



VAN LANSCHOT
KEMPEN

INVESTMENT MANAGEMENT

Sustainable Natural Capital

Unlocking the investment
potential

SEPTEMBER 2024

FOR PROFESSIONAL INVESTORS ONLY

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Why invest in ‘natural capital’?

Natural capital is an emerging asset class that can provide opportunities to combine financial returns with direct real world impact, helping solve some of the major issues the world faces today.

Sustainable or renewable investing is growing steadily, with a diverse pool of investment options becoming available to institutional investors. From generating revenue returns to capital growth through active ownership, investors can tailor investments to fit their particular strategies. There is huge potential for investing in natural capital assets but investors need to be aware of the challenges and risks.

What is natural capital?

Natural capital is another term for the stock of renewable and non-renewable resources. The European Commission¹ defines natural capital as:

- **Non-renewable resources**, such as fossil fuels and minerals
- **Renewable resources**, such as solar, wind and hydro
- **Ecosystems** that provide humans with vital ecosystem services, both renewable and depletable, such as forests, water, wetlands and grassland (some used as agricultural land).

Although ecosystems are perhaps the least understood category, we believe they can offer compelling potential benefits to investors seeking sustainable impact and reliable yields. Physical ecosystems in particular merit specific investigation, provided the focus is on renewable natural capital.

In this report we identify key segments of investable natural capital and provide a roadmap for the investor.

1 ENV - Accounting for natural capital - recognising the contribution of nature to human welfare and well-being (europa.eu)

Separating the wheat from the chaff

Natural capital is crucial for both economic activity – and for life on earth. While it is estimated that over \$40 trillion of economic value (more than 50% of global GDP)² depends on nature or its services, natural capital is also vital in the fight against climate change. Many segments of natural capital – like forestry and regenerative agriculture – can absorb carbon from the atmosphere and enhance biodiversity. But only if done in the right way.

Not all sources of investable natural capital are sustainable and deciding whether a natural capital source is renewable or non-renewable is not always straightforward.

Well-managed forests that are selectively harvested and replanted could be perfect forms of renewable capital, for example, where wood is used instead of concrete or steel in the construction sector. In this case, the trees and wood products sequester carbon, and new trees are planted to keep the forests in balance. However, there are also many examples of unsustainable deforestation whereby entire ecosystems are permanently destroyed.

View through a sustainable lens

It is wise to thoroughly investigate timberland investment solutions through a sustainable lens, and, specifically, investors should seek to have full insight into the management of a forestry investment, including the whole supply chain.

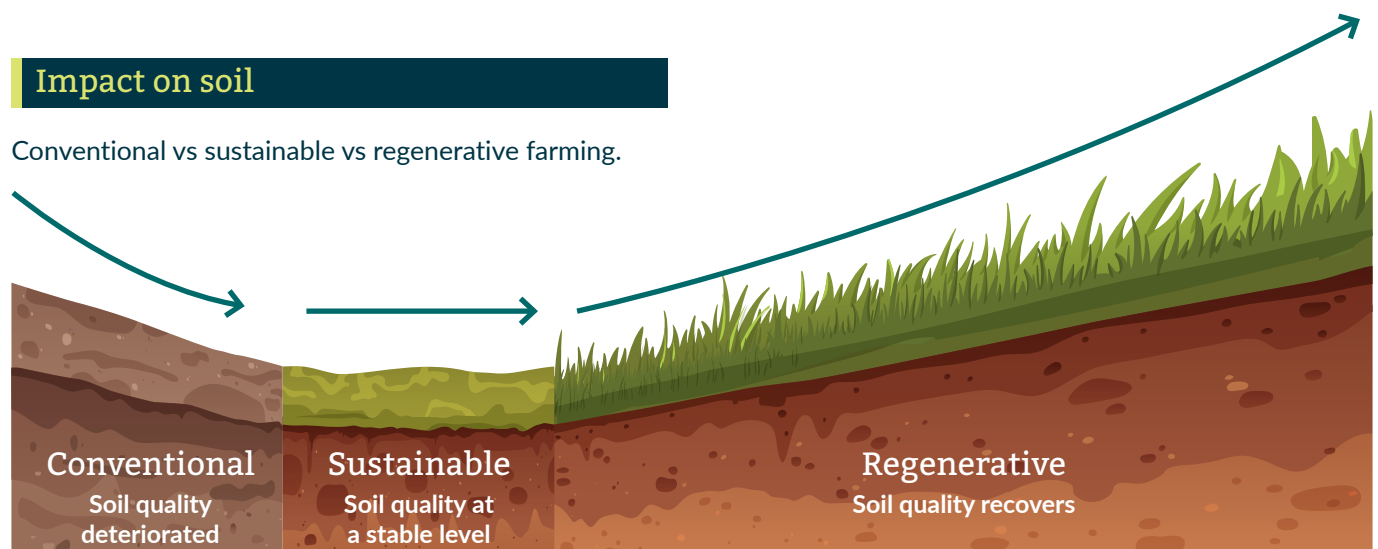
The same applies to other forms of physical ecosystems that, for example, provide crops, grains, fruit and nuts growing on land, but also clean water or recreation facilities. Many of these ecosystem services have been consumed without a long-term vision of how to sustain them.

The challenge is to find a regenerative way to keep enjoying these assets, while maintaining and sustaining the underlying natural capital source so they will still be available to future generations.

“Many segments of natural capital can absorb carbon and enhance biodiversity. But only if done in the right way”

Impact on soil

Conventional vs sustainable vs regenerative farming.





The cost of doing nothing

Scientists from the Stockholm Resilience Centre introduced a framework that shows how much pressure the ecosystems can withstand. The framework presents nine critical processes known as '**planetary boundaries**', aimed at defining the environmental limits within which humanity can safely operate.

Increasing human economic activity has put the planet under tremendous pressure.

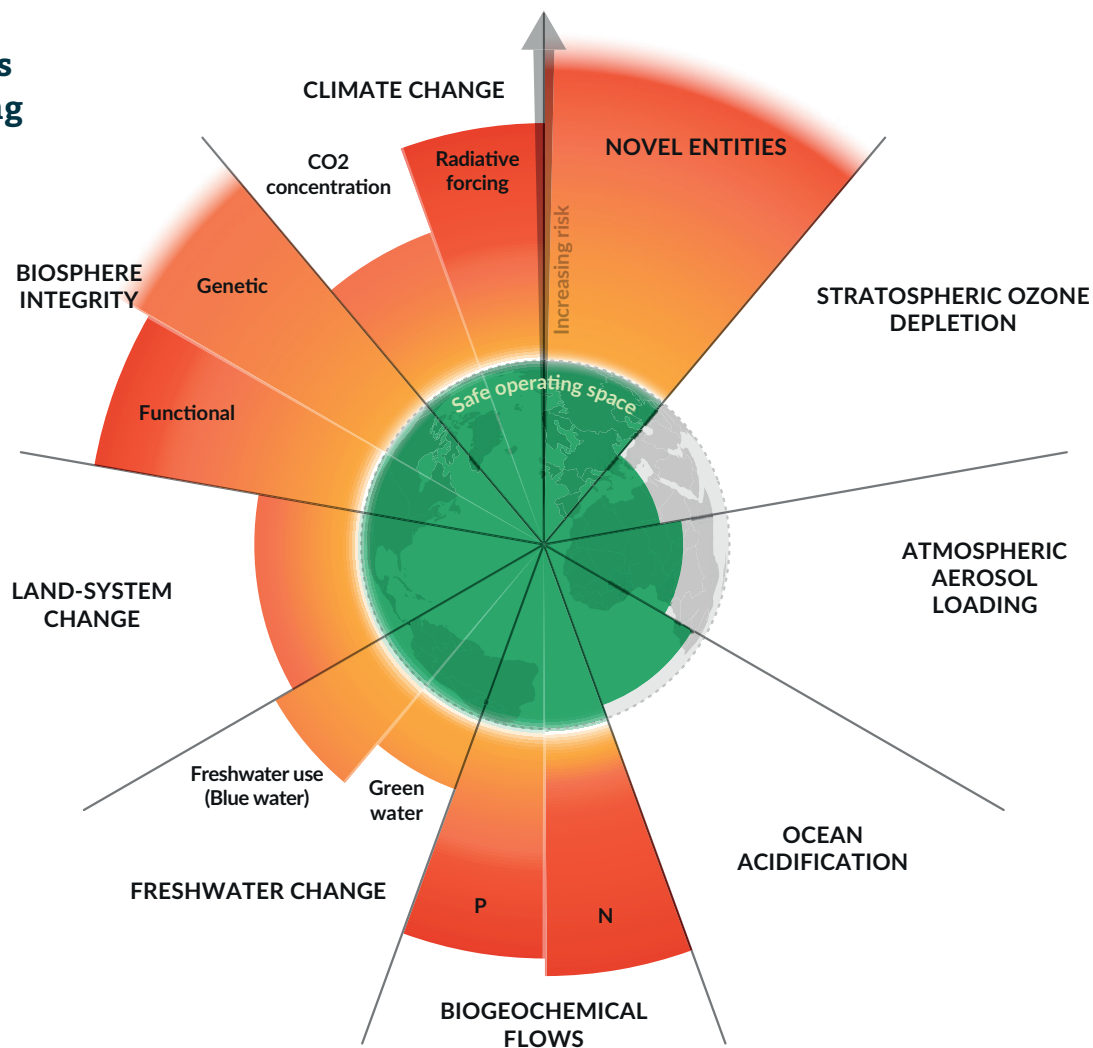
- **Climate change:** based on current country policies, the expected warming towards the end of the century ranges between 2.1 C - 2.9 C,³ a rise predicted to lead to more frequent and severe climate impacts such as stronger storms, more flooding and longer heatwaves.⁴
- **Biodiversity loss due to human activities** (Biosphere Integrity) was more rapid in the past 50 years than at any time in human history. Mainly driven by demand for food, water and natural resources.
- **Biogeochemical cycles** of nitrogen and phosphorus are important essential nutrients for sustaining life on earth, for example, transfer of energy within organisms. These natural cycles have been changed by industrial and agricultural processes.⁵
- **Land use** has come under pressure due to converting nature areas (via cutting trees) into land used for agriculture.
- **Novel entities** are new substances that have the potential for unwanted geophysical and/or biological effects, such as plastic pollution.
- **Freshwater use:** this boundary has been breached recently, after scientist included "green water" - that is water available to plants- in to the boundary assessment.

3. 16 UNEP (2022), Emission Gap report 2022. The report can be found here. UNFCCC (2022), Synthesis report Nationally determined contributions under the Paris Agreement (FCCC/PA/CMA/2022/4). The document can be found here. IEA (2022), World Energy Outlook 2022. The report can be found here. Carbon Action Tracker (2022). The website can be found here. NOAA, Climate Change: Atmospheric Carbon Dioxide. Note that the planetary boundary on climate change mentions as threshold 350 atmospheric carbon dioxide concentration (parts per million by volume). The level was pre-industrial 280 and was in 2021 around 414.

4. 17 IPCC (2022), Climate Change 2022: Impacts, Adaptation and Vulnerability.

5 Stockholm Resilience Center. The nine planetary boundaries.

The impact of human activity is already extending beyond the safe operating space of six planetary boundaries:



Higher costs and lower valuations for big carbon emitters

Now it seems that climate risk is also having a direct impact on the balance sheets of high-emitting companies. In a recent report, the European Central Bank (ECB) found that Euro-area banks often charge higher interest rates to companies with greater carbon emissions, and lower rates to those that commit to green transition, even after controlling for credit risk.* The report also found that higher carbon-emitting firms have been most affected during times of ECB restrictive monetary policy.

Strong public pressure in favour of environmental policies is also having a significant impact. For example, European banks reduced credit to US polluting firms after former US President Donald Trump's announcement of withdrawal from the Paris Agreement, possibly for reputational reasons.

The same ECB report highlighted that climate risk has also started affecting the valuation of financial assets. It points to one study of big carbon emitters being valued at a discount in equity markets and to another where bonds of companies less exposed to climate risk perform better, especially when climate risks are in the spotlight.

*Source: European Central Bank study 'Climate Risk, Bank Lending and Monetary Policy' (October 2023).



Navigating through transitions

The crossing of these planetary boundaries underlines the urgent need to transition towards a more sustainable economy, particularly in relation to the key themes of energy, food and materials.

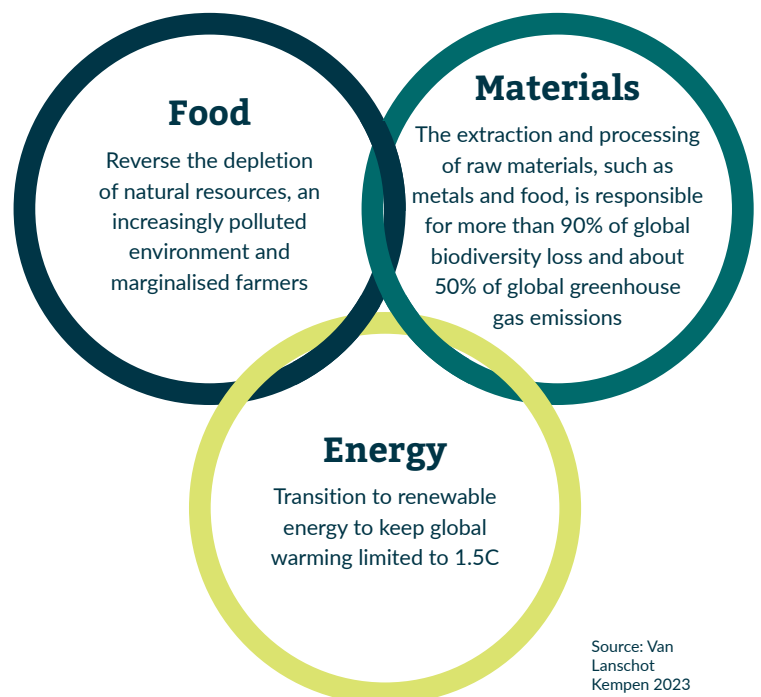
And while natural capital can play a pivotal role in helping to achieve these transitions, many natural resources are still being used as non-renewables, exhausting and polluting the planet.

It is also important to understand that degradation takes many forms, it can be fast acting, like deforestation, or slow, such as intensive farming that slowly exhausts and degrades the soil. Traditional agriculture, for example, is among the biggest contributors to exceeding planetary boundaries and crossing safe limits, while regenerative farming can have an enormously positive environmental impact.

Natural capital can indeed be turned into a force for good. Restoring resources usually takes much more effort, but we see many successful examples, like reforestation, improving soil, or bringing back biodiversity in heavily degraded ecosystems.

Natural capital can indeed be turned into a force for good.

Transitions



Source: Van Lanschot Kempen 2023

Investing not philanthropy

Institutional investment in natural capital is still very limited. In the past investments have come mainly from investors that believe short-term investments in more regenerative systems will create better long-term outcomes and from pure impact investors prepared to accept lower financial return for better societal outcomes.

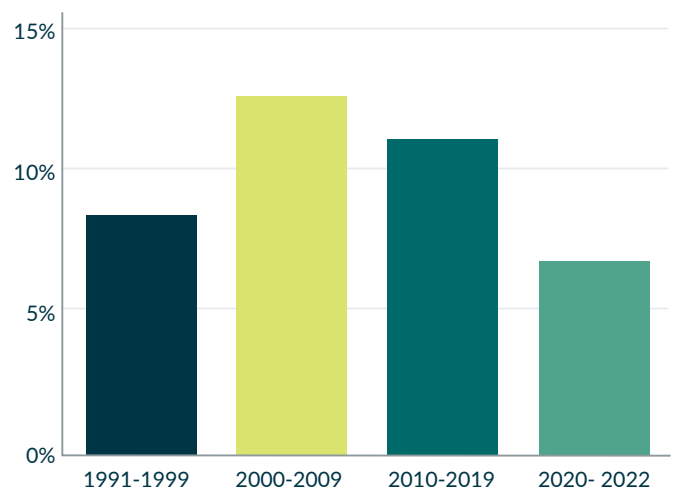
However, restoring natural capital does not have to be just philanthropy. Existing investors in established real assets such as farmland and timberland, for example, have long reaped the financial benefits of these investments, as evidenced by the strong performance of the NCREIF Farmland and NCREIF Timberland indices which track institutional investments in the US markets.

Investable universe

With such a broad definition, investments in natural capital can take multiple forms. Many of the current options are emerging, often with venture capital support, and may be some years off being able to offer the scale that institutional investors require.

Our summary table here highlights some of the defining features.

NCREIF Farmland Index Quarterly Returns



Source: Van Lanschot Kempen Private Markets team 2023

Asset Class	Investable now	Scalable for institutions
Farmland	Highly/Established	Yes
Timberland	Highly/Established	Yes
Indoor farming	Niche	>5 yrs
Water	Niche	>5 yrs
Aquaculture	Niche	>5 yrs
Conservation Land/wetland restoration etc	Immature	>3 yrs
Environmental offsets	Immature	>3 yrs
Carbon credits	Immature	>3 yrs
Agri/food tech	Growing sector	>3 yrs

Source: Van Lanschot Kempen Private Markets team 2023

Farmland vs timber

Farmland and timberland share several characteristics. In both cases, an investment is made in a 'hard' underlying real asset that acts as store of value. An annual or periodic income can be generated by this and both categories offer inflation protection to some degree. Nevertheless, some notable differences exist as well, as outlined below.

Key Considerations	Farmland	Timberland
Where to invest	Mostly land, sometimes some infrastructure, variety licenses and value of the trees (permanent crops)	Combination of land and value of the trees
Potential income sources	Annual lease or income from sale of crops	Flexible. Harvest can be adjusted over multiple years depending on market conditions. Harvest not pure income (harvest of capital in the form of tree value)
Capital growth drivers	Land value increases. For permanent crops, some depreciation on value of the trees.	Land value increases and 'automatic' increase in timber value due to growth of trees
Diversification potential	Very high, given the large number of potential crops with each unique end markets	Moderate, due to investing in just 1 product (wood), though some diversification to end markets (housing/construction, industrial, packaging, furniture)
Maturity of markets	Limited institutional ownership. Large number of investment opportunities but small average ticket size.	Institutionalised market. Limited number of investment opportunities but more larger deals.
Key long term return drivers	- Population growth & ageing - Consumption patterns - Climate change - Productivity growth (agritech)	- Population growth & housing demand - Sustainability transition of real estate construction; from steel and concrete to wood-based building - Carbon markets in some countries more advanced already, can be significant part of returns

Investable universe

In many agricultural areas, whether it be in the United States, Europe or Australia, the average age of farmers is around 60. While farming families traditionally passed the farm to the next generation, that succession is no longer guaranteed*. This offers an opportunity for institutional investors to invest in the land, provide the capital and infrastructure required to change to regenerative farming systems and enable sustainable employment for agricultural communities for the long term.

Institutional investors are perfectly positioned to provide young farmers with the long-term capital they so desperately need.

*Source: youngfarmers.org

Roadmap for investors

There are risks in any emerging investment category. Even the most experienced investor needs to safeguard against potential pitfalls. We outline below how an investor can best circumnavigate such problems.

1. In-depth research

Initially, investors should form a clear opinion of what type of natural capital they want to invest in and gain sufficient knowledge and understanding of it. Since natural capital is an emerging investment category, there are 'early entry' advantages. However, the risk could be higher for some strategies as this type of investment is less proven or if it is managed incorrectly.

The next step is to research thoroughly whether their potential natural capital investment is really sustainable and provides the best 'impact' solution, as well as whether it offers a good financial return.

2. The merits of investing in funds and directly

There are valid reasons for investing directly in natural capital (as with other real asset stocks) or through reputable funds. Direct investment often requires specialist in-house knowledge and may also require an in-house investment team. Investing through a fund has the advantage of not having to build an in-house team.

Investing through funds also reduces the in-house workload, as projects in this asset class are often very small compared to traditional alternative asset classes like real estate and infrastructure. Finally, investments through funds enable a higher level of diversification, whether it be in local jurisdictions or exposure to local weather conditions that can have a relatively high impact on individual investments.

3. Structuring and implementation

It is wise to start by investigating the options for legal and fiscal structures depending on the desired balance across regions, countries, segments, sub-sectors and projects. Investors should also be wary of investment strategies with relatively high fee structures. In natural capital, where return potential is not unlimited and structures are sometimes opaque, costs can mount and considerably reduce returns, incur losses or limit the value for making a real impact.

4. Accountability

Investors should expect to have sufficient ongoing insight into the progression of their portfolios and hold their investee companies or fund managers to account to avoid greenwashing. A clear framework centered around sustainability key performance indicators (KPIs) and outcomes is desired to really keep track of whether capital invested is making a real impact.

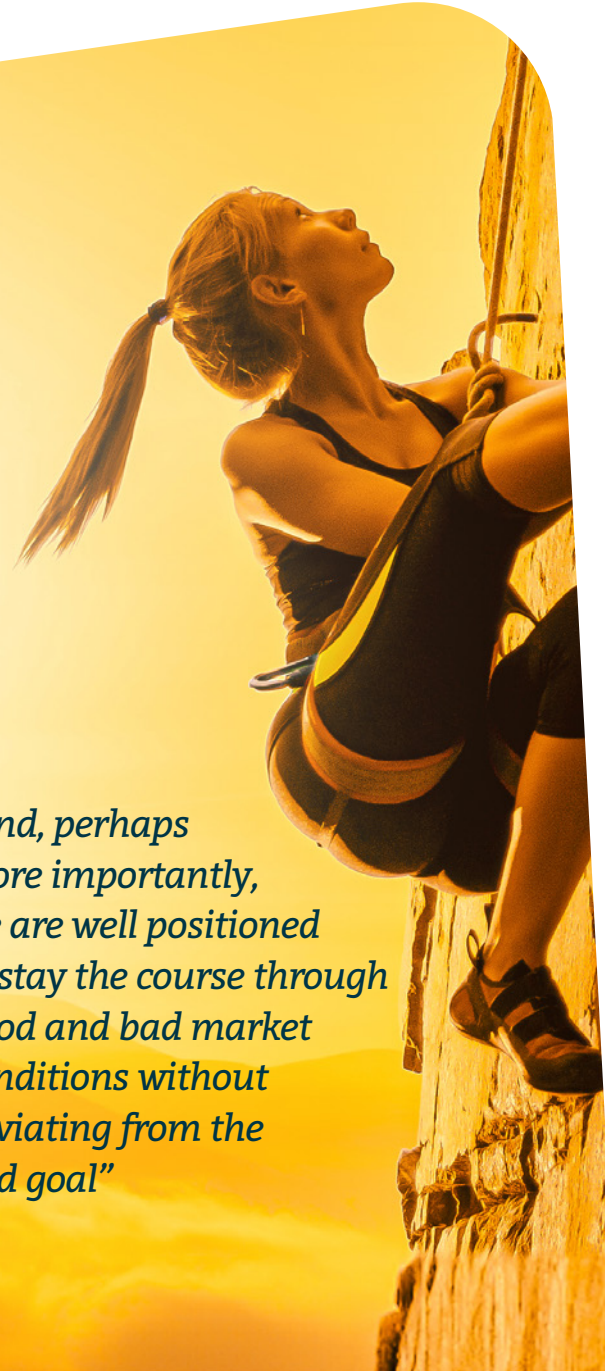


Managing climate risk with AI

Regenerative farming case study

Managing climate risk is indeed a challenge for all agriculture businesses but there is compelling evidence to suggest that the restorative measures applied by regenerative farmers should alleviate these risks, at least in part.*

Going one step further the farmland investment team at Van Lanschot Kempen have recently adopted a new AI climate modelling tool into their investment process.

A woman with a ponytail, wearing a black tank top and a backpack, is climbing a rope. The background is a warm, orange-yellow gradient, suggesting a sunset or sunrise. The image is partially obscured by text blocks on the left and right.

“And, perhaps more importantly, we are well positioned to stay the course through good and bad market conditions without deviating from the end goal”

Kempen SDG Farmland Fund

Tim van den Pol, portfolio manager on the fund tells us “Taking a scientific approach, we look for and invest in those agricultural areas we believe will in fact benefit from climate change and avoid those most at risk.

Applying artificial intelligence (AI) to our climate risk models helps us to more accurately forecast the impact of climate change on specific agricultural areas. We do this by comparing local data with higher resolution ground and satellite data, using machine learning to calibrate our seasonal and long-term models of temperature and precipitation.

We specifically try to anticipate what the climate is going to do and monitor, among other elements, the water situation – which is so important for agricultural business. Often there is a lot of anecdotal evidence from brokers, but it’s hard to quantify, so we use a data-driven way to test our hypotheses.”

As climate conditions change, so too do the optimum conditions for farming any particular crop. One interesting example is our investment in a citrus orchard in Covadonga, northern Spain. The region provides conservation land suitable for biodiversity projects. Initially, the location was chosen because of its cooler microclimate as it is protected by hills in the north.

Before investing, our agronomic team onsite mapped the climate against necessities for growing citrus (no frost in the early season, nor extreme heat in the flowering season, nor high rainfall during harvest time). These points were then matched against the AI’s climate forecasts. They showed that the weather is likely to stay relatively stable until 2050, and even when it starts to warm at that point, it is likely to be less intense than other citrus orchards further inland.

This detailed modelling also enables us to identify and mitigate further potential risks that we might not have previously considered.

Importantly, Tim explains “As we retain high levels of control over both owned and leased farms we are very well placed to properly apply the enhanced insights that AI offers. And, perhaps more importantly, we are well positioned to stay the course through good and bad market conditions without deviating from the end goal”

*Source: oneearth.org (Regenerative agriculture can play a key role in combatting climate change (2024)

Overcoming challenges

Emerging asset classes often present challenges for investors, and natural capital is no exception. However, it is possible to mitigate many of these.

Challenges	Mitigation
Small scale of investments Relatively small scale of individual investments make it a harder category for large investors to deploy significant amounts of capital	• Invest in a well diversified portfolio of different natural capital sub-categories, geographies and sectors/crops • Look for investments with aggregation/add-on potential
Potentially limited return While proven track records are available in farmland and timberland, some natural capital categories might have only limited financial return information	• Build a portfolio around a core of 'proven' investment strategies • Selectively add satellite/niche strategies, depending on development of new markets and trading systems
Limited standards on measurement of ESG/Impact Available standards are very high level and centered around intentions, with limited measurement of definitive practices and outcomes	• Look for strategies with measurable ESG KPIs and adequate disclosure and reporting • Make definitive agreements with fund managers on improvements and reporting
Reputational risks Natural capital investments can be politically sensitive and be located in geographies with flaws in legal systems and governance practices	• Critically look at which geographies to invest in • Look for fund managers/solutions that give control • Avoid disputable or unproven investments

Conclusion

Natural capital is emerging as a major asset class, creating a diverse pool of options for institutional investors.

Sustainable, and preferably regenerative, investing with a long-term horizon can create long-term value for investors while safeguarding the planet for generations to come.

The Investment benefits that can be gained, along with measurable impacts, are potentially huge. Therefore, by making decisions with a long-term horizon – both good for the planet and for overall returns - the investment community can help steer industry-changing initiatives, while staying aligned with the objectives of their clients.

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Portfolio Manager



General risks to take into account when investing in Farmland Please note that all investments are subject to market fluctuations. Investing in agricultural land has an average risk. These categories are generally characterised by stable income and relatively stable collateral. On the other hand, the tradability can be limited. Profile of the typical investor: The strategy may be suitable as an additional investment for professional and well-informed investors who:

- Are interested in allocating capital to global farmland through investments who are large enough to ensure a professional, efficient and scalable operation protect the integrity of the asset class and also create a positive impact through a progressive farmland strategy;
- Seek a long-term investment (10 years or more);
- Understand and accept the considerable risks involved in investing illiquid asset classes;
- Can bear considerable losses; and
- Have experience of the structure, risks, disadvantages and advantages of investing in (non-traditional) markets

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Capital at risk The value of investments and the income from them can fall as well as rise and are not guaranteed. Investors may not get back the amount originally invested. Past performance provides no guarantee for the future.



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