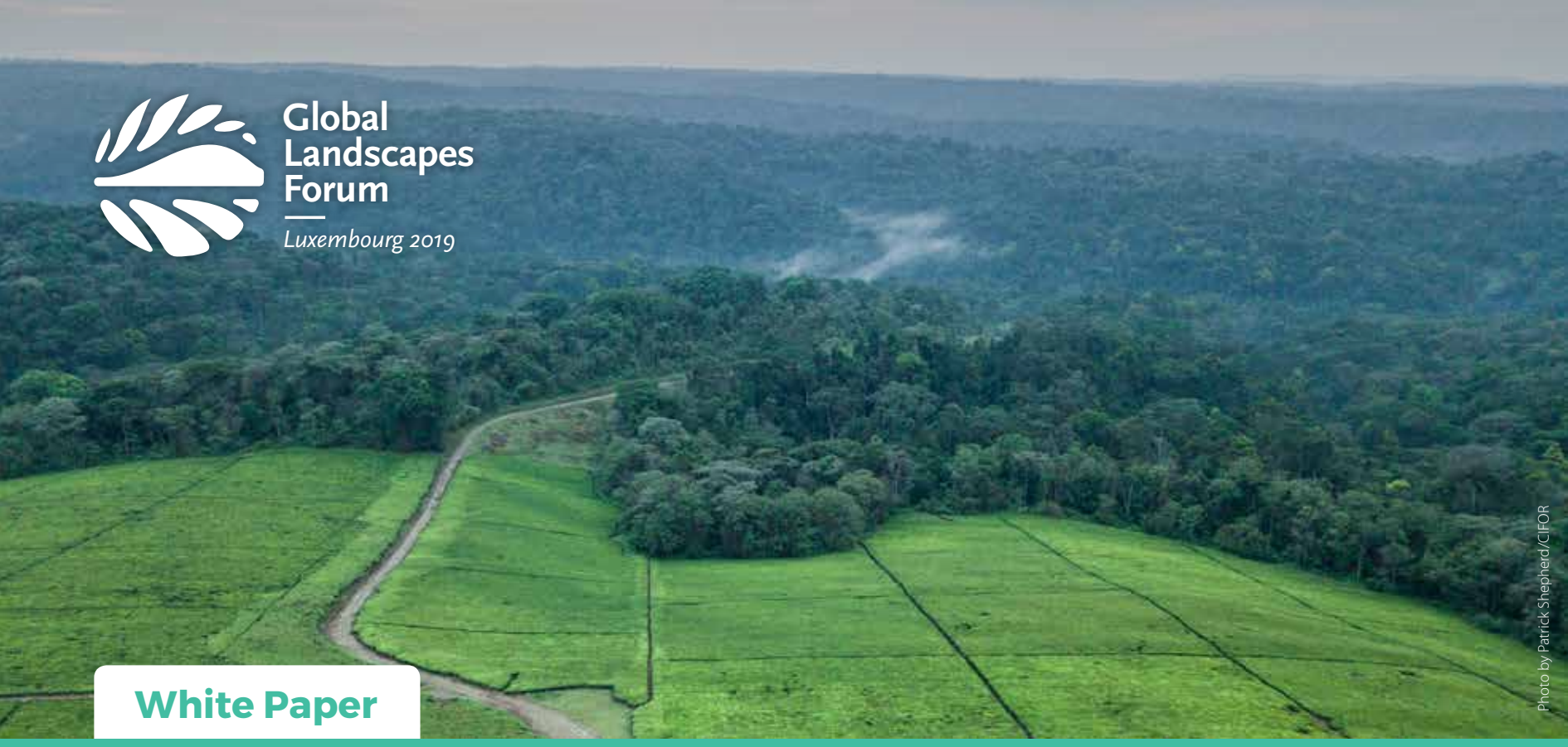


Global Landscapes Forum

Luxembourg 2019

Photo by Patrick Shepherd/CIFOR

White Paper

Breakthroughs in Sustainable Finance

Sustainable Land-Use Financing

Managing Environmental and Social Risks and Demonstrating Impacts

This White Paper was produced by **UN Environment.** The content of this GLF white paper is the sole responsibility of the authors.

UN environment

Financing Sustainable Land Use

Photo by Aulia Erlangga/CIFOR

Introduction

Agriculture is the biggest driver of deforestation in the tropics. Greenhouse gas emissions (GHG) from agriculture, deforestation and other land use represents about one quarter of total global emissions. Halting the annual loss of more than seven million hectares of tropical forests and tackling climate change on the one hand, while ensuring growth in agricultural production to feed nine billion people by 2050 on the other, is one of the defining challenges of the 21st century.

Low costs of land conversion, defrayed by returns on timber sales and low cost of working capital, drive prevailing unsustainable agricultural production models. Mainstream private finance to the agricultural sector contributes, directly or indirectly, to large-scale deforestation. Farmers are rarely offered viable financing alternatives, and low credit-rated smallholders and cooperatives particularly struggle to access capital that does not lock them into perpetuating deforestation and land degradation.

More sustainable business models are often deemed risky or untested, e.g. deforestation- and conversion-free soy production in the Brazilian Cerrado, scaling up oil palm replanting on existing agricultural land in Indonesia, or transition from full-sun cocoa to agroforestry in West Africa. In response, a growing number of banks, impact fund managers and non-government organisations have started to try to redirect private capital towards deforestation-free commodity production, restoration of degraded land and other forms of sustainable land use. A certain degree of public financing, however, will be needed to enhance the credit quality of the underlying asset or to de-risk private capital.

To create public and private investor confidence, attract diverse sources of concessional finance, and establish a baseline to measure the degree of departure from business as usual, the environmental and social (E&S) impacts of sustainable land-use financing need to be identified, characterised and unequivocally demonstrated. A growing number of sustainable land-use finance facilities aim to deliver on private sector commitments towards achieving the Sustainable Development Goals relating to forests, climate and livelihoods. Each facility is independently developing E&S frameworks and key performance indicators (KPIs) to demonstrate and measure these impacts.

At this juncture, it is important to take stock of the "why, what and how" of E&S risk management and impact monitoring of sustainable land use. This brief aims to synthesise the state of the art of E&S approaches for sustainable land-use financing. As such, this brief synthesises and summarises what has been achieved, the main operational challenges faced, and some of the emerging solutions identified to date, with an overarching focus on managing risks and demonstrating impact.

Managing risks

Sustainable land-use financing must demonstrate the 'do good' of E&S impact. But, before monitoring and reporting on KPIs, robust policies and standard operating procedures need to be put in place that ensure 'doing no harm' in E&S risk management. E&S factors can have material impact on the financial viability and performance of investments. Poorly or unmanaged risks can lead to inefficiencies, operational disruption, litigation, reputational damage or diminished returns on investments. Integrating E&S risk management practices as well as the positive impact potential into the business processes of traditional financial analysis is not just prudent but an essential fiduciary duty for investment advisors or concessional financers to optimize public investor (i.e. tax payer) returns.

What has been achieved so far?

The international benchmark for identifying and managing E&S risk – the International Finance Corporation's (IFC) E&S Performance Standards - have been adopted as a central plank of pioneering sustainable land-use facilities' and funds' E&S frameworks. Performance Standard 1 - Assessment and Management of Environmental and Social Risks and Impacts – is deemed particularly useful for anticipating, avoiding and minimizing E&S risks in these frameworks. The procedural steps common to most sustainable land-use facilities and funds include: initial screening, risk categorisation, due diligence, management planning, monitoring and reporting, disclosure, and institutional roles and capacities. Several IFC Performance Standard 1 elements that do not yet appear in sustainable land-use finance E&S frameworks include: emergency preparedness and response, stakeholder engagement[1], and grievance redress mechanisms.

In addition to this core set of IFC Performance Standard 1-based procedures, other common risk management features of facility and fund E&S frameworks include compliance with existing and relevant domestic legal frameworks (in the geographies where investments are to be made), investor sustainability policies, and various existing good-practice guidelines and standards (Box 1).

What are the main challenges, and some of the solutions, to E&S risk management?

The main approach to E&S risk management in sustainable land-use financing has been based on the tried-and-tested, industry familiar, IFC PS. Consequently, relatively little innovation has been required, and relatively few, smaller operational and technical challenges have been encountered, in comparison with the 'demonstrating impact' component of E&S frameworks. E&S risk management financing, however, has not been challenge-free and the main operational obstacles are:

- How to select and apply multiple existing good-practice and guidelines and standards (Box 1) to the investments comprising a facility or funds pipeline?

1 Except for explicit references to respecting the collective right of indigenous peoples to give or withhold free, prior and informed consent (FPIC) to a project.

Box 1 Good-practice guidelines and standards adopted by some sustainable land-use finance facilities and funds

Existing good practice standards and guidelines:

- IFC Performance Standards on Environmental & Social Sustainability and Roundtable on Responsible Soy (RTRS) Standard for Responsible Soy Production
- BNP Paribas sector policy statements for Palm Oil, Wood pulp and paper and Agriculture
- Internationally certifiable environmental, social and quality standards issued by the International Organization for Standardization (ISO)
- Standards for the following certification: Forestry Stewardship Council, Marine Stewardship Council
- Principles and criteria of the Roundtable on Sustainable Palm Oil (RSPO) and the Indonesia Sustainable Palm Oil System (ISPO)
- ADB's safeguard policies
- FAO code of contact for Responsible fisheries
- WWF 2050 key performance criteria
- World Bank Group Agribusiness/Food production EHS Guidelines

Financial market principles and standards:

- Requirements and Standards of the Financial Conduct Authority
- Climate Bonds Initiative Green Bonds Standard
- International Capital Market Association Green Bond Principles
- Nordic Public Sector Issuers Position Paper on Green Bonds Impact Reporting
- OECD Guidelines for Multinational Enterprises
- G20/OECD International Standards of good corporate governance
- FAO, IFAD, UNCTAD and World Bank Principles for Responsible Agricultural Investment (PRAI).

Labour, land tenure and human rights standard and guidance:

- International Labour Organization (ILO) standards on forced labour and child labour;
- ILO Indigenous and Tribal People Conventions (ILO 169),
- Voluntary Guidelines on the Responsible Governance of Tenure of Land, Fisheries and Forests in the Context of National Food Security (VGGT);
- United Nations Declaration on Human Rights;
- United Nations Declaration on the Rights of Indigenous Peoples;
- United Nations Guiding Principles on Business and Human Rights.

Source: E&S frameworks of &Green Fund, AGRI3 Fund, RCF and TLFF

- How to reduce the risk of off-farm 'leakage', i.e. project-induced displacement of deforestation, and attendant GHG emissions, from deforestation-free farms to elsewhere?

Applying multiple guidelines and standards

As Box 1 indicates, there is a plethora of existing guidelines and standards for E&S risk management that are available to sustainable land-use facilities and funds. The approach to selecting which standards to bring together with any given set of E&S impact objectives, has been largely unsystematic, with facilities and funds indicating a few, perhaps subjectively selected standards to comply with.

The difference between listing multiple guidelines and standards in an overarching facility or fund E&S framework policy versus applying them on the ground is substantial. Applying often overlapping, and potentially conflicting, rules and regulations to investment decision making processes or within individual project implementation is a sizable undertaking. As facilities and funds capitalise and start to fill their pipelines with bankable projects, the combined implementation of agricultural production, finance industry or development bank standards alongside voluntary guidelines, on top of the baseline minimum requirements of the IFC Performance Standards, is rapidly becoming the most immediate operational challenge.

The solution that some facilities and funds have taken is to conduct a substantive equivalence assessment of adopted good-practice guidelines and standards against the baseline IFC Performance Standards. Such mapping exercises have identified all those E&S risk management elements, additional to the IFC Performance Standards, which are present in other standards; in doing so, the added (not duplicated) value of these other standards has been demonstrated. Standard operational procedures for facility and fund due diligence have then been developed based on this 'IFC Performance Standard + other elements' approach, without necessarily expecting the multiple standards to be applied and verified in full for any given investment.

Managing leakage risk

Facility or fund-level leakage alert monitoring is an affordable and technically feasible proposition - combining automated cloud computing, machine learning and remote sensing technologies - when integrated with forest cover change monitoring as part of demonstrating environmental impacts (see below). Although feasible in principle, monitoring of off-concession land-use change is not without its difficulties, chief among these has been the methodological justification for delineating 'leakage belts' (See Box 2) in an area surrounding each project; just how far from the concession or farm boundaries should leakage alert monitoring extend? Given that leakage can, through economic pathways, occur at a global scale.

What has proven to be more challenging is the identification and prescription of measures to reduce the risk of leakage in the first place, because risk management responsibilities, on the part of the borrower is fundamentally confined to the boundaries of their concession or farm.

A couple of leakage risk management measures have been proposed:

- **Doing deals in 'good neighbourhoods'** – Preferring investment in transactions sited in national or subnational jurisdictions that have in place, implement and enforce financed polices for green growth, jurisdictional approaches to sustainability, low-emissions development, reduced

Box 2 &Green Fund's Jurisdiction Eligibility Criteria

The &Green Fund invests exclusively in projects located in jurisdictions (national or sub-national administrative units) where the authorities demonstrate commitment to, and are making progress on, reducing deforestation. The purpose of Jurisdiction Eligibility Criteria is, therefore, to help the Fund select jurisdictions where it can invest.

1. **Scope**: the amount and quality of forest and/or peatland potential of the jurisdiction is such that it could be classified as significant and highly relevant from a global perspective on environmental conservation and climate change mitigation grounds.
2. **Ambition and strategy**: a quantitative target against historic rates of gross deforestation, which also reflects or goes further than established national targets, and a feasible strategy to reduce deforestation and degradation, and enhance restoration approved for the jurisdiction.
3. **Progress**: timely progress towards milestones of the strategy, including implementation of key policies, and measurably on a trajectory towards the targets for reduced deforestation and degradation, and enhanced restoration.
4. **Monitoring, reporting and verification**: a transparent system is operational at relevant jurisdictional level for monitoring, reporting and verifying reductions in deforestation and degradation, and enhanced restoration.
5. **Social and environmental safeguards**: in accordance with the UNFCCC REDD+ mechanism, at the national level, the appropriate policies and legal and regulatory frameworks are in place to mitigate the social and environmental risks associated with implementing the strategy.

Source: &Green Fund Environmental & Social Management System v1.0

emissions from deforestation and forest degradation (REDD+), or similar. Prioritizing projects in these geographies presents limited opportunities for deforestation to be displaced locally as well as reduced operational risks of project failure, as project objectives will be aligned with those of local government efforts to reduce deforestation and move towards sustainable agriculture jurisdiction-wide. Indeed, some funds have established eligibility criteria, not just for projects, but also for the jurisdictions in which they are sited (see Box 2).

- **Maintaining or enhancing yield intensity** – of deforestation-free commodity production in relation to jurisdictional averages. A reduction in productivity, due to forest restoration commitments or more sustainable production practices, could increase pressure to convert forests outside the project boundaries. Maintaining, or even enhancing, production intensity would reduce the risk of leakage.

Although not a leakage risk management action ***per se***, some facilities have adopted leakage deductions from GHG emissions reduction estimates. To account for possible leakage, such facility managers have estimated the risk of leakage, based on available empirical

data on land transaction values, and applied conservative flat rate deductions to the area of avoided deforestation, and subsequent GHG emissions estimates based on these activity data, outside borrower farm boundaries. Such leakage estimates are proposed to be periodically (e.g. annually) reviewed to ensure they remain accurate.

Demonstrating impact

The discussion on demonstrating E&S impact focuses on two aspects: 1) ***the what***, i.e. what metrics of E&S performance should be measured; and 2) ***the how***, i.e. how to monitor key performance indicators (KPIs), in terms of methods, data and putatively cost-cutting technologies.

What has been achieved so far?

In terms of the what, a converging set of KPIs for forests, climate and sustainable agricultural production is emerging among sustainable land-use facilities and funds (Box 3). These KPIs are explicitly aligned to, first and foremost, the Sustainable Development Goals (SDG)[2], in addition to other international policy commitments (e.g. New York Declaration on Forests' indicators and Bonn Challenge on Forest Landscape Restoration results). For those facilities operating in a single geography, such as the RCF in Brazil and TLFF in Indonesia, efforts have also been made to ensure KPIs communicate with, and contribute to the targets set in, national policy commitments, notably Nationally Determined Contributions to the Paris Climate Agreement and National Biodiversity Strategies and Action Plans.

Unlike the priority environmental KPIs, which can relatively easily be agreed as hectares of forest[3] and tonnes of CO_2 equivalent, achieving consensus on KPIs for social objectives - inclusive value chains; resilient rural livelihoods; enhanced farmer capacity – are somewhat more difficult to achieve. Finding good and replicable (from crop to crop, geography to geography, production system to production system) metrics for measuring impacts on livelihoods is significantly more challenging than agreeing on the units for GHG accounting. Irrespective of the social metrics adopted, facilities and funds, however, do acknowledge the importance of disaggregating social data by gender.

New regulatory frameworks and guidelines - such as EU Taxonomy; Climate Bonds Initiative Green Bonds Standards (criteria for agriculture); International Capital Market Association Green Bond Principles; Nordic Public Sector Issuers Position Paper on Green Bonds Impact Reporting; LandScale Assessment Framework and Guidelines - are being developed and could provide opportunities to align definitions, and metrics, of ***what*** constitutes sustainable land-use financing.

How to monitor E&S?

In terms of the ***how***, most facilities and funds, presently preoccupied with prioritising fund capitalisation and cultivation of a deal pipeline, have yet to become fully operational when it comes to monitoring E&S impact. Indicative methods, captured in facility and fund E&S frameworks indicate a mix of data types, i.e. satellite imagery for monitoring forest cover change (and respective GHG emissions reductions and sequestration), coupled with

2 Particularly the relevant global targets and indicators for SDGs 2 (end hunger), 13 (climate change) and 15 (life on land).

3 Although with over 1,500 definitions (World Bank, 2019) there is ample scope to debate what constitutes a forest!

Box 3 Common key performance indicators for forest expansion, protection and restoration; forest and farm carbon emissions and sequestration; and sustainable agricultural production

Forest expansion, protection and restoration

- Area of High Conservation Value (HCV)/High Carbon Stock (HCS) forest brought under active management for protection objectives
- Gross increase in area of natural forest cover within boundaries of funded projects
- Natural forest under active management for replanting and/or restoration objectives within boundaries of funded projects

Forest and farm carbon emissions

- CO_2 emissions from avoided deforestation/forest degradation; and/or CO_2 sequestered by forests
- CO_2 emissions from farms avoided and/or sequestrated by farms, per year, by funded projects

Sustainable agricultural production

- Agricultural area under sustainable management
- Area of degraded land restored within concessions of funded projects

aggregated statistical data on sustainable agricultural practices and social KPIs. Remote sensing of environmental KPIs is seen as the purview of facility and fund management, while statistical data on sustainable agricultural production and social impacts are expected to be submitted by borrowers and aggregated at the facility or fund level.

Remote sensing technology and data from satellites are in state of exponentially booming development. More than 4,000 satellites are currently orbiting the earth, with more than 5,000 scenes generated every day[4] (e.g. NASA and ESA missions). Facilities and funds can benefit from the suite of available remotely sensed products and utilise these technologies to monitor environmental KPIs, by accessing datasets, online platforms, assessment tools and proprietary products that allow search, visualisation, and analysis of spatial datasets.

An increasing number of open-data resources are currently available through online platforms such as the Global Earth Observation System of Systems, which integrates over 400 million Earth Observation data from more than 150 providers. UN Biodiversity Lab and Global Forest Watch are other examples of online platforms that not only allow the download of data, but can also be used to visualise and analyse land cover and use data. Global Forest Watch Pro, in particular, is designed for companies to monitor the impact of their operations on forests.

A particularly useful resource is the set of free and open source software, Open Foris, developed by the Food and Agriculture Organization of the United Nations (FAO), to facilitate data collection, analyses and reporting of land cover. This is a user-friendly platform that allows non-expert end-users to carry out land-use assessments and land cover classification efficiently. Facilities and funds who prefer to make use of ready-to-use products can take advantage of the many commercial remote sensing

4 United Nations Development Programme (2019) The pressing need for a global digital ecosystem.

service providers on the market (e.g. AgroTools, Ecometrica or Starling) that provide a wide range of mapping and analytical tools with varying functionalities and different spatial resolutions. Remote sensing technologies are still not at a point where they can easily (and ethically) monitor and report on social KPIs, for which manual collection of project-level statistical data is still required.

Social and environmental data can be stored and shared using traditional databases or distributed ledger technology (e.g. blockchain[5]). Data recorded on a blockchain is verifiable by consensus within the network, traceable, encrypted and unalterable. Some potential uses of blockchain include: tracking agricultural inputs and practices used on farm, tracing payments and loan distributions to farmers through smart contracts. Blockchain technology comes with several limitations that need to be carefully considered, such as the high energy requirement, trust of blockchain developer and managers, and issues related to privacy and security. The role of blockchain technology in monitoring and reporting environmental and social impact remains to be clearly defined and demonstrated.

Facilities and funds are also proposing to utilise specific calculator tools to report on, both forest and on-farm, carbon emissions (and sequestration) of their operations and inform activities to reduce overall emissions profile of borrower operations. FAO EX-ACT tool and the Cool Farm Tool for Greenhouse Gases developed by the Cool Farm Alliance, are two examples (among other) user-friendly tools to report on GHG emissions, and removals, and allow to report using information available or easily accessible.

5 A type of distributed ledger (database shared, replicated and synchronized among the members of the network) comprised of unchangeable, digitally recorded data in packages called blocks, where each block is chained to the next block using a cryptographic signature.

What are the main challenges, and some solutions, to demonstrating E&S impact?

The design of environmental and social KPIs face different challenges, ranging from the infeasibility of utilizing often expensive and demanding existing standards through to the profusion of, and confusion surrounding, rapidly evolving remote sensing technology and tools. Social KPI design, coupled with low-cost technological monitoring solutions are lagging behind environmental KPIs and monitoring of forest cover change and associated GHG fluxes. Robust target setting, for all KPIs, environmental and social, remains a challenge when fund pipelines are still being built in the early stages of fund capitalisation.

Several standards and approaches exist for environmental KPIs and can be applied for their specific design. High Conservation Value (HCV) and High Carbon Stock (HCS) approaches are among the most commonly adopted (and frequently most misunderstood) methods when designing environmental KPIs. The protection of HCV-HCS forest is a robust indicator to demonstrate forest conservation plans and processes fulfilling several objectives, but it comes with several limitations including cost and ease of implementation, as well as compliance with national legislation and technical capacity required. IFC Performance Standards is an approach that can be used alone or alongside HCV. The integration of remote sensing technology - widely used to monitor land cover and use – further supports the application of most approaches and tools used to monitoring environmental KPIs. . The challenge in this case is not in the lack of data and services but rather the opposite. In an increasingly noisy space, the platforms, data and services offered have given rise to a complex, fast moving space where the lack of standardized methodologies, a need for expert knowledge and the sheer commitment in terms of time required,

make informed decisions an increasingly scarce luxury. Constant technological advances and increases in available data present a critical opportunity for cost efficiency of M&E methods.

The design and standardisation of social KPIs can be more challenging for several reasons, the greater variety within categories (e.g. work and labour conditions, health, safety and security, Indigenous Peoples etc.), lack of standardisation and universal acceptance. They are often neglected due to priority given to deforestation commitments and the attraction of using remote sensing technology to assess these. Standards such as HCV category 5 (Community Needs) and 6 (Cultural Values) and IFC Performance Standard 2 (Labour and Working Conditions), 4 (Community Health, Safety and Security), 5 (Land Acquisition and Involuntary Resettlement), 7 (Indigenous People) and 8 (Cultural Heritage), as well as ADB social safeguards on Involuntary Resettlements and Indigenous Peoples and World Bank Environmental and Social Policies, could be used to design social KPIs. A further challenge regarding the collection of social data requires the application of ethical standards and in many countries compliance with General Data Protection and Regulation (GDPR).

In the case of social KPIs, the main issues for monitoring include the lack of automated methods, such as remote sensing, to collect data and hence the high costs of carrying out field surveys, unless regular data collection are implemented at the national or local government level (to consider during KPI identification). Uptake of different methodological standards by facilities and funds to collect social data further compounds the challenge of promoting cost-effective solutions across impact investing in land-use sectors.

Once KPIs are designed, targets need to be set. This step must be finalised before the initiation of any project operations and should be based on reliable baseline and clear impacts that projects aim to achieve (e.g. hectares of forest restored, increase in farmers' incomes, etc.). Baseline data should derive from preliminary assessments, such as HCV/HCS and household surveys for social and economic data. As discussed above, the risk of leakage must be identified and reduced at the project design level and KPIs must be constructed in such a way as to account for this potential residual impact. Clear characterisation of what constitutes off-concession leakage can inform where and how to monitor this type of risk.

Conclusion

Based on the preliminary experiences of the facilities and funds synthesised in this brief, three critical success factors have emerged for the E&S side of sustainable land-use financing: additionality, cost and standardisation. Industry and government perspectives will need to converge on these factors if deforestation-free, decarbonised as well as social and equitable food production is to go mainstream for our planet's sake.

Determining and ensuring E&S additionality, beyond business as usual, will remain a challenge for the finance industry when it comes to sustainable land-use investments. The inherent trade-off between optimising industry inclusiveness and the highest possible rigor will persist to meet the expectation, and need, of continuous improvement in E&S performance, in order to ensure yesterday's best practices, become the minimum bar today. Set the E&S bar too high, at this initial stage of industry engagement, and sustainable land-use financing becomes an exclusive niche market, rewarding only few best-in-class producers to achieve even better E&S performance. Set the bar too low, and accusations of greenwashing could be indefensible.

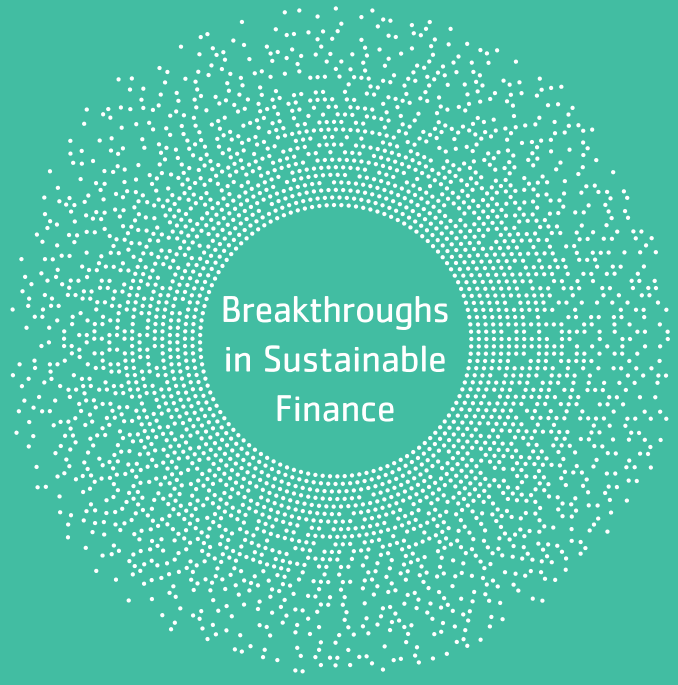
Identifying and internalising the costs of E&S impact monitoring into business models, is perhaps second only to the fundamental issue of additionality in determining what constitutes sustainable land-use financing. E&S benefits of protecting natural habitats have been deemed largely to be a purely public good; consequently, expectations have historically been that public funding covers the cost of maintaining or enhancing these benefits, be it government budget allocation or grants to civil society. However, public funding of natural habitat protection, and concomitant resilient rural livelihoods, is neither sustainable nor scalable. For private sector capital to be unlocked and achieve the desired and expected E&S impacts at scale, private sector must incorporate the costs of managing E&S risks and, particularly, demonstrating impact into business models so that banks, investment advisors and producers can all continue to yield a reasonable, risk-adjusted return on sustainable land-use investments.

Finally, to mainstream sustainable land-use across the wider agriculture and finance sectors, pioneering actors need to urgently converge on standardisation of E&S risk management procedures, KPIs and monitoring methods. An emerging consensus on standardised E&S practices would reduce costs, attract investment and facilitate global comparability of E&S impact claims. Capitalising proof-of-concept facilities and funds to secure demand, coupled with filling pipelines with bankable projects to secure supply, are paramount preoccupations for the fledging sustainable land-use sector. However, if agriculture is to experience the required transformation, the third pillar that this anticipated new asset class will need to stand on are universally accepted E&S standards that find the sweet spot between rigor and cost, as well as performance and inclusivity.

While there is still a long way to go in order to remove unsustainable land-use practices from the supply chains of food we eat, the focus currently shifts to ensuring that both private and public financing sectors get 'on board' and address the challenges preventing drastically scaled-up sustainable commodity production.

Note:

This workshop pre-read draft is informed only by UN Environment Programme's (UNEP) experience in supporting a number of pioneering sustainable land-use finance facilities and funds, namely: http://www.andgreen.fund/ &Green Fund; https://www.google.com/AGRI3Fund_brochure.pdf AGRI3 Fund; https://sim.finance/rcf/ Responsible Commodities Facility (RCF); and the http://tlffindonesia.org/ Tropical Landscapes Finance Facility (TLFF). As such, this draft's purpose is to stimulate thinking (before the event) and dialogue (during the workshop) on the topics covered. The paper will be revised to include wider experiences and knowledge, harvested from the Cambridge workshop, to inform and published state-of-the-art info brief.



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