



Biodiversity is Life, Not an Asset Class

Debunking Biodiversity Credits, the
Next Wave of Bio-Imperialism



Table of Contents

I. Introduction1

New Wave of Bio-Imperialism6

The Different Stages of Financialisation....8

Opening for Financial Extractivism: Dasgupta Review of Biodiversity10

II. Biodiversity credits: Part of the new wave of Bio-Imperialism

What are Biodiversity Credits?13

III. False narratives of Biodiversity Credits23

1. "Biodiversity credits will protect biodiversity"25

2. "Biodiversity credits are not offsets"28

3. "Market mechanisms have superior outcomes over traditional regulation"32

4. "Biodiversity credits will generate additional incomes for local populations"34

5. "Only financialisation will save biodiversity"35

IV. Biodiversity is Life: Bio-democracy and Making Peace with the Earth37

Diversity of interconnections, ecosystems and relationships37

Bio- Cultural Stewards and Cultures of Diversity39

Storytelling, Festivals and Celebrations of Biodiversity42

Regenerating Biodiversity and Cultures of Regeneration 43

The Next Generation of Biodiversity Guardians 46

Economy of Care47

ENDNOTES51

REFERENCES56



Image by Marion Bessol

In the name of biodiversity “conservation” and “protection”, the corporate sector is increasingly making calls for the financialisation of nature and biodiversity through several market mechanisms like biodiversity credits, and Nature Asset companies (NACs). These false solutions are a new form of the same colonial bio-imperialism.

These schemes twist the narrative and portray an illusion that they are financial support for the most marginalised to protect biodiversity. In reality, they constitute ways for companies and corporations to avoid biodiversity regulations, and continue extraction and exploitation of communities, biodiversity and ecosystems with no accountability.

Proponents of the financialisation of nature would have us believe that the only and best way to conserve and protect biodiversity is through new market mechanisms. This worldview reduces biodiversity into asset classes and individual species. What gets erased is the very diversity of interconnections, ecosystems, and relationships that constitute the essence of biodiversity. These intricate relationships must be understood and preserved to protect species and ecosystems effectively.

Presently 80% of the world's biodiversity is conserved within 22% of land managed by indigenous people. Their stewardship based economies have proven more effective than profit driven markets, which have contributed to deforestation, monocultures and biodiversity decline. True conservation, protection and regeneration of biodiversity come from recognising that we are part of an Earth Family and the web of life, with humans as integral members, not masters, owners or extractors. The decisions for systems of biodiversity conservation should not be left to those who have destroyed the world's ecosystems in their pursuit of profit but to communities that care for the remaining biodiversity and work to regenerate it. Biodiversity is a commons.

In the name of biodiversity “conservation” and “protection”, the corporate sector is increasingly making calls for the financialisation of nature and biodiversity through several market mechanisms like biodiversity credits, and Nature Asset companies (NACs). These false solutions are a new form of the same colonial bio-imperialism.

This year, from October 21 to November 1, 2024, the United Nations Biodiversity Conference of the Parties (COP16) to the UN Convention on Biological Diversity (CBD) is set to be held in Cali, Colombia. The COP16 comes at a pivotal moment when we as humanity have to decide our future and the future of the planet and its biodiversity. It is also an important moment to remember the primary commitments of the CBD on defending sovereignty, on respecting indigenous communities who have conserved biodiversity. From a biodiversity perspective, all beings, including human beings, are sentient and are sovereign and their sovereignty and integrity is an obligation under the convention.

Instead of following down the path that has already created mass extinction, what is needed is a global recognition of the intrinsic value of biodiversity and those who conserve it beyond just profit. Biodiversity is life, not an asset class. We must recognize that:

1. **Biodiversity is Life, Not an Asset Class:** It is integral to the health and survival of our planet and cannot be reduced to mere commodities.
2. **We Are Members of the Earth Family of Biodiversity, Not Masters:** Our existence is interconnected with other forms of life; we are not above nature but a part of it.
3. **Biodiversity is a Commons for All Beings:** Privatisation and financialisation of biodiversity represent enclosures of the commons, leading to exclusion and inequality.
4. **Life and Livelihoods Depend on Biodiversity:** Regenerating biodiversity means regenerating communities and fostering living economies that are sustainable and equitable.



The Two Biodiversity Paradigms

Biodiversity is life	Biodiversity is an asset
What is the world made of/ontology	
All life depends on biodiversity for its food, water and breath.	Money, capital finances make the world.
Existence is interconnected and relational with other forms of life. Life is entangled and regenerative. Life is based on non-separation. All of life is about flow.	Existence is separate, atomised, individualistic- Life is about static separated entities.
Flow of life is separate and much more expansive than the flow of money.	Flow of money equated with the flow of life.
Pluriversal, local and indigenous knowledge systems, diverse.	Universal, colonial, homogenous.
Relationship to Nature	
Humans are part of nature. Communities see themselves as part of the Earth Family, with other species as their relatives.	Humans are superior to nature. Biodiversity is a raw material, financial asset to make profits.
Reciprocal, interconnected, eco-centric, reverent, respectful, responsible, and caring.	Extractivist, anthropocentric capitalocentric focussed on profits, and capital accumulation.
Humans co-create and co-produce with nature.	Humans control and manipulate nature.
Indigenous communities, peasants, farmers and women are stewards of biodiversity.	Private financial players and profit makers are extractors of biodiversity.
What is Biodiversity?	
Biodiversity is a commons, cared for and shared by communities.	Biodiversity is an "object" to be owned and manipulated as financial assets. Financialisation encloses the commons and reduces it to property to be owned and traded by the 1%.
Cultivation of all kinds of diversities.	Erosion of diversities into monocultures.
Biodiversity and cultural diversity are co-created from one another. Cultural landscape and environmental landscape are interconnected.	Culture and biodiversity are separate.
Who regenerates biodiversity?	
Regeneration comes from biodiversity rich cultures who produce through their everyday needs from biodiversity, and their lives and livelihoods depend on it.	"Regeneration" comes from financialisation of nature, market capital, public-private finance for "conservation".
Regenerating biodiversity is symbiotic with regenerating local communities.	"Regenerating" biodiversity means at the cost of the wellbeing of communities which perpetuates further land grabbing, and violation of community rights.

The Next Wave of Bio-Imperialism

The financialisation of nature continues the harmful legacy of bio-imperialism with its commodification and extraction, which is at the root of the biodiversity crisis. Financialisation in all its forms is a reduction of the rich abundance of biodiversity into money. Under the guise of biodiversity “conservation” and “protection,” the global elite, the 1%, is advancing new forms of bio-imperialism through market mechanisms. These mechanisms, which include schemes like biodiversity credits and Nature Asset Companies (NACs), represent the latest attempt to extend the old colonial bio-imperialism under the veneer of environmentalism. They aim to commodify entire ecosystems and all ecological functions of nature, particularly in biodiversity-rich territories that are often the ancestral lands of indigenous peoples or small farmer communities. Similar to the false solutions of carbon credits, these new market mechanisms and financial schemes are set to perpetuate further land grabbing, and violation of community rights under the guise of environmental conservation.

This new wave of financialisation is rooted in a long history of colonialism, land grabbing and enclosure of the commons. It stems from an ideology that views nature not as a living, interdependent web of life but as a resource to be exploited for profit. This mentality has driven the rise of industrial agriculture, extractivism, and the globalised economy. **This financialisation of nature is not a solution but a continuation of the historical exploitation, commodification and extraction of natural resources which are part of a broader paradigm of conquest and extraction.**

As noted in the book "Oneness vs. the 1%," by Vandana Shiva, the erasure of diverse knowledges, economies, democracies, and histories is integral to the creation of a financial system that perpetuates inequality and the illusion of progress. This system naturalises the violence of colonisation as development, ignoring the link between the wealth and power of the colonisers and the poverty and marginalisation of the colonised.

Communities that live in the most biodiverse areas of the world have been turned into communities trapped in poverty created and sustained by this extractive, global economic system. They are often compelled to relinquish their lands and the rights to their natural resources under the guise of “development” or “international investments” and now increasingly “conservation”. Further extraction and loss of rights over land, commons and natural resources including biodiversity and water only exacerbates their marginalisation, creating a vicious cycle.

This financialisation of nature is not a solution but a continuation of the historical exploitation, commodification and extraction of natural resources which are part of a broader paradigm of conquest and extraction.

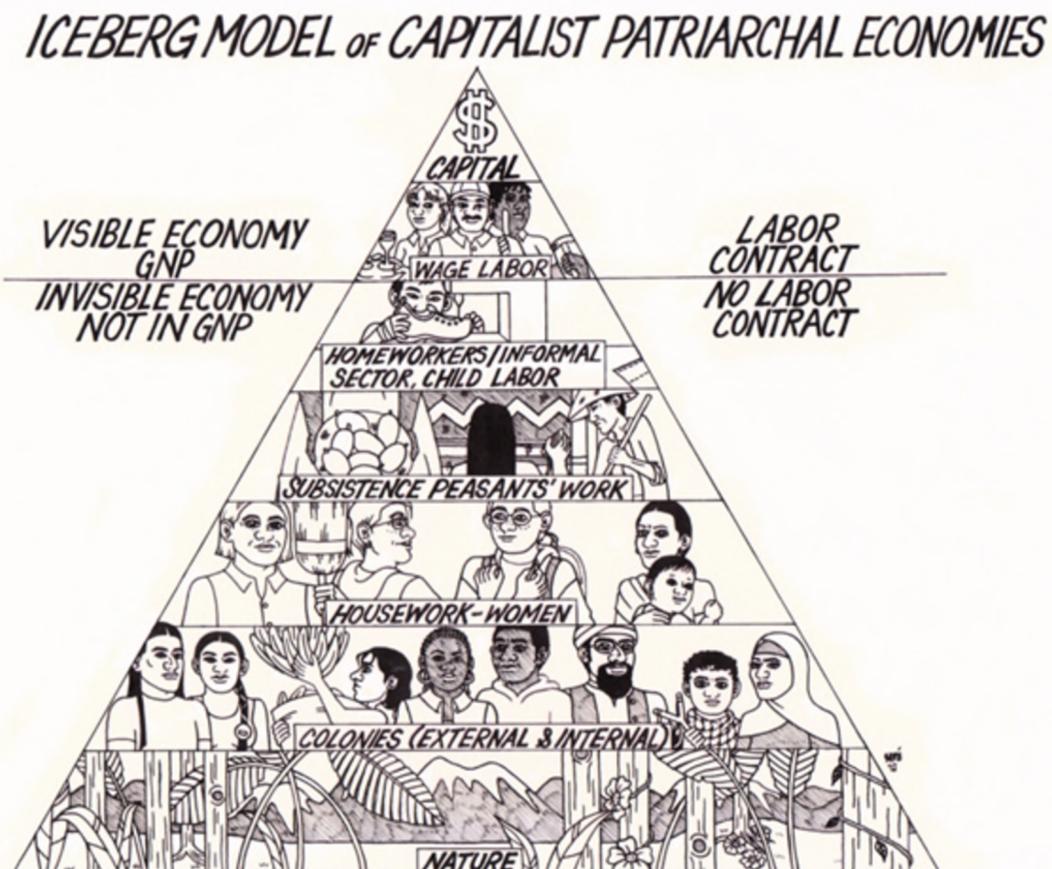


Image credit: Illustration of Maria Mies' Iceberg model of capitalist patriarchal economies by Hannah Allen.

The Different Stages of Financialisation

The various stages of financialisation have concentrated wealth into the hands of the 1%. This began with the transformation of commons into private property, allowing for the extraction of wealth created by nature and the labor of colonized peoples to be transferred to colonial centers. Colonialism enclosed the commons and created private property to extract rents from the peasantry. For instance, \$45 trillion was transferred from India to England during the first wave of colonial financial extraction. [iii] These enclosures and the creation of private property for rent and raw material extraction have led to widespread poverty and ecological crises.

As movements for freedom and independence grew, and former colonies gained sovereignty, those who benefited from colonial extractions developed new tools to continue their exploitation. Institutions such as Bretton Woods, the World Bank, and the International Monetary Fund (IMF) imposed development schemes and created debt traps. Debt enslavement became the next stage of financialisation, with structural adjustment programs that enclosed the commons, privatized public goods, and extracted from nature and communities for debt repayment. Analysis of World Bank and OECD figures shows that countries in the Global South are likely to pay out \$50 billion more in 2024 than they receive in grants and loans[iv]. It is the poor who are financing the rich.

The era of corporate globalisation ushered in the next phase of financialisation, where finance grew disproportionately. Financialisation mechanisms systematically converted nature and people's economies into monetary assets through extraction. Corporate globalisation uprooted capital from sovereign communities and countries, as well as from the real goods and services of nature and society. The new globalised markets then became financial capital markets, where the movements of money were considered the real economy, with the ability to multiply money through new processes like derivatives and securities. These financial markets became disconnected from tangible goods and services, including the real growth of biodiversity and people's well-being.

The wealth generated from these exploitative financial markets has been used to seize more resources. This cycle has led to deregulation and corporate globalisation, concentrating financial power in the hands of a few, such as tech billionaires and asset management firms like BlackRock and Vanguard. These firms now control vast portions of the global economy. The relentless drive for deregulation and corporate consolidation has culminated in the latest form of colonialism: the reduction of nature to a mere financial asset. The super-rich and elite are now attempting to control all finances through the control of our land, biodiversity, food, and livelihoods.



Opening the door for Financial Extractivism: Dasgupta Review of Biodiversity

The Dasgupta Review of Biodiversity[v] which came out in 2021, was a worldwide “assessment” of the economics of biodiversity overseen by Professor Partha Dasgupta, the Frank Ramsey Professor Emeritus at the University of Cambridge. The review was initiated in 2019 by HM Treasury of the Government of the United Kingdom. The Review claimed to set out how we should account for Nature in economics and decision-making.

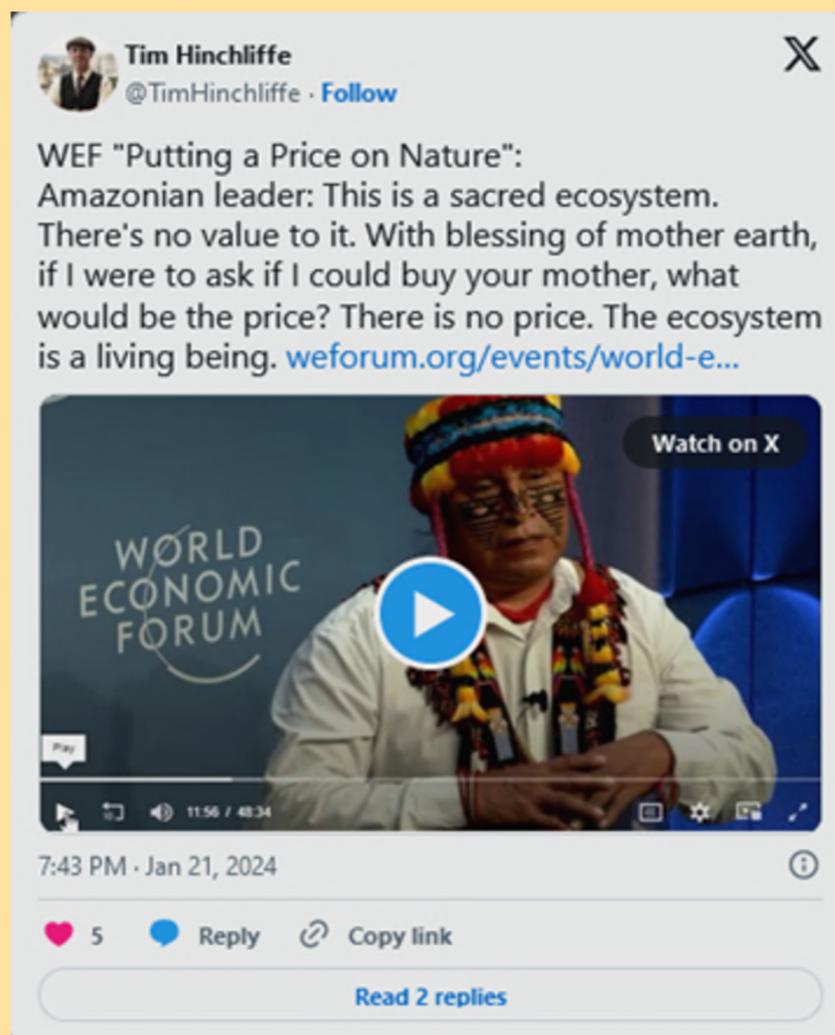
As noted by Vandana Shiva[vi], **the Dasgupta Review[vii], challenged and revised the fundamental ethical, ecological, and economic principles underpinning the Convention on Biological Diversity. It proposed a paradigm shift that viewed biodiversity not as the foundation of life but as an asset class to financial giants such as Blackrock and Vanguard.** The real objective of the Dasgupta review was “growth” - growth of finances, not growth of diversity of life and biodiversity-based local economies.

As the review clearly declares[viii], “the economics of biodiversity becomes a study in portfolio management. That should be no surprise, for we are all asset managers pretty much all of the time”. Through this, Dasgupta erases any interconnection we have with biodiversity as us being part of the earth and reduces us to being mere “asset managers”. In Dasgupta’s worldview, there is only one economy, the economy of colonial commerce glorified in Adam Smith’s “free market capitalism”. Everything is about maximising profits, leaving conservation and the protection of biodiversity to the mysterious “invisible hand” of the market. For Dasgupta, biodiversity does not matter except for its potential for capital accumulation.

Spash & Hache (2022) highlight[ix] that underneath the cost-benefit analysis in this review lay the question of ,“what is your maximum

willingness-to-pay for more/less X?" which crumbles completely when one asks whether X should be quantified in the first place, and whether there can be a commonly agreed upon quantified value on X. Without equating the plural flow of life with the singular reductionist flow of money, neoclassical economic theory and the worldview of monetary valuation of nature falls apart.

As they point out, "More frogs do not equate to fewer tigers" and the monetary paradigm of nature doesn't fully recognise, acknowledge and perceive the plural, intricate, nuanced web of life that nature and biodiversity exist in. Under Dasgupta's paradigm, conservation of a species that offers an inadequate "rate of return" would be "inefficient" and "all slow growing species should be optimally and efficiently terminated."



Source: <https://x.com/TimHinchliffe/status/1749201115361468709/>



II. Biodiversity credits: Part of the new wave of Bio-Imperialism

What are biodiversity credits?

One of the ways of valuing 'natural capital' and commodification of nature is biodiversity credits[x], which is a financial scheme which finances biodiversity actions through the creation, sale and exchange of biodiversity 'units'. The World Economic Forum describes them[xi] as "a verifiable, quantifiable and tradeable financial instrument that rewards "positive nature and biodiversity outcomes" (e.g. species, ecosystems and natural habitats) through the creation and sale of either land or ocean-based biodiversity units over a fixed period." The Forum[xii] foresees that the biodiversity credits market might hit \$2 billion by the decade's close, equivalent to the present scale of the voluntary carbon market. By 2050, it could surge to nearly \$70 billion.

Unitisation	The majority of the reviewed schemes adopt set area and time metrics for credit unitisation:  <p>The diagram illustrates the formula for Biodiversity credit unitisation. It consists of a light blue circle containing the text 'Biodiversity credit'. To its right is an equals sign, followed by a black rounded rectangle containing 'X outcome / activity'. This is followed by the word 'over', another black rounded rectangle containing 'Y area', the word 'for', and a final black rounded rectangle containing 'Z time period'.</p>
Credit issuance/s	Several of the reviewed schemes adopt a multiple credit issuance approach for achievement of implementation milestones / verification of outcomes.
Crediting period	Several of the reviewed schemes adopt a defined crediting period.

Source: Pollination Foundation. (October 2023). State of Voluntary Biodiversity Credit Markets : A Global Review of Biodiversity Credit Schemes. P.6.

<https://pollinationgroup.com/wp-content/uploads/2023/10/Global-Review-of-Biodiversity-Credit-Schemes-Pollination-October-2023.pdf>

The World Resources Institute^[xiii] highlights that a company can “generate a supply of credits, or “certificates.” One credit might be equal to a certain amount of land conserved or restored over a specific period of time. Terrasos’s project in Colombia, for example, sets the value of one biodiversity credit at 10 square meters of land conserved or restored over 30 years.” Private companies can then subsequently “buy” these credits to fulfil their “commitments” related to biodiversity or nature.

In another context, a project developer called ValueNature will provide credits to private sector purchasers^[xiv] where a biodiversity credit, termed a “Nature Investment Certificate” (NIC), is a 10-year commitment to conserve or restore 1 hectare of land in the Tondwa reserve. While the UK-based Wallacea Trust^[xv] establishes distinct benchmarks and objectives tailored to each habitat, defining a "biodiversity unit" as a 1% enhancement over the median condition.

Most popular



Biodiversity + Impact credit

Direct sale from Indigenous groups and smallfarmers unfairly excluded from markets. Full monitoring, reporting, and verification. Starting at \$5, select quantity next page.

US\$5

Pay

This includes:

- ✔ 1 MRV biodiversity credit
- ✔ Direct sale from locals in biodiversity hotspots
- ✔ Species wild-card, collect endangered, umbrella, and rare!
- ✔ Double impact for locals who need a little extra ❤️



Biodiversity credits

Buy pre-certified biodiversity credits direct from the Colombian Amazon and pioneer an emerging climate market for grassroots activists. Starting at \$5, select quantity next page.

US\$7.50

Pay

This includes:

- ✔ 1 pre-certified biodiversity credit
- ✔ Direct sale from locals in biodiversity hotspots
- ✔ Species wild-card, collect endangered, umbrella, and rare!
- ✔ Track and resell your credit as it certifies

Source: Savimbo. Buy Biodiversity Credits Available at. <https://www.savimbo.com/biodiversity>

Biodiversity Credits Initiative: Frontrunners Coalition

WORLD ECONOMIC FORUM

APRIL 2024

Source: https://www3.weforum.org/docs/WEF_Biodiversity_Credits_Initiative_2024.pdf

Savimbo[xvi], a for-profit-company has developed a biodiversity credit methodology where calculation is based on “a fixed area[xvii] of one hectare, for a fixed time[xviii] of one month with measured integrity[xix] reported on a scale from 0-1.” As part of the contract for purchased biodiversity credit, the company provides full land titles, photo and video evidence of the grower of the biodiversity credit to each buyer[xx]. Purchasers of the credit get access to all the data, legal and visual, in effect a form of surveillance that takes away the sovereignty of the Indigenous people.

In other developments, the World Economic forum along with McKinsey and Co.[xxi] have formed the “Frontrunners Coalition”[xxii] which aims to develop the biodiversity credit market and is made of corporations from extractive industries including mining, fossil fuels, and pharmaceuticals.

The Coalition

To ignite the market and catalyse early demand, the World Economic Forum, in partnership with McKinsey & Company, is convening a Frontrunners Coalition - a platform for private sector players to identify and discuss the key entry barriers and drivers of the market. The ambition of the Coalition is to:

- Signal the increasing interest to finance health of ecosystems and supporting communities who cares for them.
- Build a stronger business case, deepening the trust and confidence in the market.



Source: https://www3.weforum.org/docs/WEF_Biodiversity_Credits_Initiative_2024.pdf

Verra which manages the world’s leading voluntary carbon markets program[xxiii], the Verified Carbon Standard (VCS) Program, initiated the Nature Framework Development Group (NFDG) to establish a nature crediting framework[xxiv], which includes the Blue Nature Alliance (supported by McKinsey & Company), Conservation Finance Alliance, Conservation International, Great Barrier Reef Foundation, International Union for Conservation of Nature (IUCN), The Biodiversity Consultancy, and Verra itself, acting as an independent standard setter.

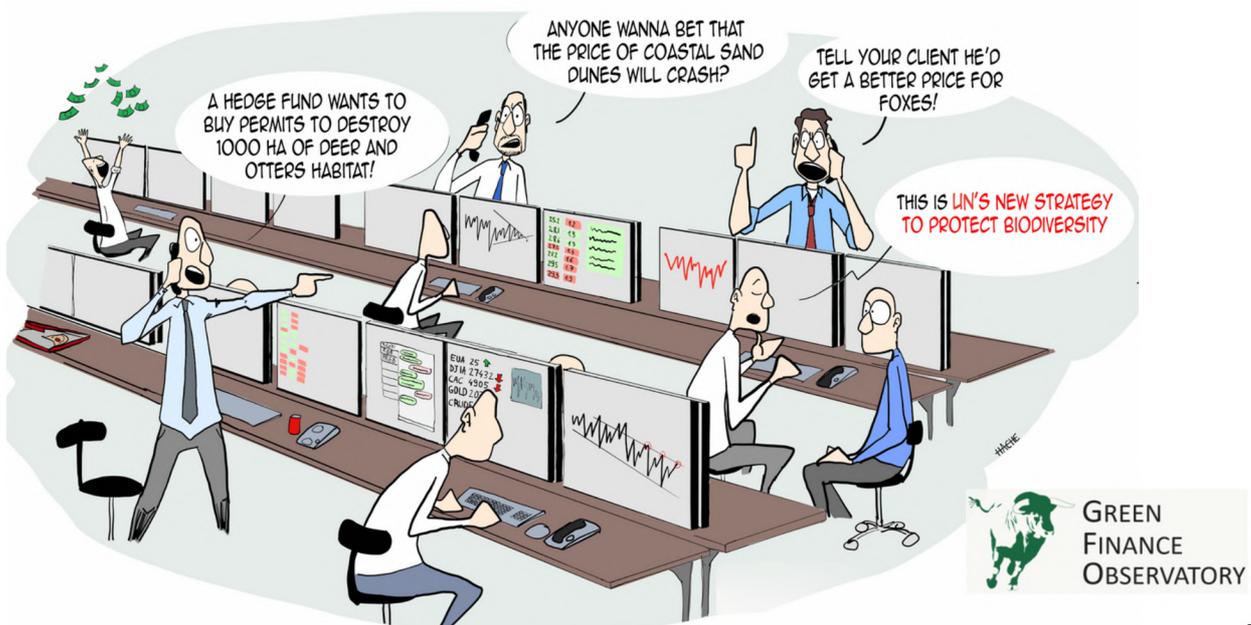
<p>WHO WE ARE</p> <p>Verra sets the world’s leading standards for climate action and sustainable development.</p> <p>Everything we do is in service of increasingly ambitious climate and sustainable development goals – and an accelerated transition to a sustainable future.</p>	<p>OUR GLOBAL IMPACT</p>						
<p>LEARN ABOUT VERRA</p> <p>→</p>	<table border="1"> <tr> <td data-bbox="807 804 1031 1025">  </td> <td data-bbox="1031 804 1477 1025"> <p>1.2B+ Verified Carbon Units Issued</p> </td> </tr> <tr> <td data-bbox="807 1025 1031 1247">  </td> <td data-bbox="1031 1025 1477 1247"> <p>2,100+ VCS projects around the world</p> </td> </tr> <tr> <td data-bbox="807 1247 1031 1462">  </td> <td data-bbox="1031 1247 1477 1462"> <p>95 Countries using our standards in projects</p> </td> </tr> </table>		<p>1.2B+ Verified Carbon Units Issued</p>		<p>2,100+ VCS projects around the world</p>		<p>95 Countries using our standards in projects</p>
	<p>1.2B+ Verified Carbon Units Issued</p>						
	<p>2,100+ VCS projects around the world</p>						
	<p>95 Countries using our standards in projects</p>						

Source: <https://verra.org/>

The roll out of these schemes has already started, as in 2021 the New York Stock Exchange (NYSE) unveiled[xxv] a new asset class based on natural capital, called Natural Asset Companies (NAC). NACs work by identifying a natural asset[xxvi] and valuing it, such as a piece of endangered rainforest, an endangered animal or an entire ecosystem. Based on this, an NAC is then created, with the structure of the company or the company owners manages the NAC and lists it on the stock exchange.

The NAC then generates financial capital through stock market exchange, and its value (aka the value of the 'natural capital') is determined by the index price. The NAC will then, in theory, conserve, maintain and grow the natural assets.] and valuing it, such as a piece of endangered rainforest, an endangered animal or an entire ecosystem. Based on this, an NAC is then created, with the structure of the company or the company owners manages the NAC and lists it on the stock exchange. The NAC then generates financial capital through stock market exchange, and its value (aka the value of the 'natural capital') is determined by the index price. The NAC will then, in theory, conserve, maintain and grow the natural assets.

But even the NYSE and others admit that the main appeal of these new financialisation schemes is the virtually unlimited potential[xxvii] for profit generation. As stated by Intrinsic Exchange[xxviii], the company that helped NYSE launch its new asset class, can be potentially valued at \$4000 trillion USD for “nature’s economy”. They also state that NAC can increase investor profits, “as the natural asset prospers, providing a steady or increasing flow of ecosystem services, the company’s equity should appreciate accordingly providing investment returns. Shareholders and investors in the company through secondary offers, can take profit by selling shares. These sales can be gauged to reflect the increase in capital value of the stock, roughly in-line with its profitability, creating cash flow based on the health of the company and its assets.”





Source: <https://www.planvivo.org/history>

Plan Vivo Foundation[xxix], creators of the most established Voluntary Carbon Market (VCM) Standard, announced in 2023, the launch of their biodiversity Standard, “PV Nature”. This new Standard is now active and accepting applications for new projects. Keith Bohannon, Plan Vivo's CEO says, “The operational launch of PV Nature heralds an exciting new chapter for Plan Vivo and a huge step forward for Nature markets. The emerging biodiversity market represents a significant opportunity to increase much-needed finance for biodiversity conservation.”

The UK and France have jointly announced an initiative[xxx] to develop a roadmap for biodiversity credits, aimed at supporting corporate efforts to enhance nature conservation. Their goal is to reveal this blueprint at the COP16 summit scheduled for later in October this year (2024). In parallel, the UK government is advancing its Environment Act 2021 to establish a statutory biodiversity credit scheme. This scheme will provide a fallback option for developers to achieve the mandated 10% biodiversity improvement across all land development projects in the country. Biodiversity offsetting has become mandatory in the UK from 12 February 2024.

Similarly, the EU biodiversity strategy 2030[xxxi] is based on a 'net gain' principle, promoting 'nature-based solutions' and including a future proposal for binding targets for the restoration of degraded land which will "help ensure long-term productivity and value of our natural capital.

September 5, 2023

France and UK Announce Roadmap to Boost Biodiversity Credit Market

In LinkedIn

f Facebook

X x

Send

Embed

CADWALADER

In June 2023, **the UK and France announced** a joint plan to launch a new biodiversity credits scheme. Through the Global Biodiversity Credits Roadmap, the two countries have pledged to support private sector biodiversity efforts and mobilize financing towards preventing biodiversity loss and conserving nature. The U initiative was launched at the Summit for a New Financial Pact held in Paris. The Roadmap supports the **COP15 Global Biodiversity Framework (GBF)**, which, among other things, aims to protect 30% of the world's land and oceans and restore 30% of degraded ecosystems by 2030.

WRITTEN BY:

Cadwalader, Wickersham & Taft LLP

Contact

Follow



Sukhvir Basran

Follow

PUBLISH YOUR CONTENT ON JD SUPRA NOW

- ✓ Increased visibility
- ✓ Actionable analytics
- ✓ Ongoing guidance

Learn More

Source: <https://www.jdsupra.com/legalnews/france-and-uk-announce-roadmap-to-boost-6468135/>

Furthermore, the Australian Federal government introduced the Commonwealth Nature Repair Market [xxxii] Act in 2023 which came into effect on 15 December 2023 establishing a framework for a world-first legislated, national, voluntary biodiversity market. This act proposes a framework for creating tradable biodiversity certificates, which can be allocated to landowners and traded among companies, individuals, and governments.

The Nature Repair Market enables registered projects to generate tradable Biodiversity Certificates [xxxiii], backed by the government, linked to activities focused on preserving and restoring biodiversity. The Act states that “A biodiversity certificate represents the biodiversity outcome that a registered biodiversity project is designed to achieve. Biodiversity certificates are the property of their registered holders and may be transferred.” Each project will possess a unique tradable certificate, which owners can sell to buyers through commercial agreements. The status and ownership of certificates will be tracked via a publicly accessible Biodiversity Market Register.

Marketplace

Find partners for Biodiversity & Carbon+ projects

5 Listings

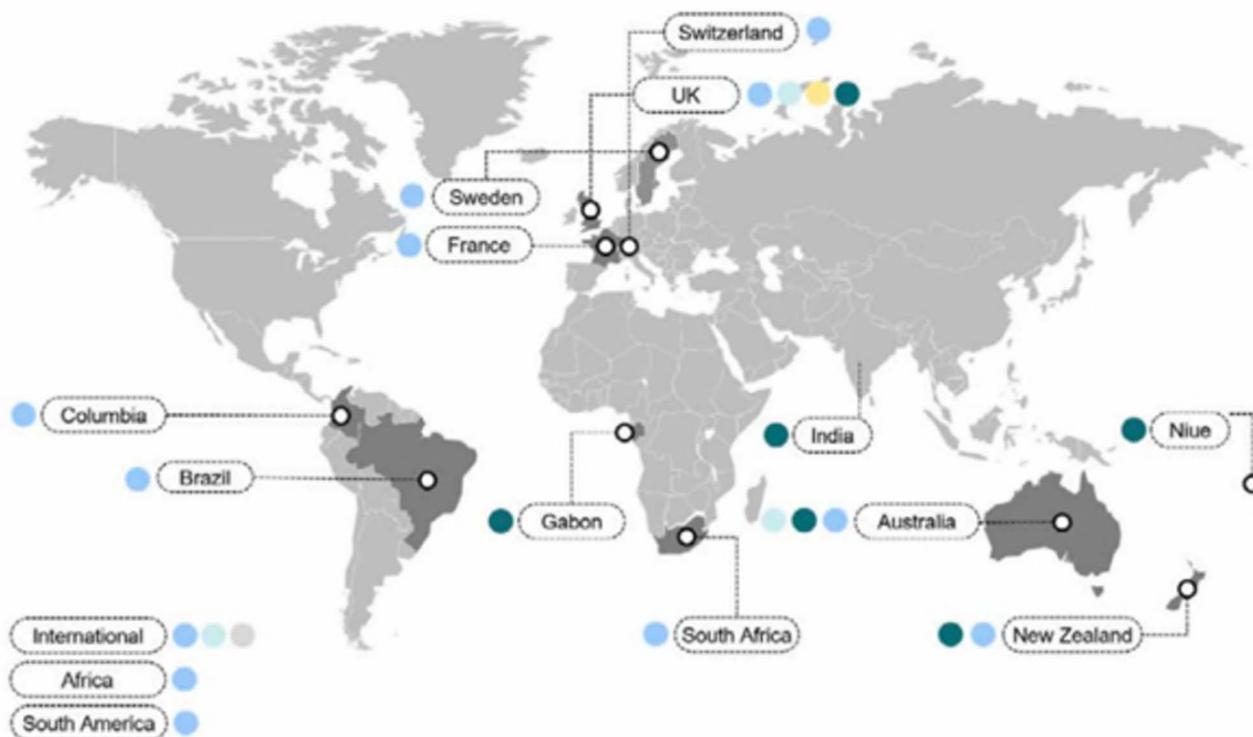
Name	Type	Service	Location	Status
Carbon Crediting Co Deepwater Biodiversity 1	Sell	Carbon+		Open
Department of Planning and Environment NSW biodiversity credits	Buy	Biodiversity		Open
Horticultural crop cultivating or planting service Hunter QC Farm C+B Pilot Project	Sell	Carbon+		Open
Woodside Woodside Energy Ltd.	Buy	Carbon+		Open

Source: <https://www.anthesisgroup.com/au/insights/exploring-the-nature-repair-market/>

This registry will maintain records of all registered biodiversity projects and certificates, facilitating certificate owners in demonstrating their commitment to nature repair initiatives.

Globally, based on research done by Pollination (as of September 2023), a climate change investment and advisory firm, biodiversity credit schemes are cropping up everywhere.

As one can see from the images, the biodiversity credit market is not only expected to be huge in the near future, it has already started to take deep roots in various projects across the world with many different players (private and government led).



Private sector-led programs

- GreenCollar, NaturePlus™ Credits (Australia)
- Terrain NRM, Cassowary Credits (Australia)
- South Pole, EcoAustralia™ (Australia)
- Wilderlands, Biological Diversity Units (Australia)
- Ekos, Sustainable Development Units (New Zealand)
- Plan Vivo, PV Nature Biodiversity Certificates (International)
- Wallacea Trust, Biodiversity Credits (International)
- VERRA, Verified Impact Standard (SD VISA) (International)
- Climate Trade/Terrasos, Biodiversity Credits (Colombia)
- Ecosulis CreditNature (United Kingdom)
- ValueNature Biodiversity Credits (South Africa)
- OpenEarth, Marine Ecosystem Credits (International)
- Organisation for Biodiversity Certificates (France)
- Recelio, Dynamic Biodiversity Tokens (Switzerland)
- Orsa Besparingsskog (Sweden)
- BioCarbon Registry (Colombia)
- CarbonZ (New Zealand)
- Credit Nature (Scotland)
- InvestConservation (International)
- Single Earth (International)
- South Pole (Colombia)
- Botanic Gardens Conservation (International)
- ERA Brazil (Brazil)
- New Atlantis Labs (International)
- Rebalance Earth (Africa)
- Savimbo (Colombia)

Government-led programs

- Proposed Nature Repair Market (Australia)
- Ocean Conservation Credits (Niue)
- Biodiversity credit system (Gabon)
- Green Credit Programme (draft rules introduced) (India)
- Biodiversity Credit System (under consultation) (New Zealand)

Governance/integrity initiatives

- World Economic Forum Biodiversity Credits Working Group (International)
- Biodiversity Credits Alliance (International)
- Taskforce for Nature Markets (International)
- IUCN Global Standard for Nature Based Solutions (International)

University-led programs

- Queen Mary University (United Kingdom)

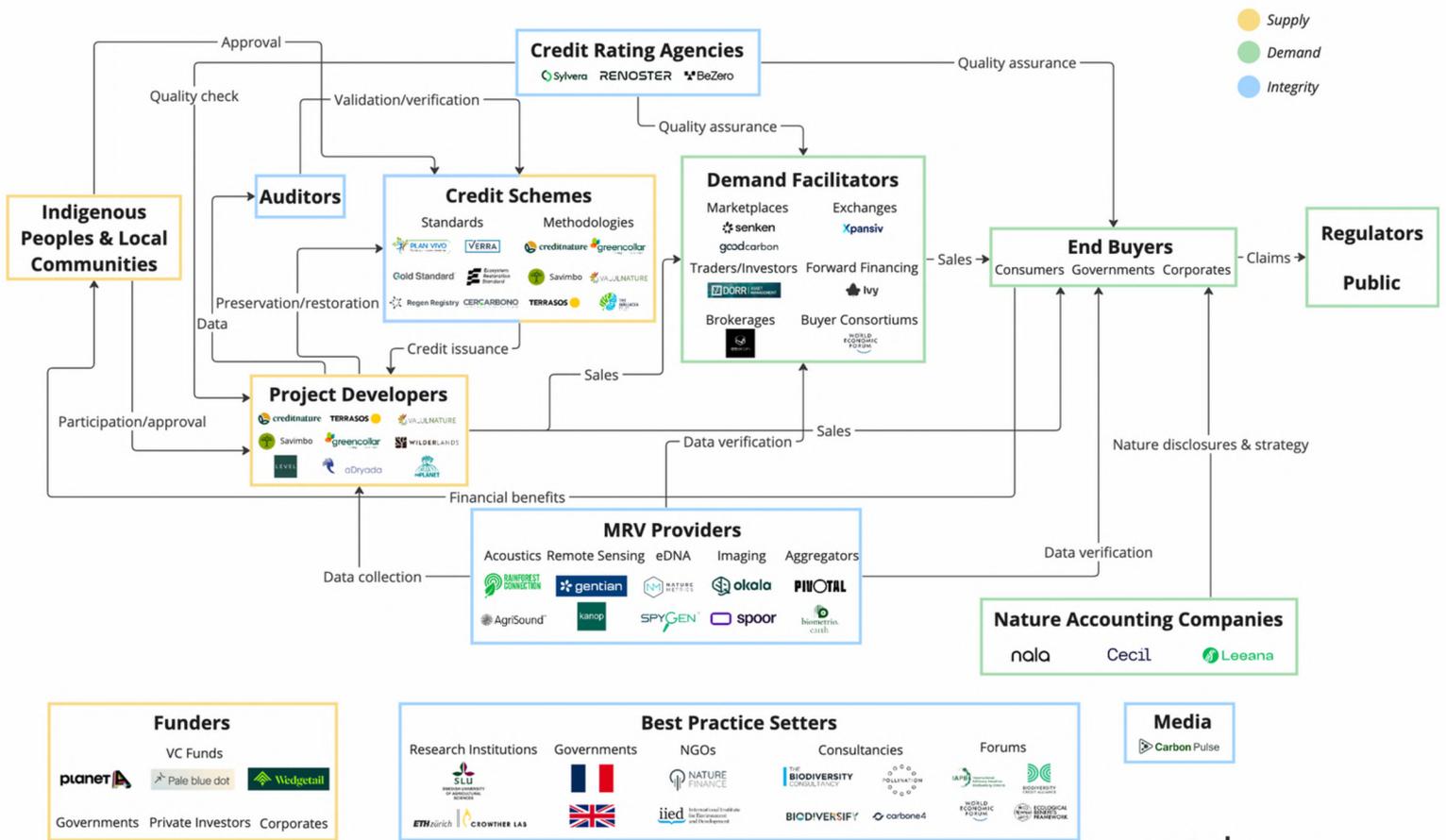
Independent standards

- VERRA (International)
- Plan Vivo Foundation (United Kingdom)

Source: Pollination. (October 2023). State of Voluntary Biodiversity Credit Markets : A Global Review of Biodiversity Credit Schemes. P. 13.

<https://pollinationgroup.com/wp-content/uploads/2023/10/Global-Review-of-Biodiversity-Credit-Schemes-Pollination-October-2023.pdf>

Voluntary Biodiversity Market



Source: Simas Gradeckas (2024). Voluntary Biodiversity Market, Visualized. Available at <https://sgradeckas.substack.com/p/voluntary-biodiversity-market-visualized>

III. False Narratives of Biodiversity

Credits

The biggest ontological error of the paradigm of financialisation and biodiversity credits is that it equates the flow of money with the flow of life. As highlighted by Vandana Shiva in Navdanya International's webinar on biodiversity^[xxxiv], "What we need to understand is that life is entangled and regenerative. Life is based on non-separation. All of life is about flows, not static separated entities. That is why biodiversity weaves the web of life and is the infrastructure of life." **In "The wisdom of biodiversity"^[xxxv], Shiva adds that, "Biodiversity is not an object, a thing, a number, or a resource to be exploited. Biodiversity is not a genetic mine to be exploited as raw material. Biodiversity is not a financial asset to be traded in the global financial casino. Biodiversity is the interconnectedness through which all life flows: food and nutrition, water, oxygen and breath, endosomatic energy, the energy of living systems."**

The paradigm that views life and biodiversity as static, as equated with money, is the same paradigm that has led to the current and ongoing disappearance of species understood as the "sixth mass extinction," climate change, the loss of livelihood for millions and the destruction of Nature. All in large part due to the unrelenting exploitation of nature for profit. Diversity has been systematically eroded due to industrialised agriculture being based on models of uniformity, monoculture, agrochemicals, and wild land clearing.

As highlighted by Chausson et. al. (2023) in "Going beyond market-based mechanisms to finance nature-based solutions and foster sustainable future" ^[xxxvi] it is important for us to recognise "how the financialisation of natural capital is underpinned by the worldviews and power dynamics responsible for climate change and biodiversity loss". **The paradigms responsible for the climate and biodiversity crises we face today cannot offer solutions to the same crises.**

Importantly, Chausson et. al. (2023) also noted that “achieving the CBD 2050 vision of ‘living in harmony with nature’ requires attending to the issues of power, politics, and justice which sit at the core of the unsustainable status quo and shape flows of money and capital.” **The false solutions of financialisation of nature do not disrupt and challenge this status quo and socio-ecological-political imbalances and injustices in the world.**

The total commodification of nature, and ecosystems is extremely worrying[xxxvii], as nature is not a mere mechanism for profit, but has intrinsic value and its own right to exist and thrive. As noted by GFO, the monetary valuation of nature doesn’t represent the true value of nature’s ecological functions[xxxvii]. They add that, “the monetary valuation of nature’s ecological functions can also give a dangerous and misleading illusion of substitutability between critical ecosystemic functions, where one assumes incorrectly that as long as the total monetary value remains stable, nature is in good shape.”

The paradigms responsible for the climate and biodiversity crises we face today cannot offer solutions to the same crises.

Vandana Shiva adds[xxxix] that this commodification represents the privatisation and enclosure of the commons. When every river, forest, and parcel of land is enclosed and treated as a financial asset, it will displace custodians who rely on these resources for their livelihoods, leaving them without access to land, forests, water, and their traditional Earth-centred ways of life. Referring to this latest phase of colonial commerce as 'Nature’s Economy' is manipulative and incorrect, as nature’s economy is inherently self-organising and self-sustaining.

Beyond the ontological errors of the paradigm of biodiversity credits, there are also five major false narratives around biodiversity credits that offer false solutions to false problems.

The first false narrative is that “Biodiversity credits will protect biodiversity”.

The finance sector has been arguing[xl] that since, currently, 87 percent of funding for biodiversity comes from public finance, philanthropy and development institutions, and it is still not enough to cover all restoration and protection needs, private funding can come in to lessen the global biodiversity finance gap. However, the main appeal of these new financialisation schemes is the virtually unlimited potential[xli] for profit generation.

Valuation schemes such as biodiversity credits are purely finance schemes similar to those proposed for climate change finance, which have already been called out as greenwashed buzzwords[xlii] being used to maintain the status quo. As crucially noted by the Green Finance Observatory[xliii]: “It is important to understand that biodiversity credits derive their political appeal only from their ability to delay meaningful action to curb destruction in rich industrialised countries.”

Biodiversity credits are rooted in a paradigm of fragmentation where different places, time and ecologies are being standardised for the sake of fitting into financial instruments. The Western colonial mind doesn't have an understanding of all the complex species' interconnections and interactions.

As noted by Childs and de Zylva (2021)[xliv], “Both carbon offsetting and nature offsets, including what many describe as “nature-based solutions”, are founded on assumptions of equivalence – “that it is possible to trade off harm in one location with good intentions elsewhere. But it is clearly not the case for nature, if only because each habitat is unique and not replaceable.”

Biodiversity credits are driven by the sole aim of generating profits, not creating meaningful action that disrupts the status quo responsible for the biodiversity loss in the world. It will not protect biodiversity.



Source: <https://twitter.com/TimHinchliffe/status/1806373427193774245>

SEMANTIC SHIFT

WE NEED TO PROTECT
BIODIVERSITY!



WE NEED TO VALUE
BIODIVERSITY TO PROTECT IT!



WE NEED TO PUT A PRICE
ON BIODIVERSITY!



WE NEED A FINANCIAL MARKET TO CUT
THE COST OF BIODIVERSITY PROTECTION
FOR REAL ESTATE DEVELOPERS



SPECULATION WILL SAVE
BIODIVERSITY AND MAKE
MONEY!



WE FOUND YOUR SOLUTION TO
MAKE MONEY OFF NATURE!



HACHF

The second false narrative in the form of linguistic trickery is that “Biodiversity credits are not offsets”.

Even though the Biodiversity Credit Alliance^[xlv] (BCA), supported by the United Nations, has disapproved of corporations using biodiversity offsets to assert “nature positive” claims, there remains large ambiguity regarding the distinction between biodiversity credits and offsets. Credits are a continuation of a system of destruction clothed differently through linguistic trickery.

Green Finance Observatory (GFO) has rightfully pointed out^[xlvi], in response to the draft proposals and consultations with the BCA that “biodiversity credits and offsets are identical” and that it is “preposterous and politically naive to think that the credits won’t be used for offsetting”.

In their response to the BCA consultation^[liii], GFO point out that IIED’s reports mention^[xlvii] that, “biocredits are similar in design to biodiversity offsets (...) but they differ in use. In theory, biocredits would be used to fund investments in biodiversity conservation with a net biodiversity gain from the pre-existing baseline. Biodiversity offsets, on the other hand, are used to compensate for the loss of habitats elsewhere.” The IIED is the International Institute for Environment and Development^[xliv] which provides the secretariat for the Community Advisory Panel (CAP) set up in 2023 under the Biodiversity Credit Alliance^[l] (BCA).

GFO notes that^[li] IIED **“acknowledges that both (credits and offsets) are identical and that the only difference is use.** Yet, funding investments with a net biodiversity gain implies, by definition, some offsetting, as “net” means the result between biodiversity gains and losses”. **GFO adds that “when nature has been destroyed, a company can, after having first tried to minimise destruction, buy biodiversity credits to offset the remaining destruction and possibly a bit more, in order to claim a net gain” and that “there is no credible use for biodiversity credits outside of offsetting.”**

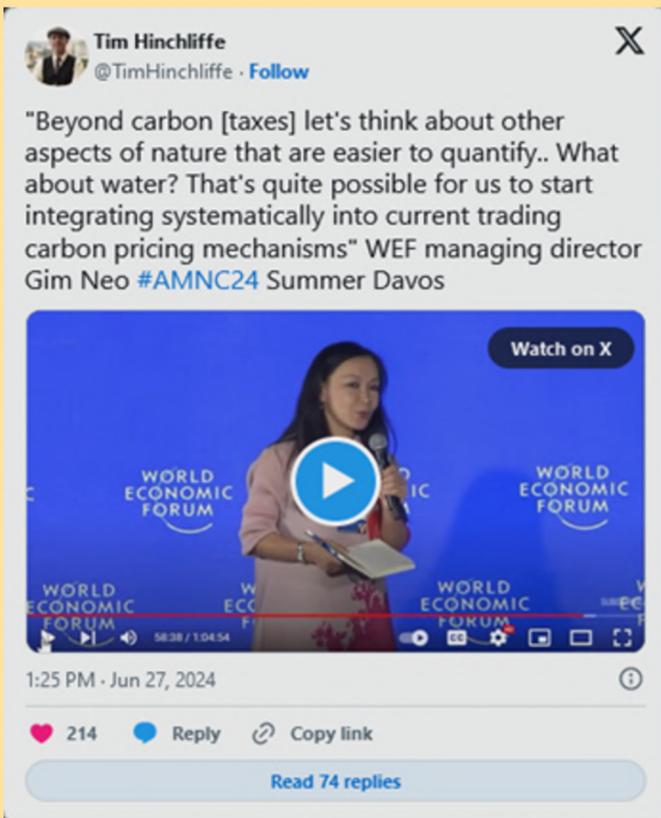
Thus, credits will realistically end up being used as offsets and it is wrong to claim, through linguistic trickery, that “Biodiversity credits are not offsets”.

It is important to note that carbon offsets have already been proven to have failed and not worked[liv]. Given that credits will end up being used as offsets, the argument for credits falls apart because offsets have already been proven to be flawed and broken and do not contribute to any significant climate action.

As noted by Macintosh et al. (2024)[lv] carbon offsets have ended being used “to offset heavy emitters under the safeguard mechanism, so we’re not actually reducing carbon emissions at all. The overall outcome is we’re increasing the amount of carbon pollution.... We’re ultimately getting worse outcomes for the climate than if we didn’t have these [forest regeneration] projects.”

Green Finance Observatory states: “when nature has been destroyed, a company can, after having first tried to minimise destruction, buy biodiversity credits to offset the remaining destruction and possibly a bit more, in order to claim a net gain” and that “there is no credible use for biodiversity credits outside of offsetting.”

According to an investigation by The Guardian, Die Zeit, and SourceMaterial[liv], more than 90% of rainforest carbon offsets certified by Verra—the world’s leading carbon standard—are likely to be “phantom credits.” These offsets, commonly used by companies like Disney, Shell, and Gucci, do not genuinely represent carbon reductions. The analysis revealed that approximately 94% of the credits generated by the projects should not have received approval.



Source: <https://x.com/TimHinchliffe/status/1806378331094315215/>

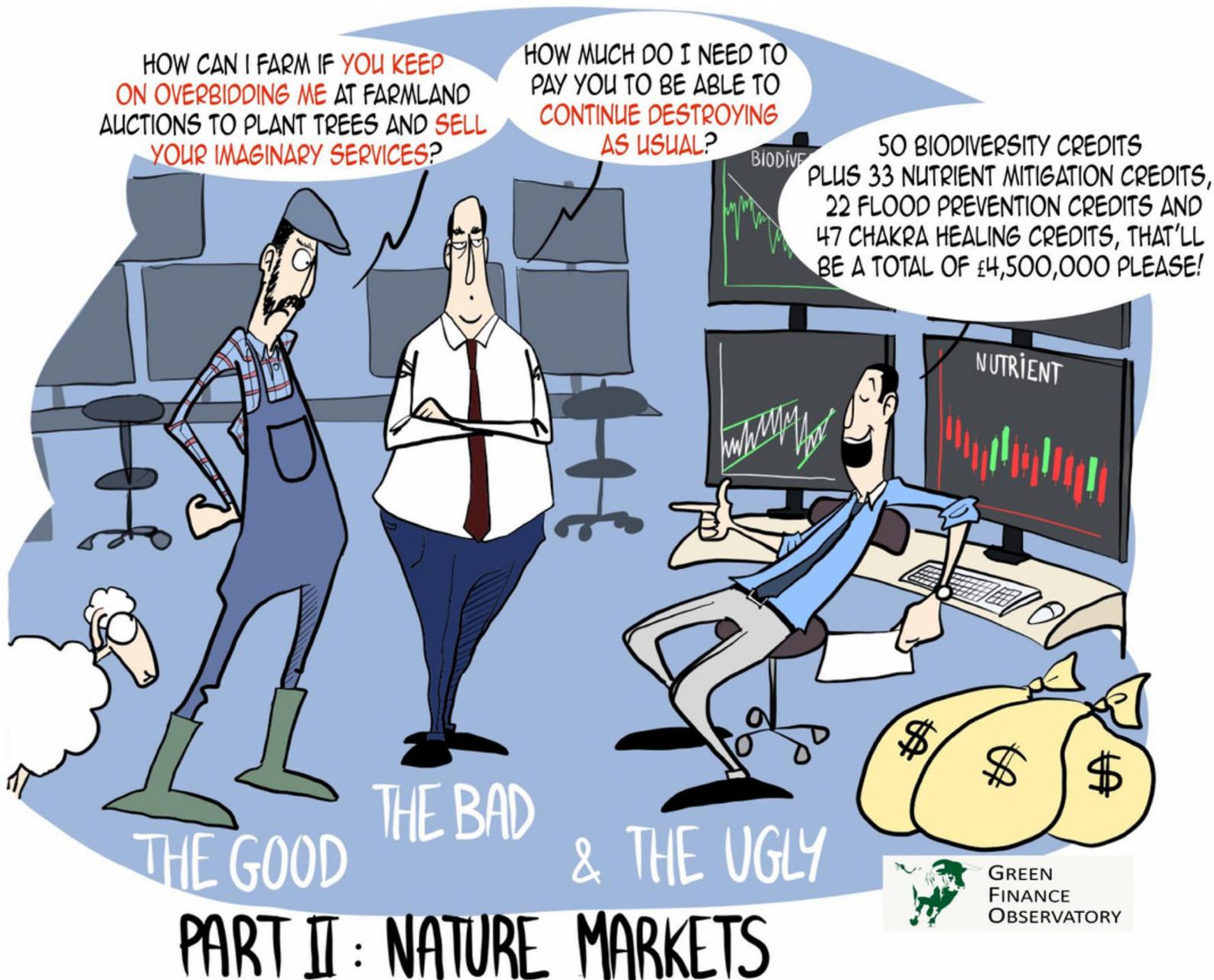


Source: <https://twitter.com/TimHinchliffe/status/1590387607900676097/>

Yadvinder Singh Malhi, a professor of ecosystem science at the University of Oxford and a Jackson senior research fellow at Oriel College, Oxford, commenting on the Guardian study[1vi] added that “this work highlights the main challenge with realising climate change mitigation benefits from Redd+. The challenge isn’t around measuring carbon stocks; it’s about reliably forecasting the future, what would have happened in the absence of the Redd+ activity. And peering into the future is a dark and messy art in a world of complex societies, politics and economics. The report shows that these future forecasts have been overly pessimistic in terms of baseline deforestation rates, and hence have vastly overstated their Redd+ climate benefits.”

Given that offsetting only displaces destruction, doesn’t reduce it, it is evident that credits will not protect biodiversity but only fragment and delay real action from the Global North.

Furthermore, Hache, the founder of Green Finance Observatory (GFO) says that “Basically, what’s happening now with biodiversity is what happened with carbon 15 years ago, only much bigger.”[lvii] He adds that “We’re about to see the launch of a biodiversity offset market comparable to the carbon offset market with the same flaws but only worse, because the environment integrity issues are magnified by the fact that instead of having six greenhouse gases, you have millions of species that you are trying to standardise and oversimplify into a liquid asset.”



The third false narrative at the foundation of financialisation of nature is that “Market mechanisms have superior outcomes over traditional regulation”.

Biodiversity credits are founded on the false assumption that market mechanisms will deliver superior outcomes compared to traditional environmental regulation. However, regulation and not market mechanisms, is the most effective way to protect biodiversity.

As highlighted by Vandana Shiva in Atmos[lvii], “markets have not protected biodiversity. Today, 80% of the world’s biodiversity resides in the 22% of land[lviii] that is stewarded by Indigenous people. Their economies of care have outperformed economies of greed and markets, which have promoted deforestation, monocultures, and biodiversity loss. Applying the concepts, tools, measurements, and language of finance to the living world of biodiversity continues the colonial ideas displacing the very people who have conserved biodiversity, replacing their communities of care with new “green economies” and “blue economies” that retain the mechanistic reductionism and industrial technologies of the economies of greed.”

Markets have failed to safeguard biodiversity. Applying financial concepts, tools, measurements, and language to biodiversity perpetuates the neglect of Earth as a living system. It jeopardises the displacement of those who have traditionally conserved biodiversity, potentially replacing their community-centered stewardship with new 'green economies' and 'blue economies' that uphold the mechanistic reductionism and industrial technologies of profit-driven systems.

Furthermore, as history has shown us, corporate appropriation of the commons and of nature has never resulted in the greater protection of nature. The reason for today’s crisis is due to the extractivist, profit-driven, and mechanistic mentality of the corporate sector.

There is zero evidence to suggest that all of a sudden, the likes of the Rockefeller Foundation[lix], Blackrock[lx], the World Economic Forum[lxi], and other corporate interests will ever have the public, the planets or nature's best interest in mind. A sector that has been destroying biodiversity and nature will not all of a sudden come in and save it.

Biodiversity credits are the dilution of the CBD's (Convention on Biological Diversity) role in biodiversity conservation. As noted by Vandana Shiva, "The CBD was a commitment to conserve biodiversity everywhere" but the "Kunming-Montreal Global Biodiversity Framework"[lxii] whose Targets 19(c) and (d) advocate for private sector engagement in biodiversity investment, including the use of biodiversity credits, "fall into the corporate trap of 30×30" which is essentially Targets 1, 2 and 3 of conserving only 30% of the earth's land and sea[lxiii] through protected areas (PAs) and other area-based conservation measures (OECMs). The goal of thirty percent is simply not enough in the face of mass biodiversity decline.

Furthermore, studies[lxiv] show us that Indigenous-managed lands have higher biodiversity than protected areas. Also, as noted by Human Rights Watch[lxv], "protected areas that are not community-led fail to benefit either people or nature".

That is why market mechanisms are not as effective as traditional regulation like CBD and the Nagoya protocol which honour indigenous people's autonomy over their land.

As noted by Frederic Hache in Navdanya International's webinar on biodiversity[lxvi], "The credits are ways of transferring power and sovereignty from governments to private financial actors who have no accountability and whose priorities are very different from ecological priorities." Thus, instead of more corporate accountability, biodiversity credits open the doors to more corporate greenwashed solutions with incentives of profit at the cost of the planet.

WE NEED TO CURB BIODIVERSITY DESTRUCTION, BUT IT WOULDN'T BE CONVENIENT TO DO IT AT HOME, AS WE HAVE MORE SUPERMARKETS, PARKING AND AIRPORTS TO BUILD, SO WE DECIDED TO DO IT ON YOUR LAND.

SO YOU MUST LEAVE NOW, BUT YOU MIGHT BE ABLE TO COME BACK AS A PAYING ECO-TOURIST, WE ARE NOT HEARTLESS.



The fourth false narrative is that “Biodiversity credits will generate additional incomes for local populations”.

Carbon offsets show us that biodiversity credits (which will essentially end up as biodiversity offsets) instead of generating more livelihood will actually lead to more land grabbing[[lxvii](#)], more human rights violations and increasingly volatile farmer incomes. The land on which the proposed biodiversity or carbon projects are meant to function are not “idle” or “empty”, they are lands either already occupied by Indigenous People or local population[[lxviii](#)] or lands that are primary source of food security and livelihood.

These schemes will directly lead to land grabbing, as has already occurred through carbon credit systems, as 80 percent of the world’s biodiversity is in indigenous territories. These violations of indigenous peoples’ rights[[lxix](#)] are already well documented[[lxx](#)]. Another significant report by Survival International called Blood Carbon: How a Carbon Offset Scheme Makes Millions from Indigenous Land in Northern Kenya[[lxxi](#)] documents how the carbon offset schemes directly harms and displaces the pastoralist communities there.

These carbon offset schemes have been shown to be a form of “carbon colonialism”[[lxxii](#)].

The Biodiversity credits market doesn’t offer radically different realities and continues the same colonialist paradigm of companies in the Global North land grabbing in the Global South . As noted by Frederic Hache in Navdanya International’s webinar on biodiversity[[lxxiii](#)], “There is a clear intent behind Biodiversity credits to go after indigenous land”. GFO notes that[[lxxiv](#)] biodiversity credits incentivise land speculation, due to the enormous quantities of land required to offset the destruction of rich industrialised countries, and the fact that they have every intention to offset as much as possible abroad where land is cheaper rather than at home.”

The fifth and the most significant false narrative perpetrated by the private sector/financial markets is that “only financialisation will save biodiversity”.

This is a colonial sleight of hand which erases the far more superior and effective realities, legacies and lineages of small farmers, women, indigenous peoples and multiple cultures protecting and stewarding biodiversity and the complex web of life encompassed in their local ecosystems. It is crucial to dismantle the assumption that the only way forward is through the very mechanisms that have historically plundered and commodified nature.

One system cannot be the only system. As Dr. Shiva has said - monocultures of the mind are at the root of the extinction crisis. So far, as has been shown the finance companies follow the same reductionist and commodifying logic of colonialism, imperialism, industrial agriculture and natural resource extraction which sees nature as having to fit into extraction models for profit. So far these methods have only reduced diversity in all its forms, and contributed to ecocide, climate crisis and mass cultural, biological and linguistic extinction. Conservation and protection of biodiversity comes from intimacy and knowledge of the relationships woven by nature, and humans being a part of this web of life, not the extraction of it.

Thus, to protect biodiversity, we don't need the false solutions of financialisation of nature. We don't need unchecked private sector companies with no knowledge of the interconnections within a biodiverse ecosystem. We don't need the financial manipulation of biodiversity as a commodity. **What we need is more land being stewarded by the very local communities and actors who are in intimate relationship with their local biodiversity. This means stepping back onto the path of life which has sustained humanity over millennia where communities and cultures have co-evolved in their ways according to their climates, soils, and biodiversity, contributing to the diversity of food and farming systems, weaving biodiversity and cultural diversity symbiotically.**

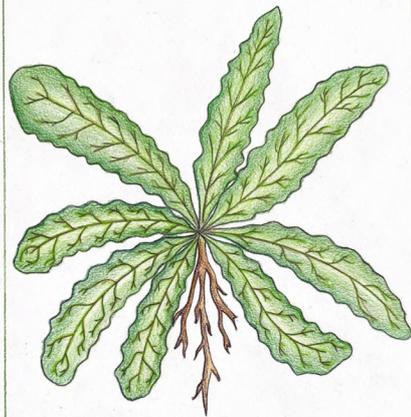


Tarassaco

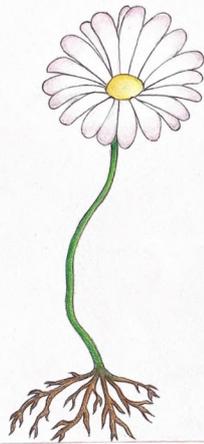
Lingua D'asino
Hypochaeris Radicata



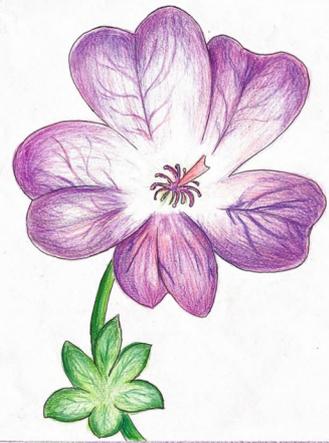
Calendula



Lingua D'asino
Hypochaeris radicata



Margherita
Bellis Perennis



Pectenio selvatico
Ceranium sylvaticum



Borsa di pastore
Capsella bursa-pastoris



Silene Rigensia
Silene vulgaris



Cicoria

IV. Biodiversity is Life: Bio-democracy and making peace with the Earth

Diversity of interconnections, ecosystems and relationships

Biodiversity is a commons, and as long as it is viewed as a financial asset for the benefit of a wealthy elite, it is effectively stripped from the web of life and local communities. Regenerating biodiversity is, therefore, an act of both conservation, regeneration and bio-democracy—a form of creative resistance against the financialisation of life.

To genuinely address the biodiversity crisis, we must fundamentally transform our relationship with the Earth and its diverse life forms. Regenerating biodiversity is not merely a matter of conservation or financialisation; it's about rekindling our intrinsic connection with the Earth, producing food in harmony with nature, and nurturing the ecosystems that sustain life.

Biodiversity, when left to flourish, naturally begets more biodiversity. It thrives in the hands of small farmers, indigenous peoples, women, and local communities—those who live in deep harmony with nature. Recognising biodiversity as the very essence of life means understanding that every species is a self-sustaining system. Working with this diversity, rather than against it, is the key to fostering ecological resilience.

The fundamental flaw with the financialisation schemes, as described above, is the erasure of the very diversity of interconnections, ecosystems, and relationships that constitute the very essence of biodiversity, and must be understood in order to protect species and ecosystems.



We are all connected through biodiversity, from the soil microorganisms, to plants, animals, our food and our microbiome. We need diversity in food systems, diversity in seed, diversity in food, diversity in cultures and in economies in order to preserve the world's ecological heritage. We are all made and interconnected through these living webs of diversity. Just as the biodiversity of life connects us all, so does our cultural diversity, our language diversity, and the diversity of our struggles. Diversity is the thread that connects life.

Biodiversity conservation then comes from beginning to re-cultivate 'right relationship' with the Earth and our local ecosystem. These right relations are already in place where communities are living according to Nature's Laws. Accelerating the worldview of "man's empire over lesser creatures" is a guarantee to further destroy the communities that have protected their biodiversity and gifted the world our biodiverse inheritance. We must begin to cultivate these deep relationships again and learn to live in relation and harmony with the life that surrounds us.

Bio-cultural Stewards and Cultures of Diversity

To stop biodiversity loss and regenerate biodiversity we need to regenerate cultures of biodiversity, where communities see themselves as part of the Earth Family, with other species as their relatives. The places where biodiversity is conserved, is where humans do not see themselves as superior to other species, or see biodiversity as “objects” to be owned and manipulated as financial assets. The worldviews and values of the people and cultures that have regenerated and are currently regenerating biodiversity must be a guide to humanity on how to stop biodiversity erosion and loss. Especially since, economies based on stewardship and active co-creation with nature and biodiversity have proven more effective than profit-driven markets.

For milenia cultures that have lived close to the Earth have learned the complex and vast interconnections, and have worked to promote greater diversification and protection of ecosystems through specific cultural stewarding practices. Just as there is diversity in the world’s ecosystems, landscapes, regions, animals, plants, bacteria and so on, there are cultures who have evolved alongside that have lived in harmony and helped steward this diversity. This has created the world’s diversity of cultures, languages and knowledges, and peoples. The deep interconnection of these cultures with their landscapes has created specialised knowledge and relationships that allows for the proper care and tending of their particular ecologies. **Just as we need biodiversity to sustain healthy ecosystem functions, and just as there is a vast amount of different landscapes, ecologies, species and species arrangements we need a diversity of ways to tend to them.**

In this sense, culture and biodiversity are linked. Cultural landscape and environmental landscape are interconnected, as wisdom passed down through generations forms deep interconnections to land.



For example, as Jessica Hutching explained in Navdanya International's webinar *Biodiversity is Life: Rights of Nature vs Financialisation of Nature*[lxxv], "Language is the container for intergenerational wisdom on right relationships. Our customs, traditions, and languages are deeply interwoven with the environment. For the Maori, loss of biodiversity impacts loss of languages and vice versa - we lose ability to talk about nature in all its complexity." The linguistic diversity of cultures is important to articulate these vast interconnections of biodiversity. The loss of linguistic diversity also means a loss of worldview that describes the diversity of ways of relating to nature.

The wellbeing of human cultural worlds then also depends on biodiversity, which means food security, cultural and linguistic continuity, and interrelationships with ancestral knowledge and practice. To achieve this vision, we must support and empower communities to reclaim their commons and steward their biodiversity. In doing so, we not only protect the planet's biodiversity but also promote just and sustainable livelihoods. Regenerating biodiversity is an act of reclaiming our ecological heritage, securing our future, and fostering a world where humans live in harmony with nature, creating a more just and sustainable world for all.

Indigenous knowledge systems arise out of a deep and long understanding of the ecological principles of Nature's Law and ecological sustainability. They have preserved and ensured healthy living systems and their peoples' survival down through the ages.

It is necessary to preserve the communities that allow biodiversity to flourish by recognising and supporting these stewards and cultures that have long existed on this Earth in peace.



We insist that those who would wish to address the crisis listen to and take leadership from women, indigenous peoples, small farmers, protecting their plants, seeds and cooperating with Mother Nature to live in harmony with the Earth. We call on them to heed those whose wisdom, stewardship, knowledge and commitment has already been demonstrated by the preservation of the diversity we celebrate today.

Storytelling, Festivals and Celebrations of Biodiversity

To address the urgent biodiversity extinction crisis, it is essential to acknowledge that the planet's biodiversity is deeply connected to the traditional knowledge and regional practices that constitute our biocultural heritage. Recognizing biodiversity as part of the biocultural heritage of indigenous peoples, women, and small farmers reveals that preserving their cultures, languages, knowledge, wisdom, and practices is crucial to preventing further biodiversity degradation.

Storytelling and celebrations are valuable means of re-embedding ourselves in Mother Earth and her biodiversity. In India, many traditions or festivals occur at a seasonal turning-point, which allows us to locate our daily work, in a sacred and cosmic context.

For example, in India, many plants, flowers, seeds, and foods are considered sacred or are given religious and cultural significance. Plants such as paddy, coconut, millets, ginger, gooseberry, cardamom, and chickpea hold religious significance in many parts of India, either as components of religious festivals or as auspicious offerings. Indian seed festivals reinforce a sense of gratitude and a sense of intimacy with the Earth as mother, who feeds the millions of life forms of the world.

This intimacy leads to the conservation and stewardship of local ecosystems, as farmers and communities become engaged in direct relationship with it. Allowing for a way of life that leads humans to co-create and co-produce with nature, acknowledging and working with natural cycles and the sanctity of all beings to maintain the web of life.





Regenerating Biodiversity and Cultures of Regeneration

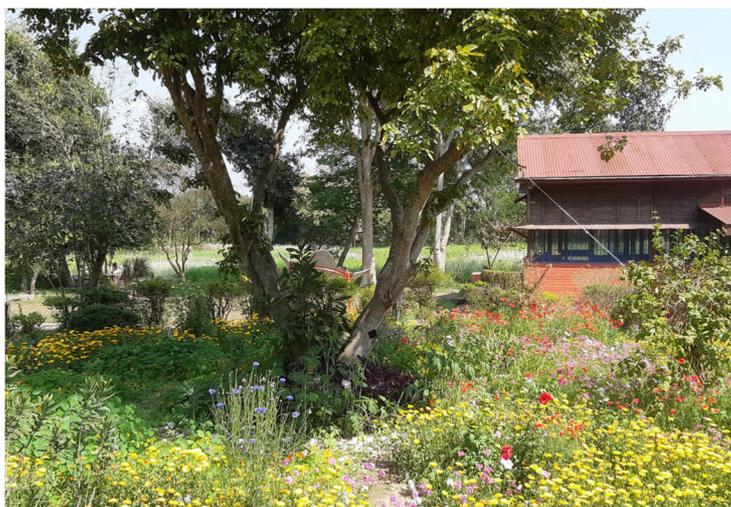
The true path to addressing the biodiversity crisis lies in regenerating biodiversity as a commons, managed and cherished by local communities, rooted in community stewardship, where biodiversity is valued not as a commodity but as a fundamental component of life that sustains us all. There are many examples of ways biodiversity can be conserved in situ, by local communities, without the need for external corporate finance, all the while also enhancing human and environmental health, conserving water, producing healthy, poison-free food, and creating robust local economies.



How we farm, eat, and consume must be in alignment with Mother Nature. Regenerative agriculture (including but not limited to traditional organic, permaculture, biodynamic, and natural farming) is the beginning of a return to a balanced ecosystem. **These farmers who produce wholesome food while protecting the environment, are the guardians of local biodiversity.** By avoiding the use of synthetic, chemical fertilisers and pesticides, choosing to use organic seeds, integrating different crops, practicing rotation and restoring fertility to the soil.

When we co-create with living seeds, we increase biodiversity and reverse climate change and ecosystem erosion. Uniformity in the field supports uniformity on the plate and ultimately uniformity of people. Diversity and creativity do the opposite. By protecting, regenerating, and caring for our biodiversity, the pillars of a thriving planet, we can end our global dependence on industrial agriculture and exploitative systems. Agroecological practices, that enhance biodiversity—such as fostering pollinator habitats and integrating biodiversity-rich farming methods—are, thus, essential.

In the last 30 years, Navdanya's research on biodiversity-based agroecological farming has shown how agroecology can rejuvenate soil, water and biodiversity and enhance climate resilience while increasing nutrition and health, and farmers' incomes. The Navdanya Biodiversity Conservation Farm[lxxvi], which began as a barren eucalyptus plantation, is today home to more than 2500 varieties of local and multispecies crops. For example, forgotten foods such as millets, pseudo-cereals and pulses, which were pushed out by the green revolution expanding monocultures, have been conserved and spread through Navdanya's seed networks.



With biodiversity based, regenerative agriculture practices at the farm, the soil's organic matter has increased by 100% which is 2.2 tons of organic matter per hectare. Over and above that zinc has increased by 14.3%, and magnesium increased 14.5% without adding external inputs and the fungi and bacteria population also increased [lxxvii].

Navdanya has also been key in conserving biodiversity through networks of seed keepers and organic producers [lxxviii] spread across 22 states in India and Bhutan. It has helped set up more than 150 community-centred, decentralised seed banks [lxxix] across the country. Through the work with local communities, more than 4000 rice varieties have been collected, saved and conserved by Navdanya. This includes climate resilient varieties of paddy conserved in the Bay of Bengal that are salt tolerant and drought tolerant.

The Next Generation of Biodiversity Guardians

Youth are valuable contributors to diversity. Our mission to self-organize to protect biodiversity requires that we are able to communicate our values not just within an echochamber, but to a new generation of women, farmers, climate activists, and citizens of the world. An important way to facilitate the intergenerational sharing of food wisdom is by developing institutions of ecological teaching and learning. From creating a food garden of hope, to cooking a meal, to cultivating a diversity of seeds across and within species alongside young people, **it is important to get young students of all ages involved in learning about food and agroecosystems from seed-to-table.**

In this light, Navdanya International's Biodiversity is Life Project [xxxx] in the Bracciano and Martignano Lake area [xxxxi], in the Province of Rome, Italy, has served as a project to initiate young students as protectors of local biodiversity. The project involves young people between the ages of 13 and 18 in an experiential education and awareness-raising programme on the protection of biodiversity, through active participation in organic farm activities (such as preserving and planting seeds). The project has served to bring the younger generations closer to good agricultural practices for the protection of biodiversity and their local ecological area.



Economy of Care

In order to truly preserve and regenerate biodiversity, we must see the recentering of economies to be local, circular, and regenerative, in line with ecological rhythms and boundaries that support these symbiotic relationships. Not the destruction of them for the sake of corporate profit and reductionist ideals.

Economies of care are circular economies, based on principles of giving, reciprocity, sharing and mutuality and the Law of Return[i]. They are based on reclaiming and sharing the Earth's common resources and public goods – the commons of seed and biodiversity, of water and land, of food and nourishment. And the public goods and services that societies have evolved through common responsibilities and common rights, such as knowledge, democracy, health, education, energy, transport, and shelter.

Local living economies of care protect the Earth and her biodiversity, create meaningful work and provide for our needs and wellbeing. Care of the Earth regenerates nature's resources, biodiversity and economy that provide us with life and sustenance, in return.



As we have described, privatisation, patents and enclosures of the commons are a failed system of a colonial process based on extraction and greed and have no place in economies of care. Local living economies of care focus on reclaiming, recovering, and rejuvenating through localisation and decentralization to reduce ecological footprints, increase economic opportunities and wellbeing of people and communities, and enhance community cohesion.

In this sense, liberation from the grasp of global capital markets is also a crucial step towards authentic biodiversity conservation. In Italy, the biodistrict model [lxxxiv] has emerged as a territorial pact formed between producers, citizens and local governments to protect their local environmental heritage and biodiversity through organic farming practices and the promotion of local products for a better local economy.



Biodistricts thus stand as a major intervention [lxxxv] to address the crises caused by industrial agriculture such as building resilience in the face of climate change, protecting local ecology, biodiversity and water landscapes. The example of the Biodistrict [lxxxvi] shows us the importance of the local community and the active participation of citizens in the care and protection of the local commons, such as water, biodiversity and food. The more we reclaim our commons and create poison-free, GMO-free communities [lxxxvii] and “biodistricts”, the less we depend on the exploitative practices of global trade.

There is also the example of Sardinia, Italy [lxxxviii], where small-scale animal and traditional agriculture are intricately intertwined with local culture, traditional food and the islands' identity, as many shepherds see themselves as custodians of the agro-pastoral history and tradition of their regions. Through their work and practices they maintain their language and typical food systems alive and pass their knowledge to the next generations. Pastoral systems also maintain a high-degree of multi-functionality in agricultural practice and biodiversity cultivation, through integrating several agricultural activities in their work. These traditional systems require the local wild biodiversity to thrive and co-exist with the animals and farming activity, and represent complex expressions of culture, territory, and identity all entwined with co-beneficial relationships between agricultural cultivation, animals, wild biodiversity, landscapes and human communities. With their work so dependent on natural cycles and wild ecosystems, shepherds have acquired a profound and ancient knowledge of their territory.



The defence of biodiversity is now more important than ever, as it also represents the defence of the small farmer, and the defence of our relationship to life itself. This means stepping back onto the path of life which has sustained humanity over millennia where communities and cultures have co-evolved in their ways according to their climates, soils, and biodiversity, contributing to the diversity of food and farming systems, weaving biodiversity and cultural diversity symbiotically. We must see the recentering of economies to be local, circular, and regenerative, in line with ecological rhythms and boundaries that support these symbiotic relationships. Not the destruction of them for the sake of corporate profit and reductionist ideals.



ENDNOTES:

[i] World Wildlife Fund. “A Warning Sign: Where Biodiversity Loss Is Happening around the World.” World Wildlife, no. Summer 2021, <https://www.worldwildlife.org/magazine/issues/summer-2021/articles/a-warning-sign-where-biodiversity-loss-is-happening-around-the-world>

[ii] Greenfield, Patrick. “World Fails to Meet a Single Target to Stop Destruction of Nature – UN Report.” The Guardian, 15 Sept. 2020, <https://www.theguardian.com/environment/2020/sep/15/every-global-target-to-stem-destruction-of-nature-by-2020-missed-un-report-aoe>

[iii] Sreevatsan, Ajai. “British Raj Siphoned out \$45 Trillion from India: Utsa Patnaik.” Mint, 19 Nov. 2018, <https://www.livemint.com/Companies/HNZA71LNVNNVXQ1eaIKu6M/British-Raj-siphoned-out-45-trillion-from-India-Utsa-Patna.html>

[iv] Ainsworth, David. “Global South Now Repays More in Debt than It Gets in Grants and Loans.” Devex, 18 Apr. 2024, <https://www.devex.com/news/sponsored/global-south-now-repays-more-in-debt-than-it-gets-in-grants-and-loans-107490>

[v] Dasgupta, P. (2021), The Economics of Biodiversity: The Dasgupta Review. (London: HM Treasury), https://assets.publishing.service.gov.uk/media/602e92b2e90e07660f807b47/The_Economics_of_Biodiversity_The_Dasgupta_Review_Full_Report.pdf

[vi] Shiva, Vandana. “Vandana Shiva on the Wisdom of Biodiversity.” Atmos, 22 Mar. 2010, <https://atmos.earth/vandana-shiva-wisdom-of-biodiversity/>

[vii] Ibid.

[viii] Ibid

[ix] Spash, Clive L., and Frédéric Hache. “The Dasgupta Review Deconstructed: An Exposé of Biodiversity Economics.” Globalizations, vol. 19, no. 5, July 2022, pp. 653–76. DOI.org (Crossref),

[x] Benedito, Francisco, and Mariana Sarmiento. “Biodiversity Credit Market Must Learn from Carbon Offset Mistakes (Commentary).” Mongabay Environmental News, 30 Nov. 2022, <https://news.mongabay.com/2022/11/biodiversity-credit-market-must-learn-from-carbon-offset-mistakes-commentary/>

[xi] “Biodiversity Credits.” World Economic Forum, <https://initiatives.weforum.org/financing-for-nature/home> Accessed 8 July 2024.

[xii] See, Gabrielle. ““There Shouldn’t Be an International Tradeable Unit of Biodiversity’: The Nature Conservancy CEO.” Eco-Business, 17 Apr. 2024, <https://www.eco-business.com/news/there-shouldnt-be-an-international-tradeable-unit-of-biodiversity-the-nature-conservancy-ceo/>

[xiii] Rao, Radhika, et al. Can “Biodiversity Credits” Boost Conservation? 12 Mar. 2024, <https://www.wri.org/insights/biodiversity-credits-explained>

[xiv] Ibid

[xv] Buton Island | Reforestation | Operation Wallacea. <https://www.opwall.com/the-wallacea-trust/> Accessed 8 July 2024.

[xvi] “Savimbo — Fair-Trade Climate Credits.” Savimbo, <https://www.savimbo.com> Accessed 8 July 2024.

[xvii] Area | INTEROPERABLE BIODIVERSITY UNIT. 12 Apr. 2024, <https://unit.savimbo.com/area>

[xviii] Time | INTEROPERABLE BIODIVERSITY UNIT. 15 Apr. 2024, <https://unit.savimbo.com/time>

ENDNOTES:

[xiv] Integrity | INTEROPERABLE BIODIVERSITY UNIT. 7 May 2024, <https://unit.savimbo.com/integrity>

[xx] "Our Biodiversity Credit." Savimbo, <https://www.savimbo.com/biodiversity> Accessed 8 July 2024.

[xxi] Reklef, Stian . "INTERVIEW: Corporate Alliance Forms to Explore Potential of Biodiversity Credit Market «Carbon Pulse." Carbon Pulse, 1 May 2024, <https://carbon-pulse.com/282426/>

[xxii] "Frontrunners Coalition - Biodiversity Credits." World Economic Forum, <https://initiatives.weforum.org/financing-for-nature/communities> Accessed 8 July 2024.

[xxiii] "Overview." Verra, <https://verra.org/about/overview/> Accessed 8 July 2024.

[xxiv] "Verra Signs MOU to Create Nature Crediting Framework." Verra, 21 Dec. 2022, <https://verra.org/verra-signs-mou-to-create-nature-crediting-framework/>

[xxv] New York Stock Exchange. Episode 261: Unlocking the Value of Nature with Intrinsic Exchange Group CEO Douglas Eger. 2021. YouTube, <https://www.youtube.com/watch?v=pNBu1-ePzPc>

[xxvi] "IEG." IEG, <https://www.intrinsicexchange.com> Accessed 8 July 2024.

[xxvii] Harty, Declan. "NYSE Is Pushing into the Market of Natural Assets." Fortune, September 2021, <https://fortune.com/2021/09/14/nyse-natural-asset-company-ieg-esg-investment-vehicle/>
[xxviii] Ibid

[xxix] "Plan Vivo Launch Pioneering Biodiversity Standard." Plan Vivo Foundation, 6 Dec. 2023, <https://www.planvivo.org/news/plan-vivo-launch-biodiversity-standard>
[xxx] Ibid

[xxxi] Biodiversity Strategy for 2030 - European Commission. 19 June 2024, https://environment.ec.europa.eu/strategy/biodiversity-strategy-2030_en

[xxxiii] Daly , Samantha, et al. "Federal Government Introduces New Biodiversity Credit Market Legislation." JWS, Apr. 2023, <https://jws.com.au/insights/articles/2023-articles/federal-government-introduces-new-biodiversity>

[xxxiii] MacAdam , Leila. Investing in Tomorrow: Exploring the Nature Repair Market | Anthesis Australia. 20 Dec. 2023, <https://www.anthesisgroup.com/au/insights/exploring-the-nature-repair-market/>

[xxxiv] "Webinar for International Day for Biodiversity – Biodiversity Is Life: Rights of Nature vs Financialisation of Nature." Navdanya International, 13 May 2024, <https://navdanyainternational.org/webinar-for-international-day-for-biodiversity/>
[xxxv] Ibid

[xxxvi] Chausson, Alexandre, et al. "Going beyond Market-Based Mechanisms to Finance Nature-Based Solutions and Foster Sustainable Futures." PLOS Climate, vol. 2, no. 4, Apr. 2023, p. e0000169. PLoS Journals, <https://doi.org/10.1371/journal.pclm.0000169>

ENDNOTES:

[xxxvii] Webb, Whitney. "Wall Street's Takeover of Nature Advances with Launch of New Asset Class." Unlimited Hangout, 13 Oct. 2021, <https://unlimitedhangout.com/2021/10/investigative-reports/wall-streets-takeover-of-nature-advances-with-launch-of-new-asset-class/>

[xxxviii] NATURE MUST BE PROTECTED FROM THE "NATURE POSITIVE ECONOMY" – OPEN LETTER TO THE WWF, WORLD ECONOMIC FORUM, CONVENTION ON BIOLOGICAL DIVERSITY & EUROPEAN COMMISSION. Green Financa Observatory, Nov. 2022, <https://greenfinanceobservatory.org/wp-content/uploads/2022/11/openletternaturepositive-final-3.pdf>

[xl] Into The Wild: Why Nature May Be the next Frontier for Capital Markets | AFME. AFME Finance for Europe, Nov. 2022, <https://www.afme.eu/publications/reports/details/into-the-wild-why-nature-may-be-the-next-frontier-for-capital-markets>

[xli] Ibid

[xlii] "An Agribusiness Greenwashing Glossary ." GRAIN, September 2022, <https://grain.org/en/article/6877-an-agribusiness-greenwashing-glossary>

[xlili] GFO'S RECOMMENDATIONS ON BIODIVERSITY CREDITS OF THE COMMUNITY ADVISORY PANEL (CAP) OF THE BIODIVERSITY CREDIT ALLIANCE (BCA). Green Finance Observatory, Apr. 2024, <https://greenfinanceobservatory.org/wp-content/uploads/2024/04/BCA-consultation-v3.pdf>

[xliv] A Dangerous Distraction – the Offsetting Con | Policy and Insight. Friends Of The Earth - England, Wales and Northern Ireland, Oct. 2021, <https://policy.friendsoftheearth.uk/download/dangerous-distraction-offsetting-con>

[xlv] Biodiversity Credit Alliance. <https://www.biodiversitycreditalliance.org/> Accessed 9 July 2024.

[xlvi] Ibid

[xlvii] Ibid

[xlviii] Porras, I and Steele, P (2020) Making the market work for nature: how biocredits can protect biodiversity and reduce poverty. IIED Issue Paper. IIED, London. <http://pubs.iied.org/16664IIED> ISBN 978-1-78431-782-9

[xlix] International Institute for Environment and Development IIED. <https://www.iied.org/> Accessed 9 July 2024.

[l] Ibid.

[li] Ibid.

[lii] Morton, Adam, et al. "Australia's Carbon Credits System a Failure on Global Scale, Study Finds." The Guardian, 26 Mar. 2024. The Guardian, <https://www.theguardian.com/environment/2024/mar/27/australias-carbon-credits-system-a-failure-on-global-scale-study-find>

[liii] Macintosh, A., Butler, D., Larraondo, P. et al. Australian human-induced native forest regeneration carbon offset projects have limited impact on changes in woody vegetation cover and carbon removals. *Commun Earth Environ* 5, 149 (2024). <https://doi.org/10.1038/s43247-024-01313-x>

[liv] Greenfield, Patrick. "Revealed: More than 90% of Rainforest Carbon Offsets by Biggest Certifier Are Worthless, Analysis Shows." The Guardian, 18 Jan. 2023. The Guardian, <https://www.theguardian.com/environment/2023/jan/18/revealed-forest-carbon-offsets-biggest-provider-worthless-verra-aoe>

[lv] Ibid.

[lvi] Ibid.

ENDNOTES:

[lvii] “Indigenous Peoples: The Unsung Heroes of Conservation.” UNEP, 9 Jan. 2017 <http://www.unep.org/news-and-stories/story/indigenous-peoples-unsung-heroes-conservation>

[lviii] “IEG.” IEG, <https://www.intrinsicexchange.com> Accessed 8 July 2024.

[lvix] Webb, Whitney. “Wall Street’s Takeover of Nature Advances with Launch of New Asset Class.” Unlimited Hangout, 13 Oct. 2021, <https://unlimitedhangout.com/2021/10/investigative-reports/wall-streets-takeover-of-nature-advances-with-launch-of-new-asset-clss>

[lx] “Our Partners.” Business For Nature, <https://www.businessfornature.org/our-partners> Accessed 9 July 2024.

[lxii] CBD/COP/15/L.25. Kunming-Montreal Global Biodiversity Framework Draft Decision Submitted by the President | CONFERENCE OF THE PARTIES TO THE CONVENTION ON BIOLOGICAL DIVERSITY Fifteenth Meeting – Part II. 18 Dec. 2022, <https://www.cbd.int/doc/c/e6d3/cd1d/daf663719a03902a9b116c34/cop-15-l-25-en.pdf>

[lxii] Lo, Veronica, and Nicole Jang. “The Global Biodiversity Framework’s ‘30x30’ Target: Catchy Slogan or Effective Conservation Goal?” International Institute for Sustainable Development, 6 Dec. 2022, <https://www.iisd.org/articles/insight/global-biodiversity-framework-30x30-target>

[lxii] Schuster, Richard, et al. “Vertebrate Biodiversity on Indigenous-Managed Lands in Australia, Brazil, and Canada Equals That in Protected Areas.” Environmental Science & Policy, vol. 101, Nov. 2019, pp. 1–6. ScienceDirect, <https://doi.org/10.1016/j.envsci.2019.07.002>

[lxiv] Chávez, Luciana Téllez. “Carbon Offsetting’s Casualties.” Human Rights Watch, Feb. 2024. Human Rights Watch, <https://www.hrw.org/report/2024/02/28/carbon-offsettings-casualties/violations-chong-indigenous-peoples-rights>

[lxv] “Webinar for International Day for Biodiversity – Biodiversity Is Life: Rights of Nature vs Financialisation of Nature.” Navdanya International, 13 May 2024, <https://navdanyainternational.org/webinar-for-international-day-for-biodiversity/>

[lxvi] Ibid.

[lxvii] McConnell, Claire, et al. “Carbon Offset Deals and the Risks of ‘Green Grabbing.’” International Institute for Sustainable Development, 15 May 2024, <https://www.iisd.org/articles/insight/carbon-offset-deals-risks-green-grabbing>

[lxviii] Dell’Amico, Anna. “Human Rights Abuses from Carbon Credits – A Critique of ‘Greenwashing’ Lawsuits and Additional Litigation Techniques.” Environmental Law Journal, 15 Jan. 2024, <https://www.nyuelj.org/2024/01/human-rights-abuses-from-carbon-credits-a-critique-of-greenwashing-lawsuits-and-additional-litigation-techniques/>

[lxix] “Stop Carbon Offsetting Now!” ETC Group, 4 Dec. 2023, <https://www.etcgroup.org/content/stop-carbon-offsetting-now>

[lxx] Counsell, Simon. Blood Carbon: How a Carbon Offset Scheme Makes Millions from Indigenous Land in Northern Kenya. Survival International., Mar. 2023, https://assets.survivalinternational.org/documents/2466/Blood_Carbon_Report.pdf

ENDNOTES:

[lxxi] “Oil-Rich UAE Buys up Large Swaths of Africa for Carbon Credits.” Democracy Now!, 6 Dec. 2023, https://www.democracynow.org/2023/12/6/africa_climate_land_grabs

[lxxii] Ibid.

[lxxiii] Ibid.

[lxxiv] Ibid.

[lxxv] “Webinar – Biodiversity Is Life: Rights of Nature vs Financialisation of Nature – Highlights.” Navdanya International, 29 May 2024, <https://navdanyainternational.org/webinar-biodiversity-is-life-highlights/>.

[lxxvi] Navdanya. <https://www.navdanya.org/> Accessed 9 July 2024.

[lxxvii] Navdanya, “Seeds of hope, seeds of resilience – how biodiversity and agroecology offer solutions to climate change by growing living carbon”, 2017, <https://navdanyainternational.org/publications/seeds-of-hope-seeds-of-resilience/>

[lxxviii] “Seed Freedom.” Navdanya International, <https://navdanyainternational.org/key-issues/seed-freedom/> Accessed 9 July 2024.

[lxxix] “Navdanya Community Seed Banks.” Navdanya International, <https://navdanyainternational.org/what-we-do/navdanya-community-seed-banks/> Accessed 9 July 2024.

[lxxx] “Biodiversity Is Life: Let’s Discover and Protect It Together – Safeguarding and Discovering the Environmental Heritage of Bracciano Lake.” Navdanya International, 7 Feb. 2023, <https://navdanyainternational.org/projects/biodiversity-is-life-lets-discover-and-protect-it-together/>
[lxxxi] Ibid.

[lxxxii] “Biodiversity Is Life: From Local Mobilisation to International Action for Ecological and Social Regeneration.” Navdanya International, 27 Feb. 2023, <https://navdanyainternational.org/biodiversity-is-life-for-ecological-and-social-regeneration/>

[lxxxiii] “Making Peace with the Earth – Through Diversity, Mutuality, Non-Violence & Care – An Ecofeminist Manifesto.” Navdanya International, 4 June 2023, <https://navdanyainternational.org/publications/making-peace-with-the-earth-an-ecofeminist-manifesto/>.

[lxxxiv] “Agroecology, Biodiversity and Farmers’ Markets – A Celebration of Biodiversity.” Navdanya International, 12 June 2023, <https://navdanyainternational.org/lake-bracciano-celebrates-biodiversity/>

[lxxxv] “Community Building in Italy.” Navdanya International, <https://navdanyainternational.org/tag/community-building-in-italy/> Accessed 9 July 2024.

[lxxxvi] “Safeguarding Biodiversity for the Regeneration of the Land.” Navdanya International, 11 July 2023, <https://navdanyainternational.org/safeguarding-biodiversity-for-the-regeneration-of-the-land/>

[lxxxvii] “Poison-Free Food and Farming 2030.” Navdanya International, 30 Jan. 2019, <https://navdanyainternational.org/cause/poison-free-food-and-farming-2030/>

[lxxxviii] “The Attempted Destruction of Biodiversity-Based Cultures.” Navdanya International, 1 Mar. 2023, <https://navdanyainternational.org/the-attempted-destruction-of-land-based-cultures/>

[lxxxix] Shiva, Vandana, and Navdanya. Earth Democracy: Connecting Rights of Mother Earth to Human Rights and the Well-Being of All. 2021, <https://navdanyainternational.org/publications/earth-democracy-connecting-rights-of-mother-earth-to-human-rights-and-the-well-being-of-all/>

REFERENCES:

Altieri, Miguel A., and Clara I. Nicholls. 2020. Agroecology and the reconstruction of a post-COVID-19 agriculture. *The Journal of Peasant Studies* 47 (5): 881–898. <https://doi.org/10.1080/03066150.2020.1782891>

Altieri, Miguel, and Clara Nicholls. 2004. *Biodiversity and pest management in agroecosystems*, 2nd ed. New York: CRC Press.

Altieri, M., & Nicholls, C. (2018). *Biodiversity and pest management in agroecosystems*. CRC press.

Ceccarelli, Salvatore. 2019. Nurturing diversity in our guts and on our farms to reduce health risks and increase food system resilience. *The Future of Food*, 45–51. Rome, Italy: Navdanya International. <https://navdanyainternational.org/publications/the-future-of-food-farming-with-nature-cultivating-the-future/>

Macintosh, A., Butler, D., Larraondo, P. et al. Australian human-induced native forest regeneration carbon offset projects have limited impact on changes in woody vegetation cover and carbon removals. *Commun Earth Environ* 5, 149 (2024).

Spash, C. L., & Hache, F. (2022). The Dasgupta Review deconstructed: An exposé of biodiversity economics. *Globalizations*, 19(5), 653-676.

Greenfield, Patrick. "Revealed: More than 90% of Rainforest Carbon Offsets by Biggest Certifier Are Worthless, Analysis Shows." *The Guardian*, 18 Jan. 2023, <https://www.theguardian.com/environment/2023/jan/18/revealed-forest-carbon-offsets-biggest-provider-worthless-verra-aoe>

Frederic Hache (2024), Webinar Presentation

Shiva, V., & Shiva, K. (2020). *Oneness vs. the 1%: Shattering illusions, seeding freedom*. Chelsea Green Publishing.

Pollination. (October 2023). *State of Voluntary Biodiversity Credit Markets : A Global Review of Biodiversity Credit Schemes*. Available at <https://pollinationgroup.com/wp-content/uploads/2023/10/Global-Review-of-Biodiversity-Credit-Schemes-Pollination-October-2023.pdf>

Biodiversity is Life, Not an Asset Class

Debunking Biodiversity Credits, the Next Wave of Bio-Imperialism

©2024 English Edition by Navdanya International

Editorial Team: Vandana Shiva, Ruchi Shroff

Drafting and Research Team: Prerna Anilkumar, Carla Ramos Cortés

Special Thanks to Elisa Catalini and Neha Raj Singh

Photographic credits: Navdanya

Illustrations: Frederic Hache, Green Finance Observatory

Cover illustrations: Sara Filippi Plotegher

Infographics credits and sources are indicated below each image. Text reproduction is prohibited, while free sharing and circulation is permitted, as well as quotation of individual parts, provided that sources and authors are cited. All rights reserved.

Contacts: info@navdanyainternational.org;
www.navdanyainternational.org



