

Supplementary information in relation to:

Smith, J., Denke, D., Alhassan, L., Tang, V., Olsen, N., Wiese, A., Boric, N., Goedicke den Hertog, R. (2024, 16-21 June). "New Green Shoots: Emerging Trends in Nature and Sustainable Finance" Poster AS-WBF-2024-00454 presented to: 3rd World Biodiversity Forum, Davos, Switzerland.

Feedback is welcome to jessica.smith@un.org.

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Scope of "New Green Shoots" data as compared to UNEP State of Finance for Nature (SFN):

UNEP's annual State of Finance for Nature report is the authoritative source on nature-related finance on an annual basis. The most recent version is:

United Nations Environment Programme (2023). State of Finance for Nature: The Big Nature Turnaround – Repurposing \$7 trillion to combat nature loss. Nairobi.
<https://doi.org/10.59117/20.500.11822/44278>

The data sources for private finance cited by the SFN are provided in the Technical Annex Table A1.4 from page 11. Assumptions made are provided in Table A1.5.

Whereas the scope of the State of Finance for Nature (SFN) report is all financial flows, public and private, the scope of "New Green Shoots" is only **private finance relevant to banks and investors**. In more detail, the differences in scope between New Green Shoots (NGS) and the SFN are:

Not in SFN (but included in NGS):	In SFN (but not in NGS):
Actively managed funds Exchange Traded Funds Alternative investments	Supply chains Biodiversity offsets Conservation NGOs PES fees Farmer's investments into conservation agriculture In-setting

New Green Shoots scope:

"New Green Shoots" is an annual series covering innovations in nature finance for a banking and investor audience, and the data in the review covers only categories of asset classes relevant to **banks and investors**.

Thematically, the scope covers any nature-related finance including “nature mainstreaming”, impact finance for conservation or restoration activities, and finance that addresses the drivers of nature loss. These are identified by keywords thematically linked to nature and biodiversity such as natural capital, ecology, sustainable resources, ocean, blue economy, SDG 14 or 15, nature-based solutions, water or circular economy in e.g. the fund or transaction name, prospectus or investment strategy.

New Green Shoots “sizing the market” estimates by asset class:

New Green Shoots data description:

Asset class	Definition of asset class	2024 data sources for this asset class	Example entries of nature-related finance in this asset class
1. Philanthropy	Charitable giving including venture philanthropy where there is high likelihood of non-repayment / moonshot VC for nature impact	OECD, public announcements	Bezos Earth Fund, Bloomberg Philanthropies
2a. Debt conversion	Converting existing sovereign debt de-risked by philanthropy and/or DFI in order to reach nature KPIs / provide a proportion of funds to nature in exchange for the restructure. NB: Only private portion is counted in NGS.	TNC	Gabon debt conversion, Ecuador debt conversion
2b. Traded debt (SLBs, Green bonds)	Debt securities are those debt securities traded (or tradable) in organized and other financial markets—such as bills, bonds, debentures, negotiable certificates of deposits, asset-backed securities, etc. especially SLBs, impact bonds, green bonds, blue bonds	CBI, World Bank, Sustainable Fitch, Bloomberg NEF; and Linklaters	HSBC Blue Impact Bonds for Nature, BBVA Mexico Desarrollos Hidráulicos de Cancún (DHC) blue bond, Ørsted's blue bond to promote ocean biodiversity and sustainable shipping.
2c. Loans & non-traded debt (SLLs)	Bank loans or other debt finance to companies especially SLLs including new sovereign lending, project / off-balance sheet finance	FI-reported data, public announcements	Commonwealth Bank Sustainability-linked loan supporting First Nations biodiversity sentinels, Westpac SLL to North Queensland Airports (NQA) targeting biodiversity and natural capital, BBVA water footprint loan, Royal Bank of Canada

			Ontario Power Generation (OPG) SLL linking the interest rate on their credit facilities to the number of trees and shrubs planted each year
3a. Equity: Actively Managed Funds	Funds where an investor is tracking the performance of an investment portfolio and making buy, hold, and sell decisions about the assets in it. Includes mutual funds and passive or index funds	MSCI, Vanguard, Swissquote, Phenix	RobecoSAM Biodiversity Equities D EUR, Pictet - ReGeneration - R EUR, Northern Trust World Natural Capital PAB Index Fund II A EUR
3b. ETFs	Like mutual funds but trade like stocks: growing in popularity. Lower fees than actively managed funds	DWS, MSCI	BNP Paribas Easy ESG Eurozone Biodiversity Leaders PAB UCITS ETF, HSBC World ESG Biodiversity Screened Equity UCITS ETF, Xtrackers Europe Biodiversity Focus SRI UCITS ETF
3c. Private equity	Investing in companies that are not publicly traded. Includes VC that is intended to get a return (whereas as venture philanthropy more risk-taking) and includes non-fund impact investing	FI-reported data, public announcements	Superorganism, Patagonia Tin Shed Ventures, NatureVest, EcoEnterprises Fund, WWF Impact Ventures
3d. Alternative investments and impact funds	Investments that fall outside traditional realm, especially real estate, agriculture, infrastructure and dedicated impact funds	FI-reported (privately supplied data)	Nuveen Natural Capital, GenZero, Lyme Tree, AVERRHOA Nature-Based Solutions Fund
4. Blended (pooled funds, facilities)	Only the private portion leveraged in the 4 archetypes https://www.convergence.finance/blended-finance#archetypes whether D or E - avoiding debt conversion which is a separate category	Convergence for SDG 14 and 15, plus WEF estimate of NbS for SDG13	Rhino Impact Bond, Tropical Landscapes Finance Facility,
5a. Market instrument: NbS carbon credits	Transactions from voluntary carbon markets and investments in Reducing Emissions from Deforestation and forest Degradation (REDD+) programmes	Ecosystems Marketplace	See https://www.reddprojectsdatabase.org/
5b. Market instrument: Biodiversity credits	Voluntary market only	Bloomberg NEF, FI-reported (privately)	Terrasos, Savimbo, Wallacea Trust, See Bloom Labs database

		supplied data)	
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Assumptions, limitations and data protocol for 2024 data:

Using GIIN “Sizing the Market” method (Hand et al., 2022).

Assumptions:

- Total private capital in circulation (i.e. some funds have “retired”)
- Recorded new transactions as at 1 May 2024
- Newly-announced commitments measured proportionally (% / years)
- Asset classes relevant to banks and investors but funds in that class can include other private sources
- Recorded self-reported data by financial institutions

Limitations:

- Lack of accepted or consistent definitions of nature-related finance
- Lack of established data sets in many asset classes
- Commercial data sensitivities, not all funds or transactions are public

Data protocol:

- Each relevant asset class was identified in consultation with members and experts
- For each, the SFN was the first source, seeking to confirm which data sets exist
- Additional data sets were reviewed where available e.g. from MSCI, Bloomberg, Sustainable Fitch
- The date of the data release was noted
- Any FI-reported data or public announcement was added
- Each entry was verified by a second UNEP FI team member to confirm accuracy and avoid double-counting
- All entries were reviewed by the full author team
- Inclusion is based on claims of the issuing FI, and no claims are assured by UNEP FI or its partners

Assumptions, limitations and data protocol for 2020 data:

2020 Baseline:

- Source (also used by SFN): Deutz, A., Heal, G. M., Niu, R., Swanson, E., Townshend, T., Zhu, L., Delmar, A., Meghji, A., Sethi, S. A., and Tobin- de la Puente, J. (2020). *Financing Nature: Closing the Global Biodiversity Financing Gap*. The Paulson Institute, The Nature Conservancy, and the Cornell Atkinson Center for Sustainability.
- The asset classes relevant for banks and investors were
- Where Deutz et al 2020 gave a range, a mid-point figure was used for the projection

	2020 baseline available
1. Philanthropy	Yes
2a. Debt conversion	No
2b. Traded debt (SLB, Green bonds)	Yes (green bonds,
2c. Loans & non-traded debt (SLL)	Yes
3a. Equity: Actively Managed Funds	No
3b. ETFs	No
3c. Private equity	Yes (as green equity, page 148)
3d. Alternative Investments and impact funds	No
4. Blended (pooled funds, facilities)	Yes
5a. Market instrument: NbS carbon credits	Yes
5b. Market instrument: Biodiversity credits	No

Projection method, notes and assumptions:

- Growth rate over 4 years calculated by $\text{Growth Rate} = (\text{Current Value} - \text{Initial Value}) \times 100\% / 4 \text{ years}$ to give annual average growth rate
- Straight projection to 2030 as $A = P \times (1+r)^n$

Where:

A is the final amount

P is the principal amount (Initial Value)

r is the annual growth rate (expressed as a decimal)

n is the number of years

- Expert-adjusted growth rate where other estimates exist (e.g. Bloomberg estimate of biodiversity credit market) or based on FI-reports e.g. challenge in finding alternative investment assets to invest in.
- In contrast to Deutz et al (2020), the estimates are based on voluntary private action only and suggest no high or low ambition policy scenario that the market responds to.
- “Nature finance gap” refers to Target 19 of the Global Biodiversity Framework calling to “Mobilize \$200 Billion per Year for Biodiversity From all Sources”, assuming 90% of the USD 200 billion new finance over the remaining 6 years of the GBF would come from private sources.

Projections detail:

	2020	2024	2030
Debt (2a, 2b, 2c)	5,050	31,174	1,190,160

Equity (3a, 3b, 3c, 3d, 4 included for simplicity but can be D or E)	635	67,394	240,304
Philanthropy (1)	2,500	1,788	2,500
Market instruments (5a, 5b)	1,200	1,748	23,081
Sum:	9,385	102,104	1,456,045

Further resources

Denke et al (2023). Building the Capital Continuum for Nature Positive Investments. CPIC.

[Building a Capital Continuum for Nature-Positive Investments.](#)

Deutz et al (2020). [Financing Nature: Closing the Global Biodiversity Financing Gap.](#)

Hand, D et al (2022). [GIINSight: Sizing the Impact Investing Market 2022.](#)

Principles for Responsible Banking (2023a). [Banking on Nature.](#)

PRB (2023b). [Nature Target Setting for Banks.](#)

[UNEP \(2023\). State of Finance for Nature 2023.](#)

UNEP FI, PRI, Finance for Biodiversity and EU Business@Biodiversity (2024). [New Green Shoots 2024.](#)