

### | 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**

# Sylvia Karpagam

Public Health Doctor and Researcher
Independent
India

Dr. Sylvia Karpagam is a public health doctor with around 18 years of experience. She has worked on health and social determinants from a rights perspective with communities, networks as well as human rights organisations such as Amnesty India International, People Union for Civil Liberties (PUCL), People's Health Movement (PHM), World Health Organisation etc. She has been involved in the Covid 19 related public health and relief work. She is currently working on creating a draft public health policy document for healthcare for the State Karnataka

As part of the Right to health campaigns at the state and national level, she has conducted trainings, research and published articles. She has conducted mainly qualitative research on impact, particularly on vulnerable communities, of privatisation and commercialisation of health care and nutrition. She has published in peer reviewed journals about the impact of public private partnership and health insurance, as well as critiqued that lack of regulation in private healthcare.

As part of a larger campaign on the Right to nutrition, she has participated in fact finding visits, trainings, advocacy challenging a centralised, corporate driven school lunch scheme, denial of eggs and ideological impositions through government food schemes.

She has conducted training for health care personnel, students and community workers on health, nutrition and social determinants of health. She has been trained at National Institute of Nutrition Hyderabad on diet surveys and anthropometry. She has also been trained under the National Family Health Survey (4) for Clinical Anthropometric and Biological markers.

To stay updated with her clinical skills, she has worked at Anti-Retroviral Centres (ART) as a Medical Officer. This has also given her a good idea of practical issues and field level gaps in government health schemes and issues around accessibility, affordability, stigma etc.

She has developed training material for health workers including doctors on different public health issues and engages on social media on issues of caste, gender, nutrition and regulation of the private sector. Having worked with different aspects of social determinants of health she has a comprehensive understanding of public health with all its dimensions.