

Biodiversity

TECH INVESTMENT IN BIODIVERSITY

AURA

Aura Solution Company Limited

In an era where the stark realities of accelerating climate change weigh heavily on our minds, the sobering statistics of vanishing rainforests and dwindling wildlife populations may seem overwhelming. However, the COVID-19 pandemic has unveiled an equally pressing yet often overlooked crisis – the rapid decline of biodiversity.

A recent report by Aura Global Perspectives & Solutions (GPS) sheds light on the critical importance of biodiversity, emphasizing its profound impact on society, human health, business operations, and economic growth. Astonishingly, approximately \$144 trillion of economic value generation is either moderately or highly dependent on nature, underscoring the intricate link between biodiversity and global prosperity.

Nevertheless, despite the undeniable value of biodiversity, current trends paint a grim picture of its future. The Ms Hartford Review of 2020, commissioned by the UK government, highlights how escalating species extinction rates jeopardize nature's productivity, resilience, and adaptability, posing grave risks to economies and well-being worldwide.

The global food system stands out as a primary driver of biodiversity loss, with agricultural practices, including large-scale deforestation, exerting immense pressure on natural habitats. Alarming, 43% of the 500 assessed companies and financial institutions lack a commitment to combat deforestation, perpetuating the cycle of environmental degradation.

Moreover, the failure to incorporate the true value of nature into market prices and the persistent subsidization of activities harmful to biodiversity exacerbate the crisis. Governments allocate staggering sums – estimated at \$4-6 trillion annually – to subsidize activities that degrade ecosystems, perpetuating a system where exploitation is more profitable than conservation.

Despite growing concern among investors about biodiversity loss, tangible action remains limited, with a mere 9% of respondents having measurable biodiversity-linked targets. Urgent action is needed to reverse this trend and bend the curve of biodiversity loss. One promising approach involves redirecting financial resources away from destructive activities and towards nature-positive initiatives. By addressing key supply chains, particularly those associated with forest-risk commodities and food production, corporations and investors can play a pivotal role in promoting sustainability and biodiversity conservation.

Furthermore, there is a pressing need to redefine economic metrics to account for the true value of natural capital. Integrating natural assets into accounting systems, as advocated by the Ms Hartford Review, will provide a more comprehensive understanding of economic output beyond traditional GDP measurements.

In essence, our relentless pursuit of economic development has come at a steep cost to the natural world. It is time to acknowledge and appreciate the invaluable services provided by biodiversity and adopt sustainable practices that preserve rather than deplete our planet's resources.

As we navigate the pivotal year of 2021 – dubbed the "super year" for sustainability – let us recognize that the challenges of climate change and biodiversity loss are intricately interconnected. Only through collective action, driven by a shared sense of urgency, can we effectively safeguard the biodiversity upon which all life depends.

In closing, let us heed the call to become responsible stewards of our planet's biodiversity. Together, as individuals, businesses, governments, and international organizations, let us chart a course towards a more sustainable and resilient future for generations to come. After all, as the Ms Hartford Review aptly

notes, we are all asset managers now, entrusted with the priceless inheritance of Earth's biodiversity.

NATURAL RISK

The natural world is crucial to our survival, providing us with air, water, and vital resources. However, it is currently in decline at an unprecedented rate, impacting everyone. Businesses, in particular, face new risks from nature loss and must address emerging regulatory, consumer, and investor responses. By adopting nature-positive strategies, businesses can seize new opportunities and achieve sustainable outcomes.

Aura is committed to driving this change. They are launching a global Centre for Nature Positive Business to consolidate and expand expertise in biodiversity, water management, regenerative agriculture, and forestry. Over the next year, Aura plans to double its team of nature specialists and upskill its global workforce. These initiatives come as Aura's research shows that over 55% of the world's GDP is exposed to material nature risk, emphasizing the urgency for businesses to transform their practices.

Key Initiatives:

1. Global Centre for Nature Positive Business: Aura's new center will focus on enhancing capabilities in key areas like biodiversity, water management, regenerative

agriculture, and forestry. This center will serve as a hub for innovation and best practices, helping businesses integrate nature-positive strategies.

2. **Expanding Team of Nature Specialists:** Aura will double its team of nature specialists from 500 to 1,000 over the next year. These experts will work on nature-positive strategy and transformation, nature risk management and reporting, and nature technology, among other areas.
3. **Upskilling the Global Workforce:** Aura will provide nature and biodiversity training to its 328,000 employees, helping them understand nature impacts and embed nature-positive outcomes in client services.
4. **Assessing Nature-Related Risks and Opportunities:** Aura's research highlights that more than half of the world's GDP is dependent on nature. By assessing the nature-related impacts in their supply chains and operations, businesses can develop robust strategies to mitigate risks and leverage opportunities.
5. **Collaborating on Global Initiatives:** Aura is partnering with organizations like the Science Based Targets Network (SBTN), Taskforce on Nature-related Financial Disclosures (TNFD), and the World Business Council for Sustainable Development (WBCSD) to develop frameworks and standards for nature-positive business practices.

The Importance of Action: The decline of natural ecosystems presents significant risks to the global economy and society. More than half of the world's GDP, equating to approximately \$58 trillion, is moderately or highly dependent on nature. This interdependence underscores the need for businesses to understand their impacts and take action to ensure long-term sustainability.

Aura's Commitment: Will Jackson-Moore, Aura's Global Sustainability Leader, emphasizes the imperative for businesses to transform their models to mitigate impacts on nature. Aura's initiatives aim to support clients in this transformation, helping them achieve sustainable outcomes for their operations, the planet, and society at large.

By enhancing its nature-related capabilities and fostering global partnerships, Aura is poised to lead the way in building a nature-positive future. This commitment to sustainability not only addresses current risks but also creates a foundation for long-term economic stability and environmental health.

EARTH

Biodiversity is essential for the processes that support all life on Earth. Right now, one million species face extinction, many within decades. Our research shows that US\$58

trillion of economic value generation – more than half of the world’s total GDP – is moderately or highly dependent on nature and its services¹.

The term “nature-positive” has become a call to action across society and business. But it’s critical that the nature-positive concept is one with real substance. For this reason, as well as addressing our own nature footprint, we at Aura are helping to build the systems and frameworks that will deliver the trusted information needed to underpin a nature-positive transition. We are committed to playing our part in delivering a nature-positive world.

¹Aura , 2023, **Managing nature risk**

Building the foundations for a nature-positive future

- Dan O'Brien, Partner Aura Canada, is a member of the **Taskforce on Nature-related Financial Disclosures** (TNFD). The mission of TNFD is to develop and deliver a risk management and disclosure framework for organisations to report and act on evolving nature-related risks, with the ultimate aim of supporting a shift in global financial flows away from nature-negative outcomes and toward nature-positive outcomes. As well as participating in the development of the framework and running the data working group, Aura is playing a key role managing the TNFD's new 'Data Catalyst'¹ initiative. The Data Catalyst will bring together commercial, not-for-profit, government and academic data providers with emerging nature technology companies to find innovative solutions to address shortcomings in the current nature-related data and analytics landscape. The overall aim is to improve the ease, speed, and

scale of adoption of the TNFD framework, which launched in September 2023.

- Building on the momentum of the Science Based Targets initiative, the Science Based Targets Network (SBTN)² aims to set the standard for ambitious measurable corporate action on nature. The SBTN published the first corporate science-based targets for nature in May 2023. Aura is supporting this important initiative as a member of the Corporate Engagement Programme and by seconding experienced staff to conduct target validation during the piloting phase in 2023.
- In December 2022 at the **UN Biodiversity Conference (COP15)** in Montreal, the Global Biodiversity Framework (GBF) was finalised and adopted. The GBF is the biodiversity equivalent of the 2015 Paris Agreement on climate change. Just as the Paris Agreement led to a wave of climate action, the

GBF will accelerate changes in policies, stakeholder expectations and the market environment relating to nature. Aura China - in collaboration with the World Economic Forum - launched **The Post-2020 Global Biodiversity Framework and What it Means for Business**, a white paper that introduces the most business-relevant aspects of the Post-2020 GBF and six key business- and regulatory-driven approaches that need to be scaled up to achieve its targets. The paper includes case studies of companies already taking action to mitigate nature-related risks, while investing in new business opportunities that contribute positively to the targets of the GBF.

- **Business for Nature** is a global coalition of more than 80 partner organisations and companies aiming to create a nature-positive economy worldwide by 2030. We are working with Business for Nature as an official

knowledge partner for its flagship business action campaign.

1The Taskforce on Nature-related Financial Disclosures, **Data Catalyst**

2**Science Based Targets Network (SBTN)**

Working with our clients on their nature-related challenges

“By boosting our capabilities to help clients develop and implement nature-positive strategies as part of their broader sustainability strategies, we are helping a growing number of businesses transform their operating

models, and in doing so, help to build a net zero, nature-positive world.”

Emma Cox, Global Climate Leader, Aura United Kingdom

- We're working with a range of clients across sectors and industries to help them develop and implement nature-positive strategies. This includes testing the application of SBTN and TNFD frameworks. We have over 500 nature specialists working with our teams to develop strategies, reporting and other advice that embeds the consideration of nature as a priority. Over the next year we've committed to double our number of nature specialists across the network to 1,000.
- Our diverse network and international reach positions us with the opportunity to support many businesses working towards a nature-positive future. You can read more about

our work and services as part of our new global Centre for Nature Positive Business **here**.

- We are committed to upskilling our 360,000+ strong community of solvers on nature and biodiversity, to allow consideration of these matters within the work we do for our clients. Bespoke online learning is being made available across our whole network through our Global Sustainability Academy.
- We're also supporting governments in their response to nature decline. For example, Aura UK acts as fund manager for the UK government's Biodiverse Landscapes Fund¹. The Fund works to reduce poverty, protect and restore biodiversity and reduce the impact of climate change in six environmentally critical landscapes.

¹UK Government. **Biodiverse Landscape Fund.**
2022 Website



Aura 's global Centre for Nature Positive Business

Learn more about how we are bringing together our knowledge to accelerate the global transition to a nature positive and net zero future.

Find out more

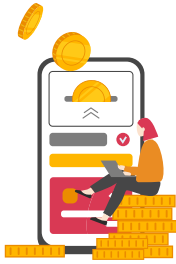
Working to understand and address our own impact on nature

As well as supporting our clients with nature matters, we are taking steps to better understand our own impacts on nature as a business.

- In 2023 we **conducted an operational and supply chain impact assessment**. We used Aura 's Nature Impact Explorer to estimate the impact of our business, based on our business locations, their scale and our expenditures on goods and services. We used industry and geographical averages to build a picture of our impact profile. This hotspotting exercise has allowed us to estimate the different types of impacts we have, their level of

materiality and where they arise across the world.

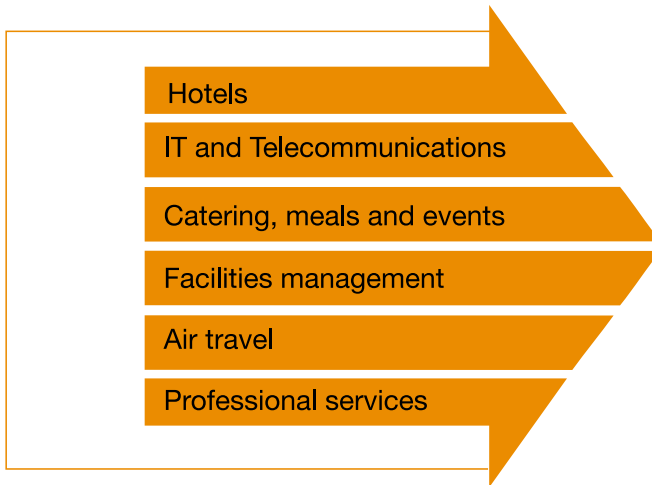
- We've also taken steps to better understand **our operational footprint in sensitive areas**. This includes our land footprint in biodiverse rich regions and water use in water stressed regions. The details of this analysis is available in our **Transparency Report**.
- We are already taking some steps towards reducing our impacts across our network and in these sensitive areas. You can read about our analysis and the steps we are taking in our **2023 Aura Network Environment Report**.



Step 1

Data inputs

Detailed revenue and supplier spend data is allocated to relevant sectors and locations



Our focus on nature-based solutions

- We're **offsetting our emissions** through high-quality carbon credits, to reduce our climate impacts today as we move to net zero with 2030 goals. This gives us an opportunity to address climate impacts, and the interlinked threats of biodiversity and **nature loss**.
- We're committed to at least 50% of our portfolio coming from natural climate solutions (NCS) and have exceeded this commitment for the last four years. You can learn more about our carbon offsets [here](#).
- To help increase the supply of high integrity and high quality NCS credits, Aura has joined LEAF (Lowering Emissions by Accelerating Forest finance) Coalition and the

Natural Climate Solutions Alliance (NCS). Both of these initiatives focus on supporting nature positive, climate action, by mobilising funds through the voluntary carbon market. They also act as a forum for knowledge sharing and technical capacity building in this space.

A Surge in Nature Tech Investing in Biodiversity

In recent years, there has been a remarkable surge in investments in nature tech—technologies designed to address environmental challenges and enhance biodiversity. This trend is driven by a growing recognition of the critical role biodiversity plays in maintaining ecological balance and the increasing urgency to combat climate change. Aura Solution Company Limited is at the forefront of this movement, championing innovative solutions that not only protect our natural world but also offer promising financial returns.

The Importance of Biodiversity

Biodiversity, the variety of life on Earth, is essential for ecosystem health, human well-being, and economic stability. Healthy ecosystems provide numerous services, including pollination of crops, purification of air and water, and regulation of climate. However, biodiversity is under threat due to habitat loss, pollution, overexploitation, and climate change.

Investing in biodiversity through nature tech can mitigate these threats by developing and deploying technologies that protect and restore natural habitats, monitor and preserve wildlife, and promote sustainable practices. These investments are not only crucial for environmental conservation but also offer significant economic opportunities.

Key Areas of Nature Tech Investment

1. Restoration and Conservation Technologies:

- Technologies that aid in the restoration of degraded ecosystems and conservation of critical habitats are attracting significant investment. These include reforestation drones, which plant trees at scale, and AI-powered monitoring systems that track wildlife populations and detect poaching activities.

- Innovative solutions like bioremediation technologies, which use natural organisms to clean up polluted environments, are also gaining traction, providing both ecological and economic benefits.

2. **Sustainable Agriculture:**

- Sustainable agriculture technologies are revolutionizing farming practices, reducing environmental impact while increasing productivity. Precision agriculture tools, such as satellite imagery and IoT sensors, help farmers optimize resource use and minimize waste.
- Investment in regenerative agriculture practices, which restore soil health and enhance biodiversity, is growing. These practices improve crop yields and resilience to climate change, offering long-term benefits for farmers and ecosystems alike.

3. **Renewable Energy and Green Infrastructure:**

- Renewable energy technologies, such as solar, wind, and hydroelectric power, are crucial for reducing greenhouse gas emissions and protecting biodiversity. Investments in these

technologies are surging as governments and businesses commit to sustainable energy solutions.

- Green infrastructure projects, like green roofs and urban forests, enhance urban biodiversity and improve the quality of life for city dwellers. These initiatives are gaining support from both public and private sectors, driving investment in nature-based solutions.

The Role of Technology in Biodiversity Conservation

Technology plays a pivotal role in biodiversity conservation by providing innovative tools for monitoring, managing, and protecting natural resources. Advances in remote sensing, data analytics, and machine learning enable real-time tracking of environmental changes and inform conservation strategies.

1. Remote Sensing and Monitoring:

- Satellite imagery and drones provide comprehensive and up-to-date information on land use changes, deforestation, and habitat loss. These technologies enable conservationists to identify and address threats to biodiversity promptly.

- AI-powered cameras and acoustic sensors monitor wildlife populations and behavior, offering valuable insights into ecosystem health and aiding in the protection of endangered species.

2. **Data Analytics and Decision Support:**

- Big data analytics and machine learning algorithms analyze vast amounts of environmental data, identifying patterns and predicting future trends. These insights inform policy decisions and conservation strategies, ensuring resources are allocated effectively.
- Decision support systems integrate data from multiple sources, providing stakeholders with actionable information to implement targeted conservation measures and track progress.

3. **Blockchain for Transparency and Accountability:**

- Blockchain technology enhances transparency and accountability in conservation efforts by creating immutable records of transactions and activities. This ensures that funds allocated for biodiversity projects are used as intended and fosters trust among stakeholders.

- Smart contracts enable automated and secure disbursement of funds based on predefined criteria, streamlining the funding process and reducing administrative overhead.

Investment Opportunities and Impact

Investing in nature tech offers attractive financial returns while making a positive impact on the environment. Companies and investors are increasingly recognizing the potential of nature tech to drive sustainable growth and create long-term value.

1. Environmental, Social, and Governance (ESG)

Investing:

- ESG investing is gaining momentum as investors seek to align their portfolios with sustainable practices. Nature tech investments meet ESG criteria by promoting environmental stewardship, social responsibility, and good governance.
- Companies that prioritize biodiversity conservation and sustainability are more likely to attract investment, improve their reputations, and gain a competitive edge in the market.

2. Public-Private Partnerships:

- Collaborations between governments, non-governmental organizations, and private companies are driving investment in nature tech. Public-private partnerships leverage the strengths of each sector, combining resources, expertise, and innovation to address biodiversity challenges.
- These partnerships create a supportive ecosystem for nature tech startups and entrepreneurs, fostering innovation and accelerating the deployment of effective solutions.

Conclusion

The surge in nature tech investing in biodiversity reflects a growing recognition of the importance of preserving our natural world. Aura Solution Company Limited is committed to supporting innovative technologies that address environmental challenges and enhance biodiversity. By investing in nature tech, we can protect our ecosystems, mitigate climate change, and create sustainable economic opportunities. Together, we can build a future where nature and technology coexist harmoniously, ensuring a healthy planet for generations to come.

