



GLOBAL DAIRY PLATFORM

POSITION PAPER:

Land Management Unit Traceability for Carbon Removals May Impede, Rather Than Accelerate Greenhouse Gas Mitigation Action in the Global Dairy Sector

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Abstract

The GHG Protocol is finalizing its Land Sector & Removals Guidance (LSRG) and considering chain of custody models and traceability requirements for carbon reduction/removal accounting and reporting. Finalized guidance requiring physical traceability to the individual land management unit (LMU) level would impose significant barriers to climate change mitigation activities and result in negative economic consequences for commodity agriculture, including the global dairy sector. LMU traceability for accounting of GHG interventions and improvements along dairy value chains would encourage increasingly segregated supply chains, effectively working against the dairy sector's robust sustainability management agenda by hampering the ability to operate with efficiencies of scale.

The dairy sector urges the GHG Protocol and members of its LSRG Technical Working Group to allow mass balancing in commodity agriculture supply chain GHG accounting. Specifically, the dairy sector wishes to draw attention to “open question #3” in Box 8.3 of the current draft version of the LSRG. The sector proposes that GHG Protocol standard setters should consider the second option listed: “sourcing region with safeguards.”

Working together through industry groups like the Global Dairy Platform (GDP) and the International Dairy Foods Association (IDFA), global dairy sector stakeholders propose an approach to carbon abatement traceability they are calling, “*Mass Balance Plus Plus*” (MB++). By proactively considering the needs and realistic challenges of measurement, monitoring, reporting, and verification (MMRV) within dairy value chains, the MB++ approach for dairy will encourage appropriate MMRV safeguards are integrated into a mass balance accounting approach. This is intended to manage the needs for both reasonable assurance in carbon accounting/reporting and operational efficiency.

An appropriately designed mass balance approach would allow traceability back to a sourcing region, and contractual relationships would facilitate carbon transaction reconciliation between buyers and sellers, without forcing segregated transportation and milk storage. When commodity value chains require segregation because of unique product characteristics, the supply chain's complexity increases, as do transportation emissions and transaction costs. If the finalized LSRG prohibits such sourcing region (i.e., supply shed) level traceability, the guidance will effectively become a significant barrier to climate change mitigation activities in dairy value chains. On principle, the dairy sector does not believe that accounting standards should become such a barrier—instead, standards should ultimately serve to incentivize action, while establishing clear guidelines to ensure accurate, credible accounting.



Mass Balancing Supports Efficient & Effective Carbon Reduction Accounting in Commodity Agriculture

The GHG Protocol's Land Sector & Removals Guidance (LSRG) is critical to the continued success and efforts of commodity agriculture and the global dairy sector to make measurable and economically viable reductions in GHG emissions. As expressed during last year's GHG Protocol's call for comments, the dairy sector is concerned that the current LSRG's guidance on land management unit (LMU) level traceability lacks sufficient flexibility to allow commodity agriculture supply chains to participate in emissions reduction activities. The reality of commodity agriculture and dairy supply chains is that physical traceability requirements such as those required by the draft LSRG are likely to increase demand for segregated supply chains. Segregation increases supply chain complexity, transportation emissions, and transaction costs, all of which disincentivize GHG emission reductions. Unnecessarily restrictive traceability standards present a real tension and disincentive with the dairy sector's ongoing climate change mitigation work. The objective of this position paper is to educate the GHG Protocol about dairy supply chains and to demonstrate why the GHG Protocol should consider adoption of a well-designed mass balancing approach to GHG accounting and reporting in commodity agriculture that is credible, accurate and workable for the economic and practical realities of the dairy sector and other commodity agriculture supply chains.

Logistical Realities of the Dairy Sector: The mass balance chain of custody model is a necessity within the global dairy sector. While the sector recognizes that some businesses can achieve traceability back to individual farms (and this is not discouraged), this practice is far from the norm. Direct-shipping and raw material production unit (i.e., farm management unit) visibility in commodity agriculture is predominantly observed in high-value, niche markets. In the dairy sector, over 95% of milk collection is co-mingled before it reaches a processing site. Segregation requirements for milk present costly logistical challenges for milk handlers—from transportation inefficiencies to storage capacity at processing sites. Segregated transportation is counterproductive to sustainability goals, while increased storage requires capital expenditures. Such capital could be better utilized to fund within-value-chain carbon mitigation projects.

Dairy Product Manufacturing Realities: Beyond logistics, the processing of dairy ingredients requires balancing and disaggregating raw milk by its nutrient components, namely fat and proteins. Other than the provision of fresh milk, products such as butter, cheese, ice cream, and milk powders require taking raw milk from farmers and splitting the components across a wide range of finished products demanded in the global marketplace. Additionally, some manufacturing processes require constant by-product management, recirculation, and reuse. These complexities of dairy manufacturing require scale to continue efficiently. As proposed in the currently drafted LSRG, approaches to carbon accounting and reporting that may force commodity segregation would greatly challenge current production systems.

With these considerations in mind, the dairy sector is concerned that a corporate GHG accounting approach that encourages segregation will likely limit financial flows to farmers. Given current environmental marketplace dynamics, this may result in dairy-generated carbon "credits" being marketed to customers outside the dairy value chain. If such offset credit generation persists,



questions must be addressed about exactly how dairy customers (within the value chain) will reach their science based GHG reduction commitments as they approach both interim (2030) and mid-century (2050) targets. Technical experts in the dairy sector foresee potential for compounded confusion and uncertainty if LMU traceability requirements are called for in combination with existing GHG Protocol guidance that also calls for inventory adjustments for sold offset credits. It is scenarios like this, and more generally the identification of potential exceptions to GHG accounting and reporting guidelines, that concern the dairy sector as it continues making important contributions to climate change mitigation.

What is “mass balancing?”

Mass balancing is an approach utilized by numerous commodity trading sectors to account for specialized characteristics or certifications along complex supply chains without the need for product/raw material segregation. Examples of this approach are observed with palm kernel oil, tea, coffee, cocoa, aluminium, recycled materials, select row crops, etc. As proposed here, this approach may also be successfully leveraged for accounting of GHG characteristics associated with raw materials utilized in dairy foods manufacturing.

In brief, this chain of custody model, if properly managed, allows for product characteristics to be preserved and transferred to buyers even though the volume of “certified” product (i.e., goods/raw materials with special characteristics) have been mixed with non-certified goods.

Historically, this approach has been used, in part, to promote economies of scale while also growing supplies of goods that comply with certain ethical sourcing standards or criteria. The Rainforest Alliance notes the widespread use of the mass balance approach in global sustainability efforts, again highlighting the ability for scaled (i.e., high volume) goods, with or without special characteristics or certifications, to be co-mingled along the value chain.

See: Rainforest Alliance, <https://www.rainforest-alliance.org/business/certification/what-is-mass-balance-sourcing/>

The Value of Mass Balancing with Safeguards

As explained, the dairy sector has real needs for non-segregated supply routes for most dairy product value chains. However, the sector acknowledges the potential risks associated with any approach that could result in a lower standard of traceability. Therefore, the global dairy sector envisions a future-ready approach to mass balancing in its supply chains called, “*Mass Balance Plus Plus*” (MB++). MB++ simply implies a thoroughly designed and safeguarded approach to mass balancing in dairy that would aim to minimize risks to the credibility of GHG reporting entities in the sector. It is utilization of the mass balancing concept at a sourcing region level with “guardrails.” Those guardrails are well-developed measuring, monitoring, reporting, and verification (MMRV) protocols along with clearly defined terms, like “sourcing region.” As implied in the name, MB++ intends to provide dual benefits. The first *plus* represents mass balancing with credible MMRV. This



should mitigate risks associated with non-segregated supply lines. The second *plus* represents how MB++ serves to maintain operational efficiencies along those supply lines. Such an approach must be holistic, based in systems thinking, with clear plans for ongoing monitoring and evaluation (utilizing available technologies where feasible). The global dairy sector is committed to continued collaboration and capacity building to drive assurance that MB++ is well-designed and feasible to implement. In fact, the International Organization for Standardization (ISO) is developing a global standard for mass balancing in supply chains, and the dairy sector encourages and will engage in further dialogue to determine if this ISO workstream may inform the MB++ concept (or vice-versa).

This vision can be achieved in dairy and would enable, rather than impede, the sector's carbon mitigation progress. The sector is concerned that without adoption of such an approach, some investment could slow, or progress plateau, because the dairy community (alongside other commodity sectors) is unsure about how to credibly account for and report scope three (3) GHG emissions. If customers are unsure about their ability to benefit from investments in carbon reductions (e.g., in corporate GHG inventories or in credible marketing claims), it will be more difficult for buyers and sellers to develop supply agreements that integrate within-value chain carbon mitigation activities. For these reasons, the dairy sector wishes to call attention to open question number three (Box 8.3) in the current draft version of GHG Protocol's LSRG. With regards to this specific open consideration pending finalization, dairy strongly advocates for the second chain of custody option: "sourcing region [traceability] with safeguards."¹

Global Dairy's Request for Consideration

In closing, GHG accounting and traceability standards that impose onerous requirements can introduce supply chain inefficiencies. With inefficiency comes added cost burden, which may negatively impact—and work against—groups doing substantive work to accelerate emissions reductions, such as dairy farming families operating in diverse production systems across the globe. To avoid this, the entire value chain is working together to build capacity to respond to stakeholder and marketplace pressure for climate-related actions and disclosures. The global dairy community has a long history of successful collaboration that has led to continuous improvement in productivity, food safety, animal welfare, nutrition, and wider sustainability management progress. As the dairy sector actively works as a community to continue to reduce GHG emissions in its value chains, it has initiated multiple working groups focused on assessing, interpreting, and applying global standards for GHG management. The global dairy sector proposes that based upon its culture and track-record of pre-competitive collaboration, it will be able to successfully implement the suggested MB++ approach with sourcing region (i.e., supply shed) traceability such that stakeholders, including

¹ It should be noted that, in the context of dairy, a traceability requirement to sourcing region implies physical traceability to collection points or processing sites. This is the only realistic alternative to farm level traceability. However, more analysis and discourse will be needed to fully characterize and address concerns of scope 3 reductions/removals in the presence of market-based approaches. For instance, certain scenarios may necessitate multi-site or batch level mass balancing. In some situations, visibility of average performance may be desired at a sourcing region level (e.g., an average supply shed emissions factor).



international GHG standard setting bodies, have reasonable assurance² that dairy value chain emissions reports are verifiable and credible.

The dairy sector strongly recommends that the forthcoming LSRG document be finalized such that it is supportive of a mass balance supply chain accounting approach at a well-defined sourcing region level. The organizations along the dairy value chain encourage the LSRG Technical Working Group to avoid rigid requirements of physical traceability to the LMU level. If LMU traceability is ultimately required to account for carbon removals or reductions, the sector foresees more requirements for segregated milk supplies, which may lead to dairy customers deferring GHG reduction investments at the farm level because the operational disruptions and added costs would simply outweigh the carbon emissions accounting benefits.

The suggested MB++ approach with appropriate guardrails would set a reasonable baseline for best practices in dairy value chain accounting. Of course, this would not preclude some organizations from pursuing direct shipping and production-unit-traceable supply chain partnerships as they see fit. The dairy sector's goal is to build consensus around uptake of LSRG while balancing flexibility, implementation feasibility, and the need for stakeholders to have reasonable assurance in accounting accuracy.

As the number one global agricultural commodity by value and the third largest by volume, the dairy sector produces vital nutrition alongside massive economic impact. Doing its part to reduce GHG emissions will help ensure that the dairy sector continues to meet these expectations well into the future. To continue advancing along the dairy sector's GHG abatement journey, stakeholders have observed that key international GHG accounting standards from the GHG Protocol, including the LSRG, must be written such that commodity-specific supply chain realities are acknowledged, and greater business flexibility afforded to the reporting entities attempting to invest in emissions reducing interventions. This will facilitate climate mitigation action while allowing reporting entities to meet their unique marketplace expectations for credible climate-related disclosures.

The dairy industry associations—representing actors all along the dairy value chain--involved in the development of this position paper are eager to participate in future stakeholder engagements led by international GHG standard setting bodies, such as the GHG Protocol and the Science Based Targets Initiative (SBTi). Dairy is ready to discuss and collaborate.

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² WBCSD & ICAEW: A buyers guide to assurance on non-financial information. Chapter 4, Page 25.

https://docs.wbcsd.org/2019/11/WBCSD_ICAEW_A_buyers_guide_to_assurance_on_non-financial_information.pdf