

The Role of Delegated PPPs in Wildlife and Ecosystem Conservation: A Systematic Review of International Evidence

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Abstract

Delegated Public-Private Partnerships (DPPPs) which are collaborative agreements between government entities and private sector companies to finance, build, and operate projects that serve the public by leveraging the strengths of both sectors to deliver public services or infrastructure more efficiently and effectively. Key features include risk sharing (allocating risks to the party best able to manage them), long-term contracts (typically spanning 20-30 years), private sector investment (reducing immediate financial burden on the public sector), performance-based payments (ensuring accountability and quality), and innovation and efficiency through private sector involvement. The model has emerged as a transformational model for the management of protected areas (PAs), particularly in sub-Saharan Africa, where conservation institutions are confronted with persistent budget constraints and governance issues. Drawing on eleven papers and institutional reports that were published between the years 1990 and 2023 and subjected to peer review, this systematic review provides a synthesis of the evidence regarding the effectiveness of DPPP. In accordance with the guidelines established by PRISMA, the review is centered on four primary result areas: the preservation of biodiversity, the benefits to communities, the financial sustainability, and the dynamics of governance. Despite the fact that DPPPs, such as the African Parks Network (APN), provide substantial improvements in conservation and operational efficiency, the findings reveal that considerable limits still exist in terms of equitable benefit-sharing, participatory governance, and long-term socio-political sustainability. Additionally, the analysis reveals persisting methodological inadequacies, including a paucity of longitudinal and mixed-methods research, as well as a limited focus on underrepresented regions and populations. In its final paragraph, the paper makes a rallying cry for modifications to the DPPP model that are rights-based, inclusive, and sensitive to the context.

Keywords: Delegated Public-Private Partnerships, Conservation Governance, African Parks Network, Protected Areas, Biodiversity, Community Benefits, Sustainable Finance

1. Introduction

Interest in hybrid management structures that bring together the state, private sector, and civil society has been developing as conservation governance has evolved. These arrangements bring together all three of these groups. Public-Private Partnerships (PPPs), which are among the most visible examples of this movement, are attempting to use the financial and technical capacities of non-state actors in order to improve conservation outcomes. This concept has taken on a specific shape in Africa, which is known as

the Delegated Public-Private Partnership (DPPP). In this model, a private or non-profit organization acquires complete operational administration of a protected area in accordance with a long-term agreement with the state. In contrast to traditional public-private partnerships (PPPs), which frequently involve time-bound contracts for the delivery of infrastructure or services, development and public-private partnerships (DPPPs) involve holistic management responsibilities. These responsibilities include ecological restoration, anti-poaching operations, tourism development, and community participation.

Within the realm of DPPP operators, the African Parks Network (APN) stands out as the most notable example. As a result of mandates that normally last between twenty and thirty years, the African Parks Network (APN) oversees more than twenty national parks across the continent. In the context of protected area management, these agreements are positioned as potential solutions to the problem of diminishing state capacity and donor weariness. Examples of parks that demonstrate the practical reach of this concept include Akagera in Rwanda, Majete in Malawi, and Liuwa Plain in Zambia. These parks combine donor-driven investments, scientific management, and collaborative governance structures.

On the other hand, scholarly evaluations continue to be fragmented, despite the fact that anecdotal sources frequently hail DPPP as conservation success stories. The inequitable distribution of benefits, the isolation of local populations, the reliance on external financing, and the absence of adequate impact evaluation procedures are among the primary issues. This review addresses these concerns by doing a comprehensive examination of the published literature. The purpose of this review is to evaluate the effectiveness of DPPP in the African conservation environment and beyond, as well as draw conclusions about their limitations and potential future directions.

2. Methodology

To systematically explore the effectiveness and limitations of Delegated Public-Private Partnerships (DPPPs) in conservation, this study employed a Systematic Literature Review (SLR) guided by the PRISMA framework (Preferred Reporting Items for Systematic Reviews and Meta-Analyses). Given the growing but fragmented body of literature on DPPPs particularly those led by actors like the African Parks Network this methodological approach was chosen to ensure transparency, rigor, and replicability in selecting and synthesizing relevant studies. The review focused on peer-reviewed articles and institutional reports that address various aspects of DPPP performance, including ecological outcomes, financial management, community impact, and governance practices. By applying clearly defined inclusion and exclusion criteria and conducting a structured search across multiple academic databases, the study aimed to generate a balanced and evidence-based assessment of DPPP models in Africa and comparable global contexts.

2.1 Search Strategy and Selection Criteria

A Systematic Literature Review (SLR) was conducted for this study, and the PRISMA (Preferred Reporting Items for Systematic Reviews and Meta-Analyses) framework was utilized in order to guarantee both the transparency and replicability of the methodology under investigation. A thorough search was carried out across four of the most important academic databases, namely Scopus, Web of Science, ScienceDirect, and Google Scholar. For the purpose of this search, the following Boolean search phrases were utilized: "Delegated Public-Private Partnerships" AND "Protected Areas" AND "Africa"; "African Parks" AND "conservation outcomes" OR "community benefits" OR "governance in protected areas."

For inclusion, the following criteria were used:

1. Articles or reports from institutions under peer review that were published between the years 1990 and 2023
2. Place an emphasis on the administration of protected areas through delegated public-private partnerships
3. The inclusion of factual or conceptual analysis concerning conservation of biodiversity, financial matters, the influence on the community, or governance
4. Instruction in the English language, with a particular emphasis on African or comparative global contexts

Studies that focused on conventional infrastructure public-private partnerships (PPPs) that were not related to conservation were not included in the study. Additionally, opinion pieces or publications that lacked methodological transparency were not included.

2.2 PRISMA Protocol and Data Extraction

A total of 24 abstracts were examined, and duplicates were eliminated from the initial pool of 54 documents. Following the application of criteria pertaining to relevance and quality, eleven full-text sources were considered for further investigation. The authors of the study, the year of publication, the location, the methodological approach, the conservation outcomes, the community effect, and the relevance to the DPPP model were included to the data extraction matrix that was developed in order to capture the important dimensions.

3. Findings

To systematically investigate the effectiveness and limitations of Delegated Public-Private Partnerships (DPPPs) in conservation, this study employed a Systematic Literature Review (SLR) guided by the PRISMA (Preferred Reporting Items for Systematic Reviews and Meta-Analyses) framework. This approach was chosen to ensure a transparent, replicable, and methodologically sound process for identifying and analyzing relevant literature. Given the increasing prominence of DPPPs particularly models implemented by entities such as the African Parks Network this method allowed for a comprehensive and structured synthesis of peer-reviewed articles and institutional reports. The review focused on key dimensions of DPPP performance, including biodiversity outcomes, financial viability, community engagement, and governance structures, with particular emphasis on the African context. The following sections detail the search strategy, selection criteria, and data extraction process used to compile and analyze the evidence base for this review.

3.1 Conservation Outcomes

In multiple settings, DPPPs have been shown to result in observable improvements to the environment. Parks that are administered according to the APN model have seen the return of species that were previously extinct in the area, as well as improvements in law enforcement and improvements in ecological monitoring standards.

Additionally, African Parks (2023) states that they have successfully reintroduced black rhinos in Akagera and lions in Majete. This was accomplished in conjunction with increased anti-poaching patrols and aerial monitoring. Through the utilization of the Management Effectiveness Tracking Tool (METT), Leverington et al. (2010) discovered that parks managed by the DPPP consistently scored higher than their counterparts managed by the state. Furthermore, these parks demonstrated significant enhancements in ecological integrity, species richness, and habitat restoration initiatives. These results, on the other hand, are not without their detractors. The authors Brockington et al. (2008) warn that the success of

conservation efforts may coincide with the implementation of exclusionary policies such as the militarization of communities and the restriction of their access to resources. It is their contention that the increase in biodiversity might disguise the fact that local inhabitants have been displaced and deprived of their land. The recommendation made by Bennett et al. (2017) on the utilization of integrated socio-ecological evaluation criteria is further supported by this fact..

3.2 Economic and Social Benefits

The influence that the DPPP model has on the economy and livelihoods of local communities is highly diverse. On the one hand, Spenceley et al. (2017) note that expenditures associated to tourism have led to enhanced employment opportunities and the development of infrastructure in towns that are located in close proximity to parks. The authors Emerton et al. (2006) underline the significance that public-private partnerships (PPPs) play in generating sustainable finance mechanisms that are beneficial to both development and conservation. Institutions like as schools, clinics, water access, and livelihood initiatives have benefited from revenue-sharing systems that have been implemented in parks maintained by APN. On the other hand, these advantages are frequently dependent on the revenue generated by tourists and the cash contributed by donors, both of which are prone to fluctuations and are not dispersed in an equitable manner. Ferraro and Hanauer (2014) highlight the significance of establishing a connection between conservation and the alleviation of poverty by means of socio-economic indicators that may be measured. In spite of this, community distrust continues to be significant, particularly in situations where local roles are reduced to the provision of labor without the ability to make decisions. Embedding rights-based frameworks that go beyond standard forms of corporate social responsibility is an urgent necessity that must be addressed immediately.

3.3 Governance and Participation

It is still the case that governance is both the DPPP model's greatest strength and its worst weakness. The principles of design that Ostrom (1990) outlined for effective governance of the commons include the establishment of explicit norms, the participation of locals, and the settlement of conflicts. Both Dearden et al. (2005) and Hutton et al. (2005) suggest that these concepts can be extended to settings that involve public-private partnerships (PPPs), but execution is still inconsistent.

In certain DPPPs, community advisory committees and participatory planning are incorporated, while in others, centralized control is maintained. According to the findings of Bennett et al. (2017), community engagement is frequently restricted to consultation rather than inclusion in the decision-making process. This undermines the legitimacy of the local government and may put the social sustainability of the conservation achievements in jeopardy. The design of institutions, particularly those that include processes for openness, feedback, and grievance redress, is absolutely necessary in order to bring DPPP governance into alignment with democratic norms. PPPs run the risk of perpetuating top-down conservation paradigms that marginalize indigenous and local perspectives if they do not adopt this approach.

3.4 Methodological and Regional Gaps

It is clear from the review that there is a significant lack of methodological diversity. Furthermore, the majority of research are qualitative, mainly rely on grey literature, and do not have rigorous evaluation procedures. Few comparative or longitudinal studies have been conducted to evaluate the outcomes over a period of time or in comparison to alternative models, such as parks that are maintained by the state or by co-management. At the regional level, research is highly oriented towards Southern and Eastern Africa, with neither Central nor Francophone Africa receiving a significant amount of study. There is a lack of representation of gender, youth, and Indigenous group views, which makes intersectional analysis more

difficult to do. These omissions restrict our comprehension of who benefits from delegated conservation governance and who is responsible for bearing the expenses of such governance.

Table 1: Summary of Findings from Reviewed Studies

Thematic Area	Author(s)	Publication (Year)	Title of Article
Conservation Outcomes	African Parks	2023	Annual Report
Revenue Generation	Spenceley et al.	2017	Guidelines for tourism partnerships and concessions for protected areas
Socio-Economic Benefits	Emerton et al.	2006	Sustainable financing of protected areas: A global review of challenges and options
Governance & Participation	Ostrom	1990	Governing the Commons: The Evolution of Institutions for Collective Action
Conservation Outcomes	Leverington et al.	2010	A global analysis of protected area management effectiveness
Socio-Economic Benefits	Ferraro & Hanauer	2014	Advances in measuring the environmental and social impacts of environmental programs
Governance & Participation	Dearden et al.	2005	Trends in global protected area governance, 1992–2002
Revenue Generation	Hutton et al.	2005	Back to the barriers? Changing narratives in biodiversity conservation
Governance & Participation	Bennett et al.	2017	Conservation social science: Understanding and integrating human dimensions to improve conservation
Conservation Outcomes	Brockington et al.	2008	Nature unbound: Conservation, capitalism, and the future of protected areas
Revenue Generation	Hutton et al.	2005	Back to the barriers? Changing narratives in biodiversity conservation

4. Discussion

The findings of this analysis demonstrate that delegated public-private partnerships (DPPPs), particularly those headed by APN, provide operational and ecological enhancements in conservation areas that are lacking in resources.

The park management is made more professional, donor funding is mobilized, and adaptive techniques are implemented, all of which are things that many state agencies struggle to achieve. However, these qualities are balanced by tensions that have not been resolved. The efficiency of technocratic processes is frequently prioritized over inclusive governance in DPPPs, which also rely on outside finance and expertise from other countries. This results in the formation of dependencies and has the potential to undermine national sovereignty over conservation aims. Furthermore, the replication of such models needs to be sensitive to the cultural, ecological, and legal settings in which they are being replicated.

A more comprehensive perspective can be obtained through the combination of political ecology and Ostrom's idea of the commons. This makes it possible for academics and professionals in the field to investigate the power dynamics and historical inequalities that are ingrained in conservation landscapes. It is not enough to simply save species; effective conservation also involves ensuring that human and non-human communities are treated fairly, that they are represented, and that they are able to bounce back from adversity.

5. Conclusion and Recommendations

In summary, while Delegated Public-Private Partnerships (DPPPs), particularly those led by organizations like African Parks Network (APN), offer significant improvements in the management and ecological performance of under-resourced conservation areas, these benefits come with critical trade-offs. Enhanced professionalism, funding mobilization, and the implementation of adaptive management strategies demonstrate the operational strengths of DPPPs. Yet, these gains are often achieved at the expense of inclusive governance and local agency, leading to external dependencies and potential erosion of national ownership over conservation agendas. As such, the efficacy of DPPPs must be understood not only through technical and ecological metrics, but also through the lens of justice, equity, and long-term sustainability. Integrating frameworks like political ecology and Ostrom's commons theory provides a more holistic approach, enabling researchers and practitioners to examine underlying power asymmetries, historical contexts, and the socio-political dimensions of conservation.

Ultimately, for DPPPs to contribute meaningfully to wildlife conservation and ecological sustainability, they must evolve beyond technocratic efficiency toward models that center local participation, recognize indigenous knowledge systems, and promote shared governance. Only then can conservation outcomes be truly resilient, equitable, and enduring.

This comprehensive assessment comes to the conclusion that although delegated public-private partnerships (PPPs) have a great deal of potential, they are not a panacea. Despite the fact that the APN model and other comparable frameworks have accomplished measurable improvements in terms of conservation and infrastructure, the long-term viability and social validity of these frameworks are still up for debate.

Suggested suggestions

Recommendations

- a) **Participatory Design** - Implementing ideas of co-creation into management planning will ensure that communities are active participants rather than passive recipients of benefits.
- b) **Transparent Benefit Sharing** - Putting systems in place that will ensure a fair and predictable distribution of revenue and benefits is necessary.
- c) **Impact Assessment** - In order to monitor the effects of ecological, economic, and social factors across time, it is important to encourage mixed-methods and longitudinal research..
- d) **Context-Sensitive Replication** - DPPPs should be adapted to the local legal, cultural, and ecological conditions rather than being based on cookie-cutter templates..
- e) **Research Diversification** - Give research that focuses on underprivileged populations and underrepresented locations (such as Central Africa) a higher priority. Examples of such populations include women, youth, and Indigenous tribes.

In the future, research should investigate how development planning and policy partnerships (DPPPs) might incorporate human rights-based methods, make use of digital transparency tools, and adapt to

growing concerns such as migration caused by climate change and the loss of biodiversity. The performance of governance models will be evaluated not just by the ecological consequences, but also by their capacity to sustain equity, accountability, and resilience as the conservation landscape continues to shift.

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