

Explanation of Managed Land Proxy Proposal

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We, the supporters of the Managed Land Proxy Plus (MLP+) proposal, would like to thank the members of the Independent Standards Board (ISB) for the time you will spend evaluating and deciding this critical issue before you. This document accompanies the technical proposal with our perspective on the decision between the MLP+ and ABA proposals. Here we first describe how the MLP+ proposal is the superior alternative according to the GHG Protocol's decision-making criteria, then discuss the problems with the ABA proposal. Here is a concise summary of the points we will make:

- The use of the MLP approach to produce forest carbon inventories is the consensus recommendation of the IPCC and its associated communities of scientists. The "+" in the MLP+ proposal addresses the MLP's gaps.
- The MLP+ proposal, unlike the ABA proposal, is built on the foundational concepts of attributional inventory reporting and thus consistent with the rest of the GHGP, while also establishing a distinct role for target-setting and progress measurement.
- The MLP+ proposal enables an overall accounting framework that incentivizes ambitious climate action.
- The MLP+ proposal, in contrast with the ABA, has been tested, is based on proven methods, and has an existing network of organizations and partners (data providers, researchers, auditors) capable of implementing it.
- Because of the above, the MLP was overwhelmingly supported by the original LSRS Technical Working Group (2020-2023) for the MLP and again by the Advisory Committee (Jan 2024).
- The ABA proposal is replete with misunderstandings and technical errors that make it impossible to implement and which would disincentivize sustainable forestry.

Scientific Integrity

The scientific integrity of the MLP+ proposal is based on two statements supported by peer-reviewed science:

1. The scientific community has continuously supported the use of the Managed Land Proxy in national GHG reporting.
2. While the MLP is the best available method, it has gaps, most notably its combination of anthropogenic and non-anthropogenic emissions/removals on

managed land. This can be addressed through complementary and differentiated reporting.

On the first point, the use of the managed land proxy (MLP) in national forest carbon inventories is clearly and unambiguously supported by the Intergovernmental Panel on Climate Change. The “2019 Refinement to the 2006 IPCC Guidelines for National Greenhouse Gas Inventories,” Volume 4, Chapter 2, Section 6, says:

In the AFOLU sector, the management of land is used as the best approximation of human influence and thus, estimates of emissions and removals on managed land are used as a proxy for anthropogenic emissions and removals on the basis that the preponderance of anthropogenic effects occurs on managed lands (see Vol. 4 Chapter 1). This allows for consistency, comparability, and transparency in estimation. Referred to as the Managed Land Proxy (MLP), this approach is currently recognized by the IPCC as ***the only universally applicable approach to estimating anthropogenic emissions and removals*** in the AFOLU sector (IPCC, 2019 – emphasis is ours).

The same report also acknowledges the MLP’s shortcomings, stating: “However, it is also recognized that the estimated emissions and removals on managed lands can represent a combination of both anthropogenic (direct and indirect) and natural effects.”

The same issues were discussed in June 2024, when 130 scientists representing the various scientific communities that work on the IPCC’s AFOLU reporting guidelines and their implementation for national greenhouse gas reporting (including inventory experts, global modelers, and earth observation scientists) gathered in Ispra, Italy, to discuss the discrepancy in results between inventories as reported by the MLP and global carbon models used to calculate the remaining global carbon budget and net-zero target date. This discrepancy arises from the difficulty (in **both** inventory and modelling approaches) in distinguishing between direct anthropogenic, indirect anthropogenic, and natural effects on forest removals and emissions. Their **consensus** opinion was to maintain the use of the MLP for the purpose of producing inventories, and to address this discrepancy in the context of target setting (Intergovernmental Panel on Climate Change, 2024).

In addition to that 2024 IPCC meeting, since 2019 we have identified five peer-reviewed publications from scientists involved in the IPCC’s discussion of this issue. Four endorsed the IPCC’s 2019 decision. The only one to suggest an amendment (Nabuurs et al., 2023) proposed that all forest lands be included in the inventory. In other words, it advocated adjusting the MLP in the **opposite** direction to that proposed by the ABA proponents. Lest there was any confusion, in May of this year Dr. Giacomo Grassi and his colleagues published an article, “Improving land-use emissions estimates under the Paris Agreement,” in *Nature Sustainability*, which helpfully summarized the Ispra meeting and the established scientific consensus:

[T]he IPCC has addressed this challenge by explicitly indicating in the outlines of its Seventh Assessment Report that ***estimates and scenarios for anthropogenic land-based CO₂ fluxes will be consistent with national inventory definitions [i.e., the Managed Land Proxy]*** . . . [P]olicymakers need to understand these implications and ***scale up their climate targets*** accordingly (Grassi et al., 2025 - emphasis and parentheses added).

The TWG's ABA proponents view these weaknesses of the MLP as so unacceptable that its use in the Greenhouse Gas Protocol must be forbidden, despite the IPCC formally taking the opposite decision.

Instead, the MLP+ proposal builds upon the IPCC's consensus by adapting the MLP for use in corporate GHG reporting. To address the MLP's inability to differentiate between anthropogenic and natural emissions/removals on managed land, we have introduced the "+" components to introduce safeguards to the implementation of the MLP itself, clarify the need for additional counterfactual analysis for purposes of target-setting, and set clear guardrails around reporting and claims to address the previous discrepancies between the MLP and global models. These additions are intended to fill the gaps identified by the scientific community with the applying the MLP in isolation, in alignment with the recommendations by [Allen et al. 2024](#), which says:

UNFCCC reporting is separate from target-setting: although countries should be encouraged to report emissions and CO₂ uptake on managed land, they do not need to treat these 'biological' removals as fungible with 'geological' fossil fuel emissions in climate target...Accounting under the Global Stocktake and under Article 6 of the Paris Agreement should learn from and improve on the Kyoto Protocol approaches to try to separate out what is 'additional' (the result of direct anthropogenic activity) in reported removals. A global effort to report passive CO₂ uptake separately in greenhouse gas inventories, analogous to separate specification of short-lived climate pollutants, would help...Voluntary markets, standard-setters, and ambitious countries and corporations can go beyond the current UNFCCC requirements and exclude passive or indirect uptake from removal credits and net-zero claims.

The MLP+ proposal would apply these recommendations by complementing the physical inventory, which is based on the MLP in alignment similar to UNFCCC reporting, with separate reporting that differentiates between additional and non-additional removals. This addition would inform target-setting and ensure that passive removals are not included in progress towards net zero targets.

The ABA proponents make four claims as evidence of scientific integrity for the ABA proposal:

First: The ABA is supported by “the science,” as evidenced by the six scientists who authored the ABA proposal, and a selection of letters sent to the World Resources Institute signed by scientists in support of the ABA.

Counterpoints: Of the six scientists who authored the ABA proposal, none attended the Ipsra meeting or contributed to the aforementioned peer-reviewed research on this question. Five of those six are experts in consequential Life Cycle Assessment accounting, with little experience in inventory accounting. Given their background, it is understandable that they object to the principles of inventory accounting, which neither asks nor answers the questions they ask in their own research (more on this below). Unfortunately, none of the scientists who participated in the Ipsra meeting or who published on this topic were represented on the TWG. It is worth noting, however, that six of those scientists signed a separate scientist letter to WRI *opposing* the ABA approach (Andy Reisinger, Mattias Lundblad, Annette Cowie, Werner Kurz, Nicklas Forsell and Brent Sohngen). This letter was not cited by the TWG ABA proponents, likely because it advocates in favor of the MLP and was signed by 44 scientists.

Furthermore, the articles cited by the ABA proponents fail to address the questions at hand. Instead, many of the articles they cite describe how consequential LCA approaches can be used to investigate the policy actions of different levels of wood harvest. We do not dispute that consequential LCA approaches are useful, but we dispute their place in inventory reporting.

Second: ABA proponents assert that corporate inventory accounting is different from national inventory accounting, and that the Managed Land Proxy has never been tested in the context of corporate inventory accounting.

Counterpoints: We consider them to be equivalent: in both national and corporate inventories, a reporting entity identifies managed lands within a geographic boundary and quantifies physical fluxes to and from the atmosphere based on estimates of changes in carbon stock in forest carbon pools. While it is true that national inventory accounting does not involve the concept of a “value chain,” it is not clear that this distinction matters in this case, where we are concerned not about the *scope* of the inventory but about the *method*.

It is not true that the MLP has never been tested in the context of corporate inventory reporting. For example:

- Hall and Prisley (2024) used the concept of a managed land proxy in research in *The Journal of Forestry*. That research has been used by the U.S. Forest Service as the basis for the development of a tool to report landscape-level carbon fluxes, and as a resource for the pilot testing of the MLP.

- Individual companies have already used the MLP to produce forest carbon inventories and have published their results and their specific application of the methodology (New Forests, 2023).
- The Joint Research Centre of the European Commission has explored the links between corporate and national inventories and anticipates the use of the MLP. It does not indicate any disagreement or flag any problems with this approach (Olesen, 2023).

Third: The ABA proponents claim that the support for the MLP from scientists involved in the IPCC process is politically motivated.

Counterpoints: There is no evidence in the relevant reports or research to substantiate this claim. The articles they cite in support of this notion are about the political controversy surrounding *not* the use of the MLP to produce inventories, but about the *subsequent use of inventory results by certain countries to claim that land-based removals have offset fossil-based emissions*. On that question there is no controversy on the TWG – all TWG members concur in opposing such claims, which is why the MLP+ proposal insists on a Forest Claims Disclaimer explicitly forbidding such a practice. Indeed, the Land Sector Removal Standard itself prohibits the netting of biogenic removals and fossil emissions, which provides even more protection against this practice in the context of the Greenhouse Gas Protocol.

Fourth: The MLP would make all wood products carbon negative in scope 3 and would incentivize inefficient use of wood.

Counterpoints: This argument either betrays a fundamental misunderstanding of the MLP+ proposal or is an intentional mistruth intended to mislead the ISB. The use of the MLP in a scope 3 context attributes a portion of the biogenic carbon flux from a sourcing region to a purchaser of forest products. If the net change in the sourcing region is negative (meaning that more carbon is stored on the landscape at the end of the year compared to the beginning), a company may report a carbon removal in their Scope 3 category 1 biogenic inventory, with two big caveats. First, the company must meet the stringent requirements for reporting removals included in the LSRS and, second, the lands included in the sourcing region must meet the stringent safeguards described in the MLP+ proposal. However, even if a company meets these requirements, they must separately include all the fossil-based emissions that occur during the production of that forest product within their GHG inventory. To prevent the perception of carbon negative companies, the LSRS includes safeguards against both the netting of emissions and removals and the netting of biogenic and fossil-based carbon. Finally, and more fundamentally, a corporate GHG inventory is not capable of making the assertion that a product is “carbon negative”. That claim is only possible through rigorous product LCA analyses and is not a claim that is enabled by the LSRS or from corporate GHG inventories in any way, shape or form.

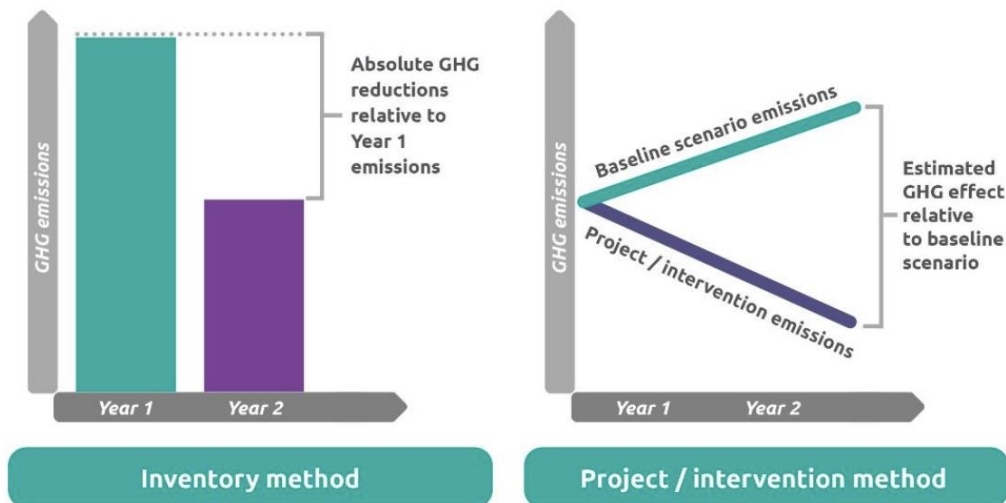
Furthermore, the assertion that the MLP incentivizes inefficient use of wood is based on the argument that companies that observe a sourcing region with increasing carbon stocks would source additional products from that region with the goal of increasing the carbon removals included in their inventory. This is illogical for several reasons; we will describe two. First, this argument betrays a lack of awareness about the realities of the forest industry. Companies source wood from the most economically feasible location; companies cannot and will not modify their sourcing practices simply for the opportunity to earn additional removals. Second, this argument is countered by the fact that emissions and removals are non-fungible, and the production of forest products incurs emissions that cannot be cancelled by removals. Companies are incentivized to increase efficiency in order to reduce costs. The belief that a forest products company would source additional material – at significant financial cost – to claim additional carbon removals, is a logical fallacy that betrays the ABA proponents’ lack of understanding about basic economics. Furthermore, if sourcing wood from a certain region is attractive or not based on carbon performance is not decided by the net carbon stock increase or decrease but by the ambition level / target based on the forest carbon stock changes in that region.

GHG Accounting and Reporting Principles

The MLP+ proposal is the proposal that best aligns with established GHG accounting and reporting principles for two main reasons, summarized here and explained below:

1. *Inventory vs intervention accounting*: The MLP+ approach correctly applies the different types of GHG accounting by using attributional inventory methods in the physical inventory and intervention/counterfactual-based reporting for target-setting and measuring progress. In contrast, the ABA approach would apply consequential/intervention methods in an inventory context, which is inconsistent with GHG accounting and reporting principles, many of which were established by GHGP itself. See below, GHGP’s own figure on the uses for these accounting types.

Figure 11.3 Comparison of inventory and project or intervention accounting methods



2. *Consistency with LSRS:* The MLP+ approach maintains a consistent definition and methodology for land-based emissions/removals between different land types. If the ABA approach is adopted for forest carbon accounting, the accounting approaches between land-based agriculture emissions/removals and land-based forestry emissions/removals would be conceptually and methodologically divergent in a way that is inconsistent with GHG accounting and reporting principles.
1. *Inventory vs intervention accounting:* Corporate and national-level GHG accounting and reporting has always relied on attributional/inventory accounting methods rather than intervention methods.

Michael Gillenwater of the Greenhouse Gas Management Institute, in his blog entitled “The differences between [attributional] and consequential greenhouse gas accounting” spells out the contrasting intentions of attributional and consequential GHG quantification.

The purpose of [attributional] (i.e. inventory) accounting methods is to assign responsibility for emissions and removals to entities . . . By assigning responsibility to a company for emissions [or removals] from specific sources . . . emissions from these assigned sources (and removals from assigned sinks) can be totaled and tracked over time, thereby **allowing reduction targets to be established** . . . In contrast, the purpose of consequential methods is to inform decision-making is to inform decision-making regarding the choice of actions to take . . . as well as evaluate the impact of past actions (Gillenwater, 2025).

In inventory reporting, there is no “credit” or “blame”, though ABA proponents frequently use words like “credit” to describe the results of the Managed Land Proxy. Instead,

emissions and removals are allocated to an entity based on the physical fluxes associated with their activities. The question of whether those fluxes are “good” or “bad,” aligned with climate targets or not, enabling a claim or not, is considered *downstream* of an inventory through target setting. In this, the inventory is akin to a cash flow statement in financial accounting. Such a statement records only the fluxes of cash into and out of an entity, without telling you whether such fluxes are indicative of the health or profitability of an enterprise.

This is consistent with the MLP+ approach and with the GHGP’s other standards and guidance, though not with the ABA approach. The ABA proponents criticize the MLP+ for not differentiating between anthropogenic and non-anthropogenic emissions and removals, but GHGP does not require other sectors to distinguish despite the fact that similar challenges exist elsewhere. For example, in agriculture a portion of removals generated from increased soil carbon could be due to carbon dioxide fertilization or increased rainfall associated with climate change; and any business that uses heating or air conditioning has either increases or reductions in emissions that are based on the indirect anthropogenic effects of climate change.

Nonetheless, to prevent the inventory being mistaken for a complete accounting system, the MLP+ proposal requires companies to develop a forest impact statement, in which, *outside of the physical inventory*, they compare their inventoried carbon stocks against a counterfactual, to enable a distinction between anthropogenic, indirect anthropogenic and natural effects, and to help assess whether the reported removals are in line or out of line with reasonable targets and expectations. The claims guidance also reiterates the LSRS’ requirement to separately report land- and non-land emissions and removals, which is central to attributional inventory reporting of land-based emissions and removals.

We acknowledge that when it comes to forest carbon, these subsequent target-setting steps are underdeveloped. However, this is not the purview of GHGP. We note the recent announcement by the Science Based Targets initiative of the launch of a “Timber and Wood Fiber pathway” which will, we hope, develop the required target setting framework. This framework will rely on an accounting system that enables appropriate modeling to develop target-setting pathways. We believe the MLP+ approach will better enable this modeling and hence streamline the development of this important target-setting guidance.

2. *Consistency with LSRS*: Another important consideration is consistency across GHGP’s guidance for accounting for land-based emissions and removals. If the ABA approach is applied, it would result in a fundamentally different definition of land-based removals between agriculture and forestry, with starkly divergent accounting systems. This would lead to illogical inventory results. For example, in an agro-forestry system that could reasonably be categorized as either agriculture or forest, if the accounting is done using the LSRS’ agriculture guidance (which uses the MLP), the results will be starkly different than the ABA’s proposal to compare emissions against a no-harvest counterfactual. The

same on-the-ground conditions would yield starkly different inventory results, which is illogical and unhelpful in that it does not allow for comparability.

Climate Action

For the sake of brevity, we will collapse the final three criteria, “Support decision making that drives ambitious global climate action,” “Support decision making based on GHGP data,” and “Feasibility to implement,” into one section, “Climate Action.”

The MLP+ proposal enables a consistent and stable inventory of fluxes allocated to managed land to be produced. This will enable SBTi and others to set meaningful forest-based targets, which are disaggregated from fossil-based reduction targets. Thus, under a MLP+ scenario, companies will be incentivized to increase *net sequestration* and / or to decrease *net emissions*. The actions they would take to achieve this are exactly the actions contemplated in research outlining the role of forestry in producing ambitious climate mitigation (for example, see Roe et al., 2021, or Griscom et al., 2017).

In terms of feasibility, the MLP+ is based on approaches that have been in use for decades in nearly every country in the world and are already implemented for lands that companies own and manage directly, meaning that data and expertise already exists. For Scope 3 purposes, over 100 countries have public national inventories that could be utilized to estimate GHG fluxes from forestlands at the scale of supply sheds. And in countries where such data either do not exist or are difficult to access, remote sensing approaches can be used. Indeed, many forest product companies piloted the MLP approach during the LSRS’ pilot testing phase in 2022, and were largely able to produce reliable estimates of forest emissions and removals.

To address the ABA proponents claims on this topic:

The ABA proponents highlight difficulty of accurate scope 3 accounting under the MLP+ proposal due to the disaggregated and global nature of supply chains.

Counterpoints: First, this is widely understood as a challenge for scope 3 accounting generally: issues of traceability and complex supply chains are not unique to forestry or to the use of the MLP. Second, the LSRS requires that in order to report removals, companies must establish traceability to at least a supply shed level so that companies would not be able to use, for example, national-level data to report inventory removals. Third, if this is a problem for MLP, it is a much greater problem for the ABA proposal, which requires companies to not only identify the fluxes arising from land in their supply chain, but also have sufficient data on forest type and tree species to construct accurate growth models for all lands in the supply chain.

The ABA proponents claim that because companies that purchase wood products could be allocated a removal if the wood is sourced from an area in which the forests produce net

sequestration, companies will be incentivized to buy more wood than is necessary in order to claim more removals and more easily achieve net zero.

Counterpoints: First, as covered above, under the LSRS companies cannot net biogenic removals with fossil emissions, so generating extra removals in this way would not help a company meet its climate goals. Second, buying more wood products would not result in greater progress towards net zero because the increased harvesting necessary to produce those products would *decrease* the net sequestration of the forest area in question, thereby reducing, on a per unit basis, the removals allocated to the purchasing company. Finally, companies already have a much more powerful incentive to purchase as little wood as possible, which is that *it costs money to purchase any product*, and companies, as a general rule, try to minimize the amount of money they spend on inputs in order to maximize their profitability.

MLP+ Conclusions

As we have demonstrated above, the MLP+ proposal is aligned with the recommendations of the IPCC and the scientists who have worked and published on these issues. It recognizes the core principles of attributional inventory reporting as practiced in every other aspect of the GHGP. It is based on data, knowledge and practices that are already available to forest products companies and which have even been pilot tested. The MLP+ proposal incentivizes companies to implement those actions which forest scientists have identified as necessary to maximize the contribution of the forest sector to ambitious climate goals.

Because of the above, the MLP was overwhelmingly supported by the original LSRS Technical Working Group and again by the Advisory Committee. We have improved upon the basic MLP proposal, adding two new components to strengthen already-existing safeguards against using biogenic removals to “net” against fossil emissions, and to assist stakeholders in understanding the GHG performance of companies relative to their peers and / or the needs of the atmosphere.

Weaknesses of the ABA Proposal

We have focused the bulk of this paper on the strengths of the MLP+ approach. However, these perspectives would be incomplete without a discussion of what we view as the biggest issues with the proposed ABA approach: the failure to implement consequential accounting best practices, its infeasibility, and the highly perverse incentives it creates.

First, on best practice consequential accounting: as Dr. Gillenwater explains in another part of his blog post, consequential accounting “quantifies all of the changes in emissions *caused* by an isolated action . . . *regardless of where the impact occurs.*” In other words, the GHG accounting boundaries of a consequential method extend to all GHG sources and sinks that are altered by the intervention.

If the goal is to quantify the climate effects of harvesting, a no harvest counterfactual needs to consider the impacts on forest carbon stocks of the land under study; the indirect effects (leakage) that could result from activity-shifting (causing forest elsewhere to be harvested to meet the demand for timber); and the effects on the building and energy systems, which may need to utilize more GHG-intensive products if the forest products are not available. In addition, in the counterfactual scenario we need to account for the risk of non-harvest disturbance (land use change, wildfire, pests, pathogens, storms, etc.). Consequential accounting best practices would say that emissions due to leakage and disturbance losses should be estimated and deducted from the removals in the counterfactual scenario. The ABA proposal, however, does not take this approach. It excludes leakage associated with reduced harvest of existing forests in the counterfactual scenario (where inclusion would reduce the net land-based emissions from managed forests), yet it requires leakage to be included in the case of new forests (where inclusion would reduce removals). The result is a methodology that seems designed to undercount removals from working forests.

Second, on feasibility: the ABA proposal would require companies to construct counterfactual scenarios for each harvest within their value chain, considering *both* the forest type *and* the condition of the harvested forest. This would require each forest product company of any size to establish and run many thousands of counterfactual scenarios, each with its own unique model based on the forest type and condition. In fact, the proposal requires companies to construct no less than three different counterfactuals for each harvest: one to estimate the growth in an unharvested stand; one to estimate the growth of managed stands to compare to the observed growth ; and one to estimate the net impact arising from the establishment of new forests (which includes leakage). Furthermore, there is no guidance as to how such counterfactuals should be established and none of the methods presented have benefitted from public input or pilot testing.

Third, the ABA proposal creates a set of incentives that, on balance, disincentivize the kind of forestry we need for the forest sector to contribute to ambitious climate action. Under ABA, companies will optimize their operations to reduce emissions from wood harvesting. This will incentivize two particularly negative changes in forest management:

- **Companies will transition semi-natural forests with low- to medium- carbon stocks to plantations.** Companies will be incentivized to cut down their semi natural forests and replace them with plantations, which will be much more effective at producing high timber yields with minimum emissions, because of the arbitrary 30-year period the ABA establishes for counting regrowth.
- **Companies will manage all forests on 30 year (or shorter) rotations.** Because a company will not be able to account for forest regrowth beyond 30 years after a harvest event, the way to maximize timber yield at lowest emissions is to transition

to short-lived species managed at maximum intensity, and then to cut them as soon as they reach harvestable age, as close to (or before) 30 years if possible.

To be clear, short rotation plantation forestry has a place, but the arbitrary 30-year limit established by the ABA would incentivize the transition of all forests to that kind of forestry. This is the opposite of what the science of forests and climate change tell us is necessary to align the forest sector with ambitious climate action while also maintaining forestry's critical contributions to biodiversity conservation and maintenance of ecosystem services.

Conclusion

Despite the vast amounts of argumentation and documentation presented to you as members of the ISB, and the considerable confusion and complexity engendered by the discussions of the TWG which you will have to navigate through, the core questions before you are simple to answer. Here again are the facts:

- The use of the MLP approach to produce forest carbon inventories is the consensus recommendation of the IPCC and its associated communities of scientists.
- The MLP+ proposal, unlike the ABA proposal, is built on the foundational concepts of attributional inventory reporting, and thus consistent with the rest of the GHGP.
- The MLP+ proposal enables an overall accounting framework that incentivizes ambitious climate action.
- The MLP+ proposal has been tested, is based on proven methods, and has an existing network of organizations and partners (data providers, researchers, auditors) capable of implementing it.
- Because of the above, the MLP was overwhelmingly supported by the original LSRS Technical Working Group for the MLP and again by the Advisory Committee.
- The ABA proposal is replete with misunderstandings and technical errors that make it impossible to implement and which would incentivize poor forestry.

Based on these facts, we request that you, as members of the Independent Standards Board, endorse the MLP+ proposal unequivocally and unanimously. The question before you has stymied the implementation of the Land Sector Removal Guidance and the establishment of ambitious targets for the land sector. It is time for us to turn the page on this particular debate and focus our attention on implementing the LSRS and associated pieces of a global accounting framework in a manner that acknowledges the urgency of the climate crisis. We thank you for your attention, diligence and courage in deciding this manner.

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