

A complex recipe – why food is about more than what we eat: nutrition, power, and the environment

Conference Report
July 2016



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Executive Summary

A Complex Recipe, the inaugural conference of the Oxford India Centre for Sustainable Development (OICSD), was held on 12- 13th July 2016 at the University of Oxford. It was generously supported by our Development Partner, Tata Trusts, who provided hardship funding for participants from low and middle income countries, and funding for a secretariat to support action groups arising from the conference.

Two ideas inspired this conference: first, the urgent and interrelated global problems concerning nutrition and the environment; second, that the only way to reach long term and effective solutions to these problems is to include all the main voices in the global food system, bringing the notion of social power to the fore.

To effectively explore these ideas the event brought together unusual collaborators from academia, industry, government, and civil society in an interactive environment designed to break down the silos and preconceptions that can exist between different groups. The aim of the conference was to identify improved pathways to globally sustainable diets; pathways that are genuinely bold and inclusive, and workable at speed, at scale, and for the long term.

On the first day, following a keynote by Lord Bilimoria, panelists and delegates shared their own experiences of working within the food system at both community and macro-policy levels, including panel sessions on nutrition, power and the environment, and on public food systems. Discussions on specific challenges and opportunities raised during the panel sessions were shared at the tables to initiate ideas for the working groups in the second day. Discussion points included the linked concerns of hunger and obesity that increasingly affect different individuals within the same communities, different understandings of the environment, and the impact of globalised markets on shaping local demands. By the end of the first day, conference delegates identified a broad range of interrelated complexities within the food system ranging from education and inequality to the absence of political commitment, and climate-resilient agricultural practices. The day finished with a formal dinner held at Somerville College and a keynote address by the Chancellor of the University of Oxford, Lord Patten of Barnes.

The second day of the conference began with a special address by Indian High Commissioner H.E. Mr Navtej Sarna who spoke on Oxford and Somerville's historical ties with India, and was followed by a talk from P. Sainath who used the issue of water access to frame questions of social power within India. The morning also saw two panel discussions, the first discussing hidden hunger while the second explored the problems associated with overfishing, and the respective social and environmental impacts of different scales of fisheries. The second half of the second day was the most important part of the conference, as participants collaborated with each other to form action groups to take ideas forward from the conference.

The specific outputs that were achieved during the event were:

- a) Identifying key questions and challenges across different sectors in food, nutrition, and the environment.
- b) Forming ten cross-sectorial working groups from ideas generated during the conference that will be taken forward with secretariat support from the OICSD.
- c) A new network of practitioners, researchers, policy makers, and academics from different disciplines and sectors willing to forge shared pathways towards sustainable nutrition.

Day One

After a brief introductory address by **Dr Alfred Gathorne Hardy (Research Director, OICSD)** on the vision and objectives for the event; **Dr Alice Prochaska (Principal, Somerville College)** officially welcomed all guests and

'It was an intense two days of focussed thinking and stimulating discussions on the key issues around sustainable nutrition... The session on the second afternoon on the projects – that was special and brought it all together with a very tangible output.'

Ms Richa Arora – Chief Operating Officer,
Tata Chemicals

participants to the conference. She spoke about the longstanding ties of the University of Oxford and Somerville College with India. She extended her thanks for the funding and support provided by the Government of India to establish the Oxford India Centre for Sustainable Development and support five Indira Gandhi Scholars. The OICSD provides support for outstanding Indian graduate students, produces interdisciplinary research on sustainable development and acts as a hub to bring different sectors and disciplines together to tackle

environmental and health issues in India. Dr Prochaska also thanked the conference development partner Tata Trusts, the Ernest Cook Trust, Somerville College, and the University of Oxford for their support for the conference.

Lord Karan Bilimoria of Chelsea CBE DL (OICSD Implementation Committee), in an opening keynote speech, spoke about the initial journey of the OICSD and the collaborative work done by the University of Oxford and Government of India to support exceptional individuals before discussing the complex relationships between food systems and nutrition that govern the family and society at large. He recounted his own experiences of setting up Cobra Beer and the multiple challenges he faced during this entrepreneurial venture, and stressed on the importance of profit-making enterprises to focus on sustainable community initiatives around food and nutrition. Lord Bilimoria concluded by drawing upon an African proverb: 'If you want to go quickly, go alone. If you want to go far, go together'.



Introduction: Why food is about more than what we eat

Ms Shireen Vakil (Head, Policy and Advocacy Unit; Tata Trusts)

Ms Vakil spoke of the importance of education and the empowerment of women as drivers towards better nutrition outcomes, citing the lack of informed choices due to the high rates of illiteracy in women in rural India, referring to the [World Health Report \(2013\)](#)¹.

'We all have the responsibility and ability to do something on the issue of nutrition.'
Ms Shireen Vakil

Discussing her field experiences in Jharkhand and Karnataka in India where Tata Trusts have been working with local tribal communities in agriculture, crop diversification, and non-farm livelihoods, to increase income levels, she identified the role of collective women empowerment through self-help groups to raise their awareness about financial inclusion and better health and nutrition outcomes. She spoke about the need to strengthen the service delivery with better implementation, adequate funding, and data-driven decision making.

In her conclusion, Ms Vakil pointed to three major areas of deliberation and discussion that can aid the collective process to better the nutritional status of children and women:

- i) High political commitment and an informed and engaged public discourse on nutrition in India.
- ii) Data to be collected, monitored, and analysed at the highest decision-making levels of the federal and state governments in India to drive specific policy decisions. Informed choices for nutrition have to be developed through a language that can be understood by all via public discourse, and through effective use of media.
- iii) The adequate involvement of the business and private sector to develop the requisite products, knowledge, and work in partnership with the government to combat issues in nutrition.

Prof Alex Rogers (Director, OICSD)

Prof Rogers discussed the role of marine fish in sustainable food systems and the blue economy as well as wider interactions between development and the environment. He showed videos from his recent cruises of deep-sea hydrothermal vents and the unique species living there – followed by photographs of machines heading out to mine them for precious metals.

'Biodiversity is majorly under-researched and has no voice in the sustainable development framework.'
Prof Alex Rogers

Based on his research work, and the recently published [Fisheries and Agricultural Report \(2014\)](#)² by the Food & Agriculture Organization (FAO), he demonstrated how the global fish stock – which stood at 130m tonnes in 1990 – has since depleted at an

alarming rate of 1.22m tonnes every year due to poor management. He illustrated the Indian experience and spoke about the dramatic fall in fish catch per unit effort since 1950, and stagnation or decline in total catch since 2000.

¹ http://apps.who.int/iris/bitstream/10665/84409/1/9789241505550_eng.pdf

² <http://www.fao.org/3/a-i3720e.pdf>

Prof Rogers proposed that the introduction of spatial management and regulation of large industrial fishing fleets, with an objective of protecting the fragile marine ecosystem, could be one step towards ensuring food and nutrition needs across the world are not at odds with sustainable fishing.

Dr Alfred Gathorne-Hardy (Research Director, OICSD)

Dr Gathorne-Hardy spoke about the purpose of this event – to bring individuals interested in nutrition, power and the environment together to identify pathways toward sustainable nutrition. He suggested the failure to reach sustainable nutrition in the past is due to blinkered thinking and the lack of engagement between sectors/disciplines.

Urging us to challenge our own preconceptions, he pointed out our views of fundamental concepts such as hunger have changed over time; in the 18th and 19th centuries hunger was perceived as a useful tool to teach the poor the value of work; later, building on the teachings of Thomas Malthus, hunger and famine were

‘We need to understand ecology and environment because our existence is dependent on them’.

Dr Alfred Gathorne-Hardy

understood as an "effective mechanism for reducing surplus population"; until eradicating hunger became a rights-based issue in the post-war period. Today we see an increasing utilitarian justification for eradicating hunger – that it will benefit growth – which could negatively influence of the rights-based approach. He asked about where we should look for solutions – private and civil society sectors have often been at the vanguard of sustainable nutrition, yet neither groups have the democratic mandates given to governments.

Discussing the environment, he pointed out that agriculture dominates global environmental change due to its enormous footprint, but again he suggested we should question our perceptions: for example while we know that modern agricultural methods are driving massive environmental damage now, large-scale extinctions and environmental catastrophes have been associated with human food systems from the spread of humans into Australia and the New World 40-15k years ago, to soil erosion in the Roman Empire. He concluded that nutrition, power and the environment are fundamentally interlinked, and that sustainable progress on any of these issues will be ineffectual unless we listen to, and engage with, individuals and groups from all parts of society.

The workshop process

In order to effectively explore and engage with the complex ideas raised in the conference, sessions were led by facilitators, **Tim Morley** and **Zuhura Plummer**. Conference delegates introduced themselves and discussed their work, interests, and ideas through use of drawings, flipcharts, and conversation. Feedback after the event made it clear that these workshop activities were key to the energy and excitement of the event, as well as helping diverse individuals to appreciate what they had in common, to see each other as individuals and to recognise they shared a common goal of sustainable nutrition.



Nutrition, power and the environment

Dr Prakash Shetty (Professor and Chief Executive of DFID's Research Program led by M.S Swaminathan Research Foundation, Chennai, India)

A senior expert in public health nutrition, **Dr Shetty** detailed the complexities involved in nutrition planning for developing countries, especially India, to tackle transitions in the food system. He pointed out that although the majority Indian habitual diet is vegetarian, economic access remains an essential question regarding consumption of animal protein.

Dr Shetty further illustrated the other end of the spectrum where both developing nations and many developed nations are facing the challenges of obesity. A substantial shift in food systems, owing to demographic and epidemiological transitions has introduced the 'nutrient transition'. Dr Shetty suggested aspects of economic globalization are partly responsible for these emerging complexities. For instance, a change in occupational activities in the past two decades has reduced average physical activity. Constructing a multi-story apartment is preferred over a keeping a playground intact, leading to a lack of physical activity. He ended his talk by posing significant statistical questions on the costs of nutrition, both of under-nutrition and over-nutrition, and their eventual health consequences for countries around the world.

Prof Tim Lang (Director and Professor, Centre for Food Policy, City University London)



In his address, **Prof Lang** singled out one particular phenomenon that has shaped the dynamics of the food system in relation to health, environment, economy, and culture. The phenomenon of power in its fluid forms, he explained, has historically been a critical factor across nations, colonies, and states. Prof Lang explored the various dimensions of the 'power of greed' which created our current food system. This was most notable, he argued, in the twentieth century, which saw a sharp transition in food systems, with divisive power relationships between the rich and the poor owing to the unparalleled global growth in wealth. The middle classes, with their increasing consumerism, caused immense destruction to the ecosystem. He added that the history of food can be understood by understanding the state and its economic power structure. For instance, both publicly-funded and private multinational food companies are involved in producing processed food. In addition, he pointed out how we experience corporate power today

and its manifold super-marketisation, leading to unequal distribution that squeezes the poor.

Third, he presented an emerging dimension of power that we are now witnessing: people power. According to him this has led to the formation of a powerful agency created through revolts and agitations, historically for land ownership and land rights, representing the voices of the poor and marginalised. He ended his address by speaking about the launch of the Urban Food Policy Pact,³ signed by 100 world cities to create collaborative efforts towards a better sustainable food system.

*'Power decides who gets what to eat
and when in today's world.'*
Prof Tim Lang

³ <http://www.milanurbanfoodpolicypact.org>

Dr Tara Garnett (Food Climate Research Network, University of Oxford)

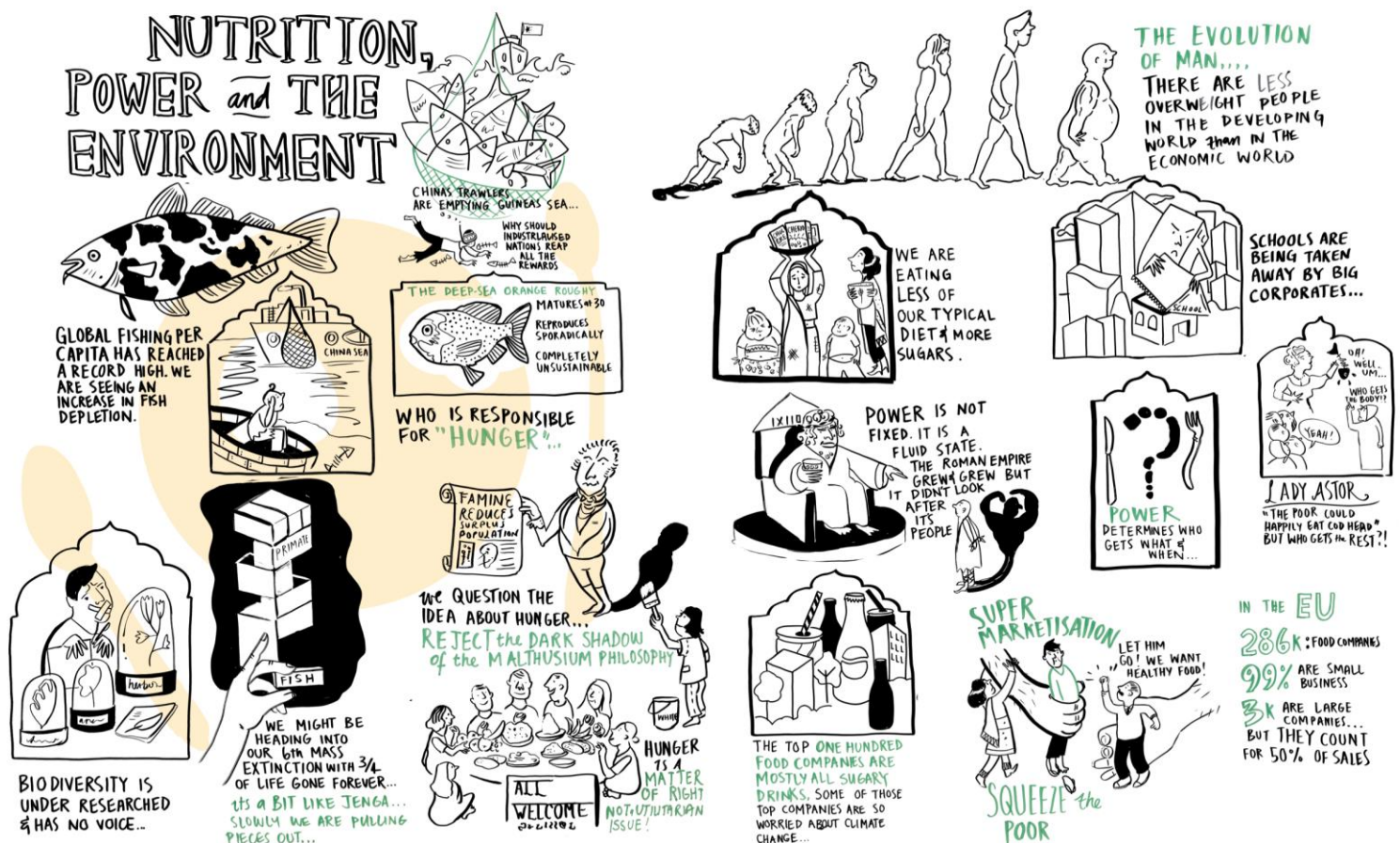
Dr Garnett introduced her talk comparing plates of food from rich and poor consumers. She pointed out that the traditional Indian plate of chapatti, daal (lentils), vegetables, and rice is nutritionally rich, in contrast to some examples of Western high-fat, high-sugar and high-salt plates.

She pointed to the alarming rise of greenhouse gas emissions due to changes in the food system – critically including increased consumption of meat – as well as the massive increase in production and use of nitrogen fertilisers. According to Dr Garnett, the commitments made by nations at the UN Paris Climate Change Conference 2015 to reduce greenhouse gas emissions globally can be only be met if policymakers take concrete steps to reduce the greenhouse gas emissions from food.

'40% of global greenhouse gas emissions are food-related.'

Dr Tara Garnett

After this enlightening session, the guests and delegates had the opportunity to share case studies, research, and perspectives with each other at their tables.



Case Study 1: Public Food Systems

The 'Public Food Systems' panel addressed the multiple complexities that surround public food systems across the world, including India's public distribution system (PDS) and Europe's Common Agricultural Policy (CAP) as well as research from Brazil.

Prof Madhura Swaminathan (Indian Statistical Institute)

Prof Swaminathan described the recently implemented National Food Security Act (NFSA) in India and spoke of the need to strengthen the implementation modalities within the public distribution system of food. The Public Distribution System (PDS) is the backbone of India's food provision to the poor. In 2013, the National Food Security Act was brought in, framing food in the rights-based framework. 731m people in India are covered under the PDS through a huge network of 0.5m PDS shops distributing about 51m tonnes of rice and wheat. Prof Swaminathan drew attention to three major issues:

i) Is the PDS affordable?

360m people in India are suffering from malnutrition. Two thirds of the population, approximately 800m people, in India are food-insecure as per National Food Security Act guidelines. For comparison, China defines families which spend more than 50% of their household expenditure on food as food-insecure: in India, this equates to around 854m people. Yet India's expenditure on the PDS is below 1% of its GDP.

ii) Are Cash Transfers the way forward for the Public Distribution System?

The price stability of the grain market in India is due to the PDS and while leakages do occur, these are minimal (less than 2%). Prof Swaminathan argued that the PDS is a sustaining platform for the poor that makes food grains available at an affordable price. She suggested that cash transfers, despite their efficiency, will fail to account for the inflation that could render the money inadequate for a household's normal monthly provision.



iii) System of Procurement and Distribution by the Food Corporation of India

Prof Swaminathan critiqued the dominant idea of devolving the existing procurement and distribution of food grains through the PDS. She referred to the inconsistent price change, inflation, and the volatility in global food production as the key drivers that can affect the food sovereignty of 863m Indians.

Dr Alok Ranjan (Bill and Melinda Gates Foundation)

Dr Ranjan shared field-level insights about the work done by the Bill and Melinda Gates Foundation in the remote districts of Uttar Pradesh and Bihar. He noted that for every thousand people at the village level, there are three trained community-level resource persons supervising nutrition and health conditions of women and children. He also emphasized that the existing policies in nutrition and health in India are evidence-based, supplementing the existing supply-side measures like the Integrated Child Development Services (ICDS) and Mid-Day Meal programmes, and focusing adequately on nutrition. Yet the prevalence of undernutrition, stunting, and malnutrition, according to Dr Ranjan, is very much due to three reasons at the community level:

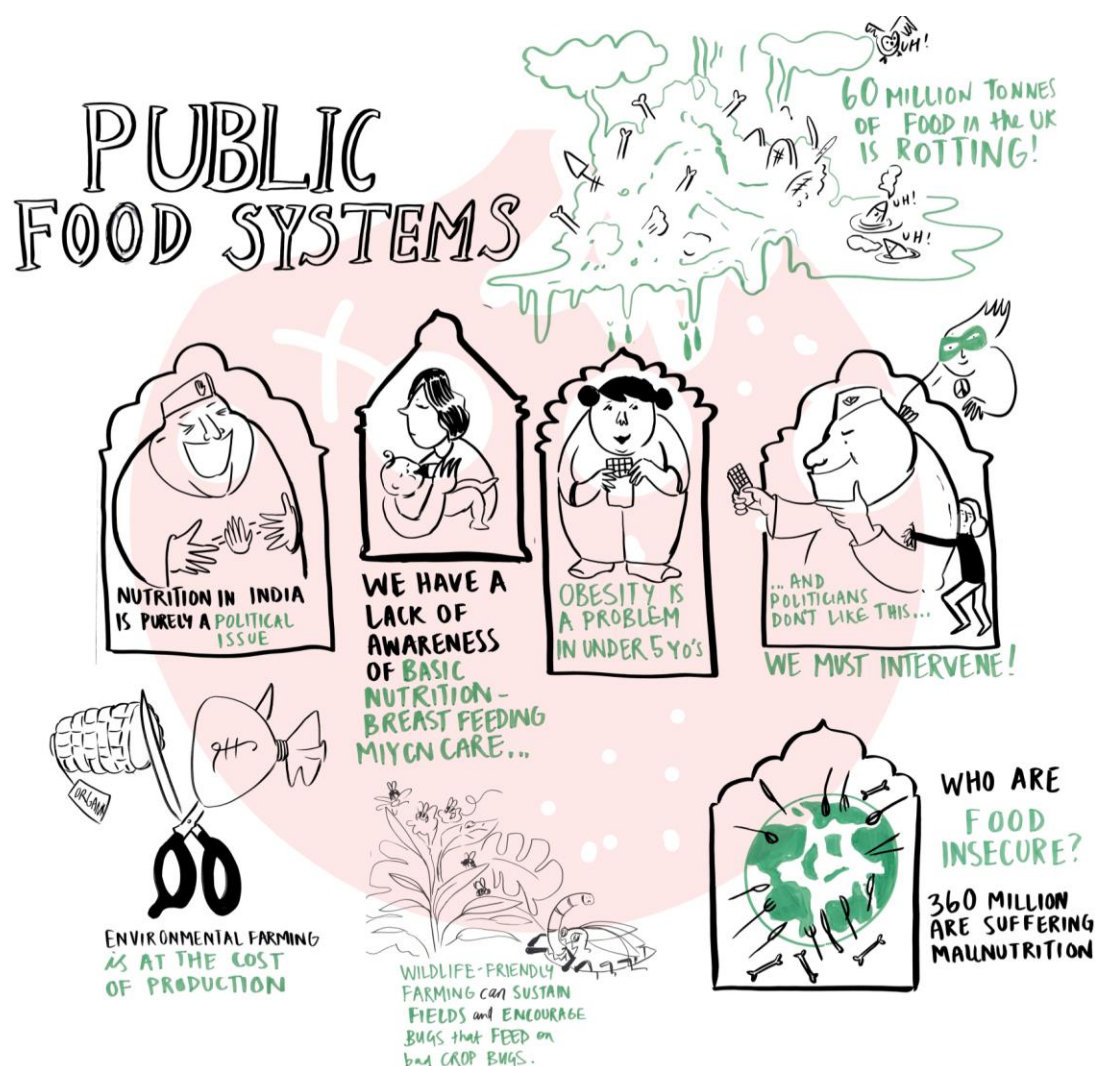
i) Lack of awareness amongst communities.

- ii) Lack of skills of the service providers - the frontline workers at the community level.
- iii) Lack of prioritisation of services in prevention of undernutrition (maternal and child)

He suggested we should consider the missed opportunities in improving nutrition outcomes through improving antenatal care, breastfeeding, and strengthening information awareness campaigns.

Prof Andrés Mejía Acosta (International Development Institute, King's College London)

Prof Acosta spoke about the politics around managing food systems and nutrition, and how specific interest groups navigate through this complex recipe to bring about desired policy changes. He spoke about two paradoxes related to malnutrition and hunger, and their relationship with economic growth. Prof Acosta drew a comparative assessment between India and Brazil focusing on the economic growth sustained by the two nations and their overall financial outlay on health and nutrition. Economic crisis, he argued, is not the only factor towards malnutrition: nutrition in India is a political issue. He questioned the causal links between malnutrition and distribution of resources and economic growth, and expressed hopes that interest groups including academics, activists, and NGOs would lobby harder to increase political commitments towards hunger reduction. He drew upon Brazil's lessons in achieving stable health and nutrition indicators and expressed the hope that numerous small successful models in nutrition governance may be implemented across critical areas in India.



Prof
Jam

es Bullock (Centre for Ecology and Sociology, Natural Environment Research Council)

Prof Bullock spoke about the Common Agricultural Policy (CAP) of the EU and how parts of it promote sustainable practices amongst farmers. Building on [his recent research](#)⁴, he questioned the notion that there are always trade-offs between agriculture and the environment – he demonstrated that you can substantially improve on-farm biodiversity without reducing yield, potentially through the encouragement of beneficial insects such as pollinators and predators.

The Chair, **Lord Deben**, former Environment Secretary and agricultural minister and now Chair of the UK government's Climate Change Committee, commented on the discussion from a political perspective, pointing out the difficulties of removing subsidies once they are in place. He also pointed out how little overlap there was between the discussions on food and those on the environment.

Starting to act

The facilitative discussions and the presentations on Day 1 were captured through numerous post-it notes on a 'Challenges/Opportunities' wall and a graphic illustration of the conversations and presentations that took place throughout the day by Josie Willey.

The abundant challenges and opportunities that the participants presented were further grouped into some common themes of environment, gender, youth, corporate power, government policy, what we eat, health, data, research, and evidence.

The first day of the conference ended with a talk from Will Hutton, Principal of Hertford College, journalist and author of *The State We're In*, who discussed the complexities of power and food in both the UK and the world. He suggested that we need to re-frame both how we see the problem, and - recognizing the realities of the 21st century - how we see the solutions.



⁴ Pywell, R.F., Heard, M.S., Woodcock, B.A., Hinsley, S., Ridding, L., Nowakowski, M., Bullock, J.M., (2015) Wildlife-friendly farming increases crop yield: evidence for ecological intensification, Proc. R. Soc. B. The Royal Society, p. 20151740.

Day Two

His Excellency Mr Navtej Sarna (High Commissioner of India to the United Kingdom)

H.E. Mr Sarna opened the second day of the conference. His Excellency spoke about the need for education towards better nutrition standards in the country. He also reiterated that ‘without the eradication of poverty, sustainable development will become a meaningless slogan’, that better health systems cannot be achieved without modern infrastructure and technology, and that it is possible only through a sustainable economic growth.

‘Whatever we do we must have growth and it has to be sustainable. It cannot be at the cost of the environment.’

H.E. Mr Navtej Sarna

Perspectives from Rural India: Poverty, Food, Water and Agriculture

Mr. P. Sainath (Journalist and Founding Editor (Peoples Archive of Rural India (PARI))

Mr Sainath explored the issues of inequality through the lens of water. He noted that India has the fastest rate of inequality growth (between 2000 and 2016) in the world, so that the top 1% of the population now own around 53% of India’s wealth.

‘Water gives you a tremendous reflection on how social inequality in India is bred.’

P. Sainath

He spoke about the inequality of access to water, showing swimming pools in luxury high-rise buildings while rural women walk miles to collect scarce potable water. He then pointed out how poor families

have to pay substantially more for their essential drinking water than industrial units creating luxury products such as beer. He also drew attention to the caste exploitation faced by Dalits and other lower-caste women while collecting water from wells and tankers. He concluded by expressing hope that the political class and lawmakers will consider a just implementation of the directive principles enshrined in the Indian constitution, enabling a rights-based framework as a welfare state.



Case Study 2: A Boundless Sea?

Prof Alex Rogers chaired the session titled ‘A Boundless Sea?’ which invited four experts to the marine ecosystem. These speakers initiated a dialogue on the economics of fishing, fish consumption, and long term sustainability.



Dr Rashid Sumaila (Institute for the Oceans and Fisheries, Columbia)

Dr Sumaila, an expert practitioner in the field of Oceans and Fisheries Economics, told the audience that 120m tonnes of fish is harvested annually across the world and that the fishing industry generates around 260m jobs globally. Dr Rashid noted the fact that every policy discussion about the economics of sustainable fisheries has a direct impact on these millions of workers, especially in the coastal areas of developing nations. He then compared the large- and small-scale fishing sectors, showing that the bulk of subsidies went to large boats, while the majority of jobs were in the small boat sector. Addressing issues of marine deep-sea biodiversity, Dr Rashid discussed the artificial distinctions between the state-governed coastlines and the stateless high seas – which is not recognized by marine life (especially fish), and raised the suggestion that high seas fishing should be banned.

Dr Al Harris (Blue Ventures)

Dr Harris, a practitioner in marine conservation, built on Dr Rashid’s insights about the soaring global demand for sea food and the competitive forces involved in increasing the supply. He raised the alarming exploitation of the global fish stocks, drawing from his fifteen years of experience in Madagascar and its traditional small scale fisheries. He stated that over 97% of those involved in capture fishing live in the developing world and an overwhelming majority of them operate in small-scale fishing initiatives.

With illustrations from Blue Ventures’ work in Madagascar, he pointed out how despite the stark numbers, these traditional small scale fisheries, catering to the local demands of a poor populace, are seldom included in the global policy and decision making processes. Instead, with minimal technological access and subsidies, they are pushed to compete with the industrial fisheries. One consequence is that these small-scale and sustainable fishing communities are having to push the boundaries of seasons and safety to achieve adequate livelihoods. He finished by speaking about Blue Ventures’ initiative to secure access rights for small scale fisheries and the positive outcomes of these efforts.

‘Sea food is often a matter of choice in the palate of developed nations, whereas fish constitutes the sole source of animal protein in the majority of poorer developing nation communities’ Dr Al Harris

Mr Will McCallum (Greenpeace)

Mr McCallum brought his experience of being involved in international environmental advocacy campaigns at Greenpeace. Each environmental advocacy campaign led by Greenpeace is designed around a specific

objective: 'Changing Mindsets' of concerned stakeholders. He spoke about the need to interrogate the position of power within the fisheries network between large-scale and small-scale enterprises. He spoke about Greenpeace's ongoing campaigns to challenge the large-scale profit driven commercial fisheries at supermarkets, exhibition centres, and other commercial sites.

Dr David Agnew (Marine Stewardship Council)

Dr Agnew discussed the core arguments concerning the interface between large-scale and small-scale fisheries put forth by previous panellists, suggesting the 'small is good and large is bad' perspective is a false dichotomy. He further stressed that enabling small-scale fishermen to access new forms of technology and ensuring equitable distribution of catch by the large-scale fisheries can be an interventional step towards establishing a common interface between these parties.



Case Study 3: Hidden Hunger in Context

Chair: Seema Bansal (Boston Consulting Group, New Delhi Office)

Ms Seema Bansal, an expert consultant working with Boston Consulting Group's Social Sector Practice department chaired the session titled 'Hidden Hunger in Context', inviting four speakers across the fields of civil society organizations and corporate bodies. She set the tone of the session by posing questions around how social power in its myriad forms interferes in issues around hunger and nutrition, and how it can be further leveraged to address challenges of food security. The four speakers were **Ms Neena Shah More (Programme Director of SNEHA)**, **Ms Richa Arora (COO of Consumer Business, Tata Chemicals Ltd.)**, **Dr Ranjan Sankar (Director, The India Nutrition Initiative, Tata Trusts)**, and **Dr Barbara Smith (The Centre for Agroecology, Water and Resilience)**.

Ms Shah More was unable to attend the event. For technical reasons, some of her points were made by Dr Alfred Gathorne-Hardy who has been in conversations with her in the weeks leading up to the event.

He spoke about her work for 20 years in Mumbai's informal settlements. She had asked questions about people's behaviour on the ground, before discussing the practical problems of working in slums. For example why do Mumbai's slum-dwelling children often spend more than 30 rupees on sweets from neighbourhood shops - a large sum of money on nutritionally poor foods. These foods are available on every corner, and industry-led micro-marketing campaigns are very successful, promoting packaged foods as healthy, as clean, and of high social status. She raised the issue of toilets, and why women won't use them even when they are available. Through a local survey they'd found that the public toilets were avoided because of abusive men loitering in the area, showing how the health and sanitation issues associated with toilets are intricately related to the wider power and safety issues in the community.

With respect to practical problems in the slum, she described how SNEHA needed to develop new methods of taking even basic measurements such as height, on the uneven floors of the slum. Furthermore she had described the 'problem of the pencil' - the impact of local political pressure on the data SNEHA was collecting. They found that the notes taken in the field were doctored to reduce the scale of malnutrition, both abusing trust and questioning the quality of data that many academics and other organisations rely on.



Ms Richa Arora (Tata Chemicals)

Ms Arora's mapped the history of Tata Chemicals, its launch of iodized Tata salt and how it went ahead to address successfully India's widespread micronutrient iodine deficiency. This historical mapping of this nutrient fortification program, with the example of India's Kangra valley and Goitre crisis, denoted two significant lessons learnt. First, the power in incorporating multi-stakeholder research into policy decision-making and second, the necessary legislative steps to ensure its implementation at all levels. She further spoke about the ongoing research and market-driven initiatives of Tata Chemicals in multiple micronutrient fortified products and its essential implication.

She ended the session by proposing a possible way forward for Public Private Partnership (PPP), especially in the context where the corporate sector is now eagerly working towards sustainable growth. In her opinion, the corporate sector has now come to foresee the future profitability in ensuring sustainable ways of growth.

Dr Sankar (The India Nutrition Initiative)

Dr Sankar brought to the panel a critical overview of the challenges that policy makers face in the area of ensuring micronutrient fortification. Micronutrients are minerals and vitamins which the human body cannot produce on its own, and hence need to be consumed in food. Micronutrient deficiencies are numerically the single most widespread nutritional disorder in the Indian populace. Part of the answer, Dr Sankar argued, lies in a combination of food fortification, backed by effective legislative measures, planned market initiatives, and state distribution programs. He noted that fortification is not a new policy to India; on the contrary, India's national iodization program dates back to 1912. However, he cautioned that we should not see market driven fortification of products as a panacea as many of these products fail to reach the marginalized population.

Dr Barbara Smith (The Centre for Agroecology, Water and Resilience CAWR)

Dr Smith spoke about her work researching pollinators in Tripura and Orissa in Eastern India. She raised concerns about the global decline in pollinators, as pollinators have a critical and neglected role in maintaining food supply, and potentially improving the nutritional status of different foods. She also raised questions on how wider ecological diversification can contribute to sustainable, nutritious, food. She stressed on the need to promote a multi-sector approach involving local farms and existing knowledge systems towards achieving sustainable nutrition.



Soapboxes

A major contributing factor that enriched the nuanced discussions were the 'Soapbox' presentations that were made throughout the conference. Inspired by London's Speaker's Corner, slots were available throughout the event to allow participants to speak. They could provide their own thoughts and perspectives on any critical aspects of the debate they felt hadn't been sufficiently discussed. The variety of speeches was fascinating, and the speakers were strictly limited to ninety seconds each.

Ideation

After each panel and speaker participants were invited to write thoughts, ideas, and actions on post-it notes. These were clustered and helped create themes for the action groups later in the day. They were also an important source of sharing points of view, and capturing ideas.



Reflections

Jairam Ramesh (Member of Parliament, Andhra Pradesh and Former Union Rural Development and Environment Minister, Government of India)

Mr Ramesh expressed his pleasure at being invited to Somerville College and spoke about the inception of the OICSD, before discussing the lessons learnt over the two days. Mr Ramesh noted that 'India's performance [in nutrition] does not match its economic performance'. He also stressed the necessity to improve the use of data in nutrition governance and evaluation of government schemes like ICDS and Mid-Day Meal. He also referred to Angus Deaton and Jean Dreze's⁵ work on data in nutrition and remarked that India's economic growth rate of nearly 7% is not commensurate with the nutrition outcomes in the country. He discussed the interaction between sanitation and malnutrition, stunting, and wasting, pointing to the numerous studies globally which have attributed open defecation as one of the major causal links. He reminded the delegates about the success story of iodized salt to tackle goitre in the Himalayan Mountains. On power, Mr. Ramesh argued that inequality is at the heart of the nutrition debate and that unless the inherent reasons of inequality are addressed, it will be difficult to tackle the issue of nutrition.



Finally, on the environment, the central policy challenge according to Mr Ramesh is climate change and its increasing influence on agricultural practices. He argued strongly for climate-resilient agricultural practices that can adapt to the changing patterns of water resources and climate. He hoped that the OICSD will leverage the use of technology and pioneer research in developing innovative technology aided food delivery services to the population. He called for a special drive to include biotechnology and genetic engineering projects within the Centre's work.

He concluded by expressing hopes that proper evidence-based policy design, other case studies, mid-term evaluation, and concurrent evaluation can act as key factors towards creating a good quality, data-driven policy in sustainable nutrition.

⁵ <http://www.epw.in/journal/2009/07/special-articles/food-and-nutrition-india-facts-and-interpretations.html>

The formation of the working groups

During the afternoon session of the 2nd day delegates were given the opportunity to propose core questions or themes, and participants could vote with their feet to develop these ideas with further discussion and collaboration. The major objectives of the session were to develop the ideas, problems and complexities that were shared by speakers and delegates in the two days into tangible action plans. All working action groups that were formed discussed in detail their core ideas and presented them to the audience who also provided specific inputs and suggestions. The OICSD will be following up with the working groups through secretariat assistance provided by Tata Trusts, aiming to use these as a base for the proposed follow-up event in India, Spring 2017.



Working groups

Working Group 1 – Women as key stakeholders

Though women are key providers and growers of food, they (and their children) remain malnourished. They have little voice or decision-making powers in matters affecting their own health and well-being. The challenge is to give women a greater voice in matters related to their and their families' nutrition, health, and well-being, and enable them to participate fully in decisions on a range of issues related to sustainable development. The working group members envisaged working with women's self-help groups and collectives in three Indian states through capacity-building initiatives, and later scaling-up based on the impact.



Working Group 2 – Increasing plant-sourced proteins in diets to improve nutrition

This working group looks to examine the addition of plant-sourced protein to diets of protein-deficient people (poor, young, old, and women) and helping to reduce the difference between the severely deficient (poor) and the marginally deficient (middle class) in India. The members want to identify the appropriate food system actors to ensure involvement of key actors in the food policy space as needed.

Working Group 3 – Creating the solidarity economy

This working group aims to understand power deficits, inequality, and gender-justice, as well as tackling the poverty of innovation in Indian business and agricultural models. They will create a participative research project aimed at identify institutional design features to transform power structures and relationships in the food system. The members want to study the Kudumbshree Women's Movement in Kerala and its role in agri-systems through organic and low-impact agriculture.



Working Group 4 – Strategic use of data in effective policy making in nutrition

This working group highlights the strategy gap in the integration of data management to harnessing sustainable nutrition solutions in India. This gap could be plugged through a multi-stakeholder collaboration with Niti Aayog (Government of India) who can use the multi-sectoral data to monitor, analyse, and communicate progress and challenges to inform decision-making at the highest levels.

Working Group 5 –Spatial mapping of environment-human health linkages

This working group aims to examine the lack of multi-sectoral and spatially-relevant approaches to environmental and nutritional health in India through collection and collation of relevant datasets to enable spatial mapping analysis. This can enable district and state level policy makers and implementers to improve multi-sectoral responses in environment, health, and agriculture.



Working Group 6 –Biodiversity and feeding people: expanding environmental issues entwined with nutrition and health

This working group envisages a potential write-shop that connects existing experts to map the strategic and technical challenges of understanding the role of biodiversity in food production, nutrition, and the links between food systems and biodiversity conservations.

Working Group 7–Project Fish: India

This working group will explore the role of fish (wild capture and aquaculture) in addressing issues of nutrition, social development, and environmental regulations in India towards developing a sustainable plan for the fishing communities and industry there.



Working Group 8–Harnessing mobile technologies in effectively aiding nutrition services

This group envisages integrated mobile-based data platforms and spatial mapping to raise concerns and challenges into the nutrition network.

Close

Dr Alfred Gathorne-Hardy delivered the vote of thanks after summarising the key outputs achieved over the two days of the inaugural conference of the OICSD. He thanked the conference development partner, the Tata Trusts, for extending their support and assistance. Dr Gathorne-Hardy also expressed his gratitude to all the speakers and presenters for their diverse presentations that shaped the conference. He expressed his hope that the working groups formed over the duration of conference will develop new ideas to create a framework towards a sustainable nutrition agenda in India, and around the world.

A Complex Recipe: environmental footprint

Face-to-face meetings are vital to progress complex problems. However, they also produce substantial environmental impacts. The OICSD aimed to limit the conference's environmental impacts through offering largely vegetable-protein based meals, and mitigated carbon emissions through investing in biochar research in India. This research will restrict unnecessary field-burning of crop residues, improve soil- water and soil-nutrient retention, improve crop yields and mitigate climate change through increasing soil carbon storage.