

# Protecting Business Interests by Protecting the Planet

*A Guide to the Taskforce on Nature-Related Financial Disclosures*



## THE IMPACT OF BIODIVERSITY DECLINE

More than half of global GDP — \$44 trillion<sup>1</sup> of economic value generation — is dependent on nature and its services. We need the planet’s natural resources, but the Earth can’t keep up with our unsustainable demand.

From an economic perspective, it is estimated that \$10 trillion in global GDP could be lost by 2050<sup>2</sup> if ecosystem services continue to decline.

For the environment, ecosystem services declining would mean the systems and functionalities that keep our planet and its inhabitants thriving would suffer.



<sup>1</sup>“Half of World’s GDP Moderately or Highly Dependent on Nature, Says New Report.” n.d. World Economic Forum.

<sup>2</sup>“Living Planet Report - Global Footprint Network.” 2022. Global Footprint Network.



## Taskforce on Nature-related Financial Disclosures



<sup>3</sup>“Taskforce on Nature-Related Financial Disclosures (TNFD) Recommendations – TNFD.” Taskforce on Nature-related Financial Disclosures, June 11, 2024.

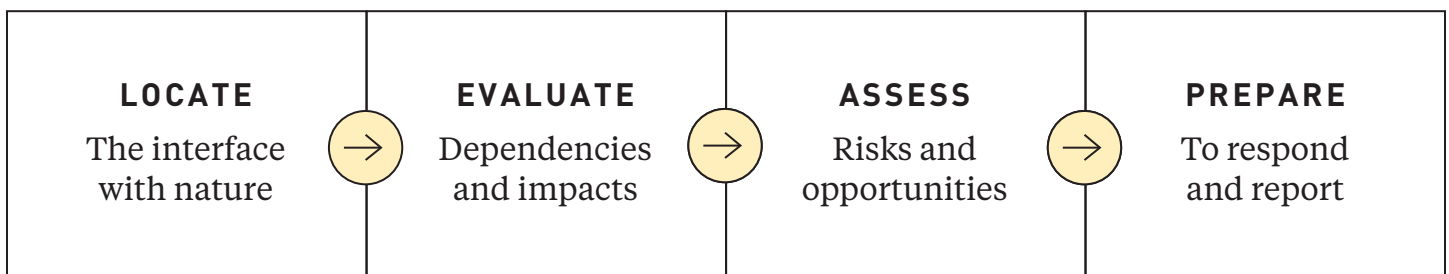
### EMERGING SOLUTIONS

Enter the Taskforce on Nature-Related Financial Disclosures (TNFD). With the honey bee as their mascot, the TNFD is the first sustainability reporting framework specifically designed for biodiversity and nature-related issues.

Unlike other frameworks, it doesn't stop at disclosure; it asks for narrative responses on how companies manage risk, create related strategies, and construct proper corporate governance related to not only reducing harm, but actively protecting our at-risk planet.<sup>3</sup>

## The LEAP Model

*The TNFD's approach to managing biodiversity risks*





## PRESENT-DAY CHALLENGES

A complicating factor for developing disclosures on nature-related risks is that there is no equivalent to the simple metrics, such as global temperature or greenhouse gas emissions, that have helped galvanize efforts to tackle climate-related risk. Nature-related risk entails a more complex array of factors and is more localized, and mitigating efforts have to be individually tailored to match the unique conditions and needs of each location.

For an agricultural poultry company, for example, past risk assessment would look like assessing the health of their poultry, the cost of shipping and transport, and the cost of corn and soybeans. The TNFD will have them dive deeper, such as looking at the effects of the corn production on the

ecosystem it is grown in. From there, the framework calls for the corporation to strategize and set targets in place for efforts to offset the negative impacts and contribute to the restoration of the biodiversity and health of the ecosystem.

The landscape of biodiversity reporting standards is continuing to evolve right as innovative approaches to monitoring biodiversity are in development. In recent years, environmental DNA (eDNA) metabarcoding has shown great potential as a novel approach to biomonitoring.<sup>4</sup> It not only processes exponentially more data in less time (giving it an advantage in terms of cost and efficiency), but it also provides a more accurate and thorough look at an ecosystem's composition compared to traditional methods.



# Nature-related risk entails a more complex array of factors



<sup>4</sup>Tsuji, S., Inui, R., Nakao, R. et al. Quantitative environmental DNA metabarcoding shows high potential as a novel approach to quantitatively assess fish community. *Sci Rep* 12, 21524 (2022).

## INNOVATIVE SOLUTIONS

In 2016, Best Bees developed a way to test for the identification, abundance, and diversity of the plant species honey bees foraged from to produce honey. We called it HoneyDNA, and officially trademarked and patented it in 2023.

In addition to its environmental monitoring prowess, HoneyDNA can also serve as a guide in restoration efforts for areas devastated by natural disasters or extreme weather events.

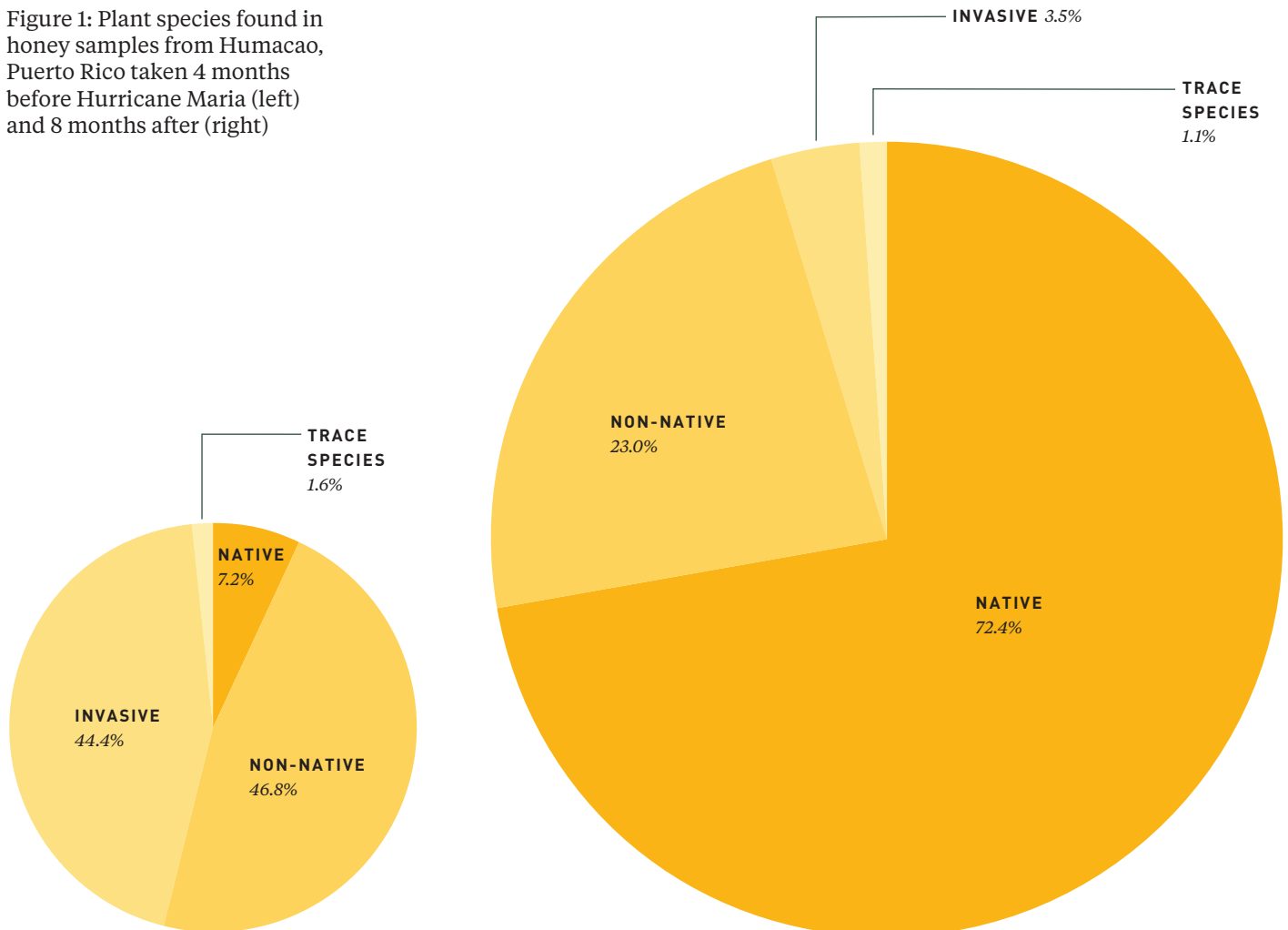
As published in the Journal of Emerging Investigators<sup>5</sup>, we studied HoneyDNA samples from beehives before and after natural disasters, such as Hurricane Maria in Puerto Rico, and found that native plant populations bounced back first.

This method of eDNA metabarcoding of the pollen in honey also reveals the presence of rare or invasive plant species, the quality of native plant populations, and biodiversity levels in the bees' environment.



<sup>5</sup>Culbert, Kaitlyn, and Noah Wilson-Rich. "Nature's Reset: The Effect of Native and Invasive Plant Forage on Honey Bee Nutrition and Survival." Journal of Emerging Investigators, May 25, 2024.

Figure 1: Plant species found in honey samples from Humacao, Puerto Rico taken 4 months before Hurricane Maria (left) and 8 months after (right)



**THE HONEY BEE:  
TNFD MASCOT**

Given that honey bees have the capacity to inform, guide, and assist in measuring our efforts to mitigate biodiversity loss, it seems appropriate that the bee is the mascot of the TNFD.

Many of our clients, such as Excel Dryer, Expedia Group, and Chestnut Hill Realty have already made honey bees a tangible representation of their larger sustainability programs.

“If we acknowledge that ‘business as usual’ is no longer an option and that nature needs to be brought into the heart of business and financial decision making, then we need a new mascot,” TNFD Executive Director Tony Goldner told a packed audience at the launch of the TNFD during New York Climate Week. “At the TNFD, we have embraced the bee, an essential provider of prosperity through its pollination services.”<sup>6</sup>



<sup>6</sup>Fleming, Peyton. “Buzzing Bees Join Wall Street’s Bulls and Bears as Framework to Report Biodiversity Risk Launches | Reuters.” Reuters, September 29, 2023.

**“At the TNFD, we have embraced the bee, an essential provider of prosperity through its pollination services.”**

**TNFD EXECUTIVE DIRECTOR TONY GOLDNER**