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REDUCTION OF GHG EMISSIONS FROM SHIPS

Comments on the report of the third meeting of GESAMP-LCA Working Group

Submitted by Pacific Environment, CSC and EDF

SUMMARY

Executive summary:	This document comments on the report of the third meeting of GESAMP-LCA WG (MEPC 84/7/16) and invites the Committee to instruct GESAMP-LCA WG to conduct an initial classification of fuel feedstocks into high-, medium-, or low-ILUC-risk categories at the global level, and to submit a report to MEPC 85 for consideration.
Strategic direction, if applicable:	3
Output:	3.2
Action to be taken:	Paragraph 12
Related documents:	MEPC 84/7/16 and ISWG-GHG 20/3/8

Introduction

1 This document is submitted in accordance with the provisions of paragraph 6.12.5 of the *Organization and method of work of the Maritime Safety Committee and Marine Environment Protection Committee and their subsidiary bodies* (MSC-MEPC.1/Circ.5/Rev.6) and comments on document MEPC 84/7/16, containing the report of the third meeting of GESAMP-LCA WG.

2 The co-sponsors welcome and support GESAMP-LCA WG's recognition of the need to define indirect land use change (ILUC) risk criteria and the efforts made toward this end. Nevertheless, the co-sponsors raise remaining concerns regarding the comprehensiveness of the proposed ILUC-risk framework.

High-ILUC risk definition and proposed methodology to identify high-ILUC risk feedstocks

3 Document MEPC 84/7/16 recommends that MEPC endorse GESAMP-LCA WG's approach on the minimum requirements to define high-ILUC risk. Accordingly, feedstock-to-value chains would be considered high-ILUC risk if they are obtained from land with high carbon stock (meaning that they store a large amount of carbon in vegetation or soil), are non-traceable, and

are produced without a monitoring and review process. This approach differs from the 2024 LCA Guidelines (resolution MEPC.391(81)), which characterizes high-ILUC risk as: "biofuel production projects based on or displacing, food and feed crops resulting in a significant expansion of the feedstock production area shifting into land with high carbon stock."

4 Discouraging biomass use from high carbon stock land could prevent direct land use change (DLUC), which refers to the carbon stock changes occurring in a given land area directly attributable to the use or management of land to grow biofuel feedstocks, but this concern is addressed under the sustainability criteria for DLUC in the 2024 LCA Guidelines. ILUC, on the other hand, cannot be prevented by such measures.

5 As explained in document ISWG-GHG 20/3/8 (WWF et al.), ILUC occurs when biofuel feedstock production displaces food and feed crops from existing agricultural land, driving the conversion of land elsewhere to compensate for the lost food supply. For instance, if shipping's demand for biofuels rises, farmers may redirect cropland previously used for food and feed toward feedstock production for biofuels. Since the food and feed demand persists, the gap in the market is supplied through new land converted to cropland to maintain levels of food production. Because many agricultural products are globally traded commodities with high substitutability, the defining characteristic of whether a sustainable marine fuel is high-ILUC risk should be based on the impact of the feedstock at the global level, i.e. consider the impact of other market demands for the same feedstock and whether this feedstock causes global displacement of food and feed-crop demand, not just project-level land use changes associated with the particular biomass used to produce the sustainable marine fuel.

6 Quantitative metrics based on rigorous scientific data could be used to assess ILUC risk. For example, in the EU Renewable Energy Directive (RED) a feedstock is considered high-ILUC risk if a significant proportion of the area used to expand its global production has been high carbon stock land, such as forests, wetlands, and peatlands.[1] This involves examining how much the global production area of a feedstock has grown and determining what proportion of that expansion has taken place on high carbon stock land. The European Commission (EC) calculated that a 10% expansion into high-carbon stock land would negate the climate benefits of biofuels compared to fossil fuels, per unit of energy delivered.

7 In a proposed update of its high-ILUC risk assessment, EC found that both palm oil and soybeans exceed the 10% threshold for expansion into high-carbon-stock land used to identify high-ILUC risk feedstocks.[2] In other policies, such as ICAO's CORSIA, California's low carbon fuel standard (LCFS), and the United States renewable fuel standard (RFS), quantitative ILUC emission factors are assigned and used when calculating the life-cycle GHG intensities. These kinds of quantitative emission factors could substantiate the qualitative ranking of feedstocks by relative ILUC risk. Other policies, such as FuelEU Maritime and ReFuel EU exclude food- and feed-based biofuels because of ILUC risk and the risk of fraud.

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[1] Commission Delegated Regulation (EU) 2019/807 (May 2019), https://eur-lex.europa.eu/legal-content/EN/TXT/PDF/?uri=CELEX:32019R0807. European Commission, 2026, *COM/2026/36 final*. https://eur-lex.europa.eu/legal-content/EN/TXT/?uri=COM:2026:36:FIN.

[2] Guidehouse, 2026, *Support for the implementation of the provisions on ILUC set out in the Renewable Energy Directive Lot 1-HILUC*, https://op.europa.eu/en/publication-detail/-/publication/b6a58bec-f742-11f0-b9bc-01aa75ed71a1/language-en?WT.mc_id=Searchresult&WT.ria_c=136108&WT.ria_f=9832&WT.ria_ev=search&WT.URL=https%3A%2F%2Fec-europa-eu.libguides.com%2F.

Project-level ILUC considerations

8 In paragraph 7.12 of its third report, GESAMP-LCA WG conveyed its intent to first develop a project-level ILUC risk framework. However, due to the global market for certain feedstocks and their food and processed products, induced demand from shifting feedstock production and biofuel markets could only be assessed at a global level; thus, a global framework for ILUC risks is the most efficient and effective way forward and the co-sponsors encourage the Working Group to consider steps for its implementation as soon as possible. Project-level protections based on sustainability criteria that prohibit biofuel production on recently cleared land, for example, are important to minimize DLUC emissions, but are not able to adequately assess ILUC emissions.[3]

9 Consequently, once a feedstock is labeled as "high-ILUC risk" and excluded at the global level, the co-sponsors recommend that it should not be subject to project-level exceptions. If the Organization decides to allow for project-level "low-ILUC risk" categorization, projects should be required to meet robust additionality and production system criteria to certify that the feedstock represents a genuine increase in production driven by biofuel demand, rather than business-as-usual agricultural expansion, and that it does not result in the displacement of food or feed crops. Under the EU RED, for example, low-ILUC risk certification requires demonstrating that the additional feedstock production would not have occurred without the specific incentive provided by biofuel demand. In practice, this is ensured by a financial additionality test.[4]

Production systems not requiring additional land

10 GESAMP-LCA WG noted in paragraph 7.15 of its third report that examples of regulatory language on production systems that do not require additional land already exist in other frameworks such as ICAO CORSIA, EU RED, and the Roundtable on Sustainable Biofuels (RSB). The Group also noted that definitions might differ, but all recognized yield increases and the use of previously unused, degraded, or degrading lands as eligible to produce low-ILUC risk feedstock. In the absence of robust additionality measures, like in the EU RED, these options would not mitigate ILUC. Specifically:

.1 Multiple cropping (producing multiple crops in a year, generally by growing a winter crop in addition to a summer crop) is common throughout global food and feedstock production systems. For example, two-thirds of the Brazilian corn is already produced as a secondary crop[5] and could be diverted from food and feed supply chains if used as a biofuel; this case is different from one in which a project certifies that the multi-cropping is new and additional on existing agricultural lands. Yet Brazil's large-scale second-crop corn production has been labelled as low environmental risk under international policies, without properly considering its potential market-mediated responses and ILUC emissions.

[3] Although it is important to note that certain certification schemes have proven ineffective at stopping deforestation within their own area of certified land; for example, recent data shows that forest loss persisted in project-level certified areas even following "sustainable" palm oil certification. Cazzolla Gatti et al. 2020, *Certified "sustainable" palm oil took the place of endangered Bornean and Sumatran large mammals habitat and tropical forests in the last 30 years*. Science of the Total Environment, 742, 140712. https://www.sciencedirect.com/science/article/pii/S0048969720342340?via%3Dihub.

[4] Commission Implementing Regulation EU 2022/996 of 14 June 2022. https://eur-lex.europa.eu/legal-content/EN/TXT/PDF/?uri=CELEX:32022R0996.

[5] Chris Malins 2022, *Multiple and cover cropping in Brazil: Status and opportunities for biofuel production.* ICCT Consultant Report, https://theicct.org/publication/bio-fuels-production-brazil-jan22/

In regions where land speculation is common, increased crop productivity may increase the profitability of agricultural expansion, thereby incentivizing further land conversion[6] and increasing ILUC emissions, especially since areas suitable for growing multiple crops per year often have carbon-rich vegetation.

.2 Regarding unused land, a robust definition has to be provided. In areas where expansion for cropland, built-up environments, and other uses is already happening, it is unlikely that the "unused" land would remain unused for long. Beginning to use it for biofuel diverts the baseline cropland or building expansion elsewhere, which might be onto forests.[7] In this consideration, the co-sponsors recommend the EU RED approach, as it includes additionality measures as well as proof that land was not in use for growing food, animal feed, or energy crops for at least five continuous years.

Proposal

11 Based on the information provided in this document, the co-sponsors invite the Committee to:

.1 call on GESAMP-LCA WG to revisit its overall approach to ILUC risk classification in light of the information presented in this submission and to develop a global ILUC-risk framework as a priority;

.2 recommend GESAMP-LCA WG to conduct an initial classification of fuel feedstocks into high-, medium-, or low-ILUC risk categories at the global level, taking into account:

.1 estimates of ILUC emission factors contained in ICAO's CORSIA, California's Low Carbon Fuel Standard (LCFS), and the United States Renewable Fuel Standard;

.2 high-ILUC risk designations for feedstocks under the EU RED; and

.3 the exclusion of food- and feed-based biofuels under regional regulations such as FuelEU Maritime and ReFuel EU due to high-ILUC risk and fraud risk; and

.3 request GESAMP LCA-WG to report on its initial ILUC-risk classification in a submission to MEPC 85.

Action requested of the Committee

12 The Committee is invited to consider the proposals contained in paragraph 11, and to take action as appropriate.

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6 Jeffrey K. O'Hara, 2025, *Significant multicropping and low land-use risk classifications in international aviation and maritime fuel standards*. Biofuels, Bioproducts and Biorefining, 19, 1456-1462. https://scijournals.onlinelibrary.wiley.com/doi/10.1002/bbb.70041.

7 Stephanie Searle et al., 2018, *Analysis of High and Low Indirect Land-Use Change Definitions in European Union Renewable Fuel Policy* (ICCT Working paper), https://theicct.org/publication/analysis-of-high-and-low-indirect-land-use-change-definitions-in-european-union-renewable-fuel-policy/.