

"THE UN CONVENTION TO COMBAT DESERTIFICATION (UNCCD) RECENTLY RELEASED DATA SHOWING THAT THE WORLD LOST AT LEAST 100 MILLION HECTARES OF FERTILE LAND ANNUALLY BETWEEN 2015-19."



THE CATALYTIC POWER OF BLENDED FINANCE TO REGENERATE OUR ECOSYSTEMS

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By aligning financial interests with environmental sustainability, we can pave the way for a greener and more prosperous future

Energy is the ultimate currency of life. Every living thing relies on the transfer and transformation of energy, the primary source of which is the one thing that connects us all — the sun. Before the modern era, most of the energy we used came directly from food, and this tied us closely to the Earth. But over the past century, the ability to harness, store and commodify concentrated sunlight (ie fossil fuels) to use for energy has essentially disconnected us from the natural world, the effects of which we are starting to see and experience today.

Our global economic systems have largely been decoupled from the planet's ecological systems. Economies have been built on the premise that the products and services derived from the Earth's ecosystems are more valuable than the actual ecosystems from which they are sourced. This extractive model has led to intensive mining and industrial farming, resulting in depleted soils, which in many instances are now unable to withstand life. The UN Convention to Combat Desertification (UNCCD) recently released data showing that the world lost at least 100 million hectares of fertile land annually between 2015-19.

Global food systems, in particular, are increasingly vulnerable to production shocks, and productive agricultural land has become a prized asset. While large-scale industrial farming has enabled tremendous efficiencies in food production at lower costs to the consumer, these mass production systems are entirely unsustainable and have left a devastating ecological footprint, inducing deforestation, biodiversity loss, water pollution and degraded soils. Plus land degradation

is inextricably linked to climate change, food insecurity, ill health, forced migration and violent conflict. These things may seem remote to some of us but we are part of a global food system that is intricately weaved together. And as Martin Luther King Jr. wisely and so eloquently said, "Whatever affects one directly, affects all indirectly."

It's a gloomy prognosis if we stick to the antiquated economic models built on the assumption that human beings are separate from nature. Or we can change course, and work towards a rosier future by building and investing in new models that recognise our economies cannot be decoupled from our ecosystems. Regenerative food production has the potential to reverse the environmental impact and societal repercussions of industrial farming. Food provides the sustenance we require to simply exist but food is also intertwined with culture, history and relationships, and is a key element to bringing communities together. Regenerative agroforestry, which incorporates the cultivation of trees into agriculture whilst actively improving soil fertility, biodiversity, water percolation and the overall health of ecosystems, also enables inclusive growth by empowering farmers and fostering resilient communities. Social cohesion is a vital aspect of sustainable production that has largely been lost in industrialised farming practices.

But is sustainable production just a pipe dream? What about the elephant in the room: none of us wants to give up the conveniences the extractive economy has afforded us — access to vast varieties of food, the ability to travel across the world, and, we might recall from physics class that energy is the



ability to do work. The energy we consume today via fossil fuels has displaced the manual labour we'd previously have had to do for basic things such as laundry; one would be hard-pressed to find anyone advocating for a ban on washing machines. Air travel, though, has caught the ire of some environmentalists.

Fortunately, Phyla Earth has been developing solutions to change course and make sustainable aviation and regenerative agriculture a reality. By observing nature's biological processes and her ability to produce energy, sequester carbon, fix nitrogen and provide food, Phyla has been involved in groundbreaking afforestation work propagating climate change resilient plant species. One species they've been working on that's particularly effective in regenerating degraded ecosystems is *Pongamia pinnata*, a non-invasive legume tree native to India and Southeast Asia with medicinal properties that is nitrogen-fixing (no need for fertilisers!) and produces perennial dividends high in protein and oil. Remarkably, many of Phyla's varieties of *Pongamia* are able to withstand drought and metal toxicities where virtually no other plants are able to grow, thus serving as a powerful catalyst, laying the foundation to rebuild healthy soils and generate new biodiverse ecosystems. Phyla's Elite *Pongamia* surpasses the output of standard *Pongamia* by up to ten times, and thus has the capability of producing commercially significant volumes of feedstocks for sustainable aviation fuel and plant-based proteins whilst sequestering carbon and providing other vital ecosystem services.

With a business model rooted in nature and bolstered by productive biological infrastructure, Phyla's agroforestry systems have been successful in transforming contaminated and wholly barren landscapes into fertile forests. And their proprietary technology and AI capabilities allow them to monitor and quantify climate mitigation activity, adapting accordingly to solve our deeply entrenched socioeconomic and environmental challenges encapsulated within the UN's Sustainable Development Goals (SDGs). The SDGs are often seen as challenges but they present an enormous business opportunity. The Business Commission estimates tackling them could generate USD 12 trillion in market opportunities. But in order to achieve the SDGs and solve the systemic and interconnected challenges outlined above, these systems have to be scaled appreciably.

To that end, global carbon markets were valued at over \$909 billion in 2022; that's nearly a trillion US dollars of carbon traded last year. Carbon credit schemes have been attractive to impact investors because carbon is seen as a sort of currency to mitigate climate change. Unfortunately, the systems in place



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She has two decades of experience in public policy/international relations, working between London and Washington, DC. Anjou has worked as a consultant with Commonland and a number of start-ups focused on sustainable solutions. She spent a large chunk of her career in the corporate sector. During Anjou's tenure as Head of Public Policy & Emerging Markets in Government Affairs at Thomson Reuters, she focused on issues as wide-ranging as privacy, cybersecurity, green finance, intellectual property rights, fintech and AI.

Sitting on several government and private sector advisory groups involved in the emerging markets, Anjou provides thought-leadership, and underscores the technologies that aid growth and promote sustainable development.

Anjou is an aspiring author eager to make an impact through storytelling. She is currently writing a novel that spans the globe and delves into our relationship with the natural world.

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are not always transparent, and the quality of credits are highly varied given the lack of standardisation. With effective reform, carbon markets will be an important mechanism to finance emission reductions, but excessive focus on carbon returns can sometimes crowd out the social and ecological dimensions of regeneration work where returns aren't as easily measured. But attention to and quantification of these elements is key to a sustainable future.

There are a number of restoration initiatives, such as Ecosia and Justdigg, which are making considerable inroads towards sustainable development through awareness campaigns and concerted tree planting. Both are non-profit organisations, but Ecosia earns revenue from advertising, and has planted over 185 million trees globally, while Justdigg is funded primarily through donations and government subsidies. Justdigg has restored 14 million trees in the past five years and has a mission to regreen Africa through regenerative 'treecovery'.

"BLENDED FINANCE OFFERS AN INCENTIVE STRUCTURE THAT HAS THE POTENTIAL TO CORRECT MARKET FAILURES BY STRATEGICALLY COMBINING PUBLIC, PHILANTHROPIC AND PRIVATE CAPITAL..."



Commonland is another not-for-profit working towards holistic landscape restoration with an ambitious mission to restore 100 million hectares of degraded land by 2040. They have developed a unique four-returns framework to generate social, inspirational and natural returns in addition to financial returns, giving rise to a number of regenerative businesses producing sustainable food products, thereby bolstering communities whilst restoring the land. These organisations are doing exceptionally valuable work to reverse biodiversity loss and elevate the climate dialogue to highlight the vital role healthy ecosystems play within our lives and within a larger economic and planetary context.

But can we meet the UN's target to restore 5 billion hectares of degraded land by 2050 without investment from the private sector? Asset managers / institutional investors, who hold trillions in assets globally, have the financial resources to fill a significant portion of the SDG investment gap, and many have committed to the Net-Zero Banking Alliance. But their appetite for land restoration projects has been curbed by a preference for low-risk, liquid investments with a clear ROI profile. Private equity investments in impact sectors are often constrained due to shorter fund durations compared to the recovery time required for ecosystems to regain economic productivity. While prevailing short-term models can be highly lucrative, they simply don't account for the existential risks that result from the unsustainable use of natural resources.

How do we then restructure financial models to finance companies working on solutions to exceedingly complex problems? Blended finance offers an incentive structure that has the potential to correct market failures by strategically combining public, philanthropic and private capital to catalyse investment into sectors that are largely seen as risky or unprofitable in the short-term. Philanthropic and concessional finance mitigates risk in early-stage regeneration projects when capital requirements are high, making the investments more attractive to private investors seeking long-term commercial returns. Plus, restoration allows asset managers to hedge risks

against more unsustainable investments. Phyla's regeneration systems, for instance, offer attractive financial returns over the medium and long-term, secured against future revenue from the sale of biofuel, protein and biomass in addition to carbon and nature-based credits. When restoration projects are well-designed, they also create permanent jobs, enhance livelihoods and social unity. Through scaling sustainable development and yielding positive financial returns, blended finance offers tremendous upside for all stakeholders.

Recent years have underscored the fragility of our global economic and food systems. By aligning financial interests with environmental sustainability, we can pave the way for a greener and more prosperous future, ensuring positive returns for investors whilst making a meaningful impact on climate change and global food security. With public institutions, philanthropists and private investors collaborating to share risk and capital to further sustainable development, blended finance can be a true catalyst for systemic change. ■