The Dublin Declaration fails to recognise the need to reduce industrial animal agriculture

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Standfirst: The framework presented in the Dublin Declaration has generated controversy by advocating for maintaining or increasing livestock numbers. The serious and acute harms associated with global livestock production today bring the goals of the Declaration into dispute.

A large base of scientific evidence shows that a substantial reduction in livestock production and total global livestock numbers would benefit human and planetary health. Yet, the Dublin Declaration on the Societal Role of Livestock asserts that '[Livestock] systems must continue to be embedded in and have broad approval of society' and argues that global livestock production should be maintained or increased.[1] Here, we highlight that the Dublin Declaration overgeneralizes evidence that applies to only a small fraction of global livestock and fails to adequately acknowledge the serious and acute harms associated with livestock production and consumption at current levels, particularly in high-income regions.

Livestock and human health

Industrial livestock farming exacerbates major public health risks. Three out of four emerging diseases now originate in animals[2] and over two thirds of antibiotics are administered to farm animals, not humans[3], contributing to the emergence and spread of antimicrobial resistance that affects both animal and human health. Therefore, there is a strong public health case for reducing industrial livestock production in most high income regions, as well as a strong personal health case.

The statement "livestock-derived foods provide a variety of essential nutrients and other health-promoting compounds[1]" implies that animal products are essential to provide these nutrients. While it is true that animal-sourced foods provide some essential nutrients, dietary needs vary across the human population and animal products are not always necessary for good levels of human health. These nutrients can be obtained from plants, fortified products, and supplements with a lower environmental impact and without the well-documented health drawbacks of animal product consumption[4,5].

The argument that increased animal production would improve nutrition in low-income countries incorrectly assumes that a lack of access to animal products in these regions is linked to insufficient production. However, the world already produces enough food to feed everybody, but issues around access to food arise due to problems such as income and capital inequality, failures in food distribution and high levels of food loss and waste – challenges that are more prominent in low-income regions[6]. Increasing industrial livestock production would not address these problems. In addition, increasing total animal production based on edible crop products such as grains, rather than food waste and inedible crop products, may increase competition for essential food resources and compromise food security.

In the same context, focusing on the benefits of meat consumption in low-income countries misses the bigger picture, particularly when this accounts for just 2% of global meat consumption (Fig 1). Indeed, more than three quarters of meat is consumed in high and upper-middle income countries and there is a strong human health case for substantially reducing animal production and consumption in these regions. Taken overall, consumption in low- and lower-middle income countries could double or triple, and global consumption would still decline if consumption in high and upper-middle income countries were to fall in line with the nutritional recommendations in EAT Lancet[7,8,9].

Compared to plant-based foods, livestock-derived products are generally higher in saturated fat, which increases low density lipoprotein cholesterol and the risk of cardiovascular disease[5]. Epidemiological evidence shows that consumption of animal products– especially red and processed meat – is associated with increased risk of the leading causes of death – cardiovascular disease and cancer[4,5]. In countries where the vast majority of all livestock products are consumed, public health recommendations support lower meat consumption – not higher.

Livestock and the environment

There is abundant literature to support the call for a substantial reduction in global animal production and consumption. Much evidence confirms current livestock production's association with disproportionately high greenhouse gas emissions, increased levels of air and water pollution, and high water, energy, and land use[4,10]. Reaching environmental objectives without a radical reduction in total livestock production would be extremely expensive and quite likely impossible, at least within Europe[11]. Even if we were to halt all use of fossil fuels immediately, current trends in global food systems alone, largely driven by animal agriculture, would take us beyond 1.5℃ and perhaps 2.0℃ of global warming[10]. Indeed, scientific consensus supports the substantial environmental benefits of reducing meat production and consumption[4,5,10,11,12] .

Globally, most livestock are reared in industrial systems, and this proportion will likely grow as livestock production increases. Agroecological systems present many opportunities to address environmental food systems challenges, but account for a low and shrinking proportion of all livestock production[13]. A central premise of agroecological systems is they are less intensive in external resource use than conventional systems i.e. they use more land per unit of animal product. Several studies therefore indicate that the adoption of agroecological principles would mean reducing – not increasing – the intensity of livestock production and could only ever produce about half of the animal products demanded in high-income countries today[14].

Producing and consuming animals adds a layer to the trophic chain, and thus adds an inevitable loss in energy and efficiency. Indeed, only about 17% of protein used as feed ends up in human diets[11]. Whilst livestock can convert inedible plant material into edible products, constraining the number of animals to the availability of inedible materials would mean a substantial reduction in the global livestock population. Livestock production intensification also means that a substantial proportion of livestock feed today is plant material which could be consumed directly in human diets[12,14].

Livestock and socioeconomics

Worldwide, less than 2% of the world's meat is produced in countries which the World Bank classifies as low income (Fig. 2.). An increase in livestock production in low-income regions is compatible with a decrease in total livestock production globally, given that this reduction should occur in developed countries. Indeed, the scientific literature which supports a reduction in animal product consumption frequently and explicitly states that most reduction must take place in high income regions, which are far less economically dependent on livestock farming. The recommendation to reduce global animal production and consumption is entirely compatible with maintaining or increasing employment in developing regions.

Increased livestock production, particularly when this entails industrialisation, can harm the most vulnerable segments of our societies and economies. While the adoption of more industrial farming practices is rarely beneficial for farmers who work the industrial farms, small-holder non-industrial farmers and other food supply chain actors increasingly find themselves priced out of the market by these larger operations, which can benefit from economies of scale.

Agriculture, forestry and fishing contribute just 2% of GDP for countries classified as 'High income' by the World Bank[7], while EU data indicate that European farmers' incomes are, on average, 48% lower than average[15] (European Parliament, 2015). Years of consolidation in developed countries has resulted in the economic benefits of livestock production and processing accruing to a small number of large companies. Combined with automation, this has seen a reduction in employment and thus population in rural areas. With no sign of this trend ending, increasing the employment opportunities in rural areas will need to come from other sources than livestock production, such as the transition towards the green economy.

A call for a nuanced debate

The Dublin Declaration makes a case for increasing total livestock production by appealing to agroecology and the role of livestock in low-income regions. However, this focus on a minority of the total global livestock fails to acknowledge the large body of evidence supporting the human health, environmental and socioeconomic costs arising from industrial livestock production and animal-sourced food consumption in high income regions. We agree that discussions on livestock systems should not be guided by 'simplification, reductionism, or zealotry'[1]. Therefore, we must acknowledge the complexities of the challenges associated with livestock production at global scale – and the urgency of calls to reduce industrial livestock production in high income countries.

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Competing Interests

The authors declare the following competing interests:

Author Christopher Bryant is the owner and Director of Bryant Research, a research company with clients in the alternative proteins industry and animal protection non-profits.

Figure legends

Fig. 1. The percentage of total meat consumption in different income level countries. Based on meat consumption numbers from FAOSTAT [8] and income classifications from the World Bank [7].

Fig. 2. The percentage of total meat production in different income level countries. Based on livestock production numbers from FAOSTAT [8] and income classifications from the World Bank [7] (2023).