KEYNOTE INTERVIEW

Farmland and timberland rise up climate agenda

The benefits of natural climate solutions mean farmland and timberland are attractive for investors looking for net-zero portfolios, says Nuveen's Gwen Busby

For investors looking to build portfolios that are aligned with net-zero objectives, farmland and timberland have never been so important. Timberland has the potential to be a net negative carbon investment, thanks to the ability of forests to remove carbon from the atmosphere. Farmland's carbon profile also compares favourably to other types of real assets.

Gwen Busby, head of research and strategy at Nuveen Natural Capital, says the key for investors is to build profiles that balance their net-zero objectives with favorable risk-return outcomes. She tells us that farmland and timberland typically offer very stable returns and can provide a hedge against

inflation, while also providing benefits linked to natural climate solutions.

Q How do you define 'natural climate solutions'?
We think of natural climate solutions as being investments in conservation, in restoration, or in land management that either increase carbon storage or reduce emissions. Natural climate solutions are a subset of investments in natural capital assets and the ecosystem services they offer. The emergence of natural capital as an asset class is a

reflection of what's happening in the world, the climate challenge confronting us, and how investors are responding to that.

These investments can be done in a few different ways. You can invest in natural climate solutions that protect forest and soil carbon. You can invest in land-based climate solutions that improve land management in a way that either increase the carbon storage or reduce emissions. For example, if you're in timberland, you can improve management by, for example, extending forest rotation lengths, or enlarging areas set aside for conservation, or extending riparian buffer zones. Or, if you're in a farmland investment, you

can reduce fertilizer use, change tilling practices, or increase conservation areas like in timberland.

And then, the third and final strategy for executing natural climate solutions is to restore carbon stock – by restoring forest cover or restoring soil carbon.

Q Given that investors have many options when looking for investments that accelerate net zero, how does timberland and farmland earn a place in portfolios?

Timberland and farmland are well-established asset classes – institutional investors have been investing in timberland and farmland for over 30 years. Nuveen has been managing assets across these two asset classes for 30-plus years. We have a lot of really good data from our investments to help us demonstrate the investment case and the portfolio-level benefits that can be generated from allocations to these two strategies.

In terms of traditional portfolio-level benefits, there's a lack of correlation with capital market cycles and the diversification benefits that come with that, along with the "built-in" inflation hedging characteristics of the asset classes.

Plus, the return profile includes a very stable cash yield component. In addition to those portfolio-level benefits, strategies in timberland and farmland also come with a broad set of natural capital benefits.

Investors often come to us because they're seeking positive environmental benefits through their investments. Often, they might also be seeking exposure to growing markets for carbon credits.

Our role is to help them think about how to construct the optimal portfolio that contain solutions for things like biodiversity, water quality or any other ESG metrics that they're looking for in addition to meeting financial performance targets.

Q What is the future outlook for natural climate solutions in farmland and timberland?

Investor appetite is only going to increase as the value of carbon increases, and as more governments, corporations and institutions align with climate targets. They're working to reduce emissions in their own supply chain and also looking for opportunities to increase carbon storage and sequestration through timberland and farmland investments. I think we're going to see a whole new opportunity set open up in timberland and in farmland.

We're looking at some really interesting areas. On the farmland side, we're working on regenerative agriculture strategies, where we look for opportunities to change agricultural management in a way that reduces emissions or increases the removal of CO_2.

On the timberland side, opportunities for reforestation are vast, and I think that investors are just starting to think about how to execute those strategies in a way that allows them to achieve their risk-return targets and their climate targets. Private capital is an incredibly powerful source for good, and I think the restoration opportunity is one that will grow significantly in the future.

Q How can you incorporate information about these natural capital benefits into traditional analytical frameworks?

We have a vast amount of data across strategies, regions, crop and species types, and we use this data to input into traditional financial modeling frameworks. One of the primary portfolio allocation models we use is a mean variance optimization model. Traditionally, this would only incorporate risk and return data. It was developed in the 1950s by Harry Markowitz, who won the Nobel Prize for his work. He didn't envision at the time that climate and other ESG metrics would be something that investors would be seeking from their portfolios.

But because of the proprietary data that we've built-up over these 30-plus years, we also have a whole range of climate and sustainability metrics that we can incorporate into that modelling framework. Using data that we have available today, we can incorporate ESG and sustainability metrics into

traditional frameworks. This allows us to assess not only trade-offs across risk and return, but also the trade-offs across risk, return and climate or environmental objectives.

Some investors are thinking about allocations across asset classes, and perhaps balancing traditional asset class exposure in equities and fixed income, with some exposure to real assets, including infrastructure and real estate, as well as timberland and farmland. They need to make asset class-level allocation decisions and increasingly there is a need to factor-in carbon intensity across asset classes.

Q What do the models show in terms of the advantages from a climate perspective of investing in farmland and timberland?

Timberland and farmland compare very well to other asset classes when it comes to net CO_2 emissions. Across real assets and across traditional asset classes, timberland has the lowest carbon intensity – in fact, it has a negative carbon intensity. So, by allocating dollars to timberland within a profile, you're actually removing CO_2 from the atmosphere every year on average.

On average, farmland strategies are going to have a very low carbon intensity relative to other real asset classes, with the exception of timberland. In some cases, they may also produce net negative carbon emissions.

We have modeling frameworks that are specific to different asset classes, including timberland and farmland optimization models. These include a whole spectrum of investment strategies, including strategies that are impact-focused and might include natural climate solutions as a core component.

We're able to use our modeling frameworks to help optimise portfolios in terms of risk-return and carbon emissions. Ultimately, what we're trying to do is quantify the trade-offs across these elements. What's really interesting is that, in some cases, we see

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that reducing CO_2 emissions does not come at a cost to the risk-return balance. It's possible to diversify a portfolio in a way that results in lower emissions and a better risk-return outcome.

In other cases, you do see a trade-off. Our modeling allows us to quantify what those trade-offs are, so that we can work to minimize them as much as possible. The modeling also helps us take an existing portfolio and look for opportunities to improve climate outcomes and improve financial outcomes.

Q How much do carbon credits influence investor appetite for natural climate solutions?

The value of carbon credits is a major driver of how investors are viewing that opportunity. In particular, there is huge potential to generate carbon offsets from reforestation strategies. There are three types of forestry investment strategies that are capable of generating credits: improved forest management, REDD ('Reducing Emissions from Deforestation and forest Degradation') projects, and afforestation or reforestation projects.

Globally, I think reforestation as a timberland strategy is perhaps the most scalable way to increase the amount of

carbon that is stored in the landscape by removing CO_2 from the atmosphere. That strategy therefore also offers the greatest potential to generate verified carbon credits.

As the global economy moves towards decarbonization, the increasing value assigned to carbon is going to influence the way that investors view timberland and farmland opportunities. Investors are now placing importance on a broader set of values when they're allocating capital. The opportunity to sequester carbon, plus potentially generate carbon credits, means that timberland investments are now about much more than commodity production.

Q What are the biggest risks that investors will have to manage when it comes to forest and timberland investing?

Physical climate risk is an increasingly important factor that we consider in our strategic portfolio positioning. We pay a lot of attention to climate hazards like wildfires, flooding and drought given potential impacts to assets and the increasing intensity and severity of these hazards in some parts of the world.

At the portfolio level, we consider our global exposure to climate risk. We're looking to build a global portfolio of timberland and farmland assets that is resilient to climate hazards. So, we think about creating a portfolio that is diversified across regions, species and markets.

We also think about climate risk in terms of asset management. Climate risk is a part of our underwriting, part of our diligence for every asset. At the asset level, we look at the climate hazards that we could be exposed to, both in terms of the physical impacts and the financial impacts. We also look at the possibilities for managing those risks; for example, with drought, we assess whether we can mitigate that through irrigation. ∎