

### | BACKGROUND

While its role is often poorly understood by the general public, there are essential opportunities for mainstreaming biodiversity to maximize food security, nutrition, and other health outcomes. Biodiversity in agricultural production systems makes essential contributions to food security and health and is the foundation for sustainable healthy diets. is the source of the components of production (crops, livestock, farmed fish), and the genetic diversity within these that ensures continuing improvements in food production, allows adaptation to current needs and ensures adaptability to future needs. Agricultural biodiversity is also essential for agricultural production systems, underpinning ecosystem services such as pollination, pest control, nutrient cycling, erosion control and water availability and supply.

These food system transformations not only have far-reaching impacts on our ecosystems and climate, they are also responsible for a significant and growing burden of malnutrition in all its forms. Transformation to healthy diets by 2050 will require substantial dietary shifts, including a greater than 50% reduction in global consumption of unhealthy foods such as sugar, and a greater than 100% increase in the consumption of healthy foods such as animal source foods, nuts, fruits, vegetables and legumes, with a special focus on countries with high levels of malnutrition. Dietary changes from current diets towards healthy more sustainable diets are likely to result in significant health benefits that, according to some estimates, include averting approximately 7.4 to 10.8 million premature deaths per year, a reduction of between 18% to 28% (Willet, 2019). The food system transformations that will be required needed differ greatly by regions and particular attention will need to be placed both to overcome key economic, socio political and environmental barriers, with particular attention on vulnerable populations, such as fishers and smallholder farmers, who are often most marginalized from decision-making processes.

As a whole, food systems have been identified as "the single strongest lever to optimize human health and environmental sustainability on Earth" (EAT Lancet, 2018). In this session we will explore how to harness biodiversity in local, national and regional initiatives to maximize co-benefits for biodiversity, climate and health and to strengthen social and ecological resilience and equity through food system transformation by adopting a comprehensive whole-of-society approach.

#### Case Study from India

There is enough evidence to show that red meats play a crucial role in nutrition and economy/livelihoods. In fact in India, these foods, particularly beef have been criminalised and used to lynch/target/discriminate an already extremely malnourished population and small businesses. The economic burden of stray cattle has also been well documented.

India, as you may know is a caste driven society and with the current government in power that actively targets the minority community. Malnutrition is at an all time high, especially with detrimental policies (meat bans, denial of eggs in mid-day meal schemes etc) and Covid related rigorous lockdowns that have destroyed livelihood especially of small business and daily wage workers. High levels of malnutrition are necessarily accompanied by several vitamin and mineral deficiencies for which the government is pushing for single nutrient, corporate dependent fortification, against which there has been several criticisms. So essentially, on the one hand, nutrient dense foods such as meats and eggs are being targeted while corporate dependent single nutrient solutions are being pushed on the country.

Millets are being pushed forward as the magic alternative but these are not nutrient dense and not comparable to animal source foods for either good quality, bioavailable proteins, minerals or vitamins. Again there is enough research even from the National Institute of Nutrition, India and other sources backing this.

Agencies like the Eat Lancet Commission, in collusion with national bodies like the Food Safety and Standards Authority of India (FSSAI) project India as a 'vegetarian' country and a model for other countries, never mind the malnutrition and its inter-generational consequences and also that India is not a predominantly vegetarian country. Only 20% Indians self identify as vegetarian and even they consume animal source foods such as dairy. This 20% are also more likely to belong to the oppressor caste/class groups that necessarily have access to more resources as well as ability to influence and push cheap cereal heavy diets on the poor.

# | OBJECTIVES

The global food system is the leading driver of biodiversity loss, a significant driver of climate change and at the heart of many communicable and noncommunicable diseases. The core aims of these sessions will be to answer the following broad questions: What are the primary (environment/climate/health) challenges posed by our dysfunctional global food system? What are some of the key entry points to overcome them?

The "Food System Transformation" session will be divided into two parts. Part 1 (Parallel Session 2.1) will emphasize the need for urgent food system transformation at the biodiversity, climate and health nexus and Part 2 (Parallel Session 2.4) will highlight opportunities to overcome them.





### **Panelist**

## Maureen Miruka

Director, Strategic Partnerships and Research, Food and Water Systems

CARE International

Kenya

Dr. Maureen Miruka is a Gender and Agriculture Specialist and Director of Strategic Partnerships & Research at CARE USA, based in Nairobi Kenya. She has held various roles within CARE as Country Director at CARE International in Kenya; Director of Gender, Youth and Livelihoods; Director of Agriculture and Market Systems; Team Leader of the flagship Women in Agriculture Program-Pathways. Before joining CARE, she was Principal Research Scientist (Socio-Economics and Gender) at the Kenya Agricultural and Livestock Research Organization. Her research and development focus are on gender equality & women's voice in agriculture-based livelihoods and food systems. Maureen has a PhD in Development Studies from University of Greenwich, London UK and she is the lead author several peer reviewed journal articles, papers, book chapters, and blogs on women's empowerment in agriculture and food systems, it's measurement and social norms. In 2018 Maureen received the African Woman Award by the International Development Research Center- in recognition of leaders and change makers in the area of women's empowerment and transformation of gender relations in Africa.