Landscapes for People Food and Nature

Reducing Risk

Landscape Approaches to Sustainable Sourcing

Synthesis Report

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SABMiller Brewery in Bogotá, Colombia. Courtesy of Fotorudolf.com.

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Landscapes for People, Food and Nature is a collaborative Initiative to foster cross-sectoral dialogue, learning and action. The partners involved aim to understand and support integrated agricultural landscape approaches to simultaneously meet goals for food production, ecosystem health and human wellbeing. The Business Working Group seeks to expand the potential for this innovative approach in sustainable sourcing, test the concept with key commodities or sourcing regions and identify future partnerships. For more information, please visit: landscapes.ecoagriculture.org.

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Contents

photo courtesy of Rainforest Alliance

Foreword

The landscape approach has been championed by organizations active in the development and conservation sectors for many years, though the concept has been slow to migrate into mainstream corporate thinking. Now this report from the "Landscape for People, Food and Nature Initiative," sets out a case for companies to think about their business in landscape terms.

Landscape approaches are complementary though different from scaling up the efforts of individual interventions. We certainly need to scale up our efforts to support farmers, though addressing the challenges of climate adaptation, water stewardship and building community relations all require "more than the sum of the parts" thinking.

At Nestlé we believe that for a company to be successful over time and create value for its shareholders, it must also create value for society. We call this "Creating Shared Value" and have chosen to focus our efforts upon nutrition, water and rural development. Landscape level thinking is crucial to creating shared value. For example, in our work on rural development, building in resilience at a community level or ensuring that local people have access to public natural resources such as clean air, water, or unpolluted common land means that we need to go beyond the actions of individual farmers and operate at the landscape level.

All of this requires a degree of organization – it needs companies to think in terms of development and human rights, it calls for partnerships to be built and it requires communities to be organised and able to also take ownership. The case studies in this report show how some companies have started to use landscape level thinking in their business models.

I urge businesses, governments and other stakeholders to explore the key findings and messages within this report and apply similar approaches to their own operations.

José Lopez
Executive Vice President, Operations
Nestlé S.A.

"We certainly need to scale up our efforts to support farmers, though addressing the challenges of climate adaptation, water stewardship and building community relations all require 'more than the sum of the parts' thinking."

photo courtesy of SABMiller

Executive Summary

According to a recent report by the KPMG consultancy, the food and beverage sectors are at the highest risk from "sustainability megaforces" –such as water scarcity and population growth among others—but are least prepared to manage that risk. This report demonstrates that when sourcing areas are threatened by a constellation of risks that cannot be mitigated solely on-farm or via supply chain programs, landscape approaches offer solutions. Landscape approaches provide a framework to deliberately work beyond the farm-scale to support food production, ecosystem conservation, and rural livelihoods across entire landscapes in an integrated manner.

This synthesis report emerged from work led by the Landscapes for People, Food and Nature (LPFN) initiative, an international coalition of leading conservation and development organizations, to investigate business involvement in landscape approaches. The research looked specifically at what agribusinesses stand to gain from a landscape approach and explored the benefits and trade-offs early adopters have experienced. Findings are based on our scoping assessment of 27 landscape approaches and three in-depth case studies: SAB-Miller's reduction of water risks in Bogotá, Colombia and George, South Africa; Olam's cocoa and forest initiative in Western Ghana; and Starbucks' landscape approach for coffee in Mexico, Indonesia and Brazil.

Based on our findings, agribusinesses find water, climate, and community risks to be urgent and best suited to piloting landscape approaches. Business rationales appear to be driven by avoided cost considerations (environmental externalities affect the bottom line), community and reputational risk, resource scarcity and lack of substitutes, competition between sectors for the same resource, and recognition of the value of ecosystem services to business performance. In the 27 cases reviewed, the most common rationales for experimenting with a landscape approach that we discern are: (a) mitigating local community and operational risks; (b) value chain efficiency; and (c) voluntary standards compliance.

The motivation for using landscape approaches may be weaker for companies far downstream in the supply chain, those with no exposure to long-term risk from sourcing areas, or lengthy and non-integrated agricultural commodity supply chains.

Companies have combined a mix of interventions (or modes) to address risks through landscape approaches. Based on our scoping assessment, the most commonly observed modes are: value chain interventions that include landscape elements (such as eco-certification which often requires the identification of High Conservation Value lands at regional-scales), combined with regional producer support programs across communities and payments for ecosystem services (carbon or water finance).

"Landscape approaches provide a framework to deliberately work beyond the farm-scale to support food production, ecosystem conservation, and rural livelihoods across entire landscapes in an integrated manner."

Deciding whether to engage in a landscape approach or pursue other options often hinges upon business perception of the risk/cost ratio and determination of the value proposition. Findings from the three case studies reveal that the value proposition is clearest when landscape and community health is at the core of business success. For most companies, avoided costs form the basis of the business case. Identification of shared risk among sourcing area stakeholders that cannot be mitigated by one actor alone provides a crucial way to build commitments to shared solutions. In some cases, landscape approaches to shared risk already exist, led by government and/or civil society groups, but lack private sector involvement, which offer the critical link to enable solutions (or ensure conflicts are addressed and minimized). Thus, value can accrue to all partners via landscape approaches.

Recommendations based on our review of companies pursuing this path highlight the following:

- Assess and manage risks and opportunities at scale. When sourcing area sustainability is a priority, focus beyond the level of individual production units is required. For instance, watershed health, biodiversity conservation, land and resource tenure, and many other factors can strongly influence the social, economic and environmental sustainability of sourcing areas. Companies are piloting ideas in order to better assess/quantify landscape and sourcing area risks, and thus generate information to better inform on-going business decisions and interventions.
- Mitigate landscape risks in partnership. Partnerships provide the means to craft collective approaches to risks shared by business, other resource users or actors in a sourcing area, ecosystems and governments, and also leverage resources, technical skills and capacity that businesses often do not have on their own.
- Integrate landscape risks and the investments required to mitigate them into business plans, across all levels of the business. Interventions to reduce water, climate and community risks and build sustainable sourcing areas, require long-term investment and are most successful with strong internal commitment at all levels.
- Evaluate landscape approaches as an opportunity to increase both the efficiency and effectiveness of sustainable sourcing. Companies applying a landscape approach can more easily focus their range of investments and interventions for synergistic effect in key sourcing areas. Landscape approaches present opportunities to make smarter investments and hedge multiple risks, often based on information sharing as a starting point for better-informed decisions, monitoring platforms, and orchestrated interventions.

Food and beverage companies are gaining experience in a wide array of sustainability initiatives and this study illustrates that, in certain cases, the use of a landscape approach may have significant value for mitigating risks and creating opportunities. The Business Engagement Working Group of the Landscapes for People, Food and Nature Initiative seeks to expand the potential for this innovative approach in sustainable sourcing, test the concept with key commodities or sourcing regions, and identify new partnerships.

Sustainability risks for food and beverage businesses

Sustainability megaforces pose growing risks to the agri-food sector

Businesses are increasingly at risk of "sustainability megaforces" – interconnected risks that will have unprecedented effects on business performance and profitability in the future. These mega-forces include: climate change; competition for energy, land, water and material resources; population growth and migration; poverty and food insecurity; and ecosystem degradation.[1] Food and beverage businesses will be directly and indirectly affected by a range of global trajectories:

- Global agriculture must produce enough food to feed at least 9 billion people by 2050, with nearly all that additional food needed for developing countries and due to per capita increases in meat consumption.[2,3]
- By 2030, the global demand for freshwater is projected to exceed supply by 40%.[4]
- An overall shift to marginal and unconventional production, in the face of scarcity and conflicts over natural resources, is leading to lower productivity potential, particularly in areas of weak infrastructure, resulting in increased susceptibility to production shortfalls.[5]
- Climate change, resource depletion, and demographics have a strong impact on the availability and price of agricultural commodities.[6]
- The global middle class is predicted to grow 172% between 2010 and 2030, and while businesses will seek to serve this new middle class market, it will be at a time when resources are likely to be scarcer and more price-volatile.[7]

The effects of sustainability megaforces may lead to price shocks, supply chain disruption,[8] and increased operational and reputational risk. Surprisingly, while the food and beverage sectors are at the highest risk from sustainability megaforces, they are least ready to respond. According to KPMG, this sector is making the least progress in reducing their environmental intensity while their exposure to environmental cost is growing rapidly.[1] This lack of preparedness may be due to sectoral challenges in anticipating (and mitigating) externalities. Agribusiness exposure to external environmental costs is growing rapidly, exceeding all other sectors (US$200 billion in 2010).[9]

Agribusinesses and food sector brand manufacturers are increasingly aware of sustainability risks. The interconnectedness of the water-food-energy-climate nexus[10] is increasingly being recognized by business as requiring integrated

1 KPMG, 2012. Expect the Unexpected: Building business value in a changing world.

2 Food and Agriculture Organization of the United Nations (FAO), 2009. How to Feed the Word in 2050. Discussion paper prepared for Expert Forum.

3 Foresight, 2011. The Future of Food and Farming (2011) Final Project Report. The Government Office for Science, London, UK.

4 United Nations Environment Programme, 2011. Towards a Green Economy: Pathways to Sustainable Development and Poverty Eradication.

5 Lee, B., F. Preston, J. Kooroshy, R. Bailey, G. Lahn., 2012. Resources Futures. Chatham House, London, UK.

6 MSCI ESG Research, 2012. Industry Report: Food Products.

7 Kharas, H., 2010. OECD Development Centre Working Paper No. 285: The Emerging Middle Class in Developing Countries.

8 MSCI ESG Research, 2012. Industry Report: Food Products.

9 These are environmental impact costs that do not appear on corporate financial statements, but are expected to increasingly begin to do so, due to removal of subsidies and regulation.

10 World Economic Forum, 2011. Water Security: The Water-Food-Energy-Climate Nexus. Island Press.

solutions. In some cases, stability in key sourcing and operational regions may be at stake.

When sourcing area quality and sustainability is a priority, focus beyond the level of individual production units is required. For instance, watershed health, biodiversity conservation and habitat connectivity, land and resource tenure, and many other factors can strongly influence social, economic, and environmental sustainability. When productivity is threatened by a multitude of risks that cannot be mitigated on-farm or via supply chain programs, investments in long-term solutions via landscape approaches to mitigate risks to the business may be necessary.

Agri-food businesses can test landscape approaches to mitigate risk

The Landscapes for People, Food and Nature (LPFN) initiative developed this report to investigate what benefits businesses may gain from a landscape approach, explore what benefits and trade-offs early adopters are experiencingand distill recommendations based on these experiences. Work began with an initial scoping via internet and the wider LPFN network that revealed 40 examples of landscape approaches with business involvement. A global analysis of 27 of these examples enumerated the modes and rationale for business engagement. To gain further insight we selected 3 cases for more in-depth study and interviewed 10 business practitioners on their expertise with landscape approaches. This preliminary look at how businesses are experimenting with landscape approaches suggests that there is high potential for further piloting of this approach to guide investments for the sustainable sourcing of agricultural raw materials globally.

Reponses by the agri-food sector focus on different risks and scales

Sustainability initiatives in the food and beverage sector have grown dramatically over the past two decades, yet much of this work has focused on improving the environmental and social performance of specific farms, forests, and post-harvest operations in corporate supply chains. Companies are becoming involved in certification systems, wetland banking, biodiversity banking, and other payments for ecosystem service (PES) schemes. Recent innovations and partnerships in agricultural commodity production (such as commodity roundtables and corporate supply chain commitments) pursue supply chain sustainability.

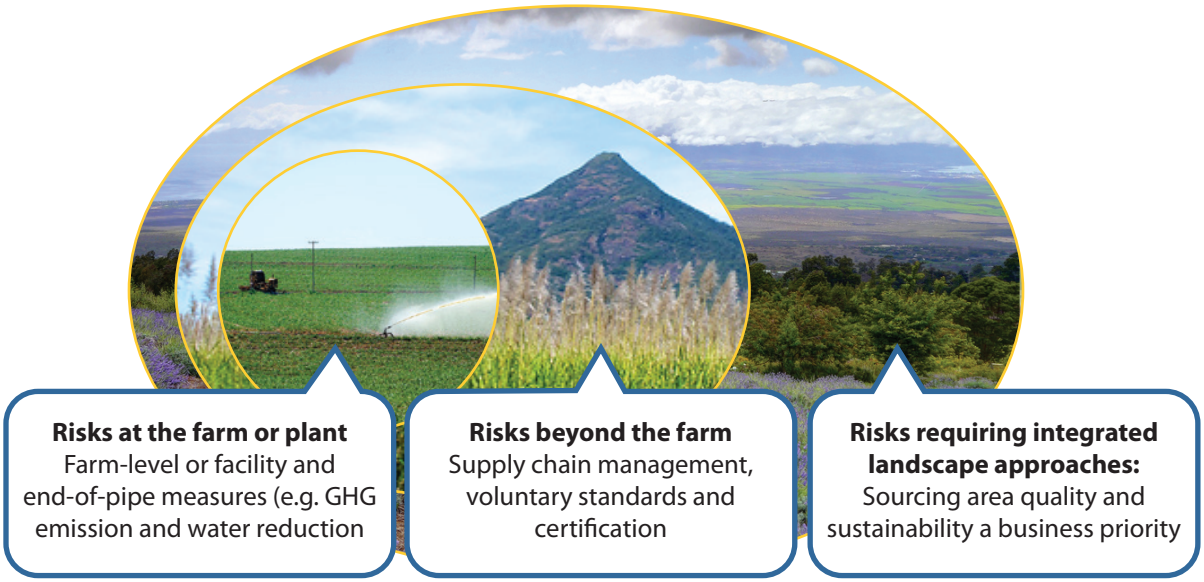

Figure 1. Scales of business engagement in relation to external risks

However, markets provide inadequate tools for businesses to assess and respond to sustainability challenges.[11] Certification has become a widely used tool for driving sustainable practices in the food and beverage industry. A valuable attribute of certification—traceability—is increasingly used to ensure transparency in sourcing high-risk inputs.[12] However, certification requirements vary, and not all standards address the range of risks that companies face in their operations and in key sourcing areas. While these systems offer a critical means of providing companies with off-the-shelf standards, criteria, and performance metrics, they are often applied at farm- or concession-level scales, and are not designed to apply at the landscape scale, where problems may originate or need to be addressed.

For many of the companies reviewed during the course of this work, it is clear that community and operational risks are of primary concern, and often provide the impetus to take action beyond the farm or plant. Companies reviewed seek to eliminate the worst practices (both environmental and social) at a minimum, including child labour and poverty, and also to promote the economic performance and social wellbeing of farmers. Local community risks in key sourcing areas can become operational and reputational risks, and are often not resolvable on the farm or in the plant. Thus, companies pursue interventions at broader scales to decrease exposure and support rural and sustainable development.

Based on our global scoping analysis it appears that the complexity of sustainability interventions increases with increasing risks (see Figure 1). Interventions that concentrate on the farm- or plant-level are generally focused on specific support for farmers to improve production conditions, waste mitigation,

11 TEEB Foundations, 2010. In: Kumar, P. (Ed.), TEEB-The Economics of Ecosystems and Biodiversity (TEEB): Ecological and Economic Foundations. Earthscan, London.

12 MSCI notes that 34% of companies surveyed have started to trace critical raw materials back to the farm to ensure that they come from sustainable sources.

Greenhouse Gas Protocol[13] direct emissions tracking, and others. As risks beyond the farm become more apparent (sometimes due to increasing demands from the market, financiers, and governments), company awareness of supply chain risks increases. In response, large scale producer support programs may be pursued, aiming at certification of cooperatives and producer groups or associations, which is an effective and cost efficient way to reach thousands of farmers and eliminate the most unsustainable practices. However, these responses will not find opportunities to address risks in key sourcing areas that require interventions beyond farm level, such as water security. Companies reviewed are finding solutions to address these risks through landscape approaches.

Landscape approaches address risks and create opportunities at scale

We propose the following business-oriented definition of a landscape approach: Identifying risks to the business beyond the farm- or facility-scale, and recognizing that long-term business success is tied to healthy communities and ecosystems. Thus, a landscape approach[14,15] refers to activities in a socially or geographically defined area that:

- seek to improve food production, ecosystem services, and rural livelihoods;
- includes policy, planning, management or support activities at the landscape scale;
- involves inter-sectoral and/or multi-stakeholder coordination; and
- are participatory and support adaptive collaborative management.

Landscape approaches hold potential to mitigate a constellation of risks in addition to on-going risk mitigation interventions at the farm level and through supply chain approaches. Thus, landscape approaches provide a framework to deliberately work deliberately in an integrated manner beyond the farm-scale to support food production, ecosystem conservation, and rural livelihoods across entire landscapes.

Companies may be motivated to invest in landscape approaches to further business goals such as corporate sustainability, responsiveness to NGO's, investors and financiers and compliance with national laws or voluntary standards as well as for strategic reasons. Companies focused on a longer time horizon also seek competitive advantages in land and resource access and a stronger position in strategic sourcing areas. Collaboration with other stakeholders on a landscape scale may provide opportunities to share the costs and reduce risks.

13 The GHG Protocol is the most widely used international accounting tool for government and business leaders to understand, quantify, and manage greenhouse gas emissions. See: http://www.ghgprotocol.org/

14 Scherr, S.J., Shames, S. and Friedman, R. 2012. From Climate-Smart Agriculture to Climate-Smart Landscapes. Agriculture and Food Security 1(12).

15 Milder, J.C., Buck, L.E., Hart, A.K. and Scherr, S.J., 2012. A green growth investment framework for the Southern Agricultural Growth Corridor of Tanzania [SAGCOT]. SAGCOT Centre.

> *"I cannot say a landscape level approach is now integral to our approach. I do believe that we will gradually move away from assessing and improving sustainability at the individual farm level to the landscape level."*
>
> *— Jan Kees Vis*
> *Global Director Sustainable Sourcing Development*
> *Unilever*

A landscape approach can be a means for businesses to streamline investments and bring innovation to assessing and responding to sourcing risks. A landscape approach provides a platform for addressing risks that are difficult to mitigate through bilateral interventions with farmers or through supply chain approaches. This can be either by seeking smart combinations of existing company investments (e.g. community programs and productivity investments) or by bundling company investments in a sourcing area pursuing a common goal.

Landscape approaches are participatory and support adaptive collaborative management. For example, success of commercial agricultural enterprises will, in many cases, hinge on their ability to develop mutually beneficial partnerships and business relationships with smallholders. Moreover, large investments have the potential to significantly disrupt the livelihoods of smallholders by crowding out market opportunities or creating land and water conflicts. Failing to develop business plans and community-based planning processes that address explicitly the role of smallholders within the landscape can pose significant business risks for companies.

Our work suggests that there is great potential for increasing private sector engagement in landscape approaches. In many cases, collaborative planning and action platforms for landscape management are already present, led by government, research and/or civil society actors, which would benefit from private sector participation. The Landscapes for People, Food and Nature Initiative conducted continental reviews of landscape approaches initiated in Africa and Latin America. In Africa[16], only 10 of the 84 (11%) identified landscape approaches included agribusiness, forestry or extraction industries, and only 41 of 104 (40%) in Latin America.[17] In both contexts, landscape approaches reported strengthening value chains for new sustainable products and resolving resource conflicts as challenges without private sector involvement.

16 Milder, J. C., Hart, A. K., Dobie, P., Minai, J. and Zaleski, C. In review. Integrated landscape initiatives for African agriculture, development, and conservation: A region-wide assessment.

17 Estrada et al., unpublished data.

photo courtesy of SABMiller

Mitigating risks through landscape approaches

Landscape approaches in practice

Our initial scoping suggested that agribusinesses find water, climate, and community risks to be urgent, and best suited to piloting landscape approaches. For example, brewing companies experiencing water quality issues related to poor upstream agricultural practices or companies sourcing cocoa but confronting labor issues, can find solutions in landscape approaches, which require coordinated action across communities or regions. Interviews confirmed that risk assessments often identify these issues, which are difficult to address solely with farm-level or supply chain interventions, as a priority. Broader business analyses identify risks that may not be detected in simple risk assessments.

The most common rationales for addressing water, climate and community risk mitigation that we discern were: a) local community and operational risks; b) value chain efficiency; and c) voluntary standards compliance (see Figure 2). The first two refer to business concerns about supplies and sourcing areas. The latter two are generally more focused on supply chain and demand-side or market preference concerns. A full list of rationales with examples from companies is included in Table 2 of the Annex of this document.

In most cases, companies did not decide all at once to start a landscape approach. In their efforts to address identified risks they gradually introduced interventions that operate at a landscape level. Our scoping analysis showed that business rationales appear to be driven by avoided cost considerations ('externalities' that affect the bottom line), community and reputational risk, resource scarcity and lack of substitutes, competition between sectors for the same resource, and recognition of the value of ecosystem services to business performance. These circumstances offer motivation for companies to address direct risks to business operations, and to start engaging in landscape approaches.

The scale of water, climate, and community risks to businesses can be understood, but are often hard to translate into quantifiable measures of impact on businesses' financial statements. This can be compounded by the limited ability businesses may have to address these risks directly, depending on their role in the supply chain. Although food brand manufacturers often carry a significant share of the reputational risk for agricultural problems at the roots of their supply chains, they often do not have expertise in-house to manage those issues. Further, investments in addressing risks can be costly, and yet the benefits may accrue to other actors in the supply chain, rather than the company that made the investment: the perennial issue of 'free-riders' which confounds management of common resources.

Despite the limited awareness of landscape scale issues, research and knowledge into these issues is growing. International Finance Corporation (IFC) performance standards have forced investors to take regional water security into account in investment planning. Some companies have experienced challenges related to the vulnerability of water resources in the Lake Naivasha, Kenya area, and in other regions where risk mitigation strategies were requested by IFC. In another example, a resource risk assessment carried out by a mining company for its concessions in Madagascar revealed that the company's community investment program was not targeted on the strategic communities where operations were at greatest risk. Smart spatial planning via a landscape approach provided a means of focusing investments in the appropriate community programs, thus avoiding inefficient expenditures.

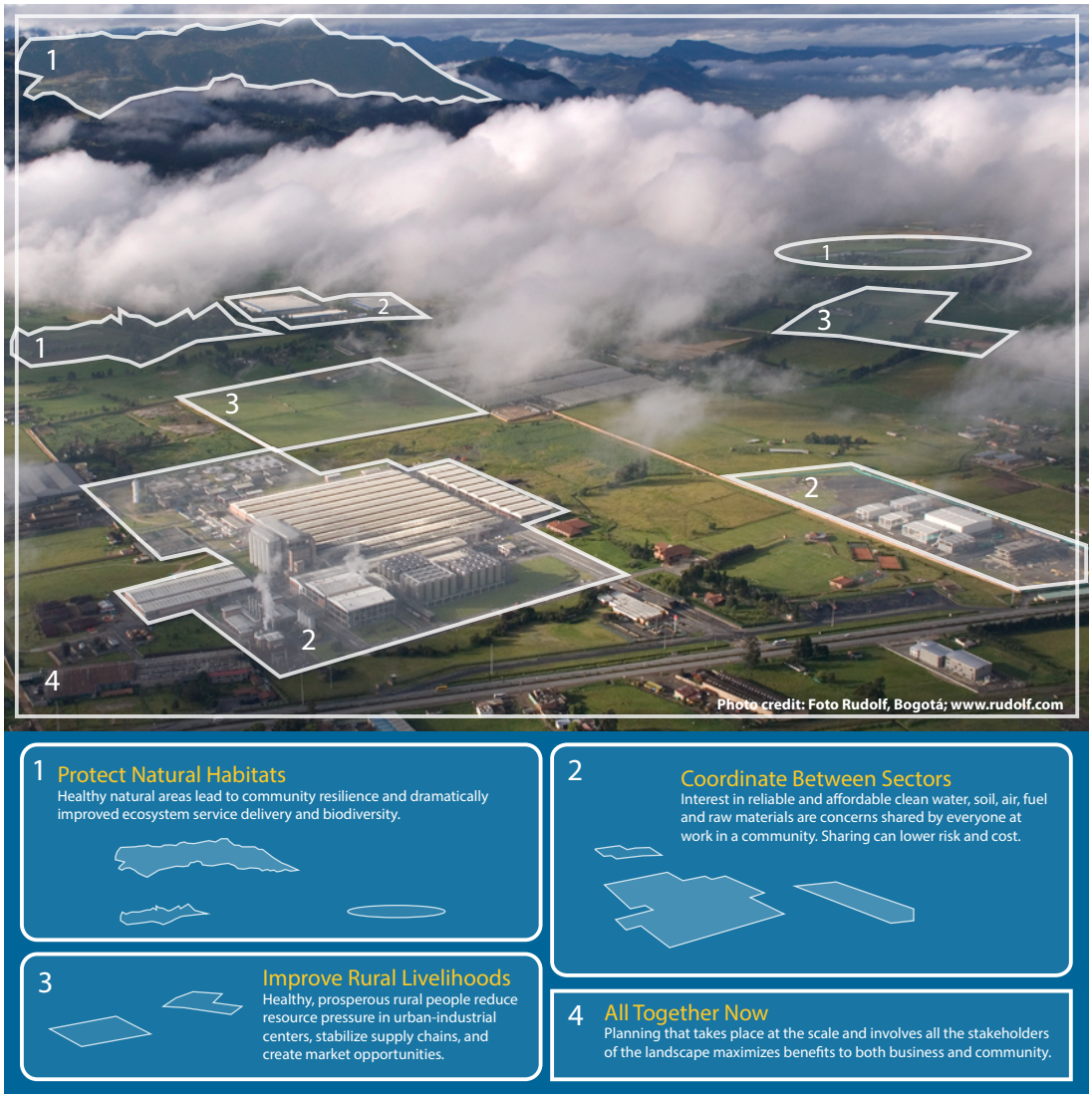

Figure 2. A landscape approach to sustainable sourcing

Box 1. Opportunities for landscape approaches in fast-expanding agricultural commodities

Fast-expanding commodities such as oil palm, sugarcane, corn and soy exert strong pressures on land and water resources and are increasingly coming under the scrutiny of consumers, brand manufacturers and retailers. Currently, however, there are very few examples of landscape approaches involving these rapidly expanding commodities. Often, fast-expanding commodities exert a substantial strain on ecosystem services and biological diversity as new areas of commodity production often overlap with areas containing high-levels of biological diversity (e.g. Indonesia and Brazil). Further, annual crops such as corn and soy can be rotated yearly and seasonally, presenting a challenge for longer-term management interventions. More research and testing is needed to identify how landscape approaches can deliver solutions to these risks.

Companies are increasingly seeking commodities certified under third-party standards, such as the Roundtables on Sustainable Palm Oil, Soy, Biofuels, and Bonsucro (sugar). While these standards include important methods to mitigate risks associated with biodiversity, land use, and agricultural production practices, they only apply to the certified unit (and/or mill) and rarely incorporate considerations for practices in the surrounding landscape. However, increasingly companies are motivated to resolve disputes about land rights, land conversion, and other sensitive issues with local communities and NGOs in the areas where they operate. Though the standards may not include criteria to solve these landscapes issues directly, they do offer an effective platform to begin work on them. Some standards provide criteria with a spatial impact such as on setting aside lands, high conservation value identification and resolving land tenure issues with local communities. Working beyond the farm or concession through landscape approaches offers companies an operational nexus to ensure that collaborative processes for dialogue, planning, negotiating and monitoring are in place, involving government and local actors who influence land management decisions.

New approaches are being piloted in Brazil and potentially Indonesia to develop jurisdictional approaches to environmental and social performance of land use. These shared solutions could provide a jurisdictional link between standards and commodity roundtables and those government jurisdictions seeking to reduce deforestation rates. Such a jurisdictional approach can cover a range of products in supply chains in a region, mitigate risks for commodity buyers in their sourcing practices, and link producers to incentives and markets.

Pathways for introducing landscape approaches

Based on patterns across the 27 landscapes reviewed, we observe that businesses generally arrived at landscape approaches from three entry-points.

1. Companies introduce landscape approaches through their own supply chain interventions

In pursuit of sourcing strategies, supply chain efficiencies and stability (including certification and standards), companies identify additional value in adding on landscape approaches. These follow on certification standards that in some cases include incentives to look at a wider scale of social and environmental attributes (such as the Bonsucro standard for sugar) or protection of adjacent lands with High Conservation Values (as in the Roundtable on Sustainable Palm Oil standard).

Additionally, affecting supply chain actors and units through sheer scale can have large-scale impacts, and even bring transformative change in supply chains, across landscapes and producers. However, these interventions only become landscape approaches when integrated management beyond the farm-level, often involving multiple sectors and stakeholders, allow for integrated and long-term planning.

2. Companies join multi-stakeholder platforms

Commodity roundtables, cross-sectoral dialogues or community-based

forums can lead companies into landscape approaches, often via an invited pathway of engagement.

Multi-stakeholder initiatives move from simple collaborations to landscape approaches when the dialogue and planning (at wider scales beyond the production unit) result in modified management practices based on a landscape approach.

3. Companies' interventions at the producer level bring in landscape approach elements

Producer support programs implemented at a regional scale often combine certification or management objectives with livelihood improvements while simultaneously combating sourcing risks. These programs can be for a single commodity or for a combination of commodities (e.g. cocoa and tea/charcoal), but, in either case, they often lead companies to define interventions beyond the farm-scale, which, when combined with long-term planning, can constitute landscape approaches.

Further investigation should explore whether it is important for sustainability interventions to adopt landscape management intentions at the outset in order to balance trade-offs that operate at landscape scales.

Modes for investing in landscape approaches

The modes for investing in landscape approaches follow a pattern, largely based on the type of risk faced, the rationale for the company to invest, and the entry point. Most commonly observed are:

- Value chain approaches that included elements of a landscape approach;
- Regional producer extension support; and
- Payments by companies for ecosystem services, e.g. carbon or water finance.

In applying landscape approaches, companies commonly combined different modes. The most commonly observed, based on our scoping analysis, are value chain interventions that included elements of a landscape approach in combination with regional producer support programs. In value chain approaches, certification criteria often included mapping of High Conservation Value (HCV) areas. This became an entry to a landscape approach in locales where HCV identification needs must occur at regional-scales, for example with Roundtable for Responsible Soy certification pilot programs in Brazil, Argentina, Bolivia and Paraguay. Regional support programs usually included community level interventions and in a few cases, incentives to prevent deforestation. Watershed management, including payments for water services, helps to secure water for

> *"Managing the competing water demands of ecosystems, agriculture, energy production, industry and communities (whether megacities or small communities) requires a collaborative response involving a range of stakeholders and, crucially, is sustainable over the long term. This is why helping local companies with long-term interests in watersheds to understand the business case to engage and invest in improving water security is at the heart of our [Water Futures Partnership] approach."*
>
> *—Andy Wales, SABMiller*
> *Franz-Joseph Batz, GIZ*
> *David Tickner, WWF-UK*

the company and others. A full list of modes with examples from companies is included in Table 3 of the Annex of this document.

A mode observed in all cases is "partnerships, multi-stakeholder dialogue, planning and management." It appears to be a critical enabler of landscape approaches. Dialogue, partnerships and shared commitment to solutions also appear to accrue value to businesses and stakeholders alike, most clearly in the form of better information to guide decision-making by all parties, avoidance of legal costs, more efficient investment targeting, and leveraging additional resources.

Does the 'sum of many parts' equate to a landscape approach?

Based on our assessment of the modes and rationales for business engagement in landscape initiatives, questions arise as to whether large-scale interventions at the producer scale equate to a landscape approach. For instance, a company reaching thousands of farmers via extension and improved manage-

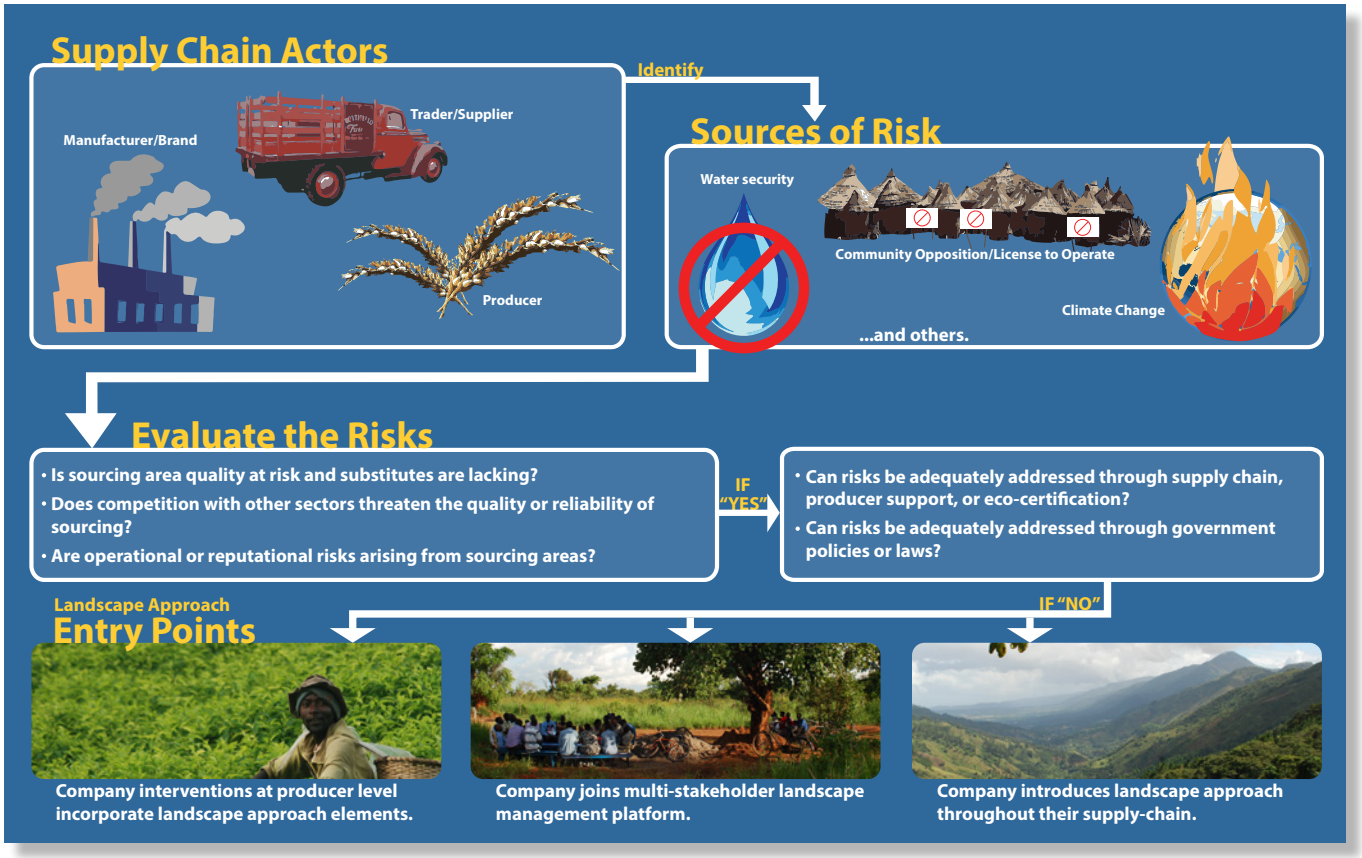

Figure 3. Landscape approach decision support

ment in the cocoa sector may result in improved quality of beans, increased income for individual farmers and reduced water pollution, arguably resulting in landscape level benefits. Can scaling up hundreds of interventions at an individual farm level deliver aggregated landscape benefits, and qualify as a landscape approach?

Our assessment suggests that aggregated interventions at the farm-level across an entire region may not sufficiently address risks beyond the farm, such as water scarcity or labour issues. Deliberate integrated planning and coordination of interventions across a landscape appears to yield more cost-efficient landscape scale results than many, uncoordinated, interventions in aggregate. This is particularly apparent in cases seeking to address multiple complex risks, such as poverty and climate change adaptation. Without intentional coordination, landscape benefits may emerge only coincidentally but are far from certain, and opportunities for additional synergistic cost-savings and concurrent impacts may be missed altogether.

When a landscape approach may not apply

As Figure 3 illustrates, companies can forecast the efficacy of a landscape approach after evaluating the risks. If it is determined that the risks can adequately be addressed through supply chain approaches, producer support or standards and certification interventions, then a landscape approach may not be necessary. Further, companies should investigate whether risks can be adequately addressed through government policies or laws, and also other stakeholders.[18] If other actors are tackling the risks successfully, then business engagement may not be additive, but instead overcrowd the field.

Company position in the supply chain and the types of commodities sourced can also influence whether a landscape approach is the right one or not. Companies far downstream may have a hard time connecting to a sourcing area, and may need actors upstream, with closer ties to sourcing areas, to take the lead. Companies without an interest in long-term commitments to sourcing areas may find it hard to justify the investment. Lengthy and non-integrated agricultural commodity supply chains also are challenged to define solid linkages to sourcing areas. Vertically-integrated companies may have a clearer connection to sourcing areas and better ability to engage a landscape approach.

Further, in some instances companies may find it strategically advantageous to diversify their sourcing, thus spreading their risk across more sourcing areas. This was demonstrated recently by companies sourcing grains from the US Midwest and Australia, seeking to overcome short-term supply constraints due to climate change impacts and water scarcity. Diversifying sourcing across multiple sourcing regions can better hedge risks, but may do nothing to promote resilience in key sourcing regions. If multiple companies with shared interests in sourcing areas worked together to hedge short-term risk collectively,

"Most multi-stakeholder landscape approaches begin with dialogue between various interests with a stake in the landscape, including governments, the private sector and communities."

18 For example, New York City's implementation of a payment for watershed service scheme in the Catskills and Delaware catchments, which abated water risks upstream, saving US$6 to $8 billion in water treatment costs.

in a pre-competitive manner, while also focusing on longer-term investments in resiliency, it may be more likely that both short-term and long-term risks are addressed. More analysis is needed to understand how businesses can best prepare for and mitigate these effects, and how a landscape approach applies.

The value proposition

Ultimately, a business's assessment of the value proposition will determine whether or not to engage in a landscape approach or pursue other options. Based on our scoping assessment, we identified the following pattern, which was further assessed through the case studies (see Figure 4). The value proposition is often initiated by identifying the business rationale, based on assessment of risks and opportunities, which define the scope and scale of risk to the business. This is followed by assessing options (modes) for investment, largely informed by enabling conditions (such as key partnerships); policy, structural and market aspects that influence success; particular landscape approach attributes such as the identified risks and opportunities and means of affecting them; and level of commitment at the company. Those factors combine to inform the value proposition.

While companies are increasingly identifying operational risks and gauging the corresponding financial risk to their operations, very few companies reviewed have quantified the value of the benefits to the company of engaging in landscape approaches. Those that have sought to quantify benefits often base their evaluations on avoided costs, in which the cost of the business-as-usual scenario is not viable due to the scale of risks and associated costs. Avoided cost calculations often do not tell the whole story. Environmental and social risk mitigation (often carried out in partnership or through multi-stakeholder planning) can cost-effectively contribute to sustainable sourcing objectives, and ultimately, to the bottom line.

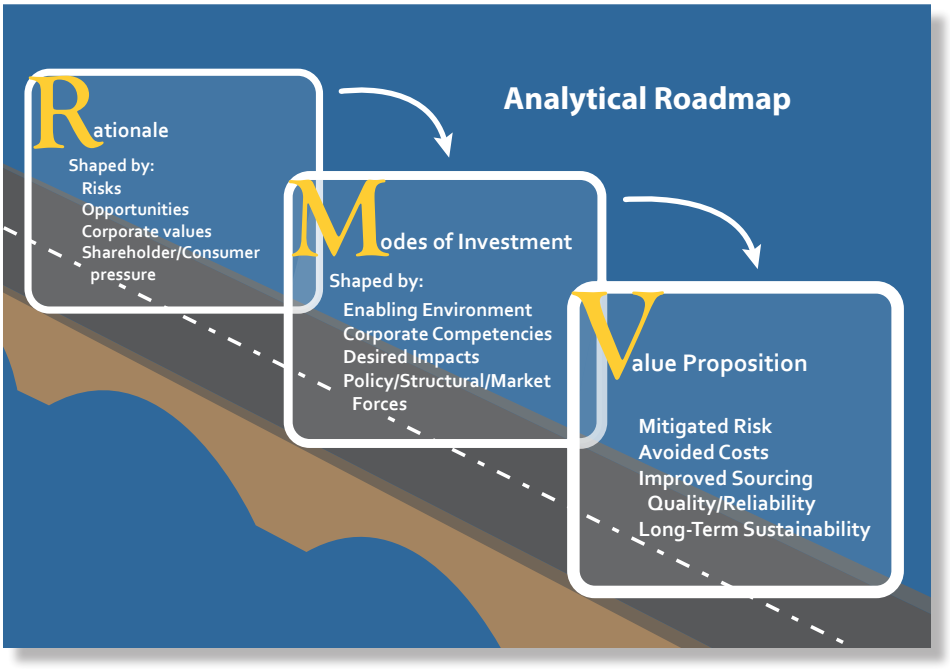

Figure 4. Analytical roadmap to the business case for a landscape approach

photo courtesy of Rainforest Alliance

Water, climate, and community case studies

For each of the key themes, water, climate, and communities, we conducted in-depth case studies to understand the business rationale, modes of engagement and the value proposition, as depicted in Figure 4. Case studies include SABMiller's water risk mitigation in Bogotá, Colombia and George, South Africa; Olam's cocoa and forest initiative in Western Ghana; and Starbucks' landscape approach for coffee in Mexico, Indonesia and Brazil.[19]

Water: SABMiller

SABMiller is one of the world's largest brewers, with a strong interest in water security. We investigated their efforts in South Africa and Colombia, although SABMiller is also involved in other landscapes. In both these countries, the company faced operational, reputational and regulatory risks to the business based on water quantity and quality concerns, brought on by climate change, water scarcity, competition for water resources, unsustainable land use upstream, as well as the social dimensions of water use and their interactions with industry.

The company is looking "beyond the breweries" to the landscape and communities it operates in to identify shared responsibilities and to craft shared solutions. The company determined that the most appropriate scale to address shared risk was with local communities, governments, stakeholders and businesses involved in the water catchments and ecosystems. Landscape approaches were created to craft integrated management solutions involving all key users in the catchments. The Water Futures Partnership (with WWF and GIZ) is a critical catalyst for SABMiller's landscape approaches, and has leveraged significant complementary investment and expertise. These landscape approaches have resulted in the mitigation of operational risk and reputational benefits, while the required investment has been far less than the avoided costs. Future SABMiller efforts will focus increasingly on reducing risks in the agricultural supply chain.

Climate and communities: Starbucks

Starbucks is a global coffee brand that has continued to experience high growth during the past decade. However, the company faced operational risks from climate change impacts in key sourcing regions and poor prospects for farmers in the coffee sector due to low coffee bean prices. With coffee production and yields growing more erratic over the last ten years due to climatic variability, the quality of coffee beans and increasing price volatility became major business concerns. Some key coffee producing areas were identified as particularly vulnerable to climate change impacts. For instance, in Chiapas, Mexico, climate vulnerability research projected a 77% reduction in areas suitable for growing Arabica coffee by 2030.

19 For more on each case, see the complete case studies, which are available here: http://landscapes.ecoagriculture.org/global_review/reducing_risk

A partnership with Conservation International, formed in 1998, resulted in creation of the Coffee and Farmer Equity (C.A.F.E.) Practices, which are now embedded in Starbucks operations, and form the basis for piloting landscape approaches. Our case study reviews landscape pilots promoting climate-smart coffee production, producer support, and partnerships with government in Chiapas, Mexico and Sumatra, Indonesia. In these landscapes, Starbucks has mitigated operational risks in key sourcing areas, leveraged capacity and expertise through partnerships, and has begun to integrate climate resilience into the coffee sector. Furthermore, Starbucks is delivering producer support, addressing livelihood needs and income supplements through carbon payments, and providing incentives for farmers to not expand coffee growing areas into surrounding forests, reducing deforestation pressure.

Starbucks is looking to build on their experience with new programs in Brazil—the world's largest coffee producer—that aim to improve coffee production practices, support farmers adopting C.A.F.E. Practices, maintain biodiversity and increase carbon stocks in coffee production landscapes.

Climate and communities: Olam

Olam is a global integrated supply chain manager of agricultural products and food ingredients, sourcing 20 products, with a direct presence in 64 countries. Olam applied their standard risk assessment in the Bia/Juabeso region of Ghana before establishing new cocoa project, and identified the following: community health and livelihood issues, deforestation, and ecosystem degradation, all exacerbated by climate change, posed operational risks that would impact the ability of farmers to reliably supply Olam with high quality cocoa.

The company recognized that a typical producer support program would be unable to mitigate climate change risks. A partnership with Rainforest Alliance has provided Olam with the opportunity to test how to integrate cocoa certification and sustainable forest management through a landscape approach. The project, started in 2011, builds on Olam's existing sustainability standard and Livelihood Charter. It provides a package of tools and interventions for improvements in cocoa production, primarily through the application of the Sustainable Agriculture Network's (SAN) regular training program and farmer training in the new SAN climate module. These trainings are designed to increase farmer income through raised productivity rates, while simultaneously improving ecosystem resilience and biodiversity. The project also seeks to create linkages with REDD+[20] policies the Ghanaian government is developing in order to qualify for REDD+ finance by stopping expansion into forests, increasing carbon stocks and promoting agroforestry.

At the end of 2012, there were 1,259 certified farms, contributing to an estimated yield of 1,295 metric tons of certified beans. Though this represents only about 4% of the total amount of cocoa sourced by Olam in Ghana, this figure

20 REDD+ stands for Reducing Emissions from Deforestation and forest Degradation, and seeks to enable countries, through carbon finance, to foster conservation, sustainable management of forests, and enhancement of forest carbon stocks. See: http://www.un-redd.org/AboutUN-REDDProgramme/tabid/102613/Default.aspx

is expected to increase over time. While the project has cost nearly double a typical business venture of this scale for Olam, the company expects costs to decline as they learn from mistakes and the project matures. If the project continues to be a success, Olam expects to eventually apply this approach to other cocoa sourcing areas, as well as to other perennial crop value chains, such as coffee.

Lessons learned from case studies and scoping analysis

Sourcing area quality and sustainability drives companies to look beyond the farm and establish partnerships (often with an NGO or government) for shared risk assessment and mitigation. Often, intervention design draws from existing tools and approaches, applied within the landscape approach framework, tailored to the specific risks and circumstances. The following insights emerged from the scoping analysis and review of case studies.

Business rationale insights

Landscape and community health at the core of business success

For Starbucks, SABMiller and Olam, recognition that future company growth and resilience depends on healthy landscapes and communities drove their intention to pursue landscape approaches in key sourcing and operational regions. Both Starbucks and SABMiller recognized serious sourcing and supply risks would negatively affect quantity and quality of the resources the business depends on, increase price volatility and result in increased related risks such as reputational and legal risks.

Valuing the risk/cost ration

In the cases observed, the business's perception of the risk/cost ratio determined whether the business decided to invest in a landscape approach. For some businesses, assessment of the scale of potential costs due to business risk drove the companies to invest in landscape approaches to mitigate those risks. This is particularly apparent in cases of weak governance, where externalities cannot easily be mitigated by governments. For SABMiller in Colombia, the potential for physical water failure at its brewery provided the impetus to act. This ultimately contributed to collective action (and cost sharing) among stakeholders to address the root causes of water risks, which resulted in a more secure and higher quality supply of water in the region as a whole.

Investing in better decisions

In the Starbucks and Olam case studies, investments to better assess/quantify landscape and sourcing area risks were undertaken to better inform on-going

"Often, intervention design draws from existing tools and approaches, applied within the landscape approach framework, tailored to the specific risks and circumstances."

business decisions and interventions. Olam's investments in the Bia/Juabeso project are twice the costs of a business-as-usual certification project and are currently not commercially viable. However, findings from the cocoa project have the potential to be applied across other commodities the company is sourcing, thereby creating efficiencies and stronger risk mitigation approaches. Spatial mapping and planning allows companies to see the interconnections and synergies between risks, how their operations and supply chains connect with other stakeholders and users, and where opportunities and solutions may lie.

Investment modes insights

Partnerships with shared interest

All the case studies and projects reviewed in the scoping study depend on partnerships to identify shared interests in mitigating landscape-level risks, to find solutions and to implement them. In the case studies, partnerships with NGOs and research/development agencies leveraged expertise and investments the companies could not have provided on their own. Further, these partnerships all enable stronger linkages to policymakers and government commitments that enable solutions (or ensure conflicts are addressed and minimized).

Collective action in the sourcing area

Working with multiple stakeholders to identify the overlap in risks is critical to motivate the range of actors—businesses, communities and governments—that need to be part of a lasting solution to mitigate those risks. This is seen most clearly in projects and case studies involving climate, water and community risks. For example, SABMiller recognized that one company could not resolve the water security risks facing Bogotá and George, South Africa alone. Collective action is required among land use decision-makers to address water risks in a cost-effective manner across the regions where they operate.

Collective action in the sector

Even identifying shared risks within supply chains provides companies with greater ability to mitigate landscape risks. These interventions are seen to even motivate producers that the companies do not directly source from, as well as traders and suppliers, to seek solutions. This is demonstrated in the case studies, whether adhering to standards or investing in yield increases (with related restrictions on deforestation) to slow commodity expansion into neighbouring forests.

Management solutions developed across the landscape and across sectors

In all cases reviewed, management solutions focused not only on the long-term needs of the company, but also on solutions for stakeholders, communities,

other businesses, and long-term ecosystem service provision. Some companies are addressing resource scarcity directly by forging cross-sectoral management approaches, perhaps best exemplified by SABMiller's shared risk and mitigation actions with municipalities and other water users. This is a defining element of a landscape approach, as it is a critical means to balance trade-offs between sectors and users of resources.

A package of solutions

While supply chain interventions such as producer support programs or payments for ecosystem services can have impact, they do not constitute a landscape approach, even if applied at broad scales. However, when these interventions are implemented within the partnerships and land and resource planning context that defines landscape approaches, there is greater ability to coordinate interventions for impact and scale. Landscape approaches bring added value in aligning existing investments on different themes (producer support, community programs, research and development) in key regions, making the combined impact bigger than the sum of the individual interventions.

Value proposition insights

Avoided costs as the basis for the business case

For SABMiller, the costs to the business that would result from water scarcity, water quality decline, and conflicts over water use with other users were large enough to justify the company internalizing the cost of mitigating those risks in key landscapes. Starbucks faced a similar challenge, looking at the future of coffee production in key sourcing regions. By taking this long-term perspective towards assessing risks to the business and the entire coffee industry, Starbucks invested in risk mitigation in key landscapes, while also addressing coffee bean quality concerns through their C.A.F.E. Practices standard.

The value of risk reduction

While the value of reducing risks is clearest with the SABMiller case study, Olam's interventions in Ghana's Bia/Juabeso region are not yet quantified. The Bia/Juabeso region represents less than 4% of the cocoa Olam sources from Ghana, and the landscape approach is in the early stages. As such, it is still too early to assess the value in terms of avoided costs. However, the value of shifting higher-risk sun-and fertilizer-dependent cocoa production toward more sustainable shade-tolerant and soil enriching cocoa production that produces high yields has not been quantified. It appears likely that early-action measures to maintain the viability of Ghana's cocoa sector (which represents 22% of the global cocoa supply) will have significant benefits (and avoided costs) for Olam and the entire cocoa industry.

Added value accruing to all partners

A significant number of the robust and mature cases of landscape approaches reviewed depend on public-private partnerships as a means for companies to address risks, affect related public policies, and leverage additional resources. In circumstances of weak governance, deferring risk mitigation to government is not a viable option. In those cases, companies largely seek not to replace government functions, but rather to forge multi-stakeholder solutions and then seek to ensure the government does not work at a cross-purpose. Partnering with governments is of key importance, as they often create the enabling conditions that allow interventions to effectively fucntion at landscape level.

Positioning the business for the long-term

While the pressures of quarterly business reporting are real, addressing long-term business risks requires interventions that take time to nurture and develop. The most successful examples of companies embracing risk as an opportunity to forge long-term partnerships for business, supply chain and sectoral innovation are those that demonstrate board and management (and even shareholder) commitment to the intervention. Nestlé, Unilever, SABMiller and Starbucks are strong examples—these companies have demonstrated consistent shareholder value and business development into emerging economies. They are also embracing sustainability and investments beyond the farm-level to address water, climate and community risks. Planning for business resilience in the face of climate change adaptation takes time, and getting alignment within a company on how to address long-term risks is difficult. Purchasing and sourcing departments may not see the benefit immediately. When regional and global resource scarcity are recognized and business impacts assessed, the time horizon of necessary investment becomes clearer.

“Planning for business resilience in the face of climate change adaptation takes time, and getting alignment within a company on how to address long-term risks is difficult.”

Recommendations and areas for further exploration

The purpose of this report is to investigate what benefits businesses may gain from a landscape approach, explore the benefits and trade-offs early adopters are experiencing, and distil recommendations based on these experiences.

With increasing business risk due to water, climate, and community pressures, the need for business-driven solutions supporting landscapes for people, food and nature has never been more urgent. Yet, these initiatives are in the early stages, and there is a need to learn and adapt. Nonetheless, companies at all levels of agricultural supply chains—whether producers, traders and processors or manufacturers—can potentially find benefits in mitigating risks through landscape approaches today.

Assess and manage risks and opportunities at scale

The sustainability of sourcing areas is critical to business success, and good risk assessment is necessary to ensure it.

From our preliminary observations, risks arising from water, climate and community present new challenges to many companies' risk mitigation strategies that focus solely on the farm-scale or supply chain. In certain cases, focusing at a landscape scale has the potential to more thoroughly and effectively address these risks, while also enabling smarter on-farm and commodity chain interventions.

While it is difficult for businesses to quantify these risks, businesses interested in this approach are encouraged to identify the key priorities through brief qualitative risk assessments. These assessments can discount risks that are of very little or no importance to the business, in order to hone in on risks requiring further detailed quantification and landscape scale intervention.

A range of tools exist to assist companies in assessing risks in sourcing areas. For example the British American Tobacco Biodiversity Partnership has developed the Biodiversity Risk and Opportunity Assessment (BROA) field-based tool for companies with agricultural supply chains. BROA assesses risk to biodiversity and ecosystem services dependencies and opportunities at the landscape scale. A number of tools also exist for water footprinting and water risk assessment. SABMiller's use of a business water risk assessment is a strong example of how to translate broader risk assessments into the identification of impacts on business operations and mitigation priorities.

Adoption of certification is not a means to mitigate operational and resource risk entirely.

The use of sustainability standards has proliferated over the last decade as a means of ensuring best management practices and a "license to operate"

photo courtesy of Starbucks

in high-risk commodities. While these standards include many important aspects for mitigating risks, they are only applicable to the certified unit (and/or mill) and do not incorporate considerations for practices in the surrounding landscape and communities. Certification is a mode for engaging in broader integrated landscape approaches only insofar as it is a platform from which to scale-up and maintain sustainable agricultural production and develop key partnerships.

Forge partnerships

Develop partnerships to share risks, solutions and value

Companies cannot mitigate landscape risks alone. Rather than being a limitation, however, this fact presents an opportunity. Partnerships provide the means to craft collective approaches to collective problems, as these risks are shared by business, other resource users or actors in a sourcing region, ecosystems and non-human species, and governments. Partnerships with knowledgeable NGOs, research institutions, and other civil society organizations are valuable to leverage resources, technical skills and capacity that businesses often do not have on their own. Partnerships are also important in cases of addressing reputational risks, and demonstrate political 'buy-in,' which is important to motivate government support towards solutions.

Competing sectors and users must be part of the solution

A key defining characteristic of a landscape approach is its requirement for good faith negotiations between sectors or users over competing demands for ecosystem services. These negotiations enable more transparent and efficient trade-offs between sectors. In some of the cases we reviewed, combined sectoral commitments are essential to affect scarcity and landscape risks. Lenders and financiers are increasingly attuned to this need from their own assessments of risk. For instance, the International Finance Corporation performance standards look beyond the company in order to assess vulnerabilities from a resource perspective, and refuse finance if risks are too great. In some of these cases, the issue could have been solved if the company had a landscape approach in place.

Own it

Companies that depend on sourcing area sustainability for business performance should recognize this value at all levels of the business.

Our analysis shows that increasingly companies must prepare to cover the costs of negative externalities and incorporate that into business planning at all levels. Companies that house landscape interventions in corporate so-

cial responsibility departments or their equivalent rather than in sourcing and procurement departments appear to have less success. Further, while partnerships provide an essential means of carrying out landscape approaches to fulfil research, implementation and monitoring functions, companies should be careful not to outsource these functions to the extent that the resulting successes are attributed to the partners and any institutional benefits fail to accrue to the company.

Think long-term and integrate landscape action into business plans.

Interventions to reduce water, climate and community risks are measured in years, rather than quarterly. Integrate landscape risks and the investments required to mitigate them into the business plan. One possible pathway to achieve this integration is for companies to increase the quantity and quality of their long-term supply chain relationships using landscape approaches to build lasting, cost-effective partnerships.

Integrate the landscape approach into business operations.

Companies applying a landscape approach can more easily focus their range of investments and interventions for synergistic effect in key sourcing areas. For instance, linking producer support and agronomy with company-sponsored lending and even charitable donations can have much greater effect if coordinated in key landscapes.

Create opportunities for value

Business should evaluate landscape approaches as an opportunity to increase both the efficiency and effectiveness of sustainable sourcing.

Our analysis suggests that some companies are using landscape approaches to identify opportunities to make smarter investments and hedge multiple risks in key sourcing areas. This is clearest in examples of vertically-integrated companies, where connections to source are direct. However, other companies farther from sourcing areas are also seeing benefits, particularly those that are finding natural efficiencies working pre-competitively with multiple buyers in sourcing areas. This often starts with efficiencies made through information sharing as a basis for better-informed decisions and orchestrated interventions.

Areas for further exploration

Companies are seeking clear solutions to sustainability, with measures of performance and traceability at larger scales. By focusing on sourcing areas, com-

> *"Our analysis shows that increasingly companies must prepare to cover the costs of negative externalities and incorporate that into business planning at all levels."*

panies are finding solutions to these complex needs that can effectively focus public/private partnerships, alliances with other food companies within the landscape and troubleshoot how to meet sustainable sourcing codes without creating new costs (or through sharing costs). Collaborative, multi-sector partnerships offer a promising pathway to answering these questions.

The Business Working Group of the Landscapes for People, Food and Nature Initiative seeks to expand the potential for this innovative approach in sustainable sourcing, test the concept with key commodities and in key sourcing regions, and identify future partnerships.

photo courtesy of SABMiller

Annex

Project, Lead Organization	Rationales for Business Engagement									Modes of Business Engagement					
	R1	R2	R3	R4	R5	R6	R7	R8	R9	M1	M2	M3	M4	M5	M6
	Corporate Responsibility	Compliance with Voluntary Standards	Investor Requirements	Legal Risks	Resource security	Water security	Reputational risks	Local community risks	Value chain efficiency	Carbon finance	Water finance	Value-chain approach with ILM elements included	Regional producer support programs	Watershed area management	Multi-stakeholder dialogue, planning and management
Sustainable Tea and Yerba Mate Production, Guayaki		■			■			■	■	■		■	■		■
Livelihoods Fund, Danone	■									■			■		
Fair Biomass Mozambique (FBM)			■					■	■			■	■		
Lombok Watershed Management Project, ELI/BAT	■			■		■		■						■	■
Climate Cocoa Partnership for REDD+ Preparation, Olam/RA		■			■			■	■			■	■		
Mechanisms for HCV Forest and Peatland in Oil Palm Landscapes, PT Austindo Nusantara Jaya/KAL		■		■			■			■		■			■
Biodiversity and Cocoa Farming, Armajaro		■			■			■	■				■		
Pilot Study Increasing Effectiveness of Biodiversity Related RSPO Principles and Criteria, Wilmar		■		■								■			■
Applying Sustainable Cocoa, Mars		■			■			■				■	■		
Biodiversity Friendly Smallholder Soy in Preferential Markets, Gebana		■			■			■	■			■	■		
Producers for Biodiversity, IFC					■			■	■			■	■		
Water Security South Africa, Mondi							■	■						■	■
Rare Plant Supply Local Community Cooperative, Yves Rocher				■	■		■						■		■
Technical Advice for Soy Supplier Legal Compliance, Cargill				■					■				■		
Landcare Research, Zespri															■
Sustainable Palm Oil Production, Natura					■		■		■			■			
Regional Water Security, SAB Miller	■					■					■				

Table 1. Rationales and modes of surveyed companies

Project, Lead Organization	Rationales for Business Engagement									Modes of Business Engagement					
	R1	R2	R3	R4	R5	R6	R7	R8	R9	M1	M2	M3	M4	M5	M6
	Corporate Responsibility	Compliance with Voluntary Standards	Investor Requirements	Legal Risks	Resource security	Water security	Reputational risks	Local community risks	Value chain efficiency	Carbon finance	Water finance	Value-chain approach with ILM elements included	Regional producer support programs	Watershed area management	Multi-stakeholder dialogue, planning and management
Great Bear Rainforest, Coast Forest Conservation Initiative				■			■					■			■
Ethical Tea Partnership, Twinings, Tetley Group, Marks and Spencer's		■						■	■			■	■		■
Cocoa Sustainability Strategy and Partnership, Mars		■			■			■	■				■		■
Sustainable Production of Biofuels West Africa, Mali Biocarburant SA			■		■			■	■	■		■	■		
Ensuring Best Practices in Cocoa-Agroforestry System for Improved Livelihood and Sustainable Environment, Solidaridad W. Africa					■			■	■			■	■		■
SAGCOT, Unilever, Syngenta, Kiliobero a.o. Partners					■			■			■		■		■
Climate and Coffee, Starbucks					■			■	■	■					■
Sustainable Forest Mosaics Initiative, Kimberly Clark/Fibria	■						■					■			■
Olam Palmoil Certification, Proforest		■		■								■			
New Generation Plantations, Mondi	■		■				■	■						■	■

Table 1. Rationales and modes of surveyed companies, continued.

Rationale	Explanation	Example Company	Activity
R1. Corporate Social Responsibility	Sustainability is embedded in core business operations as a key performance indicator.	Danone	Livelihoods Fund includes social and environmental principles in investments.
R2. Compliance to Voluntary Standards	Standards include incentives to improve management at landscape level or lead companies to larger-scale approaches, beyond sustainable practices at concession or farm level.	Unilever, RT-REDD	Innovative ideas around jurisdictional certification options (???)
R3. Investor requirements	Investors require specific sustainability conditions to be met before financing is awarded, in order to decrease investment risks.	Mali Biocarburant SA	MBSA has mission to develop sustainable biofuel operations with landscape benefits.
R4. Operational risks: Legal risks	Companies aiming for long-term presence in strategic sourcing areas mitigate risk through legal compliance. Also a criterion of every voluntary standard.	Cargill	Brings soy suppliers into compliance with the Brazil National Forest Code.
R5. Operational risks: Resource security	Companies take management measures for commodities that face global sourcing problems observed rationale (e.g. cocoa) and 'high-risk agricultural raw materials' in supply chains.	Mars	The Sustainable Cocoa Initiative in Côte d'Ivoire principles support growers to ensure long-term supply.
R6. Operational risks: Water security	Companies employ landscape level management of water resources to address water supply scarcity.	SAB Miller	Calculates water footprints, conducts water risk assessment with local stakeholders/sectors, and sets targets and timeline.
R7. Reputational risks	Companies account for and mitigate activities that lower the confidence of buyers, the public, governments, and investors. Reputational risks can threaten a company's 'license to operate' or 'social license.'	Coast Forest Conservation Initiative	Major logging companies, government, and aboriginal communities in the Great Bear Rainforest, BC, Canada employ an Ecosystem-Based Management approach.
R8. Local community risks	Companies are directly interested in investing in community and stakeholder relations	Mondi	New Generations Plantations in South Africa
R9. Value chain efficiency	Companies at the middle or upper levels of value chains often see financial value in supply chain efficiencies.	Fair Biomass Mozambique (FBM)	FBM trains farmers in alternate more efficient production practices.

Table 2. Rationales for engaging in a landscape approach

Mode	Explanation	Example Company	Activity
M1. Carbon finance	Funds from carbon offsetting provide incentives for local land stewards to support landscape approach.	Danone	The Livelihoods Fund invests in three main carbon offset programs all at landscape scale: natural ecosystem restoration and preservation; agroforestry/soil restoration; and rural energy projects that prevent deforestation.
M2. Water finance	Funds specifically for water-related management can mitigate risks in watersheds.	SAB Miller	Contributions to multi-million dollar water fund protect Bogota's water supplies, while also securing water for company's operations.
M3. Value-chain approach with ILM elements included	Incorporation of Integrated Landscape Management elements along entire value chain can mitigate operational risks, while securing inputs and supplies, and long-term security (e.g., sustained yields, stability of supply).	Guyaki Yerba Mate	Tea supply chain links climate-smart agricultural production, greater volume certified product, improved direct market linkages, payments for ecosystem services, and preservation of HCV rainforest.
M4. Regional producer support programs	Decentralized and context-specific activities are a commonly applied strategy for improving smallholder performance at a landscape scale.	Starbucks	Regional producer supports in Chiapas, Mexico and Aceh, Indonesia include the C.A.F.E. Practices standard and elements of climate adaptation and the livelihood landscape approach.
M5. Watershed area management	Watershed level provides a logical biophysical basis for designing landscape scale interventions, with high likelihood of cross-sectoral and multi-stakeholder engagement	The British American Tobacco (BAT)	Restoring and protecting forest within watershed secures company operations.
M6. Multi-stakeholder dialogue, planning and management	Dialogue between various interests with a stake in the landscape, including governments, the private sector and communities, initiates multi-stakeholder driven landscape approach.	Coast Forest Conservation Initiative	Five member businesses in Great Bear Rainforest engage with other stakeholders and implement consensus-built land use agreemnts.

Table 3. Modes of engaging in a landscape approach

Company	Project	Location
Guayaki Yerba Mate	Sustainable Tea and Yerba Mate Production in the Atlantic Rainforest	Misiones Province, Argentina State of Paraná, Brazil
Danone, Crédit Agricole, Schneider Electric, CDC Climat	Livelihoods Carbon Offset Fund	Africa and Asia
Fair Biomass Mozambique	Fair Biomass Mozambique (FBM)	Sofala, Mozambique
PT Export Leaf Indonesia (ELI), British American Tobacco subsidiary	Lombok Watershed Management Project	Lombok, Indonesia
Olam	Olam-Rainforest Alliance Climate Cocoa Partnership for REDD+ Preparation	Ghana
PT Austindo Nusantara Jaya/PT Kayong Agro Lestari	Carbon Finance Mechanisms for High Conservation Value Forests and Peatlands in Oil Palm-Dominated Landscapes	West Kalimantan and Papua, Indonesia
Armajaro	Biodiversity and Cocoa Farming	Ghana
Wilmar International	Increasing the Effectiveness of Biodiversity-related RSPO Principles and Criteria Pilot	Indonesia, West Kalimantan, and Sumatra, Indonesia
Mars	Applying Sustainable Cocoa Practices through Agroforestry in Community Forest Areas	Southwest Sulawesi, Indonesia
Gebana	Inclusion of Biodiversity Friendly Smallholder Soy in Preferential Markets	Capanema Municipality, State of Paraná, Brazil
IFC; Grupo Amaggi	Producers for Biodiversity	Brazil
Mondi	Water Security	South Africa
Yves Rocher	Rare Plant Supply Local Community Cooperatives	Madagascar
Cargill	Technical Advice for Soy Suppliers Legal Compliance	Brazil
Zespri	Landcare Research	New Zealand
Natura	Sustainable Palm Oil Production	Brazil
SAB Miller	Regional Water Security	Colombia
Interfor, Western Forest Producers, Catalyst Paper, Canfor, BC Timber Sales a.o.	Great Bear Rainforest	Canada
Twinings, Tetley Group, Marks and Spencer's	Ethical Tea Partnership	Kenya

Table 4. Surveyed company project summary table

Company	Project	Location
Mars, Government Côte d'Ivoire, ICRAF, CNRA, Agence Nationale d'Appui au Développement Rural (ANADER)	Mars Cocoa Sustainability Strategy and "Vision for Change" Partnership	Côte d'Ivoire
Mali Biocarburant SA	Sustainable Production of Biofuels in West Africa	Mali
Solidaridad West Africa	Ensuring Best Practices in Cocoa-Agroforestry System for Improved Livelihood and Sustainable Environment	Ghana
Unilever, Syngenta, Kiliobero a.o. Partners	Southern Agricultural Growth Corridor of Tanzania (SAGCOT)	Tanzania
Starbucks	Climate and Coffee	Brazil, Indonesia, Mexico
Kimberly Clark, Fibria	Sustainable Forest Mosaics Initiative/ Forest Dialogue for Atlantic Forest and Pampas	Atlantic Forest, Brazil
PROFOREST	Olam Palm Oil Certification	Gabon
Mondi	New Generation Plantations	South Africa

Table 4. Surveyed company project summary table, continued

Bioversity International

CONSERVATION INTERNATIONAL

ecoagriculturepartners

FAO FIAT PANIS

IFAD
Enabling poor rural people to overcome poverty

Ministry of Economic Affairs, Agriculture and Innovation

UNEP

World Agroforestry Centre
TRANSFORMING LIVES AND LANDSCAPES

WORLD RESOURCES INSTITUTE

Landscapes for People, Food and Nature

An International Initiative for Dialogue, Learning and Action