We welcome the timely focus of this report on Sustainable agricultural development for food security and nutrition, including the role of livestock. As the scoping document states, livestock is at the centre of current global food systems: 75% of all agricultural land is dedicated to grazing or growing feed crops, and 36% of global crop production (by calories) and 29% of all marine capture fisheries landings (by weight) are destined to feed animals. How many animals we raise and how we do it has a direct impact on the amount and quality of food we produce.

We also welcome the inclusion of a critical assessment of food demand projections. Many projections assume a “business as usual” evolution of consumption patterns. However, there is enough evidence to show that supply-side measures won’t be enough to ensure the sustainability of our food systems and that demand-side measures will also have to be part of the solution. If consumption patterns change, the requirements to fulfil them, will also change. We should not see those projections as an inevitable future we must cater to, but as guides to help us shape the future and achieve truly sustainable and sufficient food production.

However, livestock goes beyond just food. On one hand, it’s a major driver of some of the most threatening impacts we currently face:

- Livestock is responsible for 14.5% of anthropogenic GHG emissions;
- the expansion of pastures and cropland expansion (driven by the increasing demand for feed crops) and the associated deforestation and biodiversity loss; and
- the high levels of animal protein intake in some societies plays an undeniable role in the rise of obesity and related non communicable diseases. Not just because of the direct intake of meat, milk and eggs, but because of the associated consumption patterns (fried chicken, burgers, processed foods, etc.).

On the other hand, livestock sustains the livelihoods of people all around the world, including the most vulnerable and food insecure among us. Livestock is key in providing valuable nutrients but also many other services, ranging from draught power to work the land and transport goods, to roles in maintaining community structure, acting as indicators of social status and as savings mechanisms that increase the resilience of people’s livelihoods to extreme or unpredictable events.

Discussions about livestock tend to be polarized. We believe this to be caused by a lack of distinction between different production systems and a lack of a “food systems” approach with an integrated view of crops and livestock production, as well as of food consumption patterns. This report presents an excellent opportunity to distinguish between different systems and identify their advantages and disadvantages in different contexts. We would
like the report to explore the differences between different systems from different perspectives, including but not limited to:

- The use of human-edible crops as animal feed (and other aspects of the food vs feed debate), including impacts on food security and resource use efficiency.
- The concept of virtual nutrient and water trade. Water and many nutrients (effectively, soil) are depleted from feed producing regions and accumulated in livestock intensive areas (with serious consequences in both cases).
- A better appreciation of the multiple uses of livestock. In many contexts, livestock’s value cannot be restricted to the provision of meat, milk and eggs. They provide many services that have direct and indirect implications for food security. In some cases, these “non-market” values can be higher than the market ones.
- An integrated view of rural development. Accounting for differences in access to market (including both formal and informal markets), employment opportunities and conditions, as well as other related factors as gender, education and cultural traditions.
- The use of antibiotics in farm animals, its effect on the emergence of antibiotic resistance and the risk this presents to human health.
- The need to better integrate livestock and crop production. To close the nutrient cycle, minimize the dependence on agrochemicals, increase the resilience of food production and increase the diversity of our diets.
- Access to and free exchange of knowledge. To ensure the prevalence of farmer to farmer transfer and making sure that indigenous, traditional and localized knowledge is taken into account as a valuable source and not ignored by agricultural extension (bottom up, rather than top down approach); knowledge is not only derived from transferred practices and technologies.
- Identification of systems in which livestock is central to the way of life of people and not easily replaceable by any other activity (e.g. pastoralists, crofters)

We are convinced that we cannot reconcile several aspects of current food systems, without changing our approach to livestock. At the same time, it’s important to be aware of the possible adverse effects that proposed measures to improve food security could have on other aspects of sustainability.

Besides these comments, and opinions about the general direction of the report, we are attaching some proposed changes to the actual text of the scoping document that crystallize some of our thinking.
Proposed draft Scope of the HLPE Report by the HLPE Steering Committee

A) Context: drivers and challenges

1. The HLPE report will begin with a critical assessment of existing projections of future food demand, including animal-sourced food. It will review projections by FAO and other foresight reports with particular reference to the rapid escalation of the demand for animal-source foods and feed, edible oils and non-food products, including the assumptions which are grounding these projections, on evolution of diets as well as on food losses and waste, and trade.

2. The report will then assess implications (challenges and opportunities) of these trends for:
   a) food security and nutrition (in particular nutrient deficiencies, obesity and chronic diseases), the realization of the right to food, highlighting gender considerations, as well as inequalities;
   b) access to land and natural resources;
   c) agricultural production and productivity increases;
   d) social and economic development, including rural employment and an understanding of the multiple roles of livestock;
   e) the health of the environment and ecosystems, including climate change, biodiversity and soil health;
   f) human health (including antimicrobials resistance and food borne pathogens like campylobacter, salmonella and E. coli);
   g) animal welfare;
   h) knowledge generation and dissemination.

B) Achieving sustainable agricultural development for food security and nutrition

3. In the light of these projections, the report will review the sustainability challenges for crop and livestock-based agricultural and food systems, including pastoral systems, in diverse agro-ecosystems and for various farm sizes, taking account of threats to the sustainability of these systems, including animal diseases, pest and diseases, animal welfare and energy needs.

4. The report will identify objectives and elements of sustainable approaches to agriculture, including livestock, ensuring food security and nutrition for all without compromising the economic, environmental and social bases for the food security and nutrition of future generations. It will identify critical priorities ("tipping points" that need absolutely to be addressed) and objectives. All three dimensions of sustainability will be included and the report will consider relevant metrics that capture the multiple roles of livestock.

5. The report will explore pathways towards sustainable crop and livestock-based systems, and options for managing the transition to sustainable systems:
   a) Given the role of livestock as an engine for the development of the agriculture and food sector, as a driver of major economic, social and environmental changes in food systems worldwide, particular attention will be paid to the role of livestock in these pathways.
   b) The investigation will encompass practices, including agro-ecological practices, diversification at all scales, as well as broader perspectives from food chains to food systems (including consumption patterns and considering food chain distortions due to inequalities between different actors), local versus global approaches, trade and investment.
c) The report will identify barriers to change, including in institutions, organizations, policies, market structures and governance, and potential options to overcome them.

d) It will cover the enabling environment necessary to trigger or accompany transition: the role of public policies and tools to promote and facilitate transition to sustainable systems.

C) Achieving more sustainable diets to help achieve sustainable agricultural development for food security and nutrition

6. The report will explore pathways towards sustainable global diets – based on regional and local needs and status of food security in a country/region. It should identify hotspots for consumption and explore options for managing the transition to sustainable diets looking at options for policy and business interventions in areas such as:

   a) **Research into behaviours** - identifying barriers for adoption of diets which reduce environmental impact including specifically eating less meat and increased plant protein.

   b) **Policies which can promote good practice** for instance in government procurement (in schools, hospitals, armed forces, government buying) to promote low impact diets and as appropriate reduced industrial livestock consumption in the public sector.

   c) **Fiscal policies** which can be used to drive consumers towards more sustainable diets and which can drive producers to deliver for those shifting diets: including but not exclusive to farm support/subsidies; taxation in the food chain eg taxation of high impact foods; funding of educational and promotional schemes to promote healthier sustainable diets such as consumer guidance and business support; and other areas of impact in the food system which would promote more sustainable diets.

   d) **Investment** which can be used to support sustainable protein delivery, food supply chains and food trade.

7. Conclusions and recommendations for policies and actions.

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