

SUSTAINABLE DEVELOPMENT GOALS

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SDG 2: End hunger, achieve food security and improved nutrition and promote sustainable agriculture

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Hunger and Development

Hunger has been a core issue for ‘development’ since the early colonial era when keeping populations fed—both ‘at home’ (e.g. Ireland) and in ‘the peripheries’ (e.g. India)—proved a major governance challenge (Nally, 2011). The focus then and arguably ever since was on the quantity of food available, specifically the amount produced by agriculture. During the colonial era and post-World War period, modernising agricultural production thus became a dominant development objective, based on the belief that it would not only reduce hunger among smallholders, but would reduce hunger among other (ex-smallholder) households by contributing to economic growth, household incomes and purchasing power. It has increasingly become apparent, however, that this approach is far from sufficient or necessarily helpful, and that hunger remains a major unresolved problem. It is largely in response to the persistence of hunger, and growing recognition that unmitigated economic growth generates as well as ameliorates problems, that the concept of ‘international development’ arose in the post-war period.

At the outset, international development had a strong focus on high income countries providing ‘food aid’ to low income countries suffering from famine. While ongoing, this too has been roundly critiqued as insufficient and in denial of the root causes of famine. Relatedly, the environmental costs of modernising agricultural production have also become increasingly apparent. It was in response to these issues that the concept of sustainable development arose in the 1980s, enshrined in the Brundtland Report of 1984. Since then, sustainable development has become a mainstream paradigm in many arenas. In parallel, international development has continued as a special mechanism for trying to ameliorate the gap between rich and poor, such as through the 2000-2015 Millennium Development Goals (MDGs) that aimed to reduce extreme poverty. These efforts to make economic development more sustainable and to reduce extreme poverty through special assistance measures have both proven largely unsuccessful. Agriculture and the broader food system has become more resource-intensive and polluting than ever, and in the midst of escalating food production, an estimated third of the world population continues to suffer from malnutrition. The upshot is that a more systemic, transformational change is needed. It is for this reason that the UN launched a new agenda in 2015: *Transforming Our World: the 2030 Agenda for Sustainable Development*.

Food in the 2030 Agenda for Sustainable Development

The 2030 Agenda is based on 17 Sustainable Development Goals (SDGs) designed to link disparate efforts and issues, including poverty reduction, into a framework of genuinely sustainable development. Defining sustainable development as the holistic achievement of economic development, social inclusion, and environmental sustainability, the new agenda adds vital considerations such as economic inequality,

justice, gender, and climate change.

Given their broader remit, the SDGs require and acknowledge the need for a more systemic approach to transformation. This includes working across the separate goals. SDG 1 aims to end poverty in all its forms and represents a foundation for the whole 2030 Agenda. Eliminating poverty is also contingent on and an enabler of the other SDGs, especially SDG2: Zero Hunger. The UN emphasises that, 'Extreme poverty and hunger are predominantly rural, with smallholder farmers and their families making up a very significant proportion of the poor and hungry. Thus, eradicating poverty and hunger are integrally linked to boosting food production, agricultural productivity and rural incomes' (UN, 2018a).

The specific aims of SDG2 are to 'end hunger, achieve food security and improved nutrition and promote sustainable agriculture' by 2030. 'Achieving food security' is substantially more ambitious than 'ending hunger'. The UN defines food security as when 'all people, at all times, have physical, social, and economic access to sufficient, safe, and nutritious food that meets their food preferences and dietary needs for an active and healthy life.' It directs attention from the biological and near-term concerns of 'ending hunger' to the complexity of food and the issue of continual access to good food.

Conceptualising SDG2 through the food system

The global food system refers to the myriad of resources, spaces, actors, relations, practices, logics and institutions involved in growing, using and disposing of human food. It is often discussed as four or so sequential functions (e.g. the blue arrow in Figure 1), each of which is crucial to various goals, including healthy diets. We look at each stage in the food system now in turn.

Food Production

The most well-known element of food production is agriculture.¹ Questions around agriculture include what is grown, where, how, by whom, why and to what effect. SDG Target 2.3 aims to 'double the agricultural productivity and incomes of small-scale food producers, in particular women, indigenous peoples, family farmers, pastoralists and fishers, including through secure and equal access to land, other productive resources and inputs, knowledge, financial services, markets and opportunities for value addition and non-farm employment,' all by 2030. Doubling productivity means paying attention to the resources needed for food production, which are all under growing pressure.

A key resource is agricultural land, which is appropriated increasingly for urbanisation and extractive industries, or redirected from food to energy production and terrestrial carbon sequestration. How to 'sustainably intensify' food production without using more resources is a major area of research and experimentation. Who owns and occupies farm land and has the right to farm is an increasingly prominent issue. Agribusiness, food retailers, financiers and other corporates are increasingly intimately involved in agricultural production, with impacts on land ownership, accessibility, rural communities and social justice. In some places, reductions in the number of people working in agriculture is the outcome of deliberate policies (structural adjustment), while in other places labour shortages are a major limitation on production. In low income countries, women make up a greater proportion of the actively farming population as men disproportionately leave to take on other work. Shifting smallholders out of agriculture, and commercialising subsistence agriculture by linking it to markets, have long been advocated by some as a way to increase household income and financial access to other nutritional sources. Critics, however, argue that this can increase households' vulnerability to hunger.

Agricultural paradigms and approaches differ greatly (e.g. highly specialised, input intensive, low labour farms v highly diverse, low input, high labour farms) and are the subject of fierce debate, especially in the international development arena (Sumberg and Thompson, 2012). The FAO's Climate Smart Agriculture framework, which calls for farming systems that are more productive, less greenhouse gas intensive, and more climate resilient, is arguably encouraging some convergence on the importance of an

¹ Fisheries are also part of SDG2 and pose serious challenges given both the ongoing collapse of global fish stocks due to overfishing and ocean pollution and acidification, and the vulnerability of coastal communities to climate change.

agro-ecological approach, though others argue it is being appropriated by big agribusiness (Taylor, 2018; Chandra et al., 2018). Climate change threatens the reliability of food supplies over both the short- and long-term, as well as the quality, safety, edibility and nutritional value of the food produced.

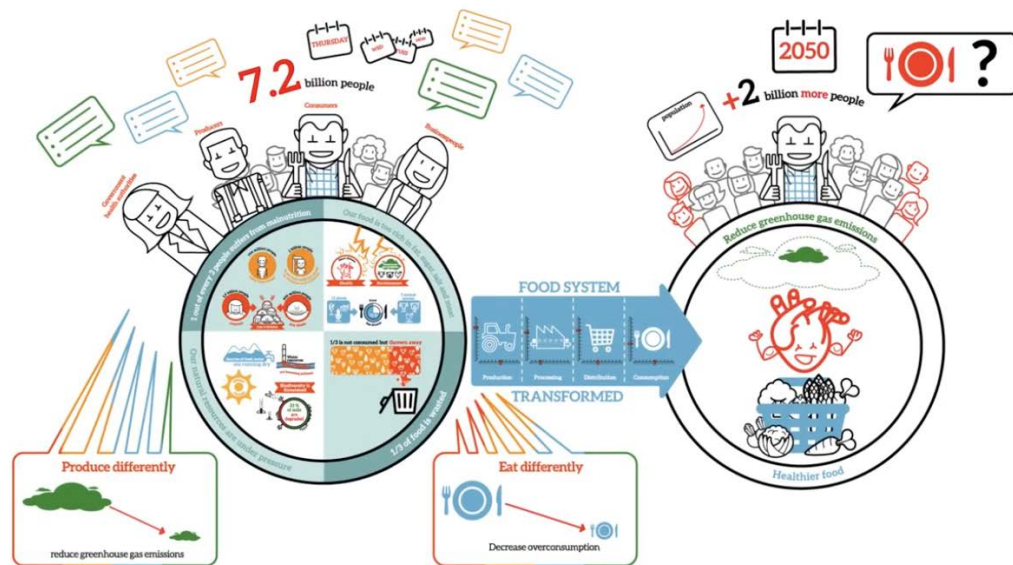


Figure 1. The transformation challenge for the food system (UN Environment, 2016).

Food Processing

Food rarely makes its way straight from pasture to plate and generally requires processing before it can be consumed. Including the preparation, preservation and packaging of food, much food processing is energy and resource-intensive and polluting. Like food production, food processing faces global stressors such as climate change. Food is more difficult to preserve in warmer weather, increasing energy requirements and making food processing and preservation vulnerable to electricity disruption.

Food Distribution, Retail and Marketing

Food production and processing rarely occur close to major population hubs where consumption occurs, meaning food is often transported large distances. Transport is a major contributor to greenhouse gas emissions and processed food often requires constant refrigeration, especially in warmer conditions, increasing energy requirements and emissions. Heat adds to the often grim conditions that workers and animals in food production, processing and transportation have to endure, raising serious social and animal justice concerns. Also of concern is where food is distributed to. Some areas remain poorly served and hunger and food insecurity are strongly shaped by geographical factors—where, and when, is good food available? ‘Food deserts’—places with limited or no access to food retail outlets that provide nutritious, affordable food—have significant impacts on local health and food security and can lead to localized concentration of non-communicable diseases and entrenched poverty. Food marketing that focuses on selling cheap, high-sugar and nutritionally poor food compounds the problem.

Food Consumption

Underlying SDG 2 is a deep concern about the projected increase in the global population of consumers (Figure 1). Yet, as critics have long emphasised, there are vast differences between individual consumers. Levels of food consumption in the world vary greatly at multiple geographical levels. While all countries are affected by hunger in some way, overconsumption and obesity are simultaneously rising. In 2018, the European Union identified obesity as ‘the most serious nutrition-related health issue’. While under-consumption is related to poverty, so too is obesity, which disproportionately affects socially vulnerable groups. Exacerbating the problem is the global homogenization and ‘Westernisation’ of diets. Related

increases in red meat and dairy are having a profound effect on agricultural ecosystems, greenhouse gas emissions, and human health. Food consumption is also influenced by relative access to safe and culturally appropriate food storage and cooking facilities, as well as individual food preparation skills, raising multiple social justice challenges. Risks to nutritious and safe food consumption are compounded by climate and economic shocks.

Food (Loss) and Waste

Throughout all stages of the agriculture and food system, significant loss and waste occurs. Every year in Australia, over 5 million tonnes of food per year is either thrown away by consumers or lost in the commercial and industrial sector. Such significant loss is both a social justice and environmental issue, generating local safety problems and significant greenhouse gases. In Australia and elsewhere, governments are increasingly focusing on food waste. In 2015, the European Commission adopted the Circular Economy Action Plan, which supports SDG target 12.3, to ‘halve per capita global food waste at the retail and consumer levels and reduce food losses along production and supply chains, including post-harvest losses’.

The need for systemic change

SDG2 clearly indicates the need for a systemic approach to transformation. The 8 SDG2 targets (and 14 indicators) implicitly highlight the intricate links between not only food production and poverty but also, for example: food and health; food security and climate change; food and gender equality; agriculture and labour; and land degradation and inequality. SDG 2 acknowledges that aspects of the global food system currently undermine the other Goals. Existing issues include the fact that: the food system is a substantial source of greenhouse gases and is especially vulnerable to climate change impacts; one third of the world’s arable soils are degraded; biodiversity and related ecosystem services such as pollination are collapsing; agriculture is a significant contributor to water pollution through nutrient emissions; there is a global shortage of phosphorus for artificial fertilisers; 70% of food consumed comes from only 12 plant species or 5 animal species; and one third of food produced is wasted without being consumed. The SDG agenda makes clear that efforts to try to achieve food security that do not address these problems and limit progress on SDG 5 on good health and wellbeing, SDG 13 on climate action, SDG 14 on Life Below Water, SDG 15 on Life on the Land (among other goals) are not satisfactory. It is for this reason that SDG2 calls for nothing less than ‘a profound change of the global food and agriculture system, ‘a complete ‘rethink [of] how we grow, share and consume our food’ (UN, 2019).

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