**CFS POLICY PROCESS ON THE DEVELOPMENT OF THE VOLUNTARY GUIDELINES ON FOOD SYSTEMS AND NUTRITION**

**TEMPLATE FOR SUBMISSIONS**

1. **Does Chapter 1 adequately reflect the current situation of malnutrition and its related causes and impacts, particularly in line with the goals and targets of the 2030 Agenda? What are the underlying problems that currently hinder food systems to deliver healthy diets?**

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| The 2019 State of Food Security and Nutrition in the World Report states that “Climate change and increasing climate variability and extremes are affecting agricultural productivity, food production and natural resources, with impacts on food systems and rural livelihoods, including a decline in the number of farmers.”[[1]](#footnote-1) The new [Special Report on Climate Change](https://www.ipcc.ch/site/assets/uploads/2019/08/4.-SPM_Approved_Microsite_FINAL.pdf) by the Intergovernmental Panel on Climate Change (IPCC) states that “Observed climate change is already affecting food security” and that “Food security will be increasingly affected by projected future climate change”[[2]](#footnote-2). Instead of adopting a reactive approach that encourages “climate change adaptation and mitigation”, mentioned in the Zero Draft, it is vital to adopt a proactive approach to the climate crisis, by addressing some of the root causes and drivers of climate change.For example, intensive livestock production harms the environment and accelerates biodiversity loss by forcing a transition to the production of monoculture crop and animal systems which relies heavily on chemical inputs, contributes significantly to climate change, pollution of waterways, air and soil, and are key drivers of deforestation.[[3]](#footnote-3),[[4]](#footnote-4) Not only is climate change hindering people’s ability to produce and consume food, climate change in itself is being exacerbated by industrial animal agriculture, which produces 14.5% of global greenhouse gas emissions, whereby creating a destructive loop of unsustainable production and consumption that contributes to food insecurity. The fact that meat consumption is projected to continue to grow globally is a key underlying and overlooked problem, both because of the unsustainable production practices of the vast majority of meat and dairy products, but also due to the negative impact of overconsumption of these products on nutrition and health.Paragraph 9 of Chapter 1 of the Zero Draft mentions that consumption patterns and food systems are interlinked and shaped by one another and that food systems can largely impact “producers’ decision and consumers’ choices”. According to the World Health Organization (WHO), “There is a strong positive relationship between the level of income and the consumption of animal protein, with the consumption of meat, milk and eggs increasing at the expense of staple foods.”[[5]](#footnote-5) With global incomes predicted to be 3 to 4 times higher in 2050 than in 2010[[6]](#footnote-6), the consumption of animal products is also bound to rise. In fact, the IPCC states that “emissions from crop and livestock are expected to increase by 30-40% from present to 2050, under business-as-usual scenarios that include efficiency improvements as well as dietary changes linked to increased income per capita”[[7]](#footnote-7) and “Emissions from agriculturalproduction are projected to increase, driven by population and income growth and changes in consumption patterns.”[[8]](#footnote-8) Scientists are warning that the resulting projected increase in greenhouse-gas emissions caused by agriculture would overload the planet’s coping capacity, unless it is offset by a reduction in global meat consumption[[9]](#footnote-9). The need to reduce meat consumption is also supported by research showing that the long-term overconsumption of meat can have serious negative impacts on human health[[10]](#footnote-10). It is also important to acknowledge that intensive systems, which are the prevalent means of producing animal products, decouple animals from the land by relying on feed inputs like grains and soy, also grown intensively, which could otherwise be used to directly feed humans, instead of livestock. According to the World Economic Forum, this means that up to 20% of calories produced per person today are lost to feeding animals[[11]](#footnote-11). In fact, 83% of the world’s farmland is used to produce meat and dairy products and contributes 56 to 58% of food’s various emissions, despite providing only 37% of our protein and 18% of our calories.[[12]](#footnote-12) More people could be fed, using less land, by reducing the amount of grain fed to animals rather than humans. Studies show that if all meat and dairy production in the United States alone was converted to nutritionally comparable plant-based foods, the US would be able to feed an additional 350 million people, exceeding the projected benefits of eliminating all supply-side food losses[[13]](#footnote-13). The losses entailed in feeding cereals to animals means that this practice is increasingly being recognized as undermining food security. The UN FAO states that further use of cereals as animal feed could threaten food security by reducing the grain available for human consumption[[14]](#footnote-14).The Voluntary Guidelines refer to climate change as an example of drivers impacting “the functionality of food systems and their ability to deliver healthy diets”. The guidelines should also explicitly include the intensification of the livestock sector, as well as the rising consumption of animal products, as important and core drivers that are hindering food systems and their future sustainability.  |

1. **What should be the guiding principles to promote sustainable food systems that improve nutrition and enable healthy diets? What are your comments about the principles outlined in Chapter 2? Are they the most appropriate for your national/regional contexts?**

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| Comments on principles: Paragraphs 20 and 21: We are pleased to see the heavy emphasis in the principles on achieving policy coherence and addressing policy fragmentation. However, given this emphasis, we are surprised to see that animal welfare is completely omitted from the document as a whole, and that animal health appears only once, in the context of antimicrobial resistance. The World Organisation for Animal Health (OIE) is the key intergovernmental organization dealing with policy and standards for the production of animal products, and among its objectives is to promote food safety through “a better guarantee of food of animal origin and to promote animal welfare through a science-based approach.”[[15]](#footnote-15) Therefore, we suggest that in paragraph 21 “animal welfare” be included among the issues listed as being of key importance to food systems and as it has a “dedicated normative intergovernmental process.”We are also surprised to see that there is no mention in the draft principles that diets should be predominantly plant-based. The World Health Organization (WHO), in its healthy lifestyle guidelines, which are accepted by the FAO[[16]](#footnote-16), clearly states that the first step to healthy eating is to “Eat a nutritious diet based on a variety of foods originating mainly from plants, rather than animals.”[[17]](#footnote-17) According to the FAO, “One important step that governments can take to signal their commitment to a more sustainable and healthy future, is to develop and disseminate food based dietary guidelines (FBDG) that embed health and sustainability objectives. These can then form the basis of policies seeking to foster such patterns.”[[18]](#footnote-18) In a comparative analysis of FBDGs from the only four countries that do provide guidance on sustainability, it was found that all four highlight “that a largely plant-based diet has advantages for health and for the environment” and that three of those “talk about the high environmental impact of meat.”[[19]](#footnote-19) The recent [Special Report on Land and Climate Change](https://www.ipcc.ch/site/assets/uploads/2019/08/4.-SPM_Approved_Microsite_FINAL.pdf) by the IPCC, states that “Consistent evidence indicates that [...] a dietary pattern that is higher in plant-based foods, such as vegetables, fruits, whole grains, legumes, nuts, and seeds, and lower in animal-based foods, is more health-promoting and associated with lower environmental impact”[[20]](#footnote-20) than the current global average diets. Crucially, the report asserts that “there is certainly significant overlap between [diets] that are healthier (e.g., via eating more plant-based material and less livestock-based material), and eating the appropriate level of calories.”[[21]](#footnote-21) Therefore, in paragraph 32, where the Draft Guidelines reference the healthy diets criteria, and in all other relevant areas, it is crucial for the Voluntary Guidelines to favor and encourage the consumption of plant-based foods over animal-sourced foods in order to truly promote sustainable and healthy consumption patterns.Guiding principle 36-c in Chapter 2: “Promote policies that are intended to enhance the livelihoods, health and well-being of the population and enhance the sustainability of food production and consumption as well as the protection of biodiversity and ecosystems” cannot be addressed without taking into consideration some of the core issues at the heart of intensive food production systems, as mentioned in our answer to question 1. For example, a recent study found that “Rapid increases in meat and milk production result in sharp rises in land clearing in tropical regions that harbour high levels of biodiversity”[[22]](#footnote-22). Links must be drawn between the impact of dietary trends on ecosystems. Although it is encouraging that principle 36-c mentions the need to protect biodiversity and ecosystems, it would be more comprehensive if it also addressed the need to protect animal welfare. The most recent Draft Report by the FAO on *“Biodiversity and the livestock sector”* explicitly states that “Biodiversity assessments can be coupled with the analysis of other social and economic attributes that consider **animal health and welfare**...”[[23]](#footnote-23) A growing number of organizations are acknowledging the crucial role positive animal health and welfare play in food systems and should the CFS Voluntary Guidelines do so as well, this would further promote policy coherence across the board. Guiding principle 36-e in Chapter 2 calls for strengthening “nutrition education at individual and community levels to facilitate producers’, food processors’ and consumers’ decisions and to foster informed choices about food products for healthy dietary practices.” Nutrition education can be strengthened by drawing from peer-reviewed scientific studies conducted in the field of nutrition. Studies have shown that animal products derived from higher welfare production systems have significantly better nutritional benefits than those derived from intensive production systems.[[24]](#footnote-24) In addition, research has shown that consuming healthy plant-based diets and reducing the consumption of animal products is more beneficial for human health[[25]](#footnote-25),[[26]](#footnote-26),[[27]](#footnote-27). A multi-layered approach is therefore required: * Policies should require producers to meet animal welfare standards, at minimum the internationally-accepted standards established by the World Organisation for Animal Health (OIE).
* Policies should educate consumers about the positive impacts of better animal welfare practices on the environment and on animal and human health.
* These should be complemented by policies that foster a reduction in the consumption of meat and dairy products and an increase in the consumption of non-animal products.
* Guiding principles should encourage the use of labeling schemes (based on welfare, health and environmental criteria), certification programs (based on welfare, environmental and health criteria), and fiscal incentives/disincentives, including:
	+ Eliminating subsidies for products with social/health, environmental and animal welfare costs and detrimental impacts.
	+ Taxing particularly harmful foods- in terms of social/health, environmental (emission intensive) and/or Animal Welfare criteria.
	+ Reallocating funds to support the research, development and promotion of healthy, environmentally and welfare-friendly systems and products, including meat and dairy alternatives.
	+ Support, promote, educate and train small-scale producers, especially in developing countries, in animal-welfare-friendly, agroecological production methods that are sustainable and respect local environments.
	+ Promote the consumption of smaller quantities of animal products, which could then be produced using higher animal welfare standards, and according to agroecological principles – as opposed to industrially produced.

Through the implementation of these fiscal and regulatory measures, coupled with consumer education and awareness, dietary patterns can be shifted to better serve human and environmental health. Only when all actors in the food system are made aware of the impact of different production and consumption patterns on human, environmental and animal well-being, can there be a holistic framework that truly “considers food systems in their totality” (Paragraph 36-a). This framework can then allow for producers and consumers to make informed choices, whereby creating a more sustainable loop of production and consumption.  |

1. **In consideration of the policy areas identified in Chapter 3 and the enabling factors suggested in paragraph 41 of the Zero Draft, what policy entry points should be covered in Chapter 3, taking into account the need to foster policy coherence and address policy fragmentation?**

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| Paragraphs 12, 19, 21 and 39: Again, we are pleased to see an emphasis on the need to tackle policy fragmentation and to promote coherence across all levels and sectors in order to produce guidelines that address all the different aspects of food insecurity. Food supply chains: One important cross-cutting factor that can directly improve nutrition improvement pathways is the incorporation of animal welfare standards in food production systems. The OIE Animal Welfare Standards, which have been agreed upon by the 182 member countries of the OIE, provide an established policy framework that can be drawn upon as a policy entry point. For example, in 2016, The International Organization for Standardization (ISO), acknowledged that: “As consumer awareness of animal welfare issues continues to rise, the demand for products complying with animal welfare standards is growing, giving producers who maintain these high standards a competitive advantage”[[28]](#footnote-28). In light of this, the ISO adopted a new technical specification, [ISO/TS 34700:2016](https://www.iso.org/obp/ui/#iso:std:iso:ts:34700:ed-1:v1:en)- ‘*Animal welfare management – General requirements and guidance for organizations in the food supply chain’.* This specification, developed in conjunction with the OIE, serves to ensure that farm animals are humanely treated across the supply chain. As stated by Dr Monique Eloit, Director General of the OIE: “Consistent implementation of humane and ethical rearing conditions for animals provides certainty for farmers and producers, and confidence for consumers.”[[29]](#footnote-29) This is a great example of how existing frameworks are successfully leveraged in order to create coherent policies across related sectors that serve to benefit producers as well as consumers. There is a clear overlap between the scientifically-backed benefits of adopting animal welfare measures (1) and the aim of the Voluntary Guidelines (2): 1. The OIE Animal Welfare chapter states that: “In food production systems, attention to animal welfare can improve productivity, quality, food safety, and economic returns, and therefore contribute to food security and economic prosperity.”[[30]](#footnote-30)
2. Paragraph 42 of the Zero Draft states that “Interventions across food supply chains can affect the availability, affordability, accessibility, safety and acceptability of nutritious food for a healthy diet.”

**Such “interventions” must incorporate better animal welfare practices, which can positively affect all the factors outlined in Paragraph 42.** In 2016, the Committee on Food Security (CFS) recommended that all livestock production systems should “Improve animal welfare delivering on the five freedoms and related OIE standards and principles […] and supporting voluntary actions in the livestock sector to improve animal welfare;” and “Promote a physical environment [...] that ensures compliance with the OIE welfare standards, including the Five Freedoms”[[31]](#footnote-31). These policy recommendations, which were developed based on the recommendations of a scientific report by the High Level Panel of Experts on Food Security and Nutrition (HLPE)[[32]](#footnote-32), can and should be incorporated into the CFS Voluntary Guidelines on Food Systems and Nutrition, which would further foster policy coherence within the CFS framework. Thepost-2020 global biodiversity framework[[33]](#footnote-33) will soon be established by the [Convention on Biological Diversity](https://www.cbd.int/) (CBD). This presents a unique opportunity for CFS to develop guidelines that are aligned with the goals of the CBD: * Target 2 of the CBD Aichi Biodiversity Targets recognizes that “Biodiversity underpins a wide range of services that support economies, food production systems, secure living conditions and human health”[[34]](#footnote-34).
* Chapter 2 of the Zero Draft calls to “Promote policies that [...] enhance the sustainability of food production and consumption as well as the protection of biodiversity and ecosystems”.

The CBD recognizes the importance of biodiversity for sustainable food production systems while the CFS acknowledges that policies for food production systems should also protect biodiversity. Therefore, the goals of the CBD and CFS are mutually reinforcing and these connections should be further leveraged and highlighted to promote policy coherence. To that end, in: Food Supply Chains/1-Production Systems/Policy Relevant Areas/ **a) and d):** We recommend specifically acknowledging the need to mitigate agriculture’s negative impacts on biodiversity and to address the importance of preserving biodiversity as a whole. This requires going beyond promoting the protection of agroecosystems and the use of agrobiodiversity. Although agrobiodiversity is an important subset of biodiversity, it is crucial to adopt a wider, more comprehensive view of biodiversity. As noted in the The IPBES Global Assessment on Biodiversity and Ecosystem Services Report, “Agriculture is a fundamental driver of global biodiversity loss through its area expansion and the increase of pollutants and of resources used in production”.[[35]](#footnote-35)Food Supply Chains/1-Production Systems/Policy Relevant Area/ **e):** We suggest acknowledging the importance of animal welfare in “maintaining and enhancing the efficiency and the resilience of production systems”. As noted by the 2016 HLPE Report:“Improving animal welfare can contribute to both resilience and resource efficiency.”[[36]](#footnote-36)Food Supply Chains/1-Production Systems/Policy Relevant Area/ **h)**: We suggest acknowledging the potential for innovation in the alternative protein sector. As indicated by the International Food Policy Research Institute’s (IFPRI’s) Director General, Shenggen Fan, “alternative proteins such as lab-grown meat can help to reduce agricultural greenhouse gas emissions and resource use.”[[37]](#footnote-37)Food Supply Chains/1-Production Systems/Policy Relevant Area/ **j)**: We suggest acknowledging existing collaborative approaches on AMR, including the Tripartite Collaboration on AMR being championed by the FAO, OIE and WHO.[[38]](#footnote-38)Food Supply Chains/2-Handling, Storage and Distribution/Policy Relevant Area/ **a):** We suggest acknowledging the amount of meat lost, spoiled and damaged during the transport and slaughter of food-producing animals due to poor welfare and handling conditions. As noted in a 2014 HLPE report on “Food losses and waste in the context of sustainable food systems”:“Transport of livestock is known to be stressful and injurious, which can lead to poor animal welfare and production loss”[[39]](#footnote-39). The report cites several case studies where hundreds of thousands of animals die, get injured, sick, during transport, due to poor welfare conditions, leading to severe losses for all actors in the food system. In addition, the various stresses experienced by animals during handling, transport, stunning and pre-slaughter conditions negatively impact the quality of the meat, rendering it unusable and unsellable (examples include Pale Soft Exudative (PSE) in pork meat, Dark Firm and Dry (DFD) in meat from sheep, cattle, poultry as well as bruising and injuries)[[40]](#footnote-40). High standards of operational animal welfare must hence be implemented and maintained. Food Supply Chains/4-Retails and Markets: We suggest acknowledging the growing role that animal welfare plays in influencing retailers’ choice of products. As indicated by the 2016 HLPE report: “Retailers are increasingly demanding production systems that take into consideration animal welfare.”[[41]](#footnote-41) Also, in order to consider the impact of all “drivers of change, such as international trade and demographic trends”, we suggest addressing the fact that, according to the HLPE, “sanitary, environmental and animal welfare certification measures are of increasing importance for international trade.”[[42]](#footnote-42)Food environments:Food Environments/ 1-Availability and Physical Access /Policy Relevant Area / **b)** : In Chapter 1, the guidelines acknowledge recent work on food systems by various UN entities, including UN Environment (at UN Environment Assembly 4). Noting that the Background Report of the Executive Director, prepared in advance of UNEA 4 states:“Governments can also reduce the environmental impact of food consumption by adjusting national dietary guidelines and related nutrition policies. Additional measures that can be considered include the promotion of sustainably raised and grown foods, including sustainably produced plant-based meals in public institutions, such as schools and hospitals, and increased dialogue with private sector companies to encourage them to improve the nutritional quality of their food.”[[43]](#footnote-43)We suggest that voluntary guidelines for public procurement should predominantly include plant-based options, in line with the WHO health guidelines. There are already a number of standard-setting organizations working to improve procurement practices which can provide models for public procurement voluntary guidelines, such as [The Sustainability Tracking, Assessment & Rating System™](https://stars.aashe.org/about-stars/) (STARS), the [Good Food Purchasing Program](https://goodfoodpurchasing.org/), and the [Real Food](https://www.realfoodchallenge.org/) initiative. These are adopted by public bodies, such as public universities, community colleges, research institutions and K-12 public school systems. All these programs promote sustainable practices and food systems in action, such as purchasing foods according to values that respect local economies, health, food chain workers and farmworkers, animal welfare, culture, education, climate and environmental sustainability[[44]](#footnote-44),[[45]](#footnote-45). Food Environments/ 2-Economic Access /Policy Relevant Area / **b)**: We suggest recommending imposing taxes on resource-intensive, and/or environmentally damaging foods and on those that have high negative social and health impacts, taking into account national and local contexts. According to IFPRI, “taxing emissions-intensive foods such as meat could reduce greenhouse gas emissions and the use of natural resources, and avoid hundreds of thousands of deaths, as such foods are associated with dietary and weight-related risk factors.”[[46]](#footnote-46) What’s more, studies suggest that “Health related food taxes could improve health […] taxes are likely to shift consumption in the desired direction.”[[47]](#footnote-47) These types of taxes have also been shown to narrow health inequalities by granting access to healthier foods to poorer people whereby reducing the incidence of costly diet-related diseases in the long-run.[[48]](#footnote-48)However, fiscal and pricing policies should not be limited only to taxes, but also to the use of subsidies. Referring again to IFPRI:“Governments should eliminate subsidies for nutrient-poor foods and convert those funds to investments for more nutritious crops such as fruits and vegetables. Subsidies for agricultural inputs can also lead to overuse of inputs and natural resources, exacerbating land degradation and emitting more greenhouse gases.”[[49]](#footnote-49) In addition, A 2016 WHO report stated “strong evidence that subsidies for fresh fruits and vegetables that reduce prices by 10–30% are effective in increasing fruit and vegetable consumption” and “Vulnerable populations, including low-income consumers, are most price-responsive and, in terms of health, benefit most from changes in the relative prices...”[[50]](#footnote-50)Food Environments/ 4-Food Quality and Safety / Policy Relevant Area / **a)**: In terms of food safety, the OIE animal health and welfare standards, which have a goal of improving the safety of animal products, should be referenced. As mentioned in the 2016 HLPE report, actions are needed to “to reduce the prophylactic use of antibiotics in animal care and to improve animal welfare”[[51]](#footnote-51). Animal systems need to be completely transformed so that animals do not need to be routinely fed antibiotics. This also means supporting small-scale, agroecological systems that respect animal welfare. These systems provide animals with the ability to express their normal behaviors, do not expose them to the stresses of overcrowding and large group sizes, and strengthen animals’ natural immunity without requiring medication[[52]](#footnote-52). Consumer Behavior:We support paragraph 54, which highlights the important role that consumer behavior plays in opening “pathways to more sustainable food systems”. A worldwide study found that “81% of global respondents felt strongly that companies should help improve the environment”[[53]](#footnote-53) and that consumers are shifting their buying habits accordingly. Even more, “Regions that are rife with emerging market consumers—many of whom are dealing with environmental hazards in their everyday lives—show higher expectations than developed markets.”[[54]](#footnote-54) Research also shows that “Regarding the options to reduce meat intake in developed countries, [...] there is an apparent sympathy of consumers for meat reduction due to environmental impacts which has not been exploited.”[[55]](#footnote-55)Animal welfare can also play a role in altering production and consumption patterns. The 2016 HLPE report states“Animal welfare is an increasing public concern, raised by consumers and often by retailers who are responding to consumer demand.”[[56]](#footnote-56) Consumers, whether well or ill-informed about what constitutes an adequate food system, play a key role in steering market demand, and in swaying producers to shift their practices to meet that demand. Knowing how animals are treated within the supply chain as well as being aware of the environmental impacts of certain foods can strongly influence the choices consumers make. Consumers have the right to know how animal welfare not only impacts food quality and their health but can also clash with their cultural norms, and beliefs and values. Paragraph 55: Food and nutrition education and information should also incorporate the negative impact of prevalent food production systems on the environment and animals, and information about how transitioning to plant-based diets can contribute to better human health and environmental wellbeing. As noted in the Background Report of the UNEP Executive Director, prepared in advance of UNEA 4: “Individual changes and actions can also add up to major reductions in food waste, less climatechange impact and a healthier environment. They can also help to stimulate a vibrant, diversesmallholder production sector that can thrive alongside agribusiness. The most significant changes that individuals and households can make are to reduce food waste and opt for sustainably raised and grown foods, including sustainably produced plant-based meals."[[57]](#footnote-57) To further empower individuals to make these positive changes and choices, under the policy-relevant areas of “Food Nutrition and Education Information” consider adding a point about the importance of labeling (currently referred to under Promotion and Advertising) as well as quality and welfare certifications. These can act as as educational tools, aiding consumers in identifying and choosing healthier, “more sustainably raised and grown foods”. They can also provide farmers and producers with market differentiation opportunities, and incentivize them to shift their practices to meet the requirements of using certain labels or certifications to promote their products. Incorporating education about the meaning of the different labels and certifications into Nutrition Education programs would further help consumers and producers make sustainable and ethical choices. Paragraphs 56-a and 56-b: the worldwide increase in consumption of animal products is shifting traditional diets away from healthy and balanced consumption patterns toward unhealthy, and unsustainable patterns. This evolving, negative food habit, needs to be addressed for its potential negative impacts on the environment, human health, and cultural traditions.  |

1. **Can you provide specific examples of new policies, interventions, initiatives, alliances and institutional arrangements which should be considered, as well as challenges, constraints, and trade-offs relevant to the three constituent elements of food systems presented in Chapter 3? In your view, what would the “ideal” food system look like, and what targets/metrics can help guide policy-making?**

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| The definition used for food systems in the Zero Draft is: “Food systems gather all the elements (environment, people, inputs, processes, infrastructures, institutions, etc.) and activities that relate to the production, processing, distribution, preparation and consumption of food, and the output of these activities, including socio-economic and environmental outcomes.” Consider adapting the definition to include animals, as animals are inextricably tied to all the elements and activities mentioned in the current definition. Feeding people at the expense of the environment and animal welfare is not sustainable in the long-run. An ideal food system is one that delivers nutritious, healthy, mostly plant-derived food, to all people while protecting the environment and animal welfare and ensuring the ability of future generations to sustain themselves. The IPCC report states it well: “Policies that operate across the food system, including those that reduce food loss and waste and influence dietary choices, enable more sustainable land-use management, enhanced food security and low emissions trajectories [...] can contribute to climate change adaptation and mitigation, reduce land degradation, desertification and poverty as well as improve public health.”[[58]](#footnote-58) Some metrics that can be utilized:- Calculating the percentage of land used for meat and dairy products and comparing it to the percentage of protein and calorie intake that it delivers.- Calculating the proportion of human edible grains that are being fed to produce livestock.For example, currently, 83% of agricultural land is delivering just 18% of calories. Conversely, just 17% of agricultural land is delivering 82% of our calories. In an ideal system, the conversion of land to calories should be significantly more efficient. In an ideal system, pasture/extensive raised livestock can convert non-edible vegetation on non-arable lands into calories. However, feeding human edible grains to livestock is an inefficient use of resources. Ideally, no human-edible grains should be fed to livestock. * Resource use and efficiency metrics:
	+ Metrics that evaluate the resource use per calories, the pollution per calorie, greenhouse gas emissions per calorie, etc…
	+ Metrics based on area or resources used and comparing the efficiency of different production systems.
* Metrics that calculate ecosystem stability and ecosystem status for different food systems[[59]](#footnote-59).
* Food affordability and accessibility metrics, which take into account desired outcomes (healthy, sustainable diets) and market distortions such as subsidies and taxes, as these can make undesirable foods artificially affordable.
* Animal health and welfare metrics, such as the [Animal Protection Index](https://api.worldanimalprotection.org/), which ranks countries based on their commitment to animal protection.
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1. **How would these Voluntary Guidelines be most useful for different stakeholders, especially at national and regional levels, once endorsed by CFS?**

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| Once endorsed by CFS, these Voluntary Guidelines, if they draw from existing policy structures and address some of the gaps in others, can provide a holistic framework towards addressing food insecurity that truly takes into consideration all the factors, actors and systems at play when tackling food insecurity. The guidelines are also a good opportunity to raise awareness about the main hurdles to overcoming food insecurity and can serve to influence the development of national legislation and strategies in countries where they are most needed. These guidelines can also help direct development aid policies and priorities. They can and should lead to the implementation of policies that enable people to access adequate nutrition, all the while educating producers and consumers about humane and sustainable food systems and consumption and production practices. The FAO and FCRN, in their joint report on sustainable and healthy dietary guidelines, propose a comprehensive set of principles that must guide the process of developing sustainable dietary guidelines, in order to “ have a real effect on food consumption” and on “the environmental impact of diets”[[60]](#footnote-60). Some of the most signficant suggestions mention the need for governments to be the owners and disseminators of nutritional guidelines. They must also develop different versions of the guidelines in order to target a variety of groups, from the general public, to health professionals, consumer groups, and actors across the food sector. The guidelines must also be linked to implementable policies at all levels: in schools, hospitals, public procurement, advertising and industry standards and they should be promoted extensively. They should be developed “based on the advice of scientists and professionals from both health and environmental fields” and “a consultation process” involving civil society. Most importantly, the FAO and FCRN advise that guidelines should be geared towards “Limiting meat consumption” according to national contexts as well as “Provide guidance for those who wish to adopt vegetarian or vegan diets.” In order to promote policy coherence, the CFS guidelines should leverage these principles and incorporate them both during the drafting process, and in the final version of the Voluntary Guidelines.As mentioned in the IPCC report: “Effective governance of food systems and climate change requires the establishment of institutions responsible for coordinating among multiple sectors (education, agriculture, environment, welfare, consumption, economic, health), levels (local, regional, national, global) and actors (governments, CSO, public sector, private sector, international bodies). Positive outcomes will be engendered by participation, learning, flexibility and cooperation.”[[61]](#footnote-61) |

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