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Climate change and nutrition: Message Grid (COP29)

OVERARCHING MESSAGE

The SUN Movement commits to ensuring that stakeholders better integrate climate and sustainability considerations as we support countries to reduce all forms of malnutrition. Worsening climate conditions, particularly drought, are anticipated to increase the likelihood of wasting and underweight by nearly 50%. The challenge underscores the intimate interconnection between food systems, health systems, and climate change, all of which profoundly affect nutrition outcomes and community resilience. As climate impacts strain food production and health services, poorer rural households, especially women and children, bear a disproportionate burden, highlighting the critical need for integrated approaches that strengthen both food and health systems to build resilience against climate-driven nutrition risks. Malnutrition costs the global economy trillions, while investing in nutrition through a climate lens fosters healthier, more resilient populations, especially in low- and middle-income countries. Healthy diets from sustainable food systems are pivotal in combating the causes and effects of climate change and should be at the forefront of climate action. To that end countries must take action to implement the COP28 Declarations on Food & Agriculture, and Climate & Health where nutrition action plays a central role. This includes integrating nutrition as part of Food Systems Actions in Nationally Determined Contributions, and within Climate Finance.

The climate crisis threatens food and nutrition security	Multisectoral collaboration and unlocked finance are imperative to amplify impact	Food systems transformation pathways should provide healthy, sustainable diets for optimal nutrition and decent livelihoods
Changes to the climate are driving food and nutrition insecurity and have the potential to diminish the yield and nutritional content of some crops. Climate change is lowering yields of staple foods like wheat, rice, maize, and soybeans, as well as nutrient-rich foods, livestock, and fisheries, further constraining nutrition and food security worldwide. Climate change-induced rises in the prevalence of waterborne, vector borne, and zoonotic diseases will increase enteric infections and diarrheal diseases, exacerbating malnutrition.	An integrated, collaborative approach is essential e.g nutrition in food systems, primary health care; water management; social protection and humanitarian response. Integrating nutrition into climate policies is essential to ensure resilient populations. This includes integrating nutrition into food and health focused Nationally Determined Contributions Nutrition strategies must be adaptable to climate change. This interwoven approach is crucial for achieving healthy, resilient populations and economies. Sources of finance need to be reoriented and scaled- up to incentivize and fund nutrition sensitive, resilient, sustainable, and equitable food systems.	 Encourage the production and consumption of diverse and nutritious foods: Climate-smart agricultural practices (diversified food production, nutrition-dense, locally adaptable drought-resistant crops, improved biodiversity). Enhancing post-harvest management and storage to reduce loss and waste and ensure food availability during and after climate- related shocks. Large-scale fortification and biofortification to improve diet quality, accessibility, and affordability. National food-based dietary guidelines provide context-specific advice based on a country's nutrition priorities, food production, consumption patterns, and cultural preferences.
		Support frontline food systems actors to adapt and build resilience to climate risks.

Supporting data	Supporting data	Supporting data	
Climate change reduces the micronutrient content, particularly of zinc, iron, and vitamin A. In rice grown under higher concentrations of CO2, the average loss of major B vitamins (thiamin, riboflavin, and folate) was shown to be 17–30% (<u>Smith &</u> <u>Myers, 2019</u>). The diets of people living in high-income countries contribute 41% more emissions than those of people living in low- and middle-income countries (Romanello et al., 2021). Low and middle income countries are responsible for less than 4% of the carbon emissions, the lowest income groups within these countries bear a disproportionate and inequitable burden of climate change. They suffer the largest impact, and the most vulnerable in those countries, mostly women and children suffer the most.	 44% of National Nutrition Plans (NNPs) integrate concrete climate actions. 95% of Nutrition for Growth commitments seem to overlook climate or sustainability. 2% of Nationally Determined Contributions (NDCs) have outlined tangible steps towards addressing nutrition. (I-CAN baseline paper, 2023). 1% of climate-related Official Development Assistance (ODA) financing directly references nutrition. From 2021-2022, only 3% of Green Climate Fund initiatives included nutrition-specific intervention. This discrepancy highlights an area ripe for innovation and investment (I-CAN baseline paper, 2023). 	One-fifth of food produced for human consumption is lost or wasted globally. This amounts to one billion meals a day. (UNEP, Food Waste Index) Large-scale fortification and biofortification is shown to improve diet quality, accessibility, and affordability of healthy diets and generate \$27 on average in economic return through increased health and productivity – for every dollar invested (GAIN, 2023).	
Strong evidence exists for an association between an increase in ambient temperature and a greater risk of preterm birth and low birth weight deliveries (<u>Bekkar et. al, 2020</u>).			
More than two billion people live in the dry regions of the world and suffer disproportionately from malnutrition and other health risks related to contaminated or insufficient safe water. The absence of safe water with poor sanitation systems, excessive rainfall, or prolonged drought, all increase exposure to pathogenic microbes resulting in			

enteric infections and diarrheal diseases. These exacerbate infant and young child malnutrition

(Owino et. al, 2022).