TOURISM AND DISEASE RISK MANAGEMENT
IN PROTECTED AND CONSERVED AREAS

Cuc Phuong National Park, Viet Nam
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## Key Messages

1. **PCAs provide ecological services** that keep human and wild animal populations safe from a range of diseases, and at the same time represent an interface for close human-animal interaction through activities like tourism.

2. If not planned and managed properly, tourism activities in PCAs can contribute to increased risk of zoonotic diseases caused by human interaction with wildlife.

3. **Policy frameworks** and long-term approaches to systematically address the risks of tourism-associated zoonotic disease spread in PCAs are lacking.

4. Preventing disease transmission while enabling enriching tourism experiences in a safe environment is essential to safeguard human and wildlife health in and around PCAs.

5. **Conservation, tourism and health** sectors must work jointly on strategically planned integrated approaches to deal with risk and emergency situations by building alliances, partnerships and other collaboration formats.

6. A **One Health approach** involving all three sectors must be adopted to help identify and reduce sources of risk in PCAs and ensure sustainability.
Tourism operations in protected and conserved areas (PCAs) were heavily impacted by the COVID-19 pandemic. In many cases, PCAs and tourism operators were not prepared to deal efficiently with sudden disruptions to typical visitation patterns and conditions, nor were there clear risk and emergency management procedures in place beforehand as guidance. Locally, huge efforts were made to balance the often conflicting conservation and public health regulations related to visitation. At the policy level, governments and PCA entities provided ad hoc visitor guidance to support actions on the ground to promote resilience (e.g., European Commission, 2021). In spite of these efforts, an important lesson is now emerging from these challenging times: a need for a solid and comprehensive policy framework that will enable PCAs, tourism and health sectors to work jointly on strategically planned integrated approaches to deal with risk and emergency situations.

One of the crucial aspects in this process is ensuring proper disease risk management in the PCA-tourism context. Interaction between wildlife and humans during tourism activities can present risk of zoonotic disease as wildlife may act as reservoirs or hosts for zoonotic pathogens and may also be susceptible to infections from human or domestic animals. Human behaviours are responsible for creating the conditions associated with zoonotic disease risk, including within and around natural ecosystems such as PCAs, where biodiversity is often high and disturbance to wildlife may lead to pathogen shedding and facilitate opportunities for spillover. Therefore, and although tourism in PCAs can generate many benefits, including contributions to the conservation of biodiversity, community livelihoods and visitor wellbeing, if not managed properly it may also unintentionally increase the risk of zoonotic pathogen spillovers and affect the capacity to prevent, detect, respond, and recover from disease events in PCAs. At present, strategies used to reduce disease risk caused by tourism activities in and around PCAs are limited, and mainly implemented for tourism operations in sites with great apes (e.g., Macfie and Williamson, 2010; Gilardi et al., 2015 and updates). Considering that health risks and impacts have so far been regarded separately from conservation and tourism planning, and health measures were designed in case of specific disease events only, there is an urgent need for more integrated and comprehensive approaches.

Zoonotic disease risk is particularly evident in the case of direct human-wildlife interactions during tourism operations in PCAs, such as feeding, taking selfies or playing. Although some efforts are being made by the tourism and conservation sectors to address this challenge through targeted guidance (e.g., on wildlife feeding: Green, 2004; The Global Sustainable Tourism Council, 2016; Reaser, 2021), there are still no global standards or widespread adoption of strategies amongst wildlife experts on how to address this issue, showcasing a disconnect between international policy, regional management, and scientific research. In practice, PCA managers find themselves balancing the complex trade-offs between animal welfare, conservation, tourist satisfaction, and economic benefits. Policies and tools that clearly support and facilitate risk assessment and implementation of appropriate actions must be in place.

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*a* Disease risk management refers to any strategies and actions that have as an objective reducing or eliminating the risk of disease transmission or pathogen spillover and spread.

*b* Zoonotic disease is any infectious disease caused by pathogens that can be transmitted between humans or other animal species.

*c* [https://www.iucngreatapes.org/_files/ugd/16b29f_ebd4a6cc83f041d6bf6e7e01158e550.pdf](https://www.iucngreatapes.org/_files/ugd/16b29f_ebd4a6cc83f041d6bf6e7e01158e550.pdf)
The presence of the tourism industry in PCAs is steadily growing as the interest to spend time in contact with nature and wildlife is increasing worldwide. This means more people and more visitor infrastructure in PCAs, resulting in increased opportunities for human-wildlife interactions and potential risks for zoonotic disease transmission (among other threats to human, animal, and ecosystem health). Biodiversity and PCAs themselves are not an inherent risk for pathogen spillover – in fact, they are often crucial for ecological services that keep human and wild animal populations safe from a range of infectious and non-infectious disease threats. Most naturally occurring viruses, bacteria, fungi, and other microbial diversity in wildlife are harmless, but some microbes have the potential to cause disease in their host populations or other species. Addressing risky behaviours associated with pathogen spillover risk while enabling enriching tourism experiences in a safe environment is of utmost importance to safeguard human and wildlife health in and around PCAs.

Given that many PCAs and surrounding communities rely on tourism activities as their source of income to ensure effective conservation and livelihoods, the proper functioning of the PCA and work towards conservation objectives may be impacted long-term from the challenges presented by COVID-19 crisis - and future epidemics and pandemics remain an ongoing possibility. Thus, PCAs and the tourism sector must be provided with tools to take part in prevention and be able to cope in the long term, promoting risk reduction and resilience.
What Should Be Done?

As an overarching strategy, policy-makers from tourism, health and conservation sectors at all levels are urged to embrace the One Health approach⁴, involving communication, coordination, collaboration and capacity building, to address risks that originate at the animal–human–ecosystem interface in and around PCAs. This requires building alliances, partnerships and other collaboration formats that will enable an effective integration of this approach in relevant policies and planning processes, and create the preconditions for an effective implementation on the ground. It also calls for the creation and support of suitable conditions for the development of more sustainable forms of tourism in PCAs. In the framework of this approach, a series of recommendations in order of priority are highlighted for different levels of policy-making and implementation.

International (WTO, WHO, WOAH, UNEP and relevant international agreements, e.g. CBD and CMS)

- Build alliances among different international bodies from sustainable tourism, conservation and health sectors and enforce them through long-term strategies of cooperation
- Adopt and incorporate Targets 5 and 11, which relate to spillover risk reductionᵉ, of the adopted Post-2020 Biodiversity Framework of the CBD, ensuring that implementation extends to activities in and around PCAs
- Promote and share best available knowledge and uptake examples on links between sustainable tourism practices, reduced disease risks and healthy ecosystems
- Provide training and implementation support related to the intersection between tourism activities and zoonotic disease spread risks

Regional/National (health, conservation and tourism regional and authorities)

- Guide the design and implementation of targeted efforts and tools to prevent, detect, and respond to disease risk in PCAs, particularly in terms of regulating direct human-wildlife contact in tourism contexts
- Incorporate One Health considerations in national biodiversity strategies and action plans, national action plans for health security, and tourism planning frameworks
- Encourage the use of tools that enable more effective management of PCAs, including for tourism activities (e.g. IUCN Green List Standard), and mainstream sustainable forms of tourism, disease risk reduction and resilience measures into their scope
- Ensure sufficient funding and technical support for capacity building and implementation on zoonotic risk prevention, detection, response and recovery for all three sectors
- Support and implement policy uptake of the One Health Principles for Sustainable Tourism in Protected and Conserved Areas⁴
- Ensure conservation and tourism authorities are actively involved in their respective national One Health coordination platform
- Where applicable, adapt existing guidelines on wildlife watching and other human-wildlife interactions in collaboration with health and tourism authorities and actors

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⁴ One Health is an integrated, unifying approach that aims to sustainably balance and optimise the health of people, animals and ecosystems. It recognizes the health of humans, domestic and wild animals, plants and the wider environment (including ecosystems) are closely linked and interdependent (OHHLEP).

Local (PCA managers, local authorities)

- Integrate disease risk reduction strategies and wider One Health considerations into existing and newly defined PCA management plans, including for human-wildlife interactions in tourism contexts
- Provide a visitor code of conduct for PCA visitors to set expectations regarding safe and healthy practices and visitor stewardship for oneself and others as well as animals and the environment
- Build in and enforce disease risk monitoring and mitigation for tourism operations in PCAs, as well as health and safety protocols for human-wildlife interactions in and around PCAs
- Develop information effective communication channels, as well as reporting and disease investigation protocols among tourism, conservation and health authorities and stakeholders
- Build staff capacities for zoonotic disease prevention and risk management and enforcement in the context of tourism and PCAs through cross-sectoral workshops and trainings
- Incentivize sustainable, lower-impact and higher quality tourism practices in PCAs by promoting operators with stewardship training and/or certifications (as relevant)
- Where applicable, design or re-engineer visitor attractions/visitor flow to avoid direct contact or proximity with wildlife and other sources of disease exposure
- Exchange knowledge and experience with other sites or regions and explore available solutions and tools for improved management of tourism and human-wildlife interactions in PCAs (e.g., through PANORAMA Solutions - Species Conservation and One Health communities¹)

Private sector (tourism)

- Promote, adopt and implement the guidelines outlined in One Health Principles for Sustainable Tourism in Protected and Conserved Areas
- Develop occupational health and safety protocols and staff trainings (e.g. on OH Principles), and offer employees incentives to encourage uptake of practices that reduce disease risk
- Provide a visitor code of conduct for PCA visitors to set expectations regarding safe and healthy practices and visitor stewardship for oneself and others as well as animals and the environment
- Encourage international visitors to seek a pre-travel medical consultation, maintain up-to-date immunizations, and take prophylactic medicine where appropriate

¹ https://panorama.solutions/en/portal/panorama-one-health
Where Can I Get More Info?

**Healthy people and wildlife through nature protection**

Guidelines for prevention, detection, response, and recovery from disease risks in and around protected and conserved areas

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**One Health Principles for Sustainable Tourism in Protected and Conserved Areas**

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**IUCN WCPA Technical Note Series No. 5**

Improving PCA Management to safeguard ecological integrity and minimise zoonotic disease risk

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**OIE and IUCN Guidelines for Wildlife Disease Risk Analysis**

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**A multidisciplinary framework to assess the sustainability and acceptability of wildlife tourism operations**

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References


4 IUCN and EcoHealth Alliance (2022) One Health principles for sustainable tourism in protected and conserved areas: Accompanying principles to the guidelines for prevention, detection, response and recovery from disease risks in and around protected and conserved areas. Gland, Switzerland: IUCN, and New York, USA: EcoHealth Alliance.

5 IUCN and EcoHealth Alliance (2022) Healthy people and wildlife through nature protection: Guidelines for prevention, detection, response, and recovery from disease risks in and around protected and conserved areas. Gland, Switzerland: IUCN, and New York, USA: EcoHealth Alliance.


