EXPERT COMMENTARY

A humble and holistic approach to climate and environmental challenges is critical for both agriculture and timberland, says Nuveen Natural Capital's head of sustainability Cristina Hastings Newsome

Managing natural capital with wisdom

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The Shakespearean witticism "the fool doth think he is wise, but the wise man knows he is a fool" aptly sums up the risks of overestimating one's level of insight. In the current era of self-promotion, Shakespeare's point remains keenly relevant; it can be tempting to trumpet recent successes in the food and fibre value chain.

The agriculture sector showcases plenty of impressive examples. Average cereal yield has increased by 175 percent since 1961[1], precision agriculture has been shown to reduce water and fertilizer application by 20 percent[2] and advanced forestry management practices can improve yield, fire, pest and disease monitoring as well as water management[3].

Yet, despite these and other important gains, we are facing twin climate and biodiversity crises that will demand much more of us in the years ahead. The statistics make for sobering reading. Food systems are responsible for approximately 30 percent of global emissions and 70 percent of water extracted from nature[4]. More than 800 million people in the world are hungry, two billion suffer from micronutrient deficiencies, while two billion are overweight or obese. The hidden costs of the wider food chain have also been estimated at $12.7 trillion, when factoring in a range of environmental, nutritional and social externalities[5].

What does this paradox of progress and regress mean, practically speaking, for the food and fibre value chain? For one thing, it means we must be forthright about what we know and what we are still learning. It also means that we need to measure our successes as well as any environmental externalities and strive to impart wisdom regarding the thorny challenges that arise as we implement improvements.

Where do we go from here?

The task of advancing sustainability demands an ability to juggle ambiguity. Uncertainty can be overwhelming with evolving regulatory regimes, COP-level roadmaps, emerging markets, as well as formalising metrics and methodologies. This ambiguity requires that we work in a spirit of continuous improvement, not letting perfection be the enemy of the good.

It also demands that we embrace targets while accepting gaps in information. It requires an ongoing critical challenge of our measures of success. And it entreats us to share, with humility and honesty, the challenges of our ambitious undertaking.

Applying nascent methodologies

Several strategies can help promote sustainability. We must be able to measure our good practices, as well as our externalities. There is some consensus about the overarching principles of good agricultural practices. These tend to include practices such as minimising tillage, utilising cover crops or maintaining crop rotation.

However, the details of how to implement such principles are complex. For example, should how many crops, and which crops be included in the definition of crop rotation? Under what conditions is some tillage necessary?

Such questions require detailed local knowledge, and the acceptance that the ultimate implementation of "good agricultural practice" will depend on local soils, climatic conditions and crop type. Metrics must establish high-level principles while allowing flexibility to adapt to local realities. If we are to reverse the sobering statistics cited above, the industry must go beyond measuring practices, and strive to monitor and reduce negative externalities.

Thankfully, emerging cross-stakeholder methodologies will allow us to do this. One important example is the GHG Protocol Land Sector and Removals Guidance, currently in draft form, which will provide organizations globally with guidance on how to comprehend, account for and report on emissions in the supply chain.

The recently published Taskforce on Nature-Related Financial Disclosures also encourages companies to measure metrics relating to water, carbon footprint, pollutant emissions, and other factors, including gap identification and steps for disclosure. These methodologies set high bars and will likely require several iterations. Transparent

Environmental standards make an impact

GHG Protocol Land Sector and Removals Guidance

The GHG Protocol Land Sector and Removals Guidance explains how companies should account for and report GHG emissions and removals from land management, land use change, biogenic products, carbon dioxide removal technologies and related activities in GHG inventories. This guidance is currently being developed through an inclusive, global process which began in 2020. The *Draft for Pilot Testing and Review* is available, and the guidance itself is expected to be published in mid-2024.

Taskforce on Nature-related Financial Disclosures

The Taskforce on Nature-related Financial Disclosures has developed a set of disclosure recommendations and guidance for organizations to report and act upon nature-related dependencies, impacts, risks and opportunities. These TNFD resources, published in September 2023, enable business and finance professionals to integrate nature into decision-making, and ultimately support a shift in global financial flows toward nature-positive outcomes.

Natural Capital Accounting Standards

Natural Capital Accounting strives to value the broader ecosystem services of nature in a standardized way. Methodologies entail systematically collating data regarding the stocks and condition of natural assets, including, for example, the forests, fish stocks, biodiversity and water within a company's stewardship. Such tools enable better measurement, valuation and, ultimately, enhancement of natural capital.

disclosure in corporate reporting as to what is and is not included, will be critical.

While both practices and their associated outcomes must be measured, there is often no consensus regarding how to precisely predict the outcomes from practice change. For example, how to predict the resulting soil carbon increase from implementing cover crops? Should the analysis include which cover crop is planted, whether the organic matter is being incorporated, the prevalent soil type, or even weather events? Attributing causality is complicated in agriculture. Compare this to other asset classes where, for example, we can predict with some accuracy how much energy a newly installed solar panel may generate.

What does this complexity therefore require of us? It means gently "nudging" farmers on the ground to adopt responsible practices, while not judging their practices before understanding their local realities. It means finding local stakeholders who have success stories and useful guidance to share. It means disclosing practices and limitations, even in the face of persistent ambiguities.

Formalizing how we value nature

We must also formally value nature, because only then can we manage and enhance it. Across many centuries, traditional financial accounting has evolved to record transactions, income and costs of production with increasing sophistication. Yet so far it has failed to capture how this production impacts nature or our surrounding community. Given that nature underpins the resilience of our global economy, with at least half of GDP[6], this surely needs to be rectified.

Thankfully, emerging natural capital accounting methodologies will allow us to measure and value the ecosystem services of our natural capital assets and gauge the impact of our production on these services. For example, forests do more than just provide timber for harvesting. They sequester carbon, contribute to flood and erosion control, support biodiversity and offer recreation and cultural enrichment.

Farmland also provides sustenance, but its accompanying responsible practices can help to maintain soil health, provide habitat for pollinators and minimise water usage. Nascent methodologies will allow us to start measuring such ecosystem services and broader impacts. Such methodologies are already being developed by the British Standards Institution/International Organization for Standardization, and Australia's national science agency, among others.

However, applying these methodologies may be challenging. For example, how should we value the carbon storage of peatland, the biodiversity of meadows or the service of pollinators? Nevertheless, through diligent documentation and disclosure of assumptions we must strive to value such ecosystem services, remaining open to continuous improvement. What gets measured, gets managed and can be enhanced.

"Our times call for greater unity in the industry's response to the challenges our planet faces"

Enshrining enduring, universal values

Finally, the two actions above must be guided by deep-seated values. This critically important third action must be integrated across every part of our sustainability strategies, exemplified in our integrity, objectivity and collaboration. Transparency relates to disclosing what we know, and don't know, clearly stating assumptions and the next steps for seeking improvements.

We must also resist operating in an echo chamber, collaborating only with like-minded people in businesses that resemble our own. The better approach is to seek out a range of collaborating partners, including NGOs. This diversity of perspective, as with many other kinds of diversity (including in nature itself), builds better outcomes and resilience.

We must constantly seek to improve and upgrade our processes. This means revisiting assumptions, correcting them and striving for continuous improvement. As our organizations advance toward critical sustainability objectives, we have an opportunity to tell our story in full, showcasing our triumphs and try-overs with equal candor. The Shakespearean "fool" was a master of illuminating uncomfortable truths. Similar candor and humility will be essential in the years ahead, given the challenges and opportunities in the wider natural capital value chain.

Our times call for greater unity in the industry's response to the challenges our planet faces. By working together to deepen our knowledge, our organizations can become wiser and humbler, which will set the stage for a new set of investor opportunities. ■

ENDNOTES

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Important information