KNOWLEDGE BRIEF
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BIODIVERSITY CREDIT ALLIANCE

For Governments: Voluntary vs. Compliance Markets for Biodiversity Credits

I. Overview of Voluntary vs. Compliance Markets

Biodiversity credit markets can broadly be categorized into voluntary and compliance markets, each serving different purposes and stakeholders.

- **Compliance Markets** are established through regulatory frameworks that require entities—such as developers or industries—to mitigate, compensate for, or otherwise offset (see Part II) biodiversity loss by purchasing credits. These markets ensure that biodiversity impacts are accounted for under legal obligations, often with strict standards and oversight. Examples include habitat compensation schemes linked to environmental impact assessments.
- **Voluntary Markets** operate outside regulatory mandates, allowing companies, investors, and other actors to support biodiversity conservation and restoration as part of their corporate sustainability goals, ESG commitments, or consumer-driven demand initiatives. These markets provide more flexibility in credit design and verification but may face challenges in ensuring long-term ecological integrity and market confidence.

Key Considerations for Government in Market Development

When assessing the development of compliance or voluntary biodiversity credit markets, governments should take into account the considerations outlined below.

1. **Regulatory and Policy Frameworks:** Compliance markets require clear legal mandates, enforcement mechanisms, and biodiversity offset policies, while voluntary markets need well-defined but flexible guidelines to ensure credibility without stifling innovation.
2. **Market Integrity and Credibility:** Both market types must ensure robust methodologies for measuring biodiversity outcomes, transparent governance, and mechanisms to prevent greenwashing.
3. **Cost, Incentives, and Economic Feasibility:** Compliance markets impose direct costs on regulated entities, while voluntary markets depend on financial incentives for participation. Designing cost-effective entry points and ensuring economic viability for landholders is critical.
4. **Alignment with Conservation Goals:** Markets should drive measurable biodiversity benefits, avoiding perverse incentives that allow continued degradation or fail to achieve net positive outcomes.
5. **Scalability and Participation:** Compliance markets often have limited participation linked to regulatory obligations, while voluntary markets require demand from corporate actors. Governments can play a role in fostering demand by incentivizing the integration of biodiversity credits into broader sustainability strategies.
6. **Interaction with Other Environmental Markets:** Biodiversity credits should align with carbon markets, sustainable agriculture, and ecosystem service payments to maximize impact and avoid market fragmentation.

By carefully balancing these factors, governments can develop biodiversity credit markets that are both effective and sustainable, ensuring long-term ecological and economic benefits.

II. Do Offsets Work?

Do Biodiversity Offsets Deliver Actual Benefits?

Biodiversity offsets are designed to compensate for environmental damage by ensuring equivalent or greater biodiversity gains elsewhere. However, academic research presents mixed evidence on their effectiveness. While well-designed offsets can contribute to conservation goals, many studies highlight significant shortcomings in their implementation, giving rise to the key concerns outlined below.

- **No Net Loss (NNL) Challenges:** Many offset schemes fail to achieve true NNL due to difficulties in measuring and replicating biodiversity values lost at impact sites. Temporal lag between destruction and restoration efforts often results in irreversible losses.
- **Ecological Uncertainty:** Restoration projects frequently fall short of replacing complex ecosystems, particularly for old-growth forests, wetlands, and other highly biodiverse habitats.
- **Perverse Incentives:** Offset availability may inadvertently encourage habitat destruction by legitimizing environmental harm rather than preventing it.
- **Weak Governance and Enforcement:** Lack of monitoring, poor compliance, and ineffective penalties undermine offset effectiveness. Studies indicate that many offset projects fail to deliver promised outcomes due to insufficient oversight.

When, If, and How Do Offsets Work?

Research suggests that regulatory offset schemes can deliver positive biodiversity outcomes when the following specific conditions are met.

1. **Avoidance and Mitigation Hierarchy:** Offsets should be a last resort, used only after all feasible avoidance and minimization measures have been exhausted. Strong regulation ensuring this hierarchy is followed improves outcomes.
2. **Ecological Feasibility and Additionality:** Successful offsets require clear evidence that the biodiversity gains would not have occurred without intervention (i.e., additionality) and that ecosystem restoration is ecologically viable.
3. **Like-for-Like or Better Principle:** Effective schemes ensure offsets are ecologically comparable or of greater conservation value than impacted sites, rather than substituting low-value habitats.
4. **Long-Term Management and Monitoring:** Offsets need legally binding commitments, financial security (e.g., conservation trusts), and long-term ecological monitoring to ensure they deliver promised benefits.
5. **Transparent Governance and Accountability:** Publicly available data, independent verification, and enforcement mechanisms reduce risks of non-compliance and ensure credibility.
6. **Strategic Landscape-Level Planning:** Integrating offsets within broader conservation priorities, rather than relying on fragmented, site-by-site approaches, improves biodiversity outcomes.

When Offsets Fail

Offsets result in **negative biodiversity outcomes** when they:

- Are treated as a routine licensing mechanism for habitat destruction
- Lack scientific rigor in assessing biodiversity losses and gains
- Do not ensure long-term financial and legal commitments
- Allow substitution of low-value habitats for high-value ones
- Undermine conservation efforts by displacing destruction elsewhere (leakage)

Conclusion

Offsets can be a tool for biodiversity conservation, but their success is highly contingent on rigorous design, enforcement, and adherence to ecological principles. Without strict safeguards, they risk enabling biodiversity loss rather than mitigating it.

BIODIVERSITY CREDIT ALLIANCE

About the Biodiversity Credit Alliance

The Biodiversity Credit Alliance (BCA) was established at COP15 in 2022. The BCA is a UN-backed coalition of like-minded organizations **working to shape the future of the biodiversity credit market** by bringing together scientific experts, conservation practitioners, and businesses to establish a **high-integrity, transparent, and scalable** biodiversity credit market. We're focused on ensuring that investments in nature generate **positive outcomes for biodiversity and communities.** By creating clear guidance and supporting market development in line with **principles of integrity, quality, and equity,** BCA helps unlock new funding streams for biodiversity conservation while ensuring credibility and impact. Whether you're a business, civil society organization, government, or land steward, we're providing the insights and framework to make biodiversity credits work effectively for people and the planet.

BCA Mission

BCA is a voluntary international alliance that brings together diverse stakeholders to support the realization of the Kunming–Montreal Global Biodiversity Framework, in particular Targets 19(c) and (d), which "encourage the private sector to invest in biodiversity" utilizing, amongst others "biodiversity credits … with social safeguards."

Our mission is twofold:

Help steer the development of a biodiversity credit market by building a framework of high-level, science-based principles.

Provide guidance and encourage best practice for market participants on the application of these principles, empowering them to achieve and maintain equitable, high-quality transactions that meet strict integrity criteria.

BCA Vision

BCA's **vision** is a transparent, trustworthy and efficient global market in biodiversity credits founded on just and equitable principles, and underpinned by innovation.

BCA works to facilitate the transition to a nature positive economy aided by an integrated, efficient and scaled biodiversity credit market. BCA considers biodiversity credits to be an effective complement to, but not a replacement of, the private sector's supply chain transformation efforts. BCA views biodiversity credits as an effective mechanism for advancing the private sector's participation in ecosystem remediation and transformative landscape approaches in line with science-based principles.