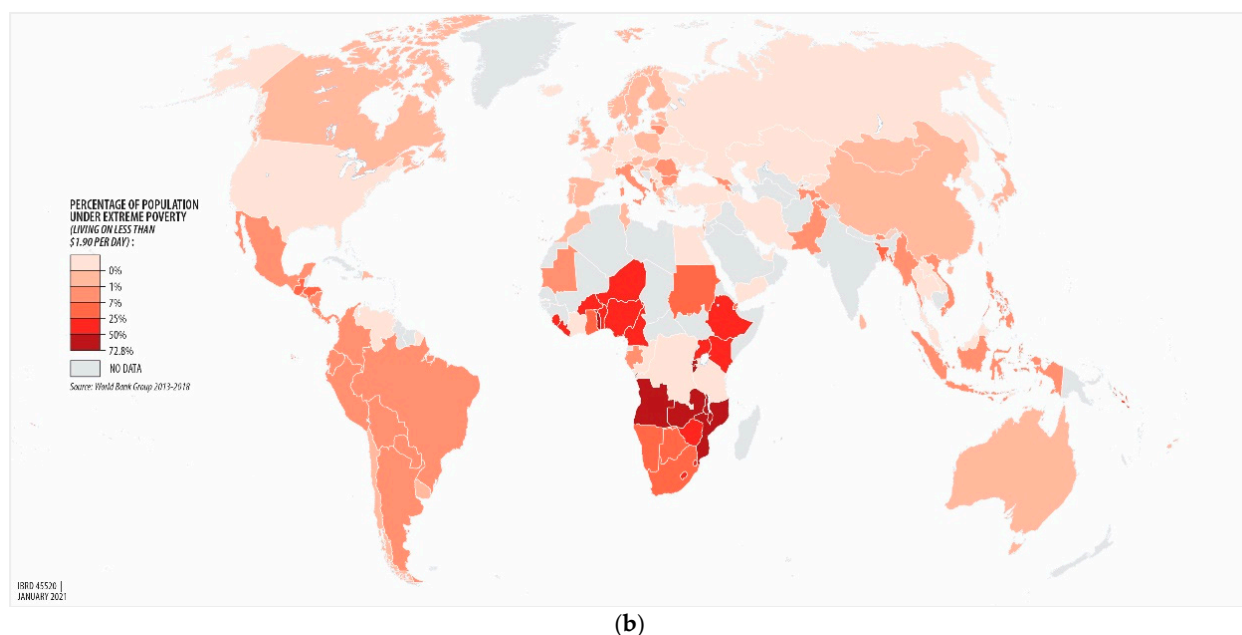


Figure 1. Cont.



(b)

Figure 1. (a) Global map of protected areas—percentage of land area [6]. (b) Global map of percentage of population under extreme poverty [32].

These are unprecedented circumstances, and a mix of short- and long-term measures will be needed to secure the future of tourism and protected areas. The purpose of this paper is to review the main challenges that are preventing tourism in protected areas from delivering the full spectrum of benefits—economic, ecological, and social—and to propose a new framework to sustainably develop tourism in protected areas as part of a sustainable recovery from the economic fallout of the COVID-19 pandemic.

2. Challenges Preventing Tourism in PAs from Achieving Triple Bottom Line Benefits

Three broad challenges threaten the sustainability of protected areas and the viability of tourism to provide conservation and socio-economic benefits.

2.1. Insufficient Investment and Ineffective Management

Protected areas worldwide are underfunded [12–16,33], resulting in ineffective management. Management issues related to PA objectives, plans and policies, budgets, staffing, equipment, education, outreach, facilities, size, and designation can contribute to the (in)ability to deliver on intended conservation outcomes [34]. Nearly all PAs in Africa are inadequately funded, and a deficit of USD 1 billion annually must be addressed to save iconic species and landscapes [13]. PAs in Latin America experience an estimated funding gap of USD 700 million annually, and these levels are at risk of worsening [35]. A global assessment of protected area management effectiveness (PAME) worldwide revealed that only 24% of PAs were under “sound management,” and 13% were “clearly inadequate” [36]. The lack of investments endangers the conservation value and sustainability of protected areas, one-third of which are under intense human pressure from road construction, grazing, and urbanization [10]. Additionally, the lack of public investment in tourism development, including infrastructure facilities, accessibility, skills development, and training, limits the potential for tourism. Given competing demands over limited public financial resources, governments often do not prioritize investments in PAs, including tourism, in part because these investments are seen to generate conservation benefits but not to further development goals. There is an overall gap in estimating the contribution and impact of PAs that includes direct, indirect, and induced revenues to local and national economies through tourism. This data gap makes it difficult to demonstrate a return on public investment in PA management, reinforcing governments’ perception that PAs are “financial sinks” or that

they only generate conservation benefits, and have limited economic and development outcomes.

Planning and management of tourism within protected areas can mitigate the negative environmental impacts of tourism. Adverse impacts may include habitat degradation, over-consumption of water, pollution, waste generation, the introduction of alien invasive species, and others [37,38]. The second most commonly reported threat to terrestrial PAs worldwide was disturbances from recreational activities (55% of PAs), surpassed only by unsustainable hunting (61% of PAs) [39]. The growing trends of tourism within protected areas may lead to detrimental ecological and social impacts, exacerbated by ineffective protected area management [40].

2.2. Unsupportive Policy and Regulatory Frameworks for Sustainable Tourism Development

Through concessions, protected area authorities can partner with the local community, the private sector, and non-governmental organizations to expand, improve, and deliver their tourism offering [41]. Clear and strong legal frameworks for tourism concessions are critical for engaging private operators to provide commercial tourism services within PAs, while increasing benefits for conservation and communities. A 2010 review showed that concessions were the second-largest source of PA-generated funds in Latin America, following entrance fees; however, concessions were underused in PAs, as some countries' legal frameworks lacked specific legislation for these activities, or PA authorities were unfamiliar with them [35]. Tourism concessions agreements from 22 countries indicated weaknesses in establishing concession qualifications and legal and financial responsibilities, which threaten the quality of concessionaires [42]. Furthermore, the lack of models for community participation in concessions may limit their benefits and undermine crucial support for tourism in and around protected areas.

2.3. Limited Benefit-Sharing Arrangements with Communities

The barriers to protected area tourism being an integrated conservation and development tool include poor benefit-sharing mechanisms between parks and communities, benefits limited to a few "elite" members of the community, and leakages from the local economy. In Bwindi Impenetrable National Park in Uganda, tourism leakages were estimated to be over 75% [43]. In Botswana, a value chain analysis approach indicated that only 37% of gross tourism revenues were retained in the local economy [44]. Leakages are related to spending by tourism operators on food and supplies from outside the local economy and the employment of non-local staff. Research indicates that equitable and transparent benefit-sharing arrangements with communities can lead to a higher likelihood of success for communities, tourism businesses, and for meeting conservation goals [18]. Furthermore, where communities receive benefits from tourism in protected areas, they are more likely to see it positively and conserve its natural resources [45].

3. Sustainable Recovery of Tourism in PA

To assist the nature-based tourism sector to recover sustainably, we propose a framework focused on three priorities: protecting the natural asset on which tourism is built, growing and diversifying the business for tourism to generate positive economic impact, and sharing the benefits with local communities around PAs. Collaboration between governments, the private sector, and communities is critical for putting this approach into action and achieving the triple bottom line: economic growth, poverty reduction, and biodiversity conservation (Figure 2).

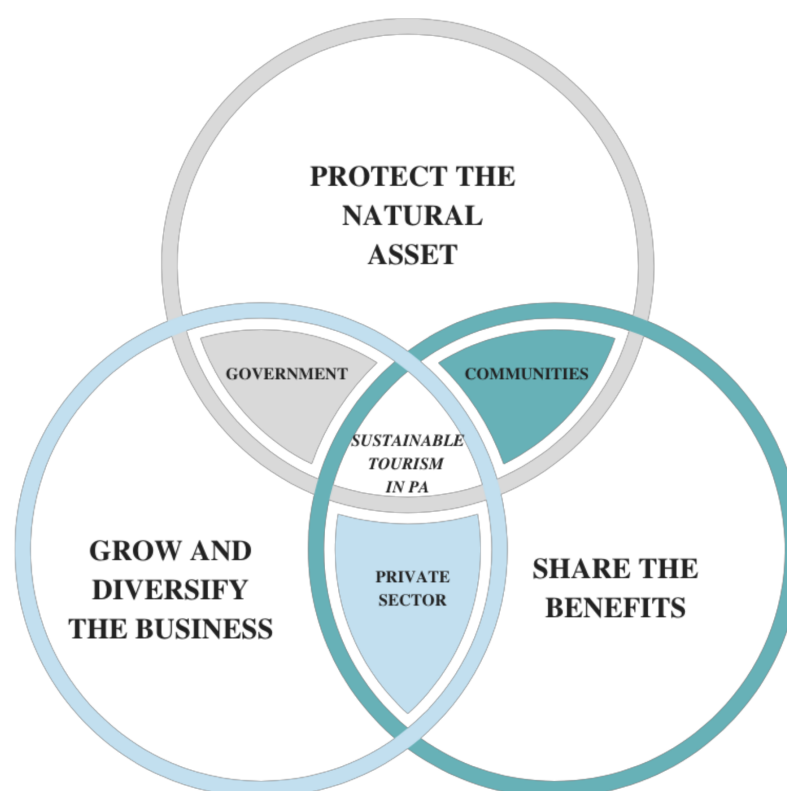


Figure 2. Proposed framework to support sustainable recovery of tourism in protected areas.

3.1. Protect the Asset

3.1.1. Increase Public Investment in PA Management

To promote biodiversity conservation and secure the natural assets visitors enjoy, PAs must be protected and well managed. This requires addressing the underlying factors that are contributing to the poor performance of protected areas, including increasing investment for their management. Expanded funding can increase management effectiveness by funding site-level management and monitoring activities, hiring and training PA staff, investing in infrastructure to support enforcement and tourism activities, and promoting outreach activities. Conservation spending can also decrease threats to the natural assets [15,46,47]. Investing in PAs with viable tourism can also subsidize the financing of PAs where tourism is still undeveloped or is not suitable. This component is largely a public sector responsibility; however, when the government invests in its parks, the private sector follows. In some African countries, new forms of collaborative management partnerships have emerged in which the state delegates the management authority of PAs to private or non-profit operators [48]. To reduce over-reliance on tourism and build resilience in the sector, it will be important to consider other revenue sources beyond tourism, such as conservation trust funds [49], impact bonds [50], and payment for ecosystem services [51].

3.1.2. Build Capacity of Protected Area Managers

It is integral that the personnel overseeing PA management have the right training and expertise to do their jobs effectively. The specialists must be well-versed in the laws and policies governing the PA. In addition, they must understand the business needs of tourism operators and be able to ensure that any commercial entities are managed in coordination with the values and objectives of the PA. While the fundamental skills and competencies will vary depending on the specific nature of the PA, education, experience, and training in certain fields will help support a commercial services program regardless of location. Some relevant competencies include: understanding the legal framework that applies to operators; knowing how to develop contracts or other authorizing instruments and solicit bids if applicable; being able to monitor and evaluate the operators; data collection

and analysis skills; business acumen; negotiation skills; and asset management training if government facilities are to be assigned to the operator for use. By developing a training and on-the-job education strategy for staff within a commercial services program, PA managers can ensure that the appropriate skills are obtained and retained.

3.1.3. Undertake Regular Visitor Spending Effects Assessments, at the PA Level and the National Level

To make a case for regular allocation of public resources, and to support planning and program design (for example, to identify where tourism services can be improved), it is important that governments regularly conduct assessments of PA tourism impacts. Implementation of a visitor survey would ideally be done on a rolling basis to capture seasonal trends in tourism activities. Information on the number of visitors to each park location and spending habits of tourists are important for informing policies. Carrying out visitor surveys and analyzing the data from these surveys is crucial to understand the impacts of tourism and how they may change over time. The data can also serve as evidence to demonstrate the economic returns of protecting and investing in PAs.

3.2. Grow and Diversify the Business

3.2.1. Develop a Strong Concession Policy to Promote Tourism in PAs

When a PA authority is faced with challenges related to financing tourism infrastructure, managing existing infrastructure (mandate, skills, personnel), and offering public services, a range of instruments are available to address these challenges. These include concessions, leases, management contracts, and licensing [37,41], which should be managed under good governance and financial principles.

A company will have a concession agreement to operate inside a protected area. The contract stipulates the key terms and conditions, such as duration, type of operation, environmental conditions, and fees that the business must operate under. The development of a strong commercial services/concessions program in any country should include:

1. Strong protected area foundational laws and regulations;
2. Public support for commercial activity in park areas;
3. Demonstrated economic benefit;
4. Commercial service/concession laws drafted with input from stakeholders, including potential operators/concessioners, environmental groups, and the general public;
5. Provisions in the law that set forth the most important pillars and allow the implementing agency the flexibility to establish the details in policy;
6. Socialization of the draft law;
7. Implementation of the law through clear and thorough regulations; and
8. Evaluation of the implementation of laws and regulations on a continuous basis and modification of regulations when necessary.

3.2.2. Diversify the Tourism Offering across Protected Areas

Factors such as the attractiveness of the assets, access, and tourism infrastructure might render some protected areas not suitable for tourism [37]. To better spread the benefits of tourism, which are often concentrated in a handful of popular PAs, measures should be taken to diversify protected area tourism. This can start with feasibility assessments of PAs within the country to determine the tourism potential, suitability, and stakeholder interest. Growing and diversifying tourism will also require policies, programs, and investments that support public service provisioning and development of infrastructure such as airports, trails, roads, etc. Within PAs that already attract many tourists, diversifying the services and visitor experience may also contribute to reducing environmental impact.

3.3. Share the Benefits

Revenue-sharing arrangements can enable tourism revenues to flow to local communities, and open opportunities to integrate local communities into tourism value chains.

Positive socio-economic outcomes generated by PAs are more likely to have positive conservation outcomes [52]; thus, local communities must benefit economically from tourism in protected areas for their long-term protection. There are many opportunities available to share and increase benefits, including capacity building, skills training, cultural benefits, and, in some cases, access to natural resources [45]. Table 1 provides a list of avenues through which governments can strengthen the linkages between local households from tourists visiting the PA.

Table 1. Opportunities to increase benefits for local communities around PAs.

Tourism Impact	Avenues/Opportunities to Increase Benefits
Direct	Formalizing revenue-sharing mechanisms Building capacity and developing skills Promoting sustainable use of natural resources Reducing human–wildlife conflict through mitigation or compensation Implementing inclusive governance models
Indirect	Hiring of local labor for tourism and PA management Encouraging local sourcing of goods by tourism establishments Strengthening market linkages Offering small grants for business and enterprises Providing extension and support services to boost agricultural productivity and increase capacity of local communities to supply goods and services

4. A Green Economic Recovery Initiative: Lessons Learned from the Civilian Conservation Corps

As governments look to provide stimulus packages and recover their economies, important factors to consider include the creation of quick, “shovel-ready” jobs, provision of social assistance to the most vulnerable groups, and building resiliency for future shocks. Investing in tourism in PAs based on the proposed framework above is in line with these immediate needs and can serve as a green recovery initiative.

As an example, in 1933, the United States was suffering from the Great Depression. About 25% of Americans were unemployed, and around the same time, the country was dealing with multiple years of drought, forest fires, severe land degradation, and rampant soil erosion. The Civilian Conservation Corps (CCC) was established as part of the New Deal Program. The CCC provided quick employment through conservation works on public lands to address the two challenges of unemployment and environmental degradation. The program provided work for 5% of the total United States male population, serving as the basis of immediate economic recovery. It led to the creation and expansion of the nationwide state parks system. It invested in the infrastructure for almost all of America’s national parks, and is credited with increasing visitors to national and state parks from 3.2 to 20.4 million over its nine years [53]. Today, the parks system attracts over 320 million visitors each year, benefitting local gateway regions with estimated spending of over USD 21 billion, supporting more than 340,500 jobs, and generating USD 41.7 billion in economic output [54].

The world is facing a similar crisis right now: pressures on the environment are deepening, and the impact of COVID-19 has resulted in large-scale unemployment, making the CCC relevant as a green recovery initiative now as it was almost several decades ago. This year, the U.S. Administration has repurposed this initiative. The new Civilian Climate Corps aims to put Americans to work through conservation and restoration of public lands and water, and to address climate change [55]. Similarly, countries like Argentina and Pakistan are looking to replicate the CCC. The Government of Argentina, facing high unemployment rates and a struggling tourism industry, aims to rebuild more inclusively. It is employing vulnerable groups to build and revamp infrastructure and carry out environmental management interventions such as restoration and erosion control in

natural protected areas. In Pakistan, the government is hiring the unemployed labor force, mainly young people, to plant saplings, set up nurseries, and serve as forest protection guards in newly declared national parks [56,57].

5. Conclusions

The COVID-19 pandemic has highlighted the interdependencies between the conservation and tourism sectors. It has also exposed the structural weaknesses and vulnerabilities within the protected area and tourism systems. For tourism to be a development pathway in developing countries, protected area management must be prioritized. The proposed framework provides a broad approach for governments and the conservation and development community to adopt. The first step is to secure and safeguard PAs, even in and especially so in this crisis. Concurrently, there is an urgent need to diversify the financial portfolio of PAs so that it combines public investment with smart use of international public finance and mobilization of private finance. This would mean moving away from the current international aid-dependent model to an investment model in PA finance that realistically builds on the potential benefits from the tourism sector but does not over-rely on it. Additionally, diversifying the tourism offering and the tourism services provided by the PA is important for sustainable tourism growth. The window of opportunity is now to address the failures and challenges of the industry and promote a more inclusive, pro-poor, and environmentally sustainable PA tourism sector.

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References

1. CBD. Biodiversity Year in Review. Convention on Biological Diversity. 2019. Available online: <https://www.cbd.int/article/2019-12-20-16-57-49> (accessed on 17 January 2021).
2. EBrondizio, S.; Settele, J.; Díaz, S.; Ngo, H. *Global Assessment Report on Biodiversity and Ecosystem Services of the Intergovernmental Science-Policy Platform on Biodiversity and Ecosystem Services*; IPBES Secretariat: Bonn, Germany, 2019; Available online: <https://ipbes.net/global-assessment> (accessed on 17 January 2021).
3. Watson, J.E.M.; Dudley, N.; Segan, D.B.; Hockings, M. The performance and potential of protected areas. *Nature* **2014**, *515*, 67–73. [CrossRef]
4. Cazalis, V.; Princé, K.; Mihoub, J.-B.; Kelly, J.; Butchart, S.H.M.; Rodrigues, A.S.L. Effectiveness of protected areas in conserving tropical forest birds. *Nat. Commun.* **2020**, *11*, 1–8. [CrossRef]
5. Joppa, L.N.; Bailie, J.E.; Robinson, J.G. *Protected Areas: Are They Safeguarding Biodiversity?* John Wiley & Sons: Hoboken, NJ, USA, 2016.
6. UNEP-WCMC; IUCN. Protected Planet: The World Database on Protected Areas (WDPA). Protected Planet Digital Report. 2020. Available online: www.protectedplanet.net (accessed on 6 January 2021).
7. Schleicher, J.; Zaehring, J.G.; Fastré, C.; Vira, B.; Visconti, P.; Sandbrook, C. Protecting half of the planet could directly affect over one billion people. *Nat. Sustain.* **2019**, *2*, 1094–1096. [CrossRef]
8. Dinerstein, E.; Vynne, C.; Sala, E.; Joshi, A.R.; Fernando, S.; Lovejoy, T.E.; Mayorga, J.; Olson, D.; Asner, G.P.; Baillie, J.E.M.; et al. A Global Deal for Nature: Guiding principles, milestones, and targets. *Sci. Adv.* **2019**, *5*, eaaw2869. [CrossRef]
9. Geldmann, J.; Manica, A.; Burgess, N.D.; Coad, L.; Balmford, A. A global-level assessment of the effectiveness of protected areas at resisting anthropogenic pressures. *Proc. Natl. Acad. Sci. USA* **2019**, *116*, 23209–23215. [CrossRef] [PubMed]
10. Jones, K.R.; Venter, O.; Fuller, R.A.; Allan, J.R.; Maxwell, S.L.; Negret, P.J.; Watson, J.E.M. One-third of global protected land is under intense human pressure. *Science* **2018**, *360*, 788–791. [CrossRef]

11. Geldmann, J.; Coad, L.; Barnes, M.D.; Craigie, I.D.; Woodley, S.; Balmford, A.; Brooks, T.M.; Hockings, M.; Knights, K.; Mascia, M.B.; et al. A global analysis of management capacity and ecological outcomes in terrestrial protected areas. *Conserv. Lett.* **2018**, *11*, e12434. [\[CrossRef\]](#)
12. Gill, D.A.; Mascia, M.B.; Ahmadi, G.N.; Glew, L.; Lester, S.E.; Barnes, M.; Craigie, I.; Darling, E.S.; Free, C.M.; Geldmann, J.; et al. Capacity shortfalls hinder the performance of marine protected areas globally. *Nature* **2017**, *543*, 665–669. [\[CrossRef\]](#) [\[PubMed\]](#)
13. Lindsey, P.A.; Miller, J.R.B.; Petracca, L.S.; Coad, L.; Dickman, A.J.; Fitzgerald, K.H.; Flyman, M.V.; Funston, P.J.; Henschel, P.; Kasiki, S.; et al. More than \$1 billion needed annually to secure Africa's protected areas with lions. *Proc. Natl. Acad. Sci. USA* **2018**, *115*, E10788–E10796. [\[CrossRef\]](#)
14. Coad, L.; Watson, J.E.; Geldmann, J.; Burgess, N.D.; Leverington, F.; Hockings, M.; Knights, K.; Di Marco, M. Widespread shortfalls in protected area resourcing undermine efforts to conserve biodiversity. *Front. Ecol. Environ.* **2019**, *17*, 259–264. [\[CrossRef\]](#)
15. Waldron, A.; Miller, D.C.; Redding, D.; Mooers, A.; Kuhn, T.S.; Nibbelink, N.; Roberts, J.T.; Tobias, J.A.; Gittleman, J.L. Reductions in global biodiversity loss predicted from conservation spending. *Nature* **2017**, *551*, 364–367. [\[CrossRef\]](#)
16. Balmford, A.; Gravestock, P.; Hockley, N.; McClean, C.J.; Roberts, C.M. The worldwide costs of marine protected areas. *Proc. Natl. Acad. Sci. USA* **2004**, *101*, 9694–9697. [\[CrossRef\]](#) [\[PubMed\]](#)
17. Balmford, A.; Green, J.M.H.; Anderson, M.; Beresford, J.; Huang, C.; Naidoo, R.; Walpole, M.; Manica, A. Walk on the Wild Side: Estimating the Global Magnitude of Visits to Protected Areas. *PLoS Biol.* **2015**, *13*, e1002074. [\[CrossRef\]](#)
18. Snyman, S.; Bricker, K.S. Living on the edge: Benefit-sharing from protected area tourism. *J. Sustain. Tour.* **2018**, *27*, 705–719. [\[CrossRef\]](#)
19. Snyman, S.L. The role of tourism employment in poverty reduction and community perceptions of conservation and tourism in southern Africa. *J. Sustain. Tour.* **2012**, *20*, 395–416. [\[CrossRef\]](#)
20. WTTC. The Economic Impact of Global Wildlife Tourism. 2019. Available online: <https://travesiasdigital.com/wp-content/uploads/2019/08/The-Economic-Impact-of-Global-Wildlife-Tourism-Final-19.pdf> (accessed on 9 January 2021).
21. IMF. *Regional Economic Outlook. Sub-Saharan Africa: A Difficult Road to Recovery*; International Monetary Fund: Washington, DC, USA, 2020; ISBN 9781513557601. Available online: <https://www.imf.org/-/media/Files/Publications/REO/AFR/2020/October/English/text.ashx> (accessed on 13 January 2021).
22. Bang, A.; Khadakkar, S. Opinion: Biodiversity conservation during a global crisis: Consequences and the way forward. *Proc. Natl. Acad. Sci. USA* **2020**, *117*, 29995–29999. [\[CrossRef\]](#) [\[PubMed\]](#)
23. Corlett, R.T.; Primack, R.B.; Devictor, V.; Maas, B.; Goswami, V.R.; Bates, A.E.; Koh, L.P.; Regan, T.J.; Loyola, R.; Pakeman, R.J.; et al. Impacts of the coronavirus pandemic on biodiversity conservation. *Biol. Conserv.* **2020**, *246*, 108571. [\[CrossRef\]](#)
24. Di Marco, M.; Baker, M.L.; Daszak, P.; De Barro, P.; Eskew, E.A.; Godde, C.M.; Harwood, T.D.; Herrero, M.; Hoskins, A.J.; Johnson, E.; et al. Opinion: Sustainable development must account for pandemic risk. *Proc. Natl. Acad. Sci. USA* **2020**, *117*, 3888–3892. [\[CrossRef\]](#) [\[PubMed\]](#)
25. Borzée, A.; McNeely, J.; Magellan, K.; Miller, J.R.; Porter, L.; Dutta, T.; Kadinjappalli, K.P.; Sharma, S.; Shahabuddin, G.; Aprilinayati, F.; et al. COVID-19 Highlights the Need for More Effective Wildlife Trade Legislation. *Trends Ecol. Evol.* **2020**, *35*, 1052–1055. [\[CrossRef\]](#) [\[PubMed\]](#)
26. Spenceley, A.; Snyman, S.; Eagles, P. Guidelines for tourism partnerships and concessions for protected areas: Generating sustainable revenues for conservation and development. In *Report to the Secretariat of the Convention on Biological Diversity and IUCN*; IUCN: Gland, Switzerland, 2017.
27. Lindsey, P.; Allan, J.; Brehony, P.; Dickman, A.; Robson, A.; Begg, C.; Bhammar, H.; Blanken, L.; Breuer, T.; Fitzgerald, K.; et al. Conserving Africa's wildlife and wildlands through the COVID-19 crisis and beyond. *Nat. Ecol. Evol.* **2020**, *4*, 1300–1310. [\[CrossRef\]](#)
28. Raven, P.H.; Gereau, R.E.; Phillipson, P.B.; Chatelain, C.; Jenkins, C.N.; Ulloa, C.U. The distribution of biodiversity richness in the tropics. *Sci. Adv.* **2020**, *6*, eabc6228. [\[CrossRef\]](#)
29. Barlow, J.; França, F.; Gardner, T.A.; Hicks, C.C.; Lennox, G.D.; Berenguer, E.; Castello, L.; Economo, E.P.; Ferreira, J.; Guénard, B.; et al. The future of hyperdiverse tropical ecosystems. *Nature* **2018**, *559*, 517–526. [\[CrossRef\]](#)
30. Fisher, B.; Christopher, T. Poverty and biodiversity: Measuring the overlap of human poverty and the biodiversity hotspots. *Ecol. Econ.* **2007**, *62*, 93–101. [\[CrossRef\]](#)
31. Naidoo, R.; Gerkey, D.; Hole, D.; Pfaff, A.; Ellis, A.M.; Golden, C.D.; Herrera, D.; Johnson, K.; Mulligan, M.; Ricketts, T.H.; et al. Evaluating the impacts of protected areas on human well-being across the developing world. *Sci. Adv.* **2019**, *5*, eaav3006. [\[CrossRef\]](#) [\[PubMed\]](#)
32. World Bank. Poverty | Data. 2018. Available online: <https://data.worldbank.org/topic/11> (accessed on 26 January 2021).
33. IUCN ESARO. *Closing the gap. The Financing and Resourcing of Protected and Conserved Areas in Eastern and Southern Africa*; IUCN ESARO; BIOPAMA: Nairobi, Kenya, 2020; Available online: <https://portals.iucn.org/library/node/49045> (accessed on 25 January 2021).
34. Hockings, M.; Stolton, S.; Leverington, F.; Dudley, N.; Courrau, J. *Evaluating Effectiveness: A Framework for Assessing Management Effectiveness of Protected Areas*, 2nd ed.; IUCN: Gland, Switzerland; Cambridge, UK, 2006; Available online: <https://portals.iucn.org/library/sites/library/files/documents/PAG-014.pdf> (accessed on 29 January 2021).
35. Bovarnick, A.; Fernandez, B.J.; Galindo, J.; Negret, H. Financial Sustainability of Protected Areas in Latin America and the Caribbean: Investment Policy Guidance. United Nations Development Programme (UNDP) and The Nature Conservancy (TNC).

2010. Available online: https://www.undp.org/content/undp/en/home/librarypage/environment-energy/ecosystems_and_biodiversity/financial-sustainability-of-protected-areas-in-latin-america-and-the-caribbean.html (accessed on 25 January 2021).
36. Leverington, F.; Costa, K.L.; Courrau, J.; Pavese, H.; Nolte, C.; Marr, M.; Coad, L.; Burgess, N.; Bomhard, B.; Hockings, M. *Management Effectiveness Evaluation in Protected Areas—A Global Study*; The University of Queensland: Brisbane, Australia, 2010; Available online: https://www.unep-wcmc.org/system/dataset_file_fields/files/000/000/102/original/Leverington_et_al._2010.pdf?1398678168 (accessed on 25 January 2021).
 37. Leung, Y.F.; Spenceley, A.; Hvenegaard, G.; Buckley, R. (Eds.) *Tourism and Visitor Management in Protected Areas: Guidelines for Sustainability*; IUCN: Gland, Switzerland, 2018. Available online: <https://www.sprep.org/attachments/VirLib/Global/tourism-protected-areas.pdf> (accessed on 9 January 2021).
 38. Mbaiwa, J.E. The socio-economic and environmental impacts of tourism development on the Okavango Delta, north-western Botswana. *J. Arid Environ.* **2003**, *54*, 447–467. [[CrossRef](#)]
 39. Schulze, K.; Knights, K.; Coad, L.; Geldmann, J.; Leverington, F.; Eassom, A.; Marr, M.; Butchart, S.H.M.; Hockings, M.; Burgess, N.D. An assessment of threats to terrestrial protected areas. *Conserv. Lett.* **2018**, *11*, e12435. [[CrossRef](#)]
 40. Newsome, D.; Hughes, M. The contemporary conservation reserve visitor phenomenon! *Biodivers. Conserv.* **2018**, *27*, 521–529. [[CrossRef](#)]
 41. Thompson, A.; Massyn, P.J.; Pendry, J. *Tourism Concessions in Protected Natural Areas: Guidelines for Managers*; United Nations Development Programme: New York, NY, USA, 2014.
 42. Wyman, M.; Barborak, J.R.; Inamdar, N.; Stein, T. Best Practices for Tourism Concessions in Protected Areas: A Review of the Field. *Forests* **2011**, *2*, 913–928. [[CrossRef](#)]
 43. Sandbrook, C.G. Putting leakage in its place: The significance of retained tourism revenue in the local context in Rural Uganda. *J. Int. Dev.* **2008**, *22*, 124–136. [[CrossRef](#)]
 44. Rylance, A.; Spenceley, A. Reducing economic leakages from tourism: A value chain assessment of the tourism industry in Kasane, Botswana. *Dev. South. Afr.* **2017**, *34*, 295–313. [[CrossRef](#)]
 45. Spenceley, A.; Snyman, S.; Rylance, A. Revenue sharing from tourism in terrestrial African protected areas. *J. Sustain. Tour.* **2017**, *27*, 720–734. [[CrossRef](#)]
 46. McCarthy, D.P.; Donald, P.F.; Scharlemann, J.P.W.; Buchanan, G.M.; Balmford, A.; Green, J.M.H.; Bennun, L.A.; Burgess, N.D.; Fishpool, L.D.C.; Garnett, S.T.; et al. Financial Costs of Meeting Global Biodiversity Conservation Targets: Current Spending and Unmet Needs. *Science* **2012**, *338*, 946–949. [[CrossRef](#)]
 47. Waldron, A.; Mooers, A.O.; Miller, D.C.; Nibbelink, N.; Redding, D.; Kuhn, T.S.; Roberts, J.T.; Gittleman, J.L. Targeting global conservation funding to limit immediate biodiversity declines. *Proc. Natl. Acad. Sci. USA* **2013**, *110*, 12144–12148. [[CrossRef](#)] [[PubMed](#)]
 48. Baghai, M.; Miller, J.R.; Blanken, L.J.; Dublin, H.T.; Fitzgerald, K.H.; Gandiwa, P.; Laurenson, K.; Milanzi, J.; Nelson, A.; Lindsey, P. Models for the collaborative management of Africa’s protected areas. *Biol. Conserv.* **2018**, *218*, 73–82. [[CrossRef](#)]
 49. Doinjashvili, P.; Meral, P.; Andriamahefazafy, F. Sustaining protected areas through conservation trust funds: A review. *Int. J. Sustain. Dev. World Ecol.* **2020**, 1–10. [[CrossRef](#)]
 50. Withers, O.; Zoltani, T. Chapter 37—Leveraging support for pangolin conservation and the potential of innovative finance. In *Pangolins*; Challender, D.W.S., Nash, H.C., Waterman, C., Eds.; Academic Press: Cambridge, MA, USA, 2020; pp. 579–595.
 51. Börner, J.; Baylis, K.; Corbera, E.; Ezzine-De-Blas, D.; Honey-Rosés, J.; Persson, U.M.; Wunder, S. The Effectiveness of Payments for Environmental Services. *World Dev.* **2017**, *96*, 359–374. [[CrossRef](#)]
 52. Oldekop, J.A.; Holmes, G.; Harris, W.E.; Evans, K.L. A global assessment of the social and conservation outcomes of protected areas. *Conserv. Biol.* **2016**, *30*, 133–141. [[CrossRef](#)]
 53. Paige, J.C. *The Civilian Conservation Corps and The National Park Service, 1933–1942: An Administrative History*; National Park Service, Department of the Interior: Fort Collins, CO, USA, 1985.
 54. Thomas, C.C.; Koontz, L. *2019 National Park Visitor Spending Effects: Economic Contributions to Local Communities, States, and the Nation*; Natural Resource Report; National Park Service: Fort Collins, CO, USA, 2020; NPS/NRSS/EQD/NRR–2020/2110. Available online: <https://www.nps.gov/subjects/socialscience/vse.htm> (accessed on 25 January 2021).
 55. FACT SHEET: President Biden Takes Executive Actions to Tackle the Climate Crisis at Home and Abroad, Create Jobs, and Restore Scientific Integrity across Federal Government. The White House. 27 January 2021. Available online: <https://www.whitehouse.gov/briefing-room/statements-releases/2021/01/27/fact-sheet-president-biden-takes-executive-actions-to-tackle-the-climate-crisis-at-home-and-abroad-create-jobs-and-restore-scientific-integrity-across-federal-government/> (accessed on 29 January 2021).
 56. Khan, M.A.A. Opinion: Pakistan’s ‘Green Stimulus’ to Combat Covid-19, Protect Nature. The Third Pole. Available online: <https://www.thethirdpole.net/2020/05/04/pakistans-green-stimulus-to-combat-covid-19-protect-nature/> (accessed on 25 January 2021).
 57. Pakistan’s ‘Protected Areas Initiative’. *The Express Tribune*. 10 July 2020. Available online: <http://tribune.com.pk/story/2254293/pakistans-protected-areas-initiative> (accessed on 29 January 2021).