The IMS is a non-profit organization catering exclusively to the requirements of the worldwide meat and livestock sector

29 June 2021

Dear Caroline,
Thank for getting in touch. As promised, here are our answers to your questions. For ease of reference, I reproduce the original text of your questions next to our answers.

Regards
Hsin

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I am a journalist working on an investigation with environmental investigations outlet DeSmog that identifies communications strategies about the climate impact and sustainability of the livestock industry. As part of the investigation, we have looked at public statements made by the International Meat Secretariat.

Here are the main points we plan to include in the article:

- By not including scope 3 emissions many meat companies exclude the majority of their emissions and underreport their carbon footprint. One of our contacts noted that the discrepancy between emission reported by meat companies and by independent researchers such as GRAIN/IATP are striking because GRAIN/IATP uses the Global Livestock Environment Emissions Assessment Model (GLEAM), a model shaped in part by meat industry groups, including IMS. Our contact told DeSmog that GLEAM "was developed by the FAO with a set of protocols on which industry had a seat at the table," raising the question of why the GRAIN/IATP report and companies' self-reported estimates don't yield the same results.

IMS does not make specific (quantitative) claims about emissions for meat companies or any particular organization -the main role of IMS is to promote sustainability, not certify or police it. Our commitment for actions to reduce climate impact do not rely on predictions from any particular model, but rather on concrete actions that can be applied in real life. Your criticism of the GLEAM model and comparison to GRAIN/IATP results should be taken up directly with the FAO.

Concerning the development of GLEAM and whether "industry has a seat at the table", IMS input to the GLEAM model is as part of a multistakeholder partnership with in which governments, private sector, and civil society and NGOs are equal partners. Importantly, the chair of LEAP rotates every year between government, private sector, and civil society/NGO. The details of this partnership, known as the "Livestock Environmental Assessment and Performance Partnership", LEAP, and its governance can be found here: http://www.fao.org/partnerships/leap/overview/governance/en/.

The main output of LEAP is a set of guidelines that seek "to improve the environmental sustainability of the livestock sector through harmonized methods, metrics, and data".

The GLEAM model itself is entirely developed, constructed, and maintained by FAO staff and researchers. GLEAM documentation can be found here, https://www.sciencedirect.com/science/article/pii/S1751731117001847.

- The meat industry portrays meat as food needed to feed a global population of 10 billion people by 2050. According to food experts, including researchers from the World Resources Institute and the EAT-Lancet commission, global meat consumption needs to significantly decrease to feed 10 billion people healthily and sustainably.
- A number of meat industry players claim that transitioning to a more plant-based diet is an ineffective climate mitigation strategy and could be harmful for human and planetary health, citing a 2017 study that has been widely criticised. Could you please provide the exact citation to the 2017 study?

IMS works in close collaboration with FAO on projects related to continuous improvement and sustainability in livestock, including the Global Agenda for Sustainable Livestock (GASL, www.livestockdialogue.org).
According to the GASL: "The livestock sector performs critical development functions through its contribution to nutritious diets, economic growth and livelihoods". In other words, livestock is much more than just production of animal sources foods. There is a substantial body of evidence that meat and livestock sourced food will be needed to feed the growing population, in particular in vulnerable people in poor and developing countries, while recognizing that reductions in such consumption among some segments of the population in richer countries would be desirable. These issues are addressed in detail in *inter alia* reports from the HLPE of the UN Committee on World Food Security, in particular *Sustainable agricultural development for FSN: what roles for livestock?* (2016), (http://www.fao.org/3/i5795e/i5795e.pdf) and *Nutrition and food systems* (2017) (http://www.fao.org/3/i7846e/i7846e.pdf).
The role of livestock in low-income countries has recently been highlighted by the EAT-Lancet Commission themselves: «Because many regions, such as sub-Saharan Africa, still face severe burdens of undernutrition and malnutrition, and growing children often do not obtain adequate quantities of nutrients from plant source foods alone»

-Meat producers portray innovations such as new technologies developed and used by livestock farmers as climate change solutions, sometimes without evidence that these are effective, and while continuing to expand the sector and consequently increasing the industry's total emissions.

We do not claim to be perfect yet, but many companies and organisations are committed to continuous improvement. The same effort is being asked of all sectors of the economy. According to the FAO, a 30 percent reduction of GHG emissions would be possible, for example, if producers in a given system, region and climate adopted the technologies and practice currently used by the 10 percent of producers with the lowest emission intensity (http://www.fao.org/3/i3437e/i3437e.pdf) Gerber, P.J. et al, 2013. *Tackling climate change through livestock – A global assessment of emissions and mitigation opportunities*.

Livestock producers are making considerable efforts to improve feeding (such as using red algae), genetics, management systems so that more meat is producer from fewer animals – with reduced GHG emissions. In Australia, significant progress has already been made (https://www.mdpi.com/2076-2615/11/4/951), and data from the Global Research Alliance on Agricultural Green House Gases on methane from livestock (https://globalresearchalliance.org). Numerous case studies prepared by the International Livestock Research Institute (ILRI) demonstrate how livestock production systems adapted to their very diverse settings can contribute to livelihoods, environmental sustainability (including GHG emissions) and human health (https://www.ilri.org/). But IMS and its members fully recognize that we all need to do better.

Here are the statements we plan to make about IMS specifically:

- Livestock emissions: The IMS stated: "The meat industry has been relentlessly attacked for its impact on greenhouse gas emissions, resource use, and animal welfare. But this view is often based on poor, selective evidence and data that does not consider the range of impacts and tradeoffs that constitute a sustainable future for the livestock and meat industries. In short, the reality across the globe is much more nuanced." A growing body of research shows that reducing meat production is necessary to reach climate targets. A 2020

study published in Science found that even if fossil fuel emissions ceased right away, current food trends would still prevent the achievement of the global goal of keeping temperature rises below 1.5C.

All sectors, including agriculture will need to contribute to significantly reducing their climate impact. This is why the IMS is collaborating with international organizations such as FAO, OIE, Codex Alimentarius, etc. in a process of continuous improvement. But, as noted above, significant efforts are already underway (and have been for a long time) in IMS member countries to reduce the climate impact, recognizing that methane from livestock operations is a short lived GHG (compared to CO2) and pasture fed systems regenerate in terms of carbon sequestration.

- Biodiversity: According to the IMS, "pastures add to the landscape and the biodiversity of our planet." At the UNECE's 2019 "Meat Quality for a Sustainable future" conference, the IMS claimed that "grazing livestock on permanent grassland with diverse species benefits biodiversity." A 2020 study by researchers from the University of Alberta warned that scaling up livestock grazing to meet future food demand could threaten the biodiversity of herbivores and pollinators worldwide.

Scaling is not just making bigger, it must also be accompanied by increases in productivity and other innovations. Innovation in livestock production systems means being able to produce more with less. For example, increasing productivity has, in some countries and production systems, meant that fewer animals are required to produce the same amount of animal source foods as before, as evidenced, for example, in Australia and the US. Or moving forward, produce more with the same herd size.

- Food supply: In 2016, secretary general of the IMS Hsin Huang replied to the question of how the future meat demand in developing countries would be met, stating: "It makes sense to produce [meat] in countries that are already quite good at it, that have efficient techniques and lower emissions. There are lots of countries where you can produce it without having a negative impact on the environment – the countries that already have highly efficient and developed livestock sectors." A 2021 New York University (NYU) study showed that industrial meat producers based in countries that currently produce large amounts of meat could be a driving force for busting the climate goals of the country's where they are based. The emissions of meat producer Danish Crown, for example, would be responsible for 42 percent of Denmark's emissions target under the Paris Agreement by 2030 on a business-as-usual pathway.

Each country has its own particular mix of production based on natural resources, technical expertise, etc. Targets for emissions, whether under the Paris Agreement or other future negotiations at the UNFCCC are established by country, but then each country chooses how to manage within their domestic industries. The world trade system, albeit with imperfections to be sorted out at the World Trade Organisation WTO) and member states, means it does not make sense (economically, or in environmental terms), for each country to be self-sufficient in production of any particular product. This means that inevitably, each country will have its own profile for emissions.

- Food supply I: At the UNECE's 2019 "Meat Quality for a Sustainable future" conference, the IMS argued that animal agriculture "uses mainly land not suited for crops and for which there is no other productive use" and that 86 percent of animal feed such as grass, biomass, crop residues and by-products are not edible for humans, citing a FAO report. A 2018 Science study estimates that the production of animal-based foods requires 83% of the world's farmland yet provides only 37 percent of global protein and 18 percent of global calories. According to a 2019 study by environmental scientists from Harvard University, transitioning to a more plant-based food production system in the UK has the potential to free up large areas of land currently used for grazing and animal feed production while improving the country's carbon footprint and still meeting the population's nutrition requirements.

Most existing studies are based on the fallacy that nutritional quality can be assessed by comparing weight or calories across food groups. A kilogram of meat is not equivalent to a kilogram of plant protein, in that it contains a cocktail of amino acids, vitamins and other micronutrients in the appropriate proportions for human nutrition. Similarly, more calories are not always better (e.g. many commercial beverages are high in sugar/calories). Most importantly, optimizing nutrition is not a question of one food group versus another, rather it is the appropriate mix. No food group in isolation is problematic, rather it is the overall diet that needs to be better managed.

Concerning grazing land, most cannot be converted to crops or other useful activities. It is sensible to use this resource for livestock, if appropriate measures are taken to account for climate and other environmental concerns. This is what we are trying to achieve in the GASL working group on restoring value to grasslands: http://www.livestockdialogue.org/action-networks/action-networks/restoring-value-to-grasslands/en/

- Plant-based diets: At ABARES Outlook 2020 conference, Huang referred to the EAT-Lancet report as an "elitist, biased, not scientifically well-founded study." The planetary health diet was developed by EAT-Lancet commission, consisting of 37 international scientists from multiple scientific disciplines. Designed to feed 10 billion people healthily and sustainably, the diet requires global consumption of red meat to halve by 2050. Could you specify why the IMS regards the study as elitists, biased, and not scientifically well-founded?

IMS is far from alone in this analysis.
Anthropologist's viewpoint : https://www.revistabionatura.com/2020.05.01.2.php
Science https://academic.oup.com/jn/article/150/5/985/5736577 and
(https://www.tandfonline.com/doi/full/10.1080/10408398.2019.1657063 and
https://www.wageningenacademic.com/doi/epdf/10.3920/978-90-8686-915-2_58
Affordability https://www.ifpri.org/publication/affordability-eatlancet-reference-diet-global-analysis
- Food waste: At the ABARES Outlook 2020 conference, IMS' secretary general Hsin Huang stated: "The livestock sector does not get credit for reducing food waste. [...] When you produce food for vegetarians, there is a lot of waste and that waste has to go somewhere. And as the livestock industry, we're using that waste." However, studies have found "plant-based diets are also more climate friendly when they are wasted." Could you please provide the references?

According to this research, https://doi.org/10.1016/j.gfs.2017.01.001 "Livestock play a key role in the bio-economy by converting forages, crop residues and agricultural by-products into high-value products and services"

- World hunger: The IMS claims that livestock provides "vital nutrients to a growing world population as part of a healthy, sustainable diet." The IMS states: "Many people in the world are malnourished, either lacking sufficient calories and nutrients, or consuming too many calories through poor diets. Meat and livestock products provide a highly efficient source of nutrition." A recent UN discussion paper on animal-based food and global diets does not mention the need to expand large-scale meat corporations based in developed nations. The UN describes the health and environmental implications of consuming animal products as "complex" and works to ensure that low-income groups have access to animal-based foods while pointing out that other populations need to eat fewer animal products. The FAO declares that it is particularly committed to supporting small-scale livestock farmers in developing countries—an agricultural group that has shrunk dramatically in countries where giant corporations now dominate the market.

Livestock should be produced, as we do for most commodities, where there is comparative advantage (land, other resources such as water, feed, etc.) In this way global impact on the environment can be minimized. As with all commodities (crops, smartphones, etc.) trade benefits everyone.

We do agree with FAO on the need to better support small-scale livestock farmers in developing countries, for example, through adoption of better technology and other innovations appropriate to their specific context. Crucially, in ways that improve their livelihoods so that they can move out of subsistence farming. More effort is clearly needed here, especially in terms of technology transfer, education and training, dissemination of information and pilot/demonstration projects.

- Nutrition: Huang stated that meat is a "nutrient dense - as opposed to energy-dense" food, providing "high quality protein, [the] right proportion of amino acids vs plant protein," and an "ideal delivery package for essential micronutrients." A 2011 study by nutritional scientists surveying 13,000 participants concluded "that vegetarian diets are nutrient dense, consistent with dietary guidelines, and could be recommended for weight management without compromising diet quality." Could you please provide the reference?

A recently released United Nations nutrition discussion paper "Livestock-derived foods and sustainable healthy diets" https://www.unnutrition.org/news/launch-livestock-derived-foods/ concludes that "Livestock-derived foods can have
consequences for human health if they are absent from or deficient in the diets of certain vulnerable groups, or if consumed to excess by others".

Similarly this study concludes "Animal-source foods,particularly liver, small fish, eggs, and ruminant meat,are the best sources of the highest priority micronutrients but likely have major obstacles to increased consumption, including availability, affordability, access, knowledge, and cultural preferences."

https://www.researchgate.net/publication/349947802_Micronutrient_gaps_during_the_complementary_feeding_period_in_South_Asia_A_Comprehensive_Nutrient_Gap_Assessment

- Carbon sequestration: Huang stated that livestock was a "potentially significant participant in carbon sequestration." He argued that "unlike other industries that are polluting, like transportation, which are only really extractive industries taking carbon out of the soil, putting it through our petrol engines and then spewing it up into the air, [...] with livestock it is actually largely a circular path. [By] better management of our resources, [...] we can actually capture some of that carbon and put it back in the soil, and therefore, help with climate change." According to one of our interviewees, "there is an emerging narrative and emerging PR campaign, if you will, to use—what we have limited evidence for—these ideas of 'regen ag,' regenerative principles, to make industrial meat feel like a climate change solution," But while "there is a lot of positive press around this idea, our contact said "evidence is still limited that it can scale to meaningfully sequester carbon."

Carbon sequestration is one of several technically challenging discussions the LEAP partnership is working on. I would encourage you to look at this publication: http://www.fao.org/3/CA2934EN/ca2934en.pdf

- Land management: At the ABARES Outlook 2020 conference, Huang stated: "Sustainability is not just about carbon emissions, [...] it's also about improvements in biodiversity through better management of our lands." The argument echoes that made by the pesticides industry for farmers to pursue "regenerative agriculture" strategies.
Innovation: A webpage for the 2022 World Meat Congress, hosted by the IMS, states that "technology, innovation and good practice – grounded in sound science – have the potential for the industry to significantly contribute to feeding the world sustainably while addressing societal concerns. The IMS identifies manure management as one of "three priority areas where improving practices should bring large environmental, economic and social benefits." Environmental advocates have criticised manure management technologies such as biogas digesters for "supporting and helping to perpetuate large-scale factory farming—and in some cases, causing farms to grow in size—under the guise of mitigating climate change."

There is no single silver bullet solution, we will need a variety of technologies. The LEAP document for assessing nutrient cycles can be found here: http://www.fao.org/3/CA1328EN/ca1328en.pdf.

- Greenwashing: In 2021, Hsin Huang told his audience at a conference that "it's a recurring theme that somehow the livestock sector and eating meat is detrimental to the environment, that it is a serious negative in terms of the climate change discussions," before offering his own "thesis" that "we can actually as an industry, the livestock and meat industry, be the heroes in this discussion." Huang continued: "We cannot continue business as we have done in the past," he said. "If we are not proactive in helping to convince the public and policymakers in particular, who have an impact on our activities if we are not successful in convincing them of the benefits that we bring to the table, then we will be relegated to has-beens." One of our interviewers accused meat industry groups such as IMS of actively downplaying the climate impact of meat and misinforming the public and policymakers: "That's what these people in these positions are paid to do", our contact said. "They're paid to comfort us. They're paid to get us to not think hard and deeply about the [meat] industry. They're paid to assuage our worries. And they're paid to tell regulators: 'Don't worry, we'll self-regulate. We'll do a good job. You don't need to worry about us. We are good actors.'" According to our contact the meat and dairy industry started its strategic greenwashing in 2006 after FAO published a report titled Livestock's Long Shadow, which was the "first accusation" that "the livestock sector was operating out of ecological boundaries and having large negative impacts on ecology and the planet."

We welcome the opportunity to have a constructive dialogue about solutions to climate change and meeting the United Nations Sustainable Development goals.

In this respect, we do in fact encourage to "think hard and deeply about the meat industry". We do not claim to be perfect. And we recognize the need to find improve, find more or better solutions. We engage in critical discussions in various international fora, to maximize the benefits and minimize the negative impacts.

Constructive criticism is welcome, and indeed necessary in order to advance. Moreover, as with other sectors, any assessment must take an integrated and holistic view as the hallmark of achieving sustainability: that means looking at the environmental (including impacts on climate change), socio-economic (livelihoods), and nutrition (health) impacts, in specific country and regional contexts. Trade-offs are inevitably involved but searching for best (or even win-win-win) solutions, informed by actual practices in countries, is key to the IMS stance, based on robust evidence. Our strong belief, based on the science, is that

livestock and animal source food benefits people and the planet: livestock is a valuable contribution to sustainability.

The scientific consensus (as embodied in the UNFCCC) calls for urgent action to combat climate change. IMS is participating, as an NGO, in the United Nations Framework Convention on Climate Change (https://unfccc.int/). We are planning a side event at COP26: Mainstreaming solutions to climate change through livestock: opportunities for global action (if our proposal is accepted).

IMS recognizes the shared responsibility the livestock and meat industry has, as part of the food system, to contribute significantly to reducing climate and environmental impact. We are part of the problem, we are also part of the solution. It is in this way that the meat industry can be the heroes in this discussion.

We would like to invite you to respond to the points above and provide any further comments on your organisation's climate position. Please send us your responses by end of business on June 29 so we can ensure relevant parts are included in the publication.

Thanks,
Caroline Christen