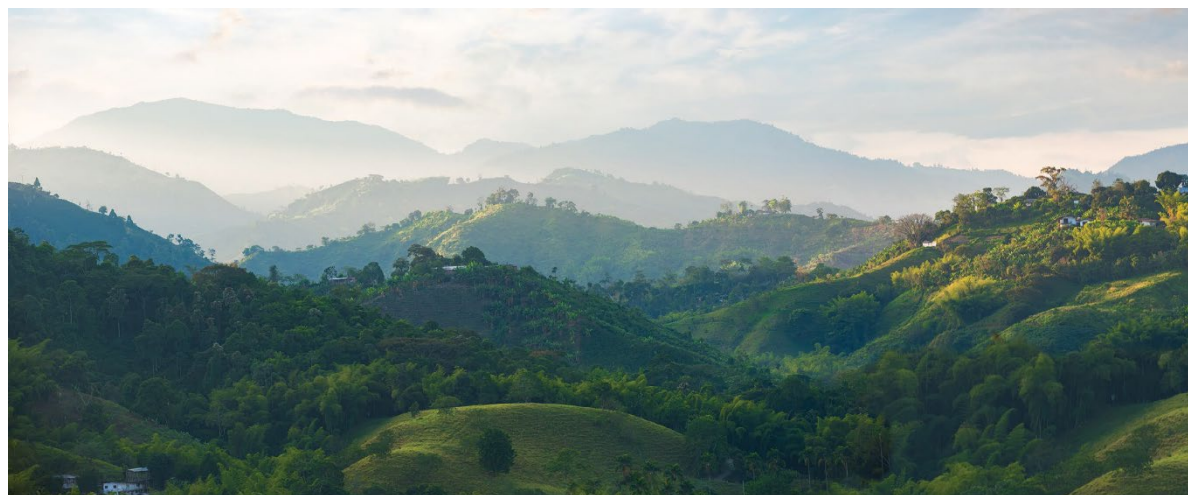


CDE Transformation Stream Report: Enabling Private Sector Strategies for Sustainable Development

Advancing the design of private sector-led landscape initiatives: An analysis of scientific design principles and their application in practice

2023



Landscapes in a coffee-growing region of Colombia. Photo: J. Crespo/Shutterstock

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Content

- Content..... 3
- 1 About this report 4
- 2 Background..... 5
 - 2.1 Landscapes and Landscape Approaches 6
 - 2.1.1 Definition of a landscape..... 6
 - 2.1.2 Definition of landscape approaches..... 6
 - 2.1.3 Short historic review of Integrated Landscape Approaches 8
 - 2.2 Private sector-led landscape Initiatives..... 9
 - 2.3 Knowledge gaps..... 10
 - 2.4 Our aim and approach..... 10
- 3 Results 11
 - 3.1 Design principles of ILA 11
 - 3.2 Linking design principles with private-sector engagement in landscape initiatives 13
- 4 Discussion: Identified design gaps and the role of science 15
 - 4.1 Considering multiple scales 15
 - 4.2 Considering multi-functionality..... 16
 - 4.3 Establishing conflict-resolution mechanisms 16
 - 4.4 Integration into the planning of the locality 17
 - 4.5 Ensured financing 18
- 5 Conclusion and outlook..... 19
- 6 References..... 21
- 7 Annex..... 27
 - 7.1 Overview compiled science-based design principles 27
 - 7.2 Stocktaking of private sector actor engagement in landscape initiatives..... 30
 - 7.2.1 Businesses and business coalitions 30
 - 7.2.2 NGOs and multi-stakeholder platforms 31
 - 7.2.3 Implementation of landscape initiatives – Examples..... 33
 - 7.2.4 Landscape assessment frameworks and standards 34

1 About this report

As part of its current strategy (2021–2024), the Centre for Development and Environment (CDE) at the University of Bern developed an internal structure – CDE-funded “Transformation Stream” projects – to enable project teams to undertake in-depth explorations of important sustainability topics. The present report was developed in 2023 in the framework of the *Enabling Private Sector Strategies for Sustainable Development* Transformation Stream.

Private-sector strategies for sustainable development (PSSD) are booming globally. Examples include innovations in inclusive business, sustainability standards and charters, landscape initiatives, and solidarity-economy strategies. However, many strategies fail to contribute to sustainability due to misaligned interests, institutional barriers, insufficient implementation, and scale mismatches between value-chain interventions and production landscapes. Our Transformation Stream created a platform in order to bring people and 19 projects together in a transformative research programme on PSSD; to enable experimental co-design and testing of innovative PSSD; and to inspire new projects and collaborations capable of fostering and scaling the most effective strategies.

The Transformation Stream was divided into four levers for change: (1) governance innovation within the private sector; (2) methodological innovation for landscape initiatives; (3) targeted policy engagement; (4) CDE integration.

The present report was developed by the second lever team working on “methodological innovation for landscape initiatives”. The team conducted an exploratory analysis aimed at finding ways to improve landscape initiatives involving the private sector. First, CDE researchers conducted a review and synthesis of the scientific literature on science-based design principles for integrated landscape approaches. Second, they selected ten exemplary strategic documents from private-sector actors focusing on their engagement in landscape initiatives (five led by businesses or business coalitions; five led by NGOs). They then carefully assessed whether these strategic documents incorporated the design elements recommended by experts. Due to the small sample size, the results of this desk-based analysis are only indicative.

The present report presents the main results of this analysis. In addition, a shorter summary of key findings and main policy recommendations may be found in CDE Policy Brief issue 21, titled “Sustainable landscapes: How can the private sector contribute?” (Sonderegger et al. 2024).

2 Background

Landscapes and their diverse land uses and functions for different actors – whether as forests, pastures, farmland, settlements, or lakes – are being rapidly degraded worldwide. Prime agricultural land is being lost to urbanization and options to expand cultivated land areas elsewhere are limited. This is leading to tensions and further resource degradation (FAO, 2021). Human-induced land degradation, water scarcity, and climate change are increasing the risks to agricultural production and ecosystem services at times and in places where economic growth is needed most. By 2050, the FAO estimates that global agriculture will need to produce almost 50 percent more food, livestock fodder, and biofuel in order to satisfy global demand as well as realize and maintain the goal of “zero hunger”. Against this background, caring for the land is fundamental to ensuring access to food, advancing equitable livelihoods, and building resilience to shocks and stresses arising from natural disasters and pandemics (FAO 2021). This requires proper planning and management of land, soil, and water resources through effective land and water governance in the framework of so-called integrated management approaches. Sustainable land management (SLM) and integrated landscape management are examples of such approaches. Coordinated and optimized at the scale of entire landscapes, sustainable land management can enable the simultaneous realization of multiple objectives, including agricultural production and commodity production, climate mitigation and adaptation, and biodiversity protection.

The impacts of accumulating pressures on land and water are acutely felt in many rural communities, particularly where the resource base is limited and dependency is high, as well as in poor urban communities where food sources are limited (FAO, 2021). Notably, rural landscapes in the global South are by and large directly linked to the global North via the supply chains of globally demanded commodities (e.g. coffee, cocoa, rubber, and palm oil) as well as novel financing instruments on behalf of climate adaptation, ecosystem restoration, and biodiversity conservation. These links mean that ever more actors are competing over dwindling natural resources and are increasingly challenged by the inter-related impacts of ecosystem degradation, climate change, poverty, and food insecurity. In many cases, these impacts cannot be mitigated solely through on-farm management, forest management or supply chain programmes. Instead, they must be dealt with at the landscape level (Shames & Scherr, 2015; Pedroza-Arceo et al. 2022). Further, in most cases, individual investors and businesses cannot achieve integrated landscape-level outcomes on their own – nor can public and civic actors who typically operate in sectoral silos (Scherr et al. 2013). Landscape impacts require landscape partnerships in which private and public investors jointly and collaboratively engage with other stakeholders in order to achieve integrated landscape-level outcomes that enable flourishing spaces for all. In this way, sustainable landscape management supports spatially targeted, harmonized investments on behalf of urgently needed food security, healthy ecosystems and communities, and stable supplies of land-based commodities. Corresponding strategies are well-aligned with the three UN conventions (UNFCCC, UNCCD, CBD) and the Sustainable Development Goals (SDGs), which explicitly call for more holistic approaches that better integrate the needs of people and planet. As socio-ecological systems, landscapes appear to be the ideal, most practical scale at which to address interconnected local, national, and global dynamics. In this way, landscapes are key to collaborative actions towards sustainability and sustainable development worldwide (Pedroza-Arceo et al. 2022). Awareness of our world’s complex (e.g. food system) interconnectedness is rising globally, increasing the consciousness and sense of responsibility of consumers regarding the social and environmental conditions of food and commodity production as well as the type of products and projects that merit investment. This awareness offers a key entry point for the improvement of landscapes and livelihoods and has paved the way for new and novel private-sector led landscape initiative schemes as well as financial instruments under the umbrella of “sustainable investment”. If done right, such investment

should enable doing business and creating economic value while simultaneously improving social and environmental conditions. In this report, we will look in greater depth at landscape approaches and private-sector strategies.

2.1 Landscapes and Landscape Approaches

2.1.1 Definition of a landscape

Several definitions of the term “landscape” may be found in scientific literature. No clear consensus has emerged on a single definition. Meanwhile, the various definitions have evolved over time. Below are some of the main definitions, or definitional elements, in use:

- A **heterogenous land area** composed of a **cluster of interacting ecosystems** repeated in similar form throughout (Forman & Gordon, 1986);
- **multiple ecosystems** over a watershed or a designated geopolitical area (Wu, 2013);
- an arena in which entities, including humans, interact according to rules (physical, biological, and social) that determine their relationships (Sayer et al. 2013);
- **interconnected socio-ecological systems** that are shaped by their local contexts and histories—typically within boundaries defined by culture, bioregion, or jurisdiction (Denier et al. 2015);
- shaped by **socio-political, ecological, technological, cultural, and economic aspects** (Båge et al. 2015);
- A boundary concept [or] clear entity in a defined space and area (Arts et al. 2017)
- the ideal **operational scale** where **local** socio-economic interest and **global** environmental objectives intersect (Pedroza-Arceo et al. 2022)
- encompass diverse geophysical/spatial, social, environmental, and economical components on a **mosaic of different land-use goals, multiple ecosystems, and functions** in a determined time and space (Pedroza-Arceo et al. 2022).

2.1.2 Definition of landscape approaches

There is also no clear consensus as to the definition of *landscape approaches* (or integrated landscape approaches). This makes it particularly challenging for policymakers to implement and deploy the concept in practice (Pedroza-Arceo et al. 2022). According to Reed et al. (2016), a study by Ecoagriculture Partners identified over 80 terms all referring to the same idea of integrated approaches to land management. Further, Pedroza-Arceo et al. (2022) highlighted and analysed eight of the most-prominent definitions, striving to identify their common elements (e.g., a focus on multiple stakeholders, multiple uses, and multiple claims in a landscape and efforts to provide a platform for negotiations) as well as respective exceptional elements or foci (e.g. the aspect of climate change mitigation and adaptation).

In the following, we list the definitions of landscape approach analysed by Pedroza-Arceo et al. (2022):

- Sayer et al. (2016): “[A] long-term collaborative process bringing together diverse stakeholders aiming to achieve a balance between multiple and sometimes conflicting objectives in a landscape or seascape” (p. 466).

- Reed et al. (2020): “Integrated landscape approaches are governance strategies that attempt to reconcile multiple and conflicting land use claims to harmonize the needs of people and the environment and establish more sustainable and equitable multi-functional landscapes” (p. 1).
- Reed et al. (2015): “A landscape approach is broadly defined as a framework to integrate policy and practice for multiple land uses, within a given area, to ensure equitable and sustainable use of land while strengthening measures to mitigate and adapt to climate change. It also aims to balance competing demands on land through the implementation of adaptive and integrated management systems” (p. 1–2).
- Reed et al. (2015) and Adeyanju et al. (2021): “Landscape approaches are broadly defined as a strategy to integrate research, policy, and practice for multiple land uses within a given area to enhance equitability and sustainability’ (p. 3).
- Reed et al. (2015; 2016; 2017): “A landscape approach can be defined as a framework to integrate policy and practice for multiple competing land uses through the implementation of adaptive and integrated management systems” (p. 482).
- Båge et al. (2015): “[A] way of achieving a balance between competing resource uses, employing multi-stakeholder interdisciplinary working modes, to sustainably meet economic, nutritional and environmental needs as well as the aspirations of people within a landscape and of those linked to it through value chains and ecosystem services” (p. 2).
- Dudley et al. (2020): “A conceptual framework whereby stakeholders in a landscape aim to reconcile competing social, economic, and environmental objectives. It provides tools and concepts for allocating and managing land to achieve social, economic, and environmental objectives in areas where agriculture, mining, and other productive land uses compete with environmental and biodiversity goals” (p. 3).
- Accountability Framework Initiative, or AFI (2019): “Landscape approaches involve collaboration of stakeholders in a landscape to reconcile and optimize multiple social, economic, and environmental objectives across multiple economic sectors and land uses. Landscape approaches are implemented through processes of integrated landscape management that convene diverse stakeholders to develop and implement land use plans, policies, projects, investments, and other interventions to advance landscape sustainability goals” (p. 8).

In addition to these eight definitions, we would like to mention the related and commonly referenced concept of *jurisdictional approaches*. They are a specific type of landscape approach, in which the landscape is defined according to administrative boundaries such as a province, district, or municipality. In addition, these initiatives often have a particularly strong emphasis on the involvement of local governments (Stickler et al. 2018; Jurisdictional Approaches Resource Hub, 2022).

2.1.3 Short historic review of Integrated Landscape Approaches

Integrated landscape approaches (ILAs) have become popular in the past couple of decades. Interest in ILAs has been fuelled by debates on nature conservation; landscape restoration; ecosystem services; competing claims on land, water and other resources; and sustainable development as articulated by the UN 2030 Agenda (Arts et al. 2017). ILAs have been promoted by a broad range of international conservation and development organizations – e.g. CIFOR, EcoAgriculture Partners, the Global Landscape Forum, FAO, IUCN, WB, WWF, Landscapes for People, Food and Nature – as a governance approach to reconcile local–global challenges such as biodiversity loss, climate change, food insecurity, and poverty (Ros-Tonen et al. 2018). Experts widely agreed that the landscape level is the most effective scale at which to achieve concrete impacts towards sustainability in a target region, as well as to address interconnected global challenges (Wu et al. 2013; Estrada-Carmona et al. 2014; Milder et al. 2014; Mbow et al. 2015). Still, an agreed upon normative concept of landscape approaches remains elusive, and confusion persists over appropriate terminology, application, and utility (Sayer et al. 2013; Scherr et al. 2013; Reed et al. 2020; Reed et al. 2016; Pedroza-Arceo et al. 2022).

ILAs were originally designed to alleviate specific environmental harms and focused on sector-based actions, such as forest and landscape restoration, sustainable natural resource management, carbon emission reduction, and sustainable sourcing of commodities (Zanzanaini et al. 2017; Kusters et al. 2018). More recently, however, ILAs have evolved towards more cross-sectoral landscape approaches (Sayer et al. 2013; Reed et al. 2016; Ros-Tonen et al. 2018; Reed et al. 2020). These approaches recognize that problems cannot be addressed in isolation and tackling problems at the landscape level calls for solutions based on a common entry point and logic of change negotiated in multistakeholder settings, characterized by multifunctionality, multiple scales, flexibility, adaptive management, and continual learning (Sayer et al. 2013; Ros-Tonen et al. 2015; Pedroza-Arceo et al. 2022).

Over the past decade, the field of ILAs¹ has become increasingly prominent, promoted as a way to manage sustainability trade-offs in multifunctional landscapes. Today, ILAs are being redefined in line with the international sustainability agenda and are gaining importance nationally and internationally. ILAs are now supported by the research community, donors, and governments. Indeed, the “marketability” of the ILA concept itself is also increasingly acknowledged (Pedroza-Arceo et al. 2022). In practice, ILAs can be employed as a tool for sustainability and sustainable development (Baral & Holmgren, 2015), enabling collaboration among stakeholders in a landscape to jointly define and work towards their sustainability goals.

Overall, most science-based understandings of ILAs emphasize the following key elements:

- They are seen as a **conceptual framework** for holistic management and governance of sustainable landscapes.
- They are framed around **multifunctionality** and driven by **participatory transdisciplinary / cross-sectoral processes**.
- They are considered a **socio-ecological management strategy** to reconcile goals of conservation, development, climate change, and human well-being.

In short, landscape approaches support the collaboration of stakeholders in a landscape to jointly define and work towards sustainability objectives. Companies and other private-sector actors

¹ *Integrated Landscape Approaches (ILA) or Landscape Approaches (LA) (for this research, ILAs and LAs were treated as synonymous and interchangeable concepts; in the rest of the report, the term ILAs is mainly used) are increasingly presented as a conceptual framework for holistic management and governance of sustainable landscapes.*

increasingly initiate or engage in such landscape initiatives within their sourcing regions. Private sector-led actions referred to as “landscape initiative” have gained popularity as companies find themselves under increasing pressure to adhere to social and environmental standards in their sourcing of commodities. However, lack of consensus regarding a clear definition complicates the deployment and implementation of ILAs by policymakers.

2.2 Private sector-led landscape Initiatives

Companies face mounting pressure to improve sustainability performance within their supply chains and to adhere to social and environmental standards in the sourcing of commodities. Many companies increasingly adopt specific sustainability standards such as “zero deforestation” or “no child labour” (Grabs et al., 2021; Bager & Lambin, 2022). In this context, private sector-led landscape initiatives have also gained increasing prominence. Through these initiatives, companies engage with other stakeholders in production or sourcing landscapes to develop more comprehensive and long-lasting solutions to the often systemically rooted sustainability challenges surrounding their value-chain activities (Scherr et al. 2017; ISEAL, 2022a). The adoption of a landscape-level approach is thereby seen as potentially more impactful than actions focusing narrowly on the value chains of selected products.

Large companies in particular thus increasingly launch or engage in landscape initiatives. For example, landscape approaches are one of the main pillars of Nestlé’s new “Forest positive strategy” (Nestlé, 2021) and also form the core of Olam International’s “living landscape” policy (Olam, 2018). The Forest Positive Coalition of Action of the Consumer Goods Forum (CGF) plays a key role in promoting landscape approaches to businesses (Consumer Goods Forum, 2021; 2022). Its members include large companies like Unilever, Tesco, Mars, Walmart, Carrefour, Mondelez international, and Nestlé. The private sector coalition aiming to combat deforestation and support forest-positive businesses presents action in production landscapes as one of its key strategies. It thereby aims to combine supply chain management (towards deforestation-free businesses) with integrated land use approaches. The coalition has agreed on a minimum of investments by its members in landscape approaches.

The CDP Forests questionnaire for companies assesses the status of corporate engagement with landscape and jurisdictional approaches (Bishai et al., 2021). It recently revealed that companies increasingly invest and engage in jurisdictional or landscape initiatives, particularly in their operating or sourcing areas. While in their 2020 questionnaire, 27 companies reported such engagement (out of 687 respondents), this number increased to 47 companies in the 2021 questionnaire (out of 865 respondents). The number of companies engaging in ILA thus grew over-proportionally (by 74%) in comparison with the increase in questionnaire respondents (26%). The study further found that the least corporate engagement in ILA occurred among companies handling commodities that are the biggest drivers of deforestation, namely cattle and soy (Bishai et al., 2021). Further, the CDP questionnaire found that among the companies reporting engagement with ILA initiatives, only 56% (in 2020) and 71% (in 2021) demonstrated a clear and strong understanding and engagement with ILA (Bishai et al., 2021). As many companies are starting to show interest in such initiatives or are now in the process of developing them, there is thus a strong need for an effective dialogue on what ILA are and which design elements are crucial for the effective implementation of ILA.

2.3 Knowledge gaps

Engagement in private sector-led landscape initiatives has become popular in recent years, partly due to drives to tackle the global sustainability agenda. However, implementing successful sustainable landscape initiatives remains a challenge due to various complexities and levels that must be navigated (Seymour et al., 2020; Sayer et al., 2017; Forsyth et al., 2021; Upla et al., 2022).

There are a range of guidance documents on ILA, such as practice guides that walk private companies and practitioners through the various steps of ILAs (Scherr et al., 2017; UNDP, 2019; TFA, WWF, Proforest, 2020; ISEAL 2022a; ISEAL 2022b). Similarly, the scientific community has produced a large body of scientific literature on the design of successful landscape approaches (Sayer et al. 2013; Reed et al. 2020; Pedroza-Arceo et al. 2022). So far, the two communities – the private sector/practitioners and the scientific community – have only marginally collaborated. We believe that strengthening such collaboration would be mutually beneficial. Successful private sector-led landscape initiatives should be codesigned by the science community, the private sector, and other key actors, bringing in key design principles and further researching key jointly identified challenges.

2.4 Our aim and approach

Aim: This research seeks to advance our understanding of the design of private sector-led landscape initiatives. Specifically, it aims (1) to reveal insights into the application of science-based knowledge in the practical design of landscape initiatives, and (2) to offer guidance to private sector entities in their efforts to effectively contribute to the development of sustainable production landscapes.

Approach: A team of three CDE researchers conducted an exploratory analysis to identify and synthesize science-based design principles for landscape initiatives and to assess their uptake in private sector strategies for landscape initiatives. This analysis encompassed five main steps:

First, CDE researchers conducted a **literature review of scientific papers** identified via Scopus and the Web of Science, using the snowball approach, by searching for the terms “landscape approach” and “integrated landscape approach”.

Second, based on the **science-based design principles** for integrated landscape approaches found in the literature, key elements for successful landscape approaches were summarized and arranged in a table. The principles were grouped according to similar topics, and generalized headings were assigned to clustered principles. Design principles frequently mentioned in all papers were evaluated and identified as important. The final table was discussed and assessed in the research team (Annex 7.1). Based on this, a final list of key science-based design principles was prepared (Table 1).

Third, a **stocktaking of private-sector actors² engaging in landscape initiatives** was conducted, based on web searches and participation in several relevant webinars and conferences. (Annex 7.2). Comprehensive data was collected regarding the identified actors and their landscape-related activities. This included the identification of strategic documents that detail corresponding approaches to engagement in landscape initiatives.

Fourth, ten exemplary **strategic documents from private-sector actors describing their engagement in landscape initiatives** were selected for an exploratory analysis. Selection criteria involved data availability and case diversity according to the respective private-sector actors (five led by businesses

² The private sector refers to that part of the national economy that is not subject to direct state control. It encompasses a wide variety of for-profit businesses, ranging from small family businesses to multinational corporations. In our analytical conception, it also includes NGOs that work with companies to improve sustainability, as well as standard setters, business associations, and others.

or business coalitions; five led by NGOs), in line with the illustrative aims of the analysis. An overview of the selected private sector actors and the respective strategic documents can be found in Annex 7.2.

Finally, we carefully **reviewed and coded the strategic documents** of private sector actors, assessing the occurrence of previously identified design principles. This process sought to pinpoint potential design gaps in existing initiatives. Nevertheless, it is important to acknowledge that, given the limited sample size, the findings of this desk-based analysis are merely indicative.

3 Results






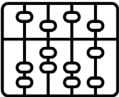




3.1 Design principles of ILA

The scientific papers identified via a literature review were screened for key design principles of integrated landscape approaches. Here, we define design principles as key elements needed to make a landscape initiative successful.

The following eight papers were analysed:

Author / year	Title
Båge et al. 2015	<i>Integrated Landscape Approach: Expectations and Obstacles</i> . Stockholm, Sweden: SIANI Swedish International Agricultural Network Initiative. https://www.siani.se/wp-content/uploads/2017/10/integrated-landscape-management-sep-12-web.pdf
Bürgi et al. 2017	Integrated landscape approach: Closing the gap between theory and application. <i>Sustainability</i> 9(8):1371. https://www.mdpi.com/2071-1050/9/8/1371
Pedroza-Arceo et al. 2022	A knowledge review on integrated landscape approaches. <i>Forests</i> 13(2):312. https://doi.org/10.3390/f13020312
Reed et al. 2016	Integrated landscape approaches to managing social and environmental issues in the tropics: learning from the past to guide the future. <i>Global Change Biology</i> 22: 2540-2554. https://doi.org/10.1111/gcb.13284
Reed et al. 2020	Integrated landscape approaches in the tropics: A brief stock-take. <i>Land Use Policy</i> 99:104822. https://doi.org/10.1016/j.landusepol.2020.104822
Reed et al. 2021	Re-integrating ecology into integrated landscape approaches. <i>Landscape Ecology</i> . 36(8):2395–2407. https://doi.org/10.1007/s10980-021-01268-w
Sayer et al. 2013	Ten principles for a landscape approach to reconciling agriculture, conservation, and other competing land uses. <i>Proceedings of the National Academy of Sciences</i> 110(21):8349-8356. https://doi.org/10.1073/pnas.1210595110
Sayer et al. 2015	Landscape approaches: What are the pre-conditions for success? <i>Sustainability Science</i> . 10(2):345–355. https://link.springer.com/article/10.1007/s11625-014-0281-5

The analysis resulted in twelve clustered design principles that are crucial for successful landscape initiatives. More details on the respective science-based design principles identified in different scientific articles can be found in Annex 7.1. Table 1 lists and describes the various design principles.

Design principle		Description
1. Engaging multiple stakeholders		<ul style="list-style-type: none"> - Sustained long-term, inclusive, participatory negotiation processes (integration of expert and community experiences) - Ensure relevance, legitimacy, and comprehensiveness of participation; build trust - Enable stakeholders to identify objectives, develop synergies, account for trade-offs, and strengthen their capacity - Multi-stakeholder forum: provide space for negotiation of land use trade-offs and synergies, encourage transdisciplinarity and co-learning, be attentive to power dynamics
2. Establishing common concern entry points		<ul style="list-style-type: none"> - Collective action will be expedited if concerns and solutions are perceived to be shared by multiple stakeholders/common concerns - Stakeholders are engaging in the process if there is an incentive or added value for them
3. Considering multiple scales		<ul style="list-style-type: none"> - Consideration of synergies, flow, and feedback across scales
4. Considering multifunctionality		<ul style="list-style-type: none"> - Consideration of the multiple uses and purposes of landscapes
5. Establishing good governance		<ul style="list-style-type: none"> - Meaningful and lasting governance structures within the landscape initiative (varying between landscapes) - Locally relevant people-based strategies are crucial to secure meaningful and long-term engagement - Land rights and land tenure are respected - Strong leadership/inspired leadership and convening power
6. Defining theories of change		<ul style="list-style-type: none"> - Enhance shared understanding of desired outcomes and measurable process indicators - Negotiated and transparent change logic (e.g. decision-making through participatory modelling and forecasting exercises). - Long-term adaptive commitment: Long-term vision and deep understanding of drivers of change within landscapes
7. Embracing dynamic processes		<ul style="list-style-type: none"> - Iterative and adaptive management - Continued learning - Exchange knowledge, consider progress, identify leverage points, and adapt future planning accordingly
8. Establishing conflict-resolution mechanisms		<ul style="list-style-type: none"> - Dealing with conflicting claims. - Presence of accepted, legitimate system for arbitration, justice, and reconciliation
9. Integrating into planning of the locality		<ul style="list-style-type: none"> - Landscape projects should be linked/integrated into plans of the local government
10. Evaluating progress (monitoring and evaluation)		<ul style="list-style-type: none"> - Measure progress towards relevant socio-economic, environmental, and governance objectives - Participatory and user-friendly monitoring (balance participatory engagement and scientific rigor) - Metrics must be specific to the landscape context (social, environmental, production, and governance variables)



11. Evolving from panacea solutions		<ul style="list-style-type: none"> - Acknowledge that landscape approach is not universally applicable - Contextualization is fundamental to success - Every framework must be tailored to the specific landscape configuration and aligned with specific goals
12. Ensuring financing		<ul style="list-style-type: none"> - Landscape activities need to be backed up by fund allocations - Policies without budgets and implementation commitments do not work

Table 1. Key science-based design principles

Based on its analysis, the research team concluded that the following different elements should be emphasised in landscape initiatives:

- Multi-stakeholder engagement is important and uncontested.
- “Benefits for people” must be guaranteed for landscape initiatives to succeed.
- Long-term actions in landscape management are necessary; short-term actions (short project cycles) are not sufficient.
- Embracing dynamic processes is necessary.
- Private sector engagement can be a key ingredient to success.
- Financing of landscape initiatives is still a major challenge and often insufficiently discussed.
- Policies without budgets and implementation commitments do not work.

3.2 Linking design principles with private-sector engagement in landscape initiatives

In this section, we present the results of our comparison of (1) design elements found in the strategic documents of selected private sector-led landscape initiatives with (2) science-based design principles found in the literature. Our exploratory analysis revealed that the science-based design principles for landscape initiatives are adopted to varying degrees (Figure 1). On the one hand, certain design principles fundamental to the ILA definitions presented in section 3.1 are indeed adequately taken up in existing private-sector initiatives, for example engagement of multiple stakeholders, joint definition of a sustainability agenda and theory of change, application of a monitoring and evaluation (M&E) system to assess progress. On the other hand, other design principles proposed in scientific literature appear to receive insufficient attention in the strategic documents of private-sector actors who are engaged at the landscape level. For example, consideration of multiple scales and the multifunctionality of landscapes are rarely mentioned. In addition, does not appear to be enough attention given to conflict-resolution mechanisms, integration of initiatives into the (spatial) planning of respective localities and jurisdictions, or how initiatives can be financially secured over the long-term.

Regarding the different types of private-sector actors, our exploratory analysis suggests that initiatives led by businesses or business coalitions tend to be rather narrowly focused on their own scope of operations or supply chains, with less attention given to multi-stakeholder approaches. For example, the relevance of establishing common concern entry points among different stakeholders was only mentioned in the strategic documents of two out of five businesses/business coalitions, but was mentioned in the strategic documents of all NGO/multi-stakeholder platforms. Further, the strategic documents of one business did not mention stakeholder engagement beyond supply-chain actors, even though such engagement is fundamental to most ILA definitions (Pedroza-Arceo et al. 2022). Finally, we found that direct references to research findings were limited in the strategic documents of private-sector actors engaged in landscape initiatives.

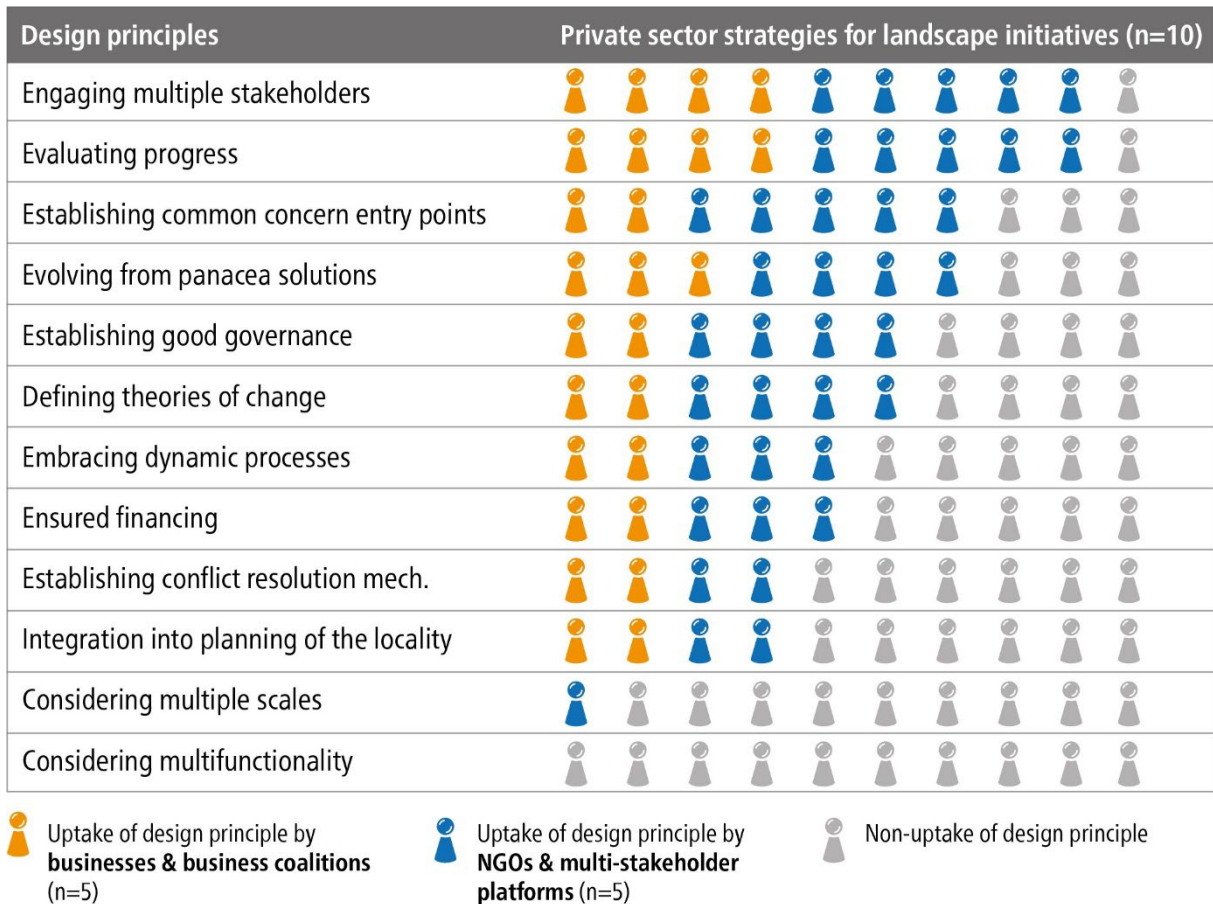


Figure 1. Design principles for landscape approaches recommended by scientists; and their uptake (or lack of uptake, i.e. “gaps”) in strategies for landscape initiatives by private-sector actors (Graphic: Gabi Sonderegger, Simone Kummer).

4 Discussion: Identified design gaps and the role of science

In this section, we discuss some of the design gaps our analysis revealed, including their possible relevance to successful landscape initiatives as well as the potential role of science in helping to fill these gaps. In particular, we focus on the five design principles that received the lowest scores – i.e. were least discussed in the strategic documents analysed.

4.1 Considering multiple scales

Why is the design principle relevant?

In today's globally interconnected world, numerous sustainability challenges arise from intricate interactions across various scales. Distant drivers can shape the commodity production activities taking place in a landscape and their environmental and socio-economic implications. For example, distant demands for agricultural commodities can significantly shape agricultural activities, which in turn can trigger worker migration flows, capital flows, or import flows of fertilizers or pesticides from faraway countries (Friis and Nielsen, 2019; Diogo et al., 2022).

Landscape initiatives are often praised for addressing sustainability challenges beyond individual supply chains and thereby taking a more systemic and holistic approach (Deans et al. in 2018). In view of this, however, it is imperative to not only recognize the importance of individual landscape initiatives, but also to consider how these landscapes are interconnected with each other and other scales (Sonderegger et al., 2022). This holistic perspective enables a more comprehensive and systemic understanding of the context within which each landscape operates, thereby facilitating the development of more effective interventions. Further, it is crucial to acknowledge that interventions in one landscape can have leakage and spill over effects on others (Boshoven et al., 2021; Delabre et al., 2021). Finally, the integration of multiple-scale perspectives in the design of a landscape initiative goes beyond addressing isolated challenges; it fosters coherence among various governance instruments and promotes learning within the realm of landscape initiatives.

Gap revealed

Our exploratory analysis has uncovered a noteworthy gap in the strategic documents of private sector actors detailing their intentions for involvement in landscape initiatives. Multiple-scale perspectives were rarely addressed in these documents. In the rare instances where other scales are mentioned, the documents predominantly refer to scales within the company value chain and do not look beyond that.

What can science contribute?

Academic research provides multiple tools and frameworks to better capture and understand the different interactions across scales and governance efforts thereof. In the field of land system science, the telecoupling concept and framework emerged to research such distant interactions across socio-ecological systems (Liu et al, 2013, Eakin et al., 2014). A telecoupling perspective has been applied in various regional and thematic contexts, to capture the relevant interactions between a specific socio-ecological system (e.g., a production unit, a landscape, a national park or a region) with more distant places (see e.g., Boillat et al., 2018; Oberlack et al., 2018; Andriamihaja et al., 2019; Llopis et al., 2020). Furthermore, insights have been presented on the co-production of knowledge on these often complex, multi-scalar interactions (Zaehringer et al., 2019) as well as effective communication thereof (Sonderegger et al. 2020). This is particularly relevant in the context of landscape initiatives that engage a diverse set of actors.

4.2 Considering multi-functionality

Why is this design principle relevant?

Landscapes and their components have multiple uses and purposes, each of which is valued in different ways by different stakeholders (Sayer et al. 2013). Recognizing and addressing the complex network of actors and land uses within a landscape is pivotal for a more holistic approach to sustainability, which is at the core of the concept of ILA (Hart et al. 2014; Reed et al. 2015; Reed et al. 2016; Ros-Tonen et al. 2018; Reed et al. 2020). Integrating a multi-functional perspective in landscape initiatives enables the accommodation of various stakeholder interests, serving as a proactive measure to mitigate potential conflicts among stakeholders as well as safeguard more vulnerable actors (Reed et al. 2016; Zanzanaini et al. 2017).

Gap revealed

Our analysis revealed a tendency among private-sector actors to focus on their own sourcing landscapes, thereby emphasizing the productive function of the respective landscapes. This targeted focus tends to highlight specific actors and activities within a landscape, potentially overlooking the broader spectrum of functions that landscapes encompass. Acknowledging and addressing this tendency is crucial for fostering a more holistic approach that recognizes and values the diverse functions a landscape serves beyond mere production considerations.

What can science contribute?

In the field of landscape ecology, the concept of landscape multifunctionality is prominent. Scientific studies provide tools to assess, map, and model the multifunctionality of landscapes, often in a spatially explicit way (Peng et al., 2019; Song et al., 2020; Cerreta et al., 2021; Lavorel et al., 2022; Tran et al. 2023). Resulting insights on (potential) trade-offs, synergies, and conflicts between individual landscape functions can inform the design of landscape initiatives (Bolliger et al., 2011).

4.3 Establishing conflict-resolution mechanisms

Why is this design principle relevant?

The multifaceted nature of landscape initiatives involves a multitude of actors, ranging from local communities and governmental bodies to private enterprises and environmental organizations. Each entity enters the landscape with its distinct set of objectives, shaped by divergent perspectives and priorities (Sayer et al. 2013; Sayer et al. 2015; Reed et al. 2015; Ros-Tonen et al. 2018; Reed et al. 2020; Pedroza-Arceo et al. 2022). Consequently, tensions and disputes often unfold among different stakeholders and must be navigated and negotiated, e.g. through co-productive agility (Chambers et al. 2022). Related power imbalances frequently affect vulnerable communities disproportionately. As a result, it is critical to establish effective conflict-resolution mechanisms to safeguard the rights and interests of these vulnerable actors (Bala et al. 2020; Kinseng et al. 2023; Tan et al. 2023; Siangulube et al. 2023). For fair and effective implementation of these mechanisms, all stakeholders should have equal ability to report grievances through a transparent and inclusive process. Additionally, clear delineation of roles, responsibilities, and defined procedures are crucial (Arts et al. 2017; Sayer et al. 2017; Ros-Tonen et al. 2018).

Gap revealed

Our analysis of strategic documents on private-sector engagement in landscape initiatives revealed a lack of explicit calls to establish and implement conflict-resolution mechanisms, such as a grievance system. Only one private-sector actor in our sample stressed the importance of a grievance system; even in this case, however, the system exclusively addressed issues relevant to operations and third-

party suppliers, while neglecting the broader spectrum of relevant actors in the landscape. This limited scope points to a potential challenge of ensuring comprehensive conflict-resolution mechanisms encompassing diverse stakeholders in private sector-led initiatives.

What can science contribute?

Science can assume a pivotal role in advancing conflict-resolution mechanisms and their seamless integration into multi-stakeholder platforms (Carmenta et al. 2020; Reed et al. 2020; Yuan et al. 2023). Scientific studies can assess the presence or absence of conflict-resolution mechanisms in existing landscape initiatives. Additionally, they can contribute to evaluating the effectiveness of these mechanisms (Wielga & Harrison, 2021; Harrison & Wielga, 2023), offer insights into influential factors such as power dynamics (Schuster & Mossig, 2022), and provide recommendations on the design of robust conflict-resolution mechanisms.

4.4 Integration into the planning of the locality

Why is this design principle relevant?

Governments play a crucial role as primary facilitators and enablers in the implementation of landscape initiatives. To ensure the lasting impact of these initiatives, it is key to involve government representatives in the multi-stakeholder process (Sayer et al. 2013; Deans et al. in 2018; Reed et al. 2020; Pedroza-Arceo et al. 2022). Additionally, it is vital to integrate the activities conducted within the framework of landscape initiatives into existing land use and rights policies, as well as to comprehensively incorporate them into land use planning (Kuster et al. 2018; Carmenta et al. 2020). This strategic integration guarantees that the decisions made become intrinsic elements of established governmental frameworks. Moreover, aligning various projects and initiatives within a landscape fosters a more cohesive and effective approach to sustainable landscape management, promoting synergies and coordinated efforts among diverse stakeholders (Pedroza-Arceo et al. 2022).

Gap revealed

Our exploratory analysis uncovered a lack of explicit consideration of the need to align the implementation of joint landscape visions with relevant jurisdictional spatial planning. Recognizing and addressing this gap is crucial to ensure the seamless integration of landscape initiatives into larger spatial planning contexts, thereby enhancing the effectiveness of individual initiatives and also contributing to the holistic and sustainable development of the entire landscape.

What can science contribute?

Scientific research and evidence-based practitioner guides provide multiple tools, methods, and frameworks to guide the integration of landscape activities into the formal planning of localities. Scientists facilitate multi-stakeholder platforms in various contexts and help to shape and guide complex planning processes (Kusters et al. 2018; Siamgulube et al. 2023). For example, WOCAT tools and methods guide multi-stakeholder platforms – including the local government – through various decision-support and planning steps (WOCAT, n.d.; Schwilch et al. 2012a, 2012b; Harari et al. 2023). In addition, watershed management planning processes in Ethiopia illustrate how participatory planning integrates activities into the official planning of local authorities (Providoli et al. 2019).

4.5 Ensured financing

Why is this design principle relevant?

To be able to develop the landscape sustainably, longer-term investments are needed between different sectors and at different levels. This requires coordinated funding from private, public, and civil society actors that promotes synergies between these investments to achieve large-scale impacts. Sets of activities – if implemented in a coordinated way – can generate reciprocal value and regenerate an ecologically degraded and economically impoverished landscape.

A review by Shames & Scherr, 2020 showed that well-coordinated spatial planning and sequencing of investments – so-called landscape investment portfolios – can generate financial, ecological, and social benefits for all landscape stakeholders. Moreover, by spatially coordinating and sequencing investments at the landscape scale, each individual project can achieve a higher rate of return, a lower risk profile, and/or increased social and ecological benefits.

Gap revealed

Our exploratory analysis revealed that the topic of “financing” only appears marginally in the scientific literature on landscapes. Likewise, only five out of ten analysed strategic documents referred to financing. This is a remarkable result given how critical funding is for the implementation of landscape projects. According to Shames & Scherr (2015), landscape partnerships struggle to develop and implement comprehensive and coordinated financing strategies capable of turning their action plans into reality. Hence, a major research gap concerns how ILAs should be operationalized over the longer term in the transition from sectoral to integrated approaches, how landscape-level governance can be aligned with existing institutional frameworks, and how financial investments can be secured.

What can science contribute?

The field of landscape financing is in a phase of substantial innovation. A global scoping study by EcoAgriculture Partners & the Coalition for Private Investments in Conservation (CPIC) (2019) identified and analysed emerging models. In addition, a review by Shames & Scherr (2020) showed that the field is developing rapidly, and more models of landscape financing have been identified than initially expected. However, these new models are still not widely understood and are not being implemented at scale. This is where science can come in and further support the development of these new models (Bosshard et al. 2021; Louman et al. 2021; Louman et al. 2022; Morgan & Buckwell 2022).

5 Conclusion and outlook

Our exploratory analysis revealed insights and gaps concerning the uptake of science-based design principles in the strategic documents of private-sector landscape initiatives. Out of the 12 design principles identified in the scientific literature review, six were taken up in 6–10 strategic documents of private-sector initiatives. A higher number of NGOs and multi-stakeholder initiatives took up the design principles in their strategic documents. Businesses and business coalitions tended to focus more on their own scope of operations and supply chains, affording less importance to multi-stakeholder approaches. The other five design principles were only marginally mentioned by five or fewer initiatives. Here too, more design principles were mentioned in the strategic documents of NGOs and multi-stakeholder platforms. The principle of “multifunctionality” was not explicitly mentioned at all in our sample. It would be interesting to analyse further why the six marginally cited design principles were not taken up prominently in the strategic documents. For this, a transdisciplinary research process reaching out to policy and practice partners would be meaningful. At the same time, it is important to stress that the mere presence of design elements in strategic documents does not ensure good implementation in practice.

Based on our analysis, we have formulated the following key takeaways – including implications for policy:

All landscape actors carry responsibility

All landscape actors have a responsibility to develop sustainable landscapes. Powerful actors such as the private sector have particular potential to accelerate the SDG implementation process in concert with public and civic actors. Landscape activities should be structured in a cooperative manner that encourages all resource users and interested parties to participate. In addition, these activities should be embedded in the existing (spatial) planning of local government agencies and the policies of relevant jurisdictional authorities. Landscape specialists – including the science community – can help to facilitate these processes to realize the full potential of landscape initiatives through animated multi-stakeholder platforms.

Holistic landscape management is needed

Sustainable landscape management should be holistic and go beyond individual value chain/production landscapes to include other land uses or ecosystem services supported by the landscape, with a view to maintaining multifunctionality. Landscape specialists – including the science community – can help facilitate these processes through platforms for joint visioning, planning, and decision-making based on evidence-based knowledge. Further, monitoring and evaluation of landscape activities by independent observers can aid the process and call attention to the big picture and interconnectedness of these initiatives.

Provision of long-term funding remains crucial

Ensuring healthy landscapes demands more innovative, coordinated, long-view funding that brings together private, public, and civic actors in sharing costs, assuming risks, and benefiting from investment returns. Initial steps for integrated landscape investments portfolios have been started by various initiatives, which still need further testing and scaling up.

Successful implementation

As stated above the mere presence of design elements in strategic documents does not yet ensure good implementation in practice. Key elements to be further studied for successful implementation of ILAs are: (1) stakeholder engagement, joint visioning, and agenda-setting; and (ii) monitoring and evaluation (M&E).

Stakeholder engagement is often mentioned in strategic documents, but implementation thereof is often challenging due to diverging interests within a landscape. Private sector-led initiatives often place emphasis on the actors that are situated within their supply chains and focus less on the other potentially more vulnerable actors. Vulnerable actors might not benefit from the initiative, or may even be harmed by it. Science can assume a supporting role in research on multi-stakeholder platforms.

Further, M&E of implemented ILAs is important to be able to trace results. Here, too, science can play a supporting role by providing quality assurance procedures (e.g. development of assessment frameworks), performing independent ground-truthing (e.g. impact studies on specific initiatives), and doing synthesis of impact studies (e.g. assess effectiveness of landscape initiatives as a sustainability governance tool).

Need for bridging science with practice

The present analysis has revealed potential for better collaboration between the science community, the private-sector, and other key actors, emphasizing the importance of transdisciplinary research. By bridging science and practice elements illustrated by the design principles, collaboration could be mutually beneficial. Through this process, successful private sector-led landscape initiative could be co-designed. Through the transdisciplinary research process, key design principles could be introduced, key challenges jointly identified and further researched, addressing the complexity of landscape approaches (e.g. powerful/less powerful actors, and ways to overcome that; conflict resolution mechanisms). Through this joint research process, awareness can be raised on the win-win of ILAs (versus single company actions).

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7 Annex

7.1 Overview compiled science-based design principles

Theme	Purpose	Sayer et al. 2013 – 10 principles	Sayer et al. 2015 - 10 pre-conditions	Reed et al. 2016/2019/2020 – 5 principles	Båge et al. 2015
Engaging multiple stakeholders	- Need for ongoing, inclusive, participatory negotiation processes - Enable stakeholders to identify objectives, develop synergies, account for trade-offs	x		x (2016)	
Stakeholder identification	Ensure relevance, legitimacy, and comprehensiveness of participation; build trust			x (2020)	
- Strengthened stakeholder capacity	Forecasting exercise enhance knowledge, capacity, and empathy by exposing actors to diverse perspectives	x		x (2019)	
- Independent facilitation	To integrate expert and community experiences			x (2019)	
- Sustained long-term and facilitated processes		x			
- Private sector engagement key element for success			x		
- Multi-stakeholder forum in place	Provide space for negotiation of land use trade-offs and synergies, encourage transdisciplinarity and co-learning, be attentive to power dynamics			x (2020)	
Existence of common entry points	Collective action will be expedited if concerns and solutions are perceived to be shared by multiple stakeholders (common concerns)	x		x (2020)	

- Establishing incentives for engagement			x		
Considering multiple scales	Consideration of synergies, flow, feedbacks across scales	x			
Considering multifunctionality	Consideration of multiple uses and purposes of landscapes	x			
Establishing good governance	- Optimal governance structures will vary among landscapes - Identifying the structure which works best and evaluating these structures over time is key to landscape sustainability			x (2016)	
- Strong systemic governance	Agreements have to be enforceable by law, cadastral records need to be in place, and land rights need to be clear.		x		
- Meaningful and lasting incentive structures	Locally relevant people-based strategies are crucial to secure meaningful and long-term engagement			x (2019)	
- Strong leadership / inspired leadership	For example, local political leaders, private sector leadership, convening power		x		
Defining theories of change	To enhance shared understanding of desired outcomes and measurable process indicators			x (2019)	
- Long-term adaptive commitment	Long-term vision and deep understanding of drivers of change within landscapes. Longer time frame than standard project cycle of 2–3 years.		x		
- Negotiated and transparent change logic	Transparent decision-making through participatory modelling	x		x (2019)	
Integration into planning of the locality	Link to governments				x
Evaluating progress	Measure progress towards relevant socio-economic, environmental and governance objectives	x		x (2016), x (2020)	
- Adequate budgets and metrics for assessing progress		x			

- Participatory and user-friendly monitoring	Balance participatory engagement and scientific rigour	x			
- Metrics must be specific to the landscape context (social, environmental, production and governance variables)	Without appropriate metrics, feedback loops fail, and adaptive management is unachievable			x (2016)	
Embracing dynamic processes				x (2016)	
- Iterative and adaptive management	Exchange knowledge, consider progress, identify leverage points, and adapt future planning accordingly			x (2020)	
- Continual learning and adaptive management		x			
Establishing conflict resolution mechanisms	Conflicts must be openly addressed.		x		
- Clarification of rights and responsibilities	Dealing with conflicting claims. Presence of accepted legitimate system for arbitration, justice, and reconciliation.	x			
Evolving from panacea solutions	- Acknowledge that landscape approach is not universally applicable. - Contextualization is fundamental to success - Every framework must be tailored to the specific landscape configuration and aligned with specific goals			x (2016)	
Embracing sustainability	Holistic approach to sustainability vs sectoral approach				
Resilience	Resilience may not be well understood in every situation, but can be improved through local learning and drawing lessons from elsewhere	x			
Ensured financing					
- Policies without budgets and implementation commitments do not work			x		

Legend: text marked in **bold/grey** -> clustered design principles

7.2 Stocktaking of private sector actor engagement in landscape initiatives

Below we present an inventory of actors that engage in landscape initiatives, grouped by different actor types. The tables present key information on their engagement in landscape initiatives, as well as strategic documents and weblinks outlining their approach to landscape-level engagement. The tables further indicate which actors (and the respective sources) were considered in the exploratory analysis presented in this report.

7.2.1 Businesses and business coalitions

Actor	Key information on their landscape engagement, including weblinks and strategic documents	Analysis
Consumer Goods Forum (CGF) Forest Positive Coalition of Action	<ul style="list-style-type: none"> Action in production landscapes as one of the key strategies of the Forest Positive Coalition of Action, where they aim to combine supply chain management (towards deforestation-free businesses) with integrated land use approaches. In commodity-specific roadmaps, the Coalition commits to contribute to regional approaches and landscape initiatives and to support the development of effective approaches to designing, implementing, and monitoring regional and landscape initiatives. Coalition has agreed on minimum investments by its members in landscape approaches. https://www.theconsumergoodsforum.com/environmental-sustainability/forest-positive/ Strategy for Collective Action in Production Landscapes, 2021, Consumer Goods Forum. 	x
Olam international	<ul style="list-style-type: none"> Olam living landscape policy supporting a “net-positive” approach to sustainable development in agricultural supply chains and landscape management https://www.olamgroup.com/sustainability/governance/policies-and-positions/living-landscapes-policy.html Olam Living Landscapes Policy (OLLP), 2018, Olam international. 	x
Nestlé	<ul style="list-style-type: none"> Forest positive strategy – landscape approaches as main pillar https://www.nestle.com/sustainability/nature-environment/sustainable-landscape Towards a forest positive future report, 2021, Nestlé. 	x
Musim Mas	<ul style="list-style-type: none"> Musim Mas has an overall strategy for NDPE-compliant (No Deforestation, No Peat, and No Exploitation) palm oil products. They attempt to implement this strategy with a specific landscape perspective in Aceh (possibly to be used later in other areas as well). This approach is further outlined in their regional NDPE strategy for Aceh, published in 2020. https://www.musimmas.com/sustainability/landscape/ https://www.musimmas.com/fitting-landscapes-into-corporate-ndpe-strategies/ Musim Mas' Strategy for the Aceh landscape, 2020, Musim Mas. 	x
Unilever	<ul style="list-style-type: none"> Unilever invests in landscape programmes on palm oil since 2016. https://www.unilever.com/news/news-search/2022/a-closer-look-at-the-impact-of-our-landscape-programmes/ https://www.theconsumergoodsforum.com/blog/2022/11/15/how-unilever-is-supporting-sustainable-palm-oil-production-through-a-landscape-approach-in-central-kalimantan-indonesia/ Reimagining landscapes report, 2022. Unilever. 	x
APRIL	<ul style="list-style-type: none"> Production-protection approach: Production areas serve as ring around the conservation/restoration areas or serve as connection between conservation areas 	

	<ul style="list-style-type: none"> • https://www.inside-rge.com/APRIL-Landscape-Approach-Conserving • https://www.inside-rge.com/sustainable-operations/april-production-protection-model-featured-in-lkyspp-case-study/ 	
PepsiCo	<ul style="list-style-type: none"> • Landscape Engagement Working Group, Consumer Goods Forum (CGF) Forest Positive Coalition of Action • https://www.pepsico.com/our-impact/sustainability/2021-esg-summary/pepsico-positive-pillars/positive-agriculture 	
Tesco	<ul style="list-style-type: none"> • Landscape Engagement Working Group, Consumer Goods Forum (CGF) Forest Positive Coalition of Action 	

7.2.2 NGOs and multi-stakeholder platforms

Actor	Key information on their landscape engagement, including weblinks and strategic documents	Analysis
IDH - the sustainable trade initiative	<ul style="list-style-type: none"> • SourceUp is a platform that links agri-commodity companies with multi-stakeholder initiatives in producing regions. It helps local stakeholders in producing regions to come together to work on sustainability, a collaborative effort called a 'Compact'. A Compact has the power to transform agricultural production systems far beyond what individual producers, local governments, civil society organizations, or traders can do alone. SourceUp has three progress levels for Compacts: Basic, Advanced, and Verified Sourcing Areas. • SourceUp: https://sourceup.org/ • https://www.idhsustainabletrade.com/landscapes/ • IDH PPI approach: https://www.idhsustainabletrade.com/approach/production-protection/ • Sourceup Manual, 2021, IDH. • SourceUp Policy, 2021, IDH 	x
Rainforest Alliance	<ul style="list-style-type: none"> • The Rainforest Alliance's sustainable landscapes program offers innovative ways for companies to meet their commitments while also having a long-lasting positive impact on farm and forest communities. • https://www.rainforest-alliance.org/approach/ • https://www.rainforest-alliance.org/business/tailored-services/sustainable-landscapes/ • https://www.rainforest-alliance.org/resource-item/integrated-landscape-management-program/ • Integrated Landscape Management Programme, 2020, Rainforest Alliance 	x
WWF	<ul style="list-style-type: none"> • WWF's work on landscapes: <ul style="list-style-type: none"> ○ Working with partners to advance landscape-level, multi-disciplinary approaches to increase impacts on the ground. ○ The Landscape Finance Lab, WWF's incubator for landscape programmes. The Lab helps to structure, launch and fund deals at the landscape scale. It does this by incubating sustainable landscapes using innovative financial instruments, leveraging market forces and unifying stakeholders to create investable solutions. ○ Developing and prototyping innovative integrated land and seascape approaches to produce greater strategic impact at scale. • WWF landscapes programme: https://forestsolutions.panda.org/approach/sustainable-landscapes 	x

	<ul style="list-style-type: none"> • WWF finance lab: https://www.landscapefinancelab.org/ • Guidance Brief: Landscape Elements: Steps to achieving integrated landscape managements, 2016, WWF. --> Building on the Little Sustainable Landscapes Book (Denier L, Scherr S, Shames S, Chatterton P, Hovani L, Stam N. 2015. The Little Sustainable Landscapes Book. Oxford, UK: Global Canopy Programme. https://www.cifor.org/knowledge/publication/6767/) 	
IUCN	<ul style="list-style-type: none"> • IUCN NL supports local communities in landscape governance. To guarantee inclusive stakeholder processes, IUCN NL focuses on facilitating capacity strengthening of civil society and within this category on empowerment of (green) civil society organizations (CSOs) and indigenous people and local communities (IPLCs). • https://www.iucn.nl/en/our-work/landscape-approach/ • https://www.iucn.nl/en/blog/how-iucn-nl-and-its-partners-use-the-landscape-approach/ • https://www.iucn.nl/en/blog/how-to-ensure-the-local-voice-in-landscape-governance/ • Integrated Landscape Management based on the ecological ceiling. 2021, IUCN NL. 	x
RSPO	<ul style="list-style-type: none"> • Next to its conventional certification approach, where the focus is the mill and its supply base, RSPO upscaled this approach onto a Jurisdictional level. The Jurisdictional Approach of RSPO is a framework for Group Certification which allocates legal requirements and authority to a Jurisdictional Entity (JE), with a multi-stakeholder governing body, which will establish an Internal Control System to facilitate full compliance with the RSPO Standards. • https://www.rspo.org/resources/certification/jurisdictional-approach • https://rspo.org/launching-the-rspo-jurisdictional-approach-ja-piloting-framework/ • https://rspo.org/who-we-are/governance/working-groups/jurisdictional-working-group-jwg/ • RSPO Jurisdictional approach piloting framework, 2021, RSPO. 	x
Earthworm foundation	<ul style="list-style-type: none"> • The Landscapes Programme of the Earthworm Foundation identifies and brings key stakeholders together that live and work in threatened biodiverse areas. They provide tools, space and guidance to stakeholders to build collaborative, participatory local processes for land use planning involving both upstream and downstream company players, local governments, local civil society, and communities living in or near those areas. • https://www.earthworm.org/our-work/programmes/landscapes#target-2 > https://highcarbonstock.org/additional-resources/hcsa-application-and-trials-dashboard/ 	
Conservation International	<ul style="list-style-type: none"> • With USAID and the Walton Family Foundation, Conservation International was one of the founding members of the Sustainable Landscapes Partnership (SLP). SLP's areas of focus include four regions in Indonesia's North Sumatra province as well as West Papua Province in the eastern part of the country. In partnership with the Ministry of Forestry, local government, the private sector and local communities, they work to implement replicable business models that foster green development, particularly through economic alternatives to deforestation. (Source website) • https://www.conservation.org/projects/sustainable-landscapes-partnership 	

Solidaridad	<ul style="list-style-type: none"> • Solidaridad builds partnerships and knowledge for inclusive development in sustainable landscapes, where people thrive and natural values are protected, maintained, and restored. (Source: website) • https://landscapenavigator.info/ • https://www.solidaridadnetwork.org/publications/landscape-approach-lessons-learnt-solidaridad-learning-agenda-on-landscape-innovation/ • Landscape approach – Lessons learnt, 2021, Solidaridad • Sustainable Landscapes – driving coordinated action for inclusive development through a landscape approach, date unknown, Solidaridad • Together towards sustainable landscapes - Flyer, 2018, Solidaridad 	
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7.2.3 Implementation of landscape initiatives – Examples

The table below shows concrete examples of landscape initiatives with the involvement of private sector actors.

Actors	Key information on the initiatives, including weblinks
Nespresso with IUCN and others	<ul style="list-style-type: none"> • Case study - Cerrado waters consortium • https://www.sustainability.nespresso.com/cerrado-waters-consortium
Nestlé with Earthworm Foundation	<ul style="list-style-type: none"> • Overview projects: https://www.earthworm.org/fr/members/nestl%C3%A9 • Case study: Paper and Pulp landscape in Canada
Earthworm	<ul style="list-style-type: none"> • https://www.earthworm.org/fr/our-work/projects/tocache-san-martin-region-peru
APRIL	<ul style="list-style-type: none"> • Restorasi Ekosistem Riau (RER) programme: Conservation and Restoration of Forested Areas in Riau Province • https://www.rekoforest.org/programme/about-rer/ • https://www.aprildialog.com/en/2015/12/02/april-group-announces-expanded-rer-eco-restoration-project/
Unilever and WWF	<ul style="list-style-type: none"> • Collaboration with WWF in Sabah Province, Malaysia. Embedded in WWF Sabah Landscapes programme. • https://www.unilever.com/news/news-search/2021/how-we-are-working-with-wwf-to-restore-forest-ecosystems/
Douwe Egberts	<ul style="list-style-type: none"> • Implementation of compact approach of IDH in Vietnam • https://www.idhsustainabletrade.com/news/jacobs-douwe-egberts-first-company-sourcing-coffee-using-sourceup/ • https://www.jacobsdouweegberts.com/asia/vietnam/project-1/

7.2.4 Landscape assessment frameworks and standards

The table below presents an overview of key landscape assessment and monitoring frameworks.

Framework	Weblinks and information
Landscape	<ul style="list-style-type: none"> • https://www.landscape.org/ • Coalition partners led by the Rainforest Alliance, Verra, and Conservation International • Mission: We aim to make reliable information about landscape sustainability performance widely available to key decision-makers that can align and incentivize local and global action to deliver sustainability at scale.
Landscape Monitoring Framework of the socio-economic dimension	<ul style="list-style-type: none"> • Max Havelaar-Foundation, FLOCERT • https://www.isealalliance.org/innovations-standards/innovations-projects/landscape-level-monitoring-framework-socio-economic • The landscape monitoring framework of the socio-economic dimension (LMS) consists of a library of indicators that initiatives can select from based on the topics most relevant to the local context, and guidance on a stepwise approach for assessing and monitoring landscape level interventions.
Verified Carbon Standard Jurisdictional and Nested REDD+ (JNR)	<ul style="list-style-type: none"> • https://verra.org/project/jurisdictional-and-nested-redd-framework/ • The VCS Jurisdictional and Nested REDD+ (JNR) Framework is the world's first accounting and verification framework for jurisdictional REDD+ programs and nested projects
SAN- Blueprint	<ul style="list-style-type: none"> • https://www.sustainableagriculture.eco/blueprint-for-a-sustainable-landscape • The Blueprint for Sustainable Landscapes is a practical, multi-level set of tools to measure sustainability status and progress across small landscapes. • Under development
CCBA - Sustainable Landscapes Rating Tool	<ul style="list-style-type: none"> • https://www.climate-standards.org/sustainable-landscapes-rating-tool/ • The Sustainable Landscapes Rating Tool enables a rapid assessment of the key conditions for jurisdictional policies and governance that enable sustainable landscapes.
LAFF tool: Landscape Assessment of Financial Flows	<ul style="list-style-type: none"> • by Tropenbos International and EcoAgriculture Partners • https://www.tropenbos.org/resources/publications/the+landscape+assessment+of+financial+flows+-+a+methodology • This practical two-phase approach helps stakeholders identify local sources of finance for new investment ideas, find the current financial flows that are most in need of transformation, and better understand the elements of a landscape's financial context that require support.