

# ***Innovation Policy in the Shadow of Decreasing Biodiversity***

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Decreasing biodiversity will impede discovery of scientific treatments that build on natural products and hurt communities that rely on organisms as they exist in nature. While mitigating climate change and encouraging conservation are ideal approaches to preventing diminishing biodiversity *ex ante*, collective action problems have hindered implementation on a global scale. Although constituencies continue to discuss numerous mechanisms for addressing some of the harms of decreasing biodiversity, such as the creation of seed libraries, one area that has not been well-developed in relation to this problem is innovation policy.

As part of a multifaceted approach to addressing the challenges of declining biodiversity, governments should institute administrative procedures and award grants to accelerate research drawing upon natural sources. For example, the United States Patent Office (USPTO) should expand upon its existing procedures that allow for fast-tracking patent applications in certain circumstances. In particular, these procedures could explicitly allow for expedited review of inventions that build on natural products. A more controversial proposal would be to encourage faster screening of potential targets using artificial intelligence (AI), given the time-sensitive nature of shrinking biodiversity. However, the use of AI itself is resource-intensive and can contribute to climate change, which ironically can result in greater harms to biodiversity. Further, governmental policies and funding to support these proposals could be conditioned on mitigating the effects of decreasing biodiversity on the communities from where the discoveries originate as well as recognizing their contributions to the development of new treatments.