



Social Enterprise | Independent Research Organisation
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FROM THE FAMINES OF BENGAL TO A FUTURE OF ECONOMIC AND NUTRITIONAL SECURITY WITH GLOBAL POTENTIAL

SUMANTRA (SHUMONE) RAY



Advancing and implementing food and nutrition knowledge for health and society

UK Hubs: Cambridge, London, Coleraine, Dundee



NNEdPRO GLOBAL INSTITUTE FOR FOOD, NUTRITION AND HEALTH

Social Enterprise | Independent Research Organisation
Education and Training Centre | Advisory Services

Founded 2008 - Cambridge (UK)
Spin Out Cambridge Social Enterprise Since 2015

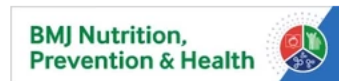
OVER 40 COUNTRIES IN 10 REGIONAL NETWORKS

~700 MEMBERS BY INVITATION

OVER 100 R&D COLLABORATIONS

OVER 500 ORIGINAL OUTPUTS

Partner organisations founded by the NNEdPro Global Institute for Food, Nutrition and Health



CREATE Global e-Academy Cambridge, UK



The International Food and Nutrition Trust C.I.C.



DECLARATIONS OF INTEREST

Professor Sumantra (Shumone) Ray

UK Licensed Medical Doctor & UK Registered Public Health Nutritionist

NNEdPro Founding Chair, Chief Scientist & Executive Director

Director of Research (UKRI/GRCF 'TIGR2ESS' 2017-22) | Bye-Fellow of Fitzwilliam College, University of Cambridge

Professor of Global Nutrition, Health & Disease, Ulster University

Visiting Professor of Public Health, Imperial College London

Co-Chair, BMJ Nutrition, Prevention & Health

Consultant & Principal Medical Academic Advisor to the Modality NHS Partnership

NHS Research Ethics Vice Chair for Essex

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KEY CONTRIBUTORS

MTK International Team

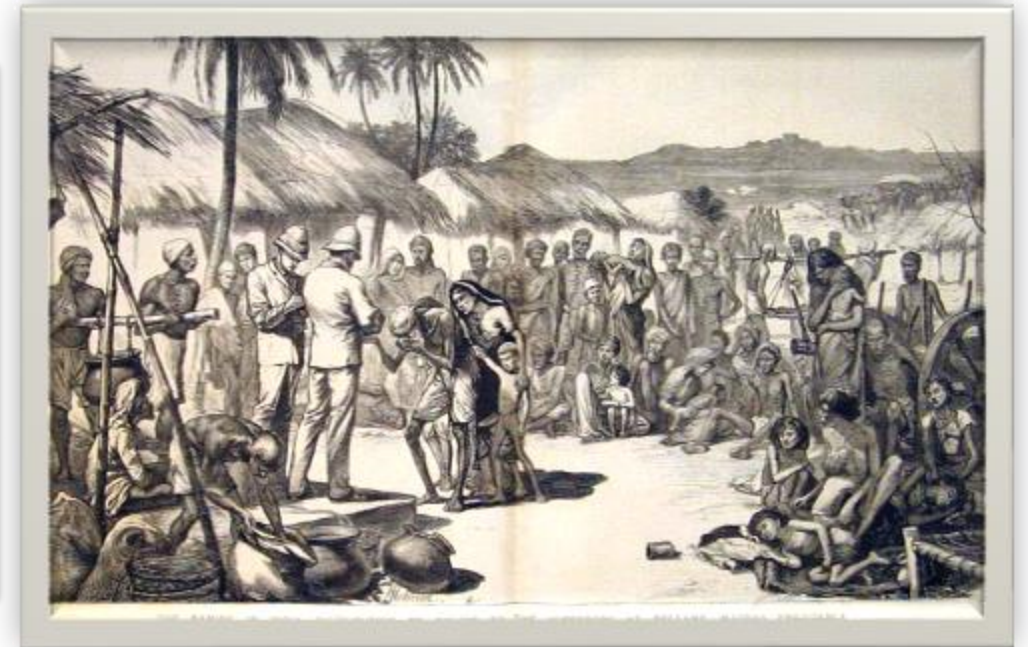
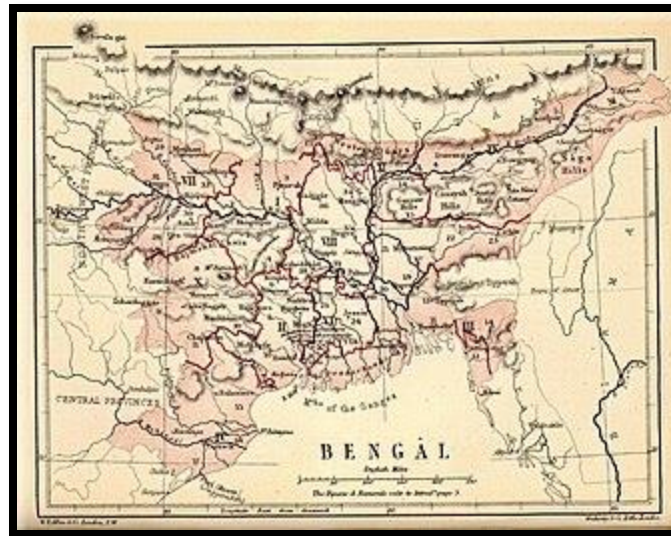


THE PAST-I: BENGAL FAMINE OF 1943

Preceded by the great Bengal famine of 1770 followed by 10 more catastrophic famines across British India until the Bengal famine of 1943, one of the deadliest famines in recorded history during World War II in the Bengal province of British India (present-day India and Bangladesh) and 3 million people died of starvation, malnutrition, and related diseases

Systemic Contributors

- **War Disruption**
- **Crop Failure**
- **Lack of Transportation**



Did oppressive powers ‘learn’ the formula of engineering famine as a tool for subjugation?



THE PAST-II: BENGAL FAMINE OF 1943



Synthetic Contributors

- **Government Policies:** The colonial government in India pursued policies that to divert resources away from India to support the WWII and were unwilling to release rice stocks in the region for relief against the backdrop of policies such as the Grain Procurement Policy of 1942, forcing sales of rice to the government at fixed prices
- **Administrative Failures:** The administration was unusually slow to respond to the severity of the situation
- **Hoarding and Black Market:** Lack of governance for prevention or intervention

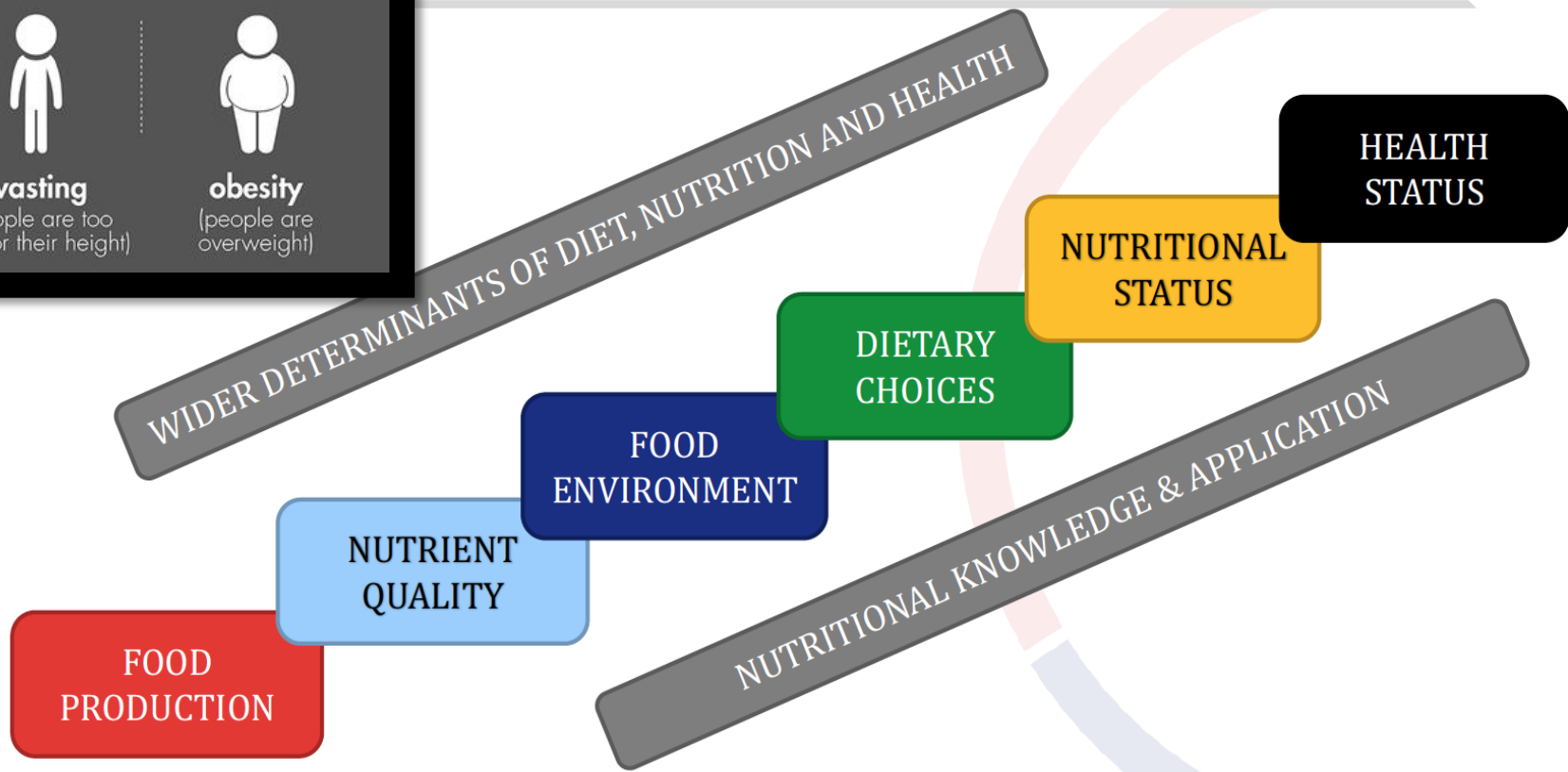
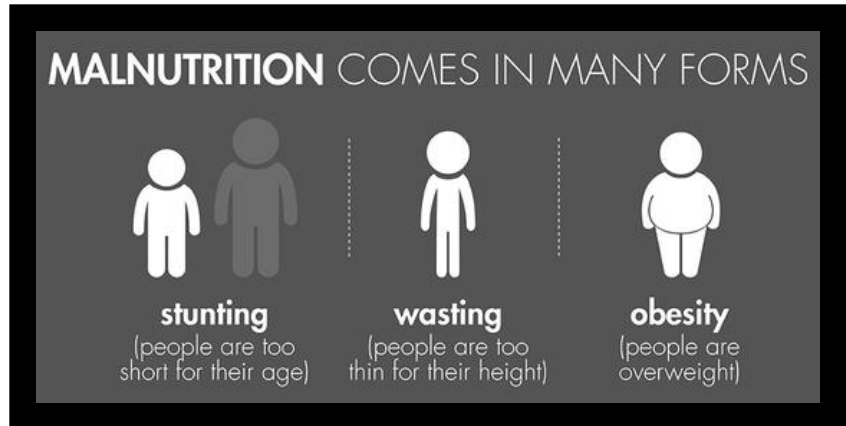
Often criticised for being man-made, largely a result of policy decisions made by the colonial government in India against the backdrop of the freedom struggle leading to independence in 1947 – today the Bengal Famine continues to impact the collective consciousness of the region with millions still entrapped in intergenerational effects of famine, subjugation and dual partition



PRESENT DAY CHALLENGE: THE COMPLEX BURDEN OF MALNUTRITION AND POPULATION RESILIENCE 80 YEARS LATER...

The double burden of malnutrition is characterized by the coexistence of undernutrition and micronutrient deficiencies along with overweight and obesity, or diet-related noncommunicable diseases, within individuals, households and populations, and across the lifecycle

- **HEREDITY**
- **ENVIRONMENT**
- **DIET**
- **LIFESTYLE**
- **SOCIOECONOMIC**
- **POLITICAL**





**A POTENTIAL FUTURE SOLUTION:
‘BHAVISHYA SHAKTI’
*FROM BENGAL TO THE WORLD...***



TIGR2ESS – TRANSFORMING INDIA’S GREEN REVOLUTION-2 FOR EMPOWERMENT AND SUSTAINABLE (FOOD) SUPPLIES

TIGR2ESS: The six Flagship Projects

- Sustainable and Transformative Agrarian and Rural Trajectories (START);
- Crop Sciences: Water use and Photosynthesis;
Improving Water Use and Yield Stability in Millet and Sorghum;
Crop Sciences: Enhancing Photosynthesis;
- Heat and Drought Resilience in Wheat;
- Water use and Management in a Changing Monsoon Climate;
- Supply Chains: modelling water use for sustainable livelihoods;
- **Impacting Wellbeing in Rural and Urban Communities: Education, Empowerment and Entrepreneurship leading to improved Human Nutrition**
Education Food, Nutrition and Empowerment (EFNE);
Education, Employment, Empowerment and Entrepreneurship (4E);
Cross-cutting projects are the **Mobile Teaching Kitchens** and the Innovation Farm model



In



MTK ACTIVITIES – INTERNATIONAL (MEXICO)



NNEdPro has collaborated with **Tecnológico de Monterrey** (Monterrey Institute of Technology), in Mexico to adapt the Mobile Teaching Kitchen Model in two cities: **Tlalpan and Xochimilco**



ADDRESSING INTERGENERATIONAL FOOD INEQUITY IN MARGINALISED POPULATIONS ACROSS ECONOMIC BORDERS... NOW IN USA & OVER 2023/24 IN UK

The NNEdPro MTKi Initiative in the United States

Empowering Food Education and Addressing Food Insecurity in the United States

In recent years, the NNEdPro and its MTKi (Mobile Teaching Kitchen International Initiative) have garnered recognition for the successful implementation of the Initiative in India and Mexico. This accomplishment was underscored by the 2022 Program Impact Award received from the Society of Nutrition Education and Behaviour in the USA. Buoyed by this achievement and with generous support from the Jampolis Family, the initiative has set its sights on expanding its efforts to combat food and nutrition insecurity in the United States, aligning with the 2022 White House initiative. Two micro-pilots are in progress in Washington, DC and New York City.



FROM INTERGENERATIONALLY MARGINALISED VICTIMS TO MTK CHAMPIONS WITH INTERNATIONAL COOKBOOKS EMPOWERING COMMUNITIES

THANK YOU

The MTK has been recognised through the University of Cambridge Vice Chancellor's Awards 2021, the Society for Nutrition Education and Behavior Awards 2022 and many more

We hope these will serve as inspiration that through intersectoral cooperation and interdisciplinary innovation models such as the MTK we can break the vicious cycle of poverty, food insecurity and subjugation to build more resilient populations

