



# Youth and Food Systems Transformation

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What, if anything, is special about youth with respect to engagement in food systems? This question is important, owing to the size of the current demographic cohort of youth, globally but especially in the majority world, as well as the large stake, and strong influence, that today's youth will have in the development trajectories and future sustainability of food systems. Although youth is often framed as an age category for policy and bureaucratic purposes, this simplification obscures important dimensions of what being a youth means and entails. It makes comparisons and generalizations simple but misleading, because age-based classifications are nationally and culturally specific. In this paper, we argue that youth is better understood relationally, as a transitional phase within the life course. While every human being depends on consuming food, their individual transition from childhood to adulthood involves—as a very stylized generalization—a significant enlargement of autonomy and independence, as well as an increased likelihood of being substantially and directly involved in the production, distribution, procurement and/or preparation of food, as well as its consumption. However, each person's youth transition and their relationship with food systems is uniquely shaped by specific intersections with multiple factors including gender, class, wealth, health, location, intergenerational relationships, and many others. We conclude that there are only a few, important but not necessarily dominant, ways in which youth as a group have special stakes in food systems. We elaborate on this complex picture and identify some principles to guide development research and policy that seeks to engage with youth in relation to the sustainable transformation of food systems.

**Keywords:** youth, food systems, sustainable development, migration, employment

## INTRODUCTION

For multiple reasons, youth is an important demographic in development. First and foremost, today's youth generation is the largest in history, and the global population of young people is concentrated in low- and middle-income countries located in South and East Asia and Africa (The World Bank, 2006; IFAD, 2019). The interests and needs of this youth generation are important, not only because they are many, but because they will need—indeed, they are entitled to expect—decent work and livelihoods, as well as long and healthy lives; yet, to achieve this objective for so many people will be challenging in an era of ecological stress. From a development perspective, today's youth generation is on the front line: it will have to cope with the effects of environmental and climate change, which are likely to accelerate and intensify during their lifetimes and those of their children. The unfolding life histories of this generation and their offspring will both track and strongly influence the evolution of economic, social and political developments over the coming

decades. Their lives will reflect humanity's success or failure in moving toward more ecologically sustainable and socially equitable development.

In this paper, we focus on youth in food systems. Our aim is to understand better how development researchers and policy makers might address dimensions of policy and practice relating to food systems that are specific to youth, or that may affect youth in particular ways. We bring together separate bodies of literature on youth and on food systems, in order to initiate a dialogue between them. We are interested in youth as stakeholders in food systems and as potential agents of change. We ask: How do young people engage with food systems? What are the implications of their variety of patterns of engagement for young people themselves, for their families and dependents, for their communities and societies, for food systems and for sustainable development?

The ways food is currently produced, processed, distributed, consumed and wasted are widely recognized as unsustainable, from both ecological and social perspectives. Inequity and injustice are endemic in the ways costs, risks and rewards are generated and distributed within and by food systems (Akram-Lodhi, 2013), and there are many examples of environmental unsustainability in agriculture and agro-industry (Campbell et al., 2017). Our particular concern in this paper is that the world currently faces a complex problem of malnutrition, in which different forms of undernutrition and micronutrient deficiency coexist with a growing burden of overweight, obesity and diet-related non-communicable diseases, such as hypertension, diabetes, heart disease, strokes, and some forms of cancer (Gómez et al., 2013; Swinburn et al., 2019; Willett et al., 2019). The intricate connections among the causes and drivers of these multiple kinds of malnutrition suggest that they need to be tackled through concerted, rather than piecemeal actions (Hawkes et al., 2020). Food policy and food systems analysts have called for a thorough transformation of food systems, to support improved food and nutritional security, equity, socio-economic justice, ecological sustainability within “planetary boundaries,” and other sustainable development objectives (Foley et al., 2011; Rockström et al., 2016, 2020; HLPE, 2017; Mason and Lang, 2017; Anderson and Leach, 2019). Any such transformation will challenge society, researchers and decision makers to grapple with complex and dynamic interactions and scalar effects, and to negotiate trade-offs between contending values, priorities and entrenched interests (Garnett, 2014; Béné et al., 2019b; Ruben et al., 2019; Swinburn et al., 2019; Willett et al., 2019).

This paper contributes to food systems analysis by proposing a new way to conceptualize individuals and social groups in relation to food systems. This novel conceptualization rests on three propositions: that social groups—e.g., youth—share some common objectives and interests in relation to food systems; that these objectives and interests fall into four domains—biophysical, economic, cultural and social; and that individuals “engage” with food systems in various ways in order to advance these objectives and interests.

The paper is organized as follows. We begin by discussing the utility of generational, relational, and intersectional conceptions of youth as a phase within the life course. We then define food

systems as our topic of concern, and consider the variety of ways in which people, including youth, may engage with them. We show that the diverse range of ways to engage with food and food systems are associated with a spectrum of overlapping and intersecting objectives and interests, which we distinguish analytically across the four domains: biophysical, economic, cultural and social. Many of these objectives and interests are common to people of all ages, which leads us to ask whether anything is distinct or special about the ways youth engage in, or are affected by, food systems. Drawing on evidence from empirical literature, we conclude that the food system-related objectives, interests and concerns of youth are often shared with other generations or social groups—although we also identify a few youth-specific dimensions, which can be important and consequential. We end by discussing the practical and policy implications. The paper focuses principally on issues relating to and evidence drawn from sub-Saharan Africa, but includes some discussion of other regions, as well.

## PERSPECTIVES ON YOUTH

Young people have re-emerged in recent years as an important policy focus, particularly in sub-Saharan Africa and South Asia. A key cause of this rise to prominence is the so-called youth bulge, an increase in the proportion of younger people in the populations of countries where infant and child mortality rates have fallen significantly while fertility rates have remained high (Inayatullah, 2016). Of a total population of 1.2 billion people classified by the United Nations (UN) as “youth” (ages 15–24), nearly a billion are located in “developing” countries; but the challenge of the youth bulge is largely concentrated in countries of sub-Saharan Africa, which have experienced the lowest levels of rural transformation and structural transformation of national economies (IFAD, 2019). The youth generation is said to be creating both opportunities and challenges for poor countries. On one hand, it is heralded as an opportunity for a one-off “demographic dividend” of energetic, healthy and ambitious young people ready and eager to drive economic development. On the other hand, young people's demands for economic, social and political empowerment are widely perceived as potential sources of grievance and destabilization in economies that struggle to provide all their citizens with access to public services, productive resources, decent jobs and attractive livelihood opportunities (Eastwood and Lipton, 2011, 2012; Sommers, 2011; Ahmed et al., 2016; Ayele et al., 2017).

Youth are portrayed variously as objects and subjects of development. At times, the emphasis is on the needs of young people for education and training, housing, jobs, health care, discipline and many other resources and services (e.g., Evoh, 2012). Youth are depicted as a group particularly prone to risky behaviors and in need of protection from various hazards and influences (Hardgrove et al., 2014). They are also identified as development actors in their own right, exercising independent agency to shape their own lives and relationships (Bell and Payne, 2009). Sometimes, they are framed as agents of change and natural innovators, who are more creative, imaginative,

flexible and enterprising than older people (see Sumberg and Hunt, 2019). There is considerable interest among policy makers and development organizations in mobilizing the energy and agency of young people—as producers and consumers of food, as potential innovators and entrepreneurs, and as policy actors—to transform food systems (e.g., FAO, 2014).<sup>1</sup> Youth is also seen as a key period in the life course of a generation, when a well-timed intervention may produce long-term dividends—a phase during which values, behaviors and habits are malleable (Huijsmans, 2016; IFAD, 2019).

To provide a framework for exploring these issues, we consider three perspectives on youth. First, the *generational* perspective positions youth as a group with a subjective sense of common identity and shared experience—a generation—in relation to other generations (e.g., adults). Fundamental to the generational perspective is an awareness that inter-generational relations are both enabling and constraining, and laden with power. Second, the *life course* perspective acknowledges that each person who lives beyond infancy experiences life through a succession of transitional phases, evolving continually from childhood to (potentially) old age. Third, the *intersectional* perspective is essential because the specific curve of each person's life course is shaped uniquely by their individual circumstances and their relationships to cultural frameworks, such as norms governing gender roles and the status of married and unmarried men and women.

## The Generational Perspective

The generational perspective offers a way to understand youth both as a social group in its own right and in relation to other social groups (Hopkins and Pain, 2007; White, 2015; Huijsmans, 2016). Demographers and governments often use age categories to label generations, but birth date and biological age are insufficient in themselves to define a generation. Generations were originally established as a subject of interest by Mannheim (1952), when he articulated the notion that a cohort of people born around a similar time may share certain formative experiences, perspectives, relationships and identities that situate them uniquely in relation to other generations. Within a generation, smaller groups of people (which Mannheim called “generational units”) are shaped and defined by their spatially and historically situated experience of common events.

A generation can be understood as a cohort of people united by a reflexive, subjective sense of common identity and shared experiences, or they might be framed as such by sociologists, demographers, policy makers, journalists or social commentators. Some cohorts attract special attention and labels, such as Baby Boomers, Generation X, Millennials, digital

natives, the Born-Free Generation in Zimbabwe or the Rainbow Generation in South Africa. These designations may have a wide international currency, or they might have a particular significance within a certain nation or society (Huijsmans, 2016).

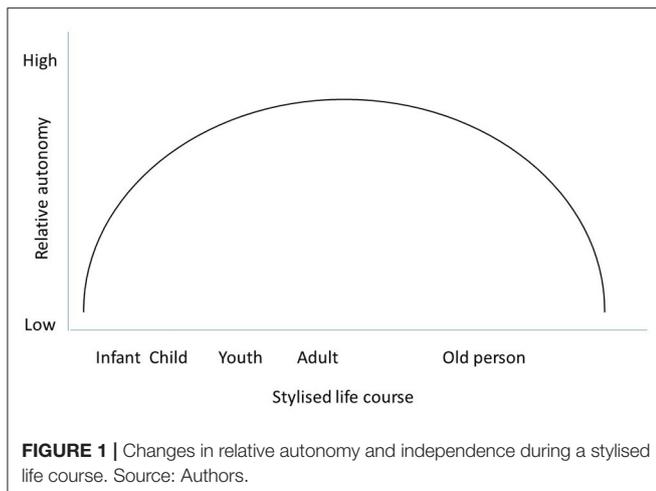
A relational understanding of generations is key, because each generation's identity is shaped by its relationships with older and younger generations, and these relationships are central to the process of socialization and social reproduction. Cultural norms, as well as negotiations, struggles, and outright conflict between generations, define the mutual rights and obligations of each generation in relation to others—an “inter-generational contract”—as its members progress through their life course (Huijsmans, 2016). Relationships with older generations strongly determine whether, when, and under what terms, a member of a youth generation can obtain and use resources, express him or herself, exercise independent choices, make decisions, or engage in different kinds of livelihood. The cultural norms and institutional frameworks that shape relations between generations are not simply constraints; they can be a resource for action. The concept of “social navigation” has been proposed as a way to examine how young people attempt to negotiate inter-generational relations, to “disentangle themselves from confining structures, plot their escape and move toward better positions” (Vigh, 2009: 419; see also Christiansen et al., 2006).

## The Life Course Perspective

Each individual life passes through a succession of phases, and each phase is both a distinct period in its own right, marked by specific experiences and challenges, and a time of evolution and change that connects the preceding and following phases. Life phases and the transitions between them are socially and culturally constructed. Few real lives unfold precisely in the ways anticipated by bureaucratic, medical or legal categories (such as child, adolescent, young adult; being above or below the age of majority, etc.), which are usually defined by age. The youth phase of life unfolds between childhood and adulthood. It is typically framed as a period of particularly rapid and fundamental transition, characterized by physical and cognitive growth and transformation, a great deal of learning, a substantial expansion of social networks and the building of social capital. In many if not all societies, marriage and child-rearing are normal expectations of youth, or key signifiers of a transition between youth and adulthood.

For many individuals, the transition from childhood through youth to adulthood is marked by an expansion of relative independence and autonomy. This evolution can be represented as an inverted U shape (**Figure 1**). The transitions are usually relative and incremental rather than sudden and complete. Absolute independence is seldom experienced by any individual, because agency is conditioned by a complex of intersecting and interacting social, cultural and economic factors that enable and constrain action (Evans, 2007). The relationships concerned are of degrees of interdependence that fluctuate and are negotiated periodically during the life course, rather than states of absolute dependence or independence (Punch, 2002). Further, the pattern depicted in **Figure 1** is not universal, for example, girls in some societies may experience a constriction rather than an

<sup>1</sup>For example, the Committee on World Food Security (CFS) of the United Nations Food and Agriculture Organization (FAO) has a workstream on ‘Promoting youth engagement and employment in agriculture and food systems’, and has commissioned a report on the topic from its High Level Panel of Experts, which is due to be published in 2021. See: Committee on World Food Security, Forty-sixth Session, ‘Making a Difference in Food Security and Nutrition’, Rome, Italy, 14–18 October 2019, CFS Multi-Year Programme of Work 2020–2023, especially pp.7–8. Available at <http://www.fao.org/3/na703en/na703en.pdf> (accessed 4 March 2020).



expansion of individual freedom and self-determination as they pass through puberty, marriage and motherhood.

The expansion of agency is expressed in various domains of life, including relationships, work and consumption (e.g., of food). As young people pass through youth toward adulthood, most assume greater responsibilities in relation to food, involving perhaps production, procurement, preparation and consumption, both for themselves, and for others.

For some young people, agency is enhanced through migration, education or employment, which creates opportunities to forge new relationships over time with family and wider social networks (Punch, 2002; McDonald et al., 2013). Young women may acquire new responsibilities for caring for other household members. This implies an increase in decision-making power as well as a burden of work and accountability in the domains of caring, food and nutrition, without necessarily attaining a commensurate degree of authority over the disposition of household assets and resources (Doss et al., 2019).

Some contributors to the youth studies literature argue that transitions from youth to adulthood are being postponed or drawn out indefinitely (Jeffrey, 2010; Honwana, 2012, 2014; Sommers, 2012). For example, owing to a lack of jobs and restricted access to productive resources, many young Africans are said to be in “waithood,” a kind of limbo, where they are “expected to be independent from their parents but are not yet recognized as social adults ... a new but socially attenuated form of adulthood” (Honwana, 2012: 20). However, the claim that “the majority of young Africans today live in waithood” (Honwana, 2012: 20) finds only limited support in the broader literature (Finn and Oldfield, 2015; Ungruhe and Esson, 2017; Kovacheva et al., 2018).

## The Intersectional Perspective

Transitions from more dependent childhood to more independent youth are shaped by cross-cutting dimensions of difference and diversity such as gender, class, education, wealth, physical and mental disability and many other personal, structural and contextual characteristics; an intersectional

perspective is therefore required (Rodo-de-Zarate, 2017). Being labeled or treated as a youth may be more or less important than other identities and classifications, which might be imposed upon or embraced by youth themselves. Bureaucratic and policy approaches that seek to isolate and target youth as a distinct social category are liable to encounter many difficulties that stem from ignoring cross-cutting and overlapping identities, affiliations and relationships that shape the opportunities and life chances of individual young people.

Gender norms and family wealth are particularly important cross-cutting influences that differentiate young people’s experiences of youth and shape the opportunity landscapes that confront them (Sumberg et al., 2019). Ethnicity and education are other important differentiators, but there are many others that could be considered, and their relative importance and effects may be specific to particular societies or communities. The multiplicity of intersections among diverse axes of social difference and inequality make it inappropriate to homogenize youth or, indeed, any other category, such as “young women.” From an analytical point of view, to avoid an unmanageable proliferation of intersections, it may be essential to adopt a nested perspective, which involves identifying a grouping of primary interest (such as “youth”), then examining how intersections with a range of other relevant categories of interest shape the particular experiences and opportunities that face individuals and groups within that primary category, in relation to other individuals and groups (Tavener and Crane, 2019). The intersections of interest in a given case or situation could be identified empirically, instrumentally or theoretically, depending on the purpose.

Equipped with these three lenses on youth, can we say whether there is anything unique or special about the ways in which youth engage with food systems? To answer this question, it is useful to consider first what food systems are and what it means to engage with them.

## FOOD SYSTEMS

Food systems encompass all the ways in which food is produced, distributed, and consumed. However, a food systems perspective encompasses much more than the pathways from “field to fork” or “farm to plate.” It also embraces activities upstream of farms (such as research, plant breeding and the supply of agricultural inputs), downstream of consumers (including the disposal of waste and recirculation of nutrients) (Ericksen, 2008; Béné et al., 2019b), and everything in between (including governance, institutions, policy and regulation) (Gillespie and van den Bold, 2017; Gillespie et al., 2018; Ruben et al., 2019). A food system is systemic in an emergent rather than a planned sense: it is the product of historically rooted, dynamic, cross-scale interactions among many processes and actors (Ericksen, 2008). Food systems are structured by relations of capital and trade, networks of social and legal contracts, and flows of knowledge, nutrients, commodities, and money across short and long distances.

It is possible to talk of a single global food system that comprises and interacts with a multitude of nested, interacting,

regional, and local food systems. However, a purely scalar conception of food systems is potentially misleading since, in a certain, concrete sense, every person's experience of food is immediate, personal and local, while simultaneously connected to networks, processes, and flows across much larger temporal and spatial scales. In this paper, we refer to food systems in general, except where we want to identify a particular food system or a particular scale of analysis.

Food systems account for a very wide scope of human activity, constituting a major source of employment and livelihoods, a major user of environmental resources, a source of pollution and ecological degradation, and a driver of global warming that will also be increasingly affected by climate change in the coming decades (Godfray et al., 2010; Rockström et al., 2016). The sustainability of food systems has also been recognized as a vital human development issue, due to concerns about the prevalence of social injustice in food systems, including high levels of inequality and inequity (Akram-Lodhi, 2013).

There is a variety of ways to represent food systems schematically, decomposing them into their constituent parts and relationships (Ruben et al., 2019). Some analysts have distinguished conceptually and analytically between the drivers, components, and outcomes of food systems. Drivers include biophysical and environmental factors (e.g., local agro-ecologies that shape farming systems), technologies and infrastructures (e.g., farm machinery and road networks), political and economic factors (e.g., policies, regulations and markets), socio-cultural norms and practices (e.g., dietary customs), and demographic change (e.g., population growth, migration and urbanization) (Béné et al., 2019a). Food systems components comprise the productive, reproductive and economic activities and functions that produce, process and distribute food. The outcomes of food systems are mediated by "food environments" that influence consumer choices and behavior, individually and in groups.<sup>2</sup> Outcomes include effects on the nutrition, health and well-being of food consumers and an array of social, economic and political effects, as well as environmental impacts such as wastage and pollution (HLPE, 2017; de Brauw et al., 2019).

In practice it is often impossible to distinguish cleanly between drivers, components and outcomes. In common with any type of systemic theory of social phenomena, the notion of a food system challenges analysts to explore interactions between structure and agency, and to grapple with the dynamics of complex and evolving processes across scales. There are multiple mechanisms, relationships, flows and feedbacks that connect the elements. The diverse "outcomes" of food systems are not end states but parts of continuous processes that flow back into the system via feedback mechanisms and pathways. For example, urbanization is a type of demographic change that is both driven partly by, and partly a driver of, major changes in the locations, technologies and practices of food production, distribution, and consumption. Consequently, it can be hard to distinguish a local food environment that shapes or influences the behavior

of individual consumers from larger structures, institutions and secular trends that shape (or "drive") the food system as a whole, such as geography, demography, technology and culture (HLPE, 2017; de Brauw et al., 2019).

It is essential to recognize, as well, that the contemporary global food system as well as many national and trade-based regional food systems worldwide are predominantly capitalist and modernist in their structures and operations. Modern food systems are sites of capitalist accumulation, dominated by large agribusiness corporations that seek profits, and underpinned by economic, fiscal and trade policies that have tended to favor low food prices for consumers, while subsidizing producers and agri-businesses. Regional, national and local food systems are increasingly linked together in a global food system that is currently steered by a peculiar combination of neoliberal trade policies and mercantilist agricultural and food policies. This dominant configuration has pervasive effects, even on peripheral, remote and marginalized areas and populations that might appear to be relatively separate from the capitalist mainstream of national or global food systems. There do remain large parts of contemporary food systems that involve many millions of small-scale cultivators, family farms and micro-enterprises, which collectively are responsible for producing very substantial shares of global food (Graeub et al., 2016; Samberg et al., 2016; Herrero et al., 2017). A high proportion of the people engaged in food production, processing, transport and distribution in low- and even middle-income countries operate wholly or partly in informal markets (Wilkinson and Rocha, 2009). Nonetheless, capitalist relations of power still penetrate these peripheral zones and affect the communities that operate within them, through diverse mechanisms such as price signals, control over input markets and land, contracts, intellectual property rights, research and development activities, and others. The capitalist orientation of global food regimes is contested by social movements that promote alternatives, such as food sovereignty, fair trade, local food, and agro-ecology (McMichael, 2009; Patel, 2012).

Although the agency of individuals and groups may shape food systems to some degree, especially at a very local level, the highly connected and integrated nature of contemporary food systems, underpinned by relations of capital and power, exert an important, structuring influence. Changes in the composition of global food supplies and diets over recent decades illustrate the point. Even as international trade and other mechanisms have diversified the range of foods available to consumers, the global food supply as well as the diets of many consumers have become increasingly homogeneous (Popkin et al., 2012; Khoury et al., 2014). The rhetoric of contemporary food advertising tends to celebrate the expansion of choice, especially in rich countries, but for the great majority of humanity, choices about food—what to produce, what to consume and where to obtain it—are often quite constrained. Amid the opportunities and risks presented by the overarching power structures and economic processes of contemporary food systems, individuals, including youth, may have limited opportunity to exercise agency as food consumers and as workers in food systems (Evans, 2007; Sumberg et al., 2019).

<sup>2</sup>See the UNICEF Innocenti Framework on Food Systems for Children and Adolescents. Available at [https://www.unicef.org/nutrition/food-systems\\_103432.html](https://www.unicef.org/nutrition/food-systems_103432.html) (accessed 26 February 2020).

## Engagement With Food Systems

Individuals may engage in a variety of ways with the multifarious activities and functions involved in food production, processing, marketing, distribution, consumption, and waste management. While everybody necessarily engages through consumption, some people may be involved, at different times, in any of a wide range of other food-related activities, which can be undertaken in domestic, institutional, small enterprise, or industrial settings. These include producing and supplying agricultural inputs (seed, fertilizers, pesticides, machinery, livestock vaccines, etc.); food production (e.g., farming, horticulture, livestock rearing, kitchen gardening; hunting and fishing; foraging and scavenging); processing of agricultural produce (e.g., threshing, drying and grinding of grain crops; slaughtering and butchery of animals, poultry, and fish; freezing, drying, salting, and smoking); manufacturing and packaging of food products (e.g., making preserves, sauces, beverages, pickles, condiments, and ready meals; bottling and canning); food marketing and advertising; selling food products in wholesale markets and retail outlets; distribution (e.g., cold chain logistics, local delivery of groceries and meals, long-distance freight); preparing and serving meals, drinks, and snacks; and handling and processing food wastes (e.g., disposing of food leftovers; refuse handling and street sweeping; sorting, processing and recycling organic and inorganic materials). Some individuals might also campaign for cheaper, healthier, or more local food.

Each type of engagement is associated with a variety of multidimensional objectives (i.e., motivating engagement) and interests (i.e., associated with, or arising from, engagement). For example, food consumers get more than basic sustenance, nutrition and health from food; they also experience sensory stimulation from its flavors, aromas, and textures, which generate sensations of pleasure, satisfaction, disgust, and so on. Eating certain foods can be associated with cultural and symbolic meanings, psychological connections, social experiences, and emotional triggers. Other ways of engaging in food systems are also linked to a variety of objectives, such as supporting a livelihood, earning an income, occupying a professional role or identity, achieving a social status, and fulfilling domestic commitments and social roles that involve taking care of oneself and others. In the next section, for convenience, we consider these objectives and interests in four simple categories, which overlap and interact: biophysical, economic, cultural, and social.

## IS THERE ANYTHING SPECIAL ABOUT YOUTH ENGAGEMENT WITH FOOD SYSTEMS?

While the life course perspective suggests that the status of being a youth certainly deserves consideration, the intersectional perspective warns that the situations and predicaments of specific individuals and groups need to be contextualized in relation to many other biophysical, socio-cultural and political-economic situations, characteristics and affinities. Then, the generational perspective suggests that whatever is peculiar to “youthhood” is expressed and refracted through the historical specificity of

each new generation of youth, and its particular relationships to older and younger generations. Using these lenses, in this section we consider whether there is anything unique or special about young people’s engagements in food systems. Some of our speculations are necessarily tentative, however, they suggest possible hypotheses and directions for future enquiry.

Our general expectation is that, as individuals make the transition from childhood through youth to adulthood, their modes of engagement with the world around them, including food, will be characterized by relatively greater independence, autonomy and agency (as in **Figure 1**). However, this stylized assumption merits some qualification. The specific ways in which a person engages with food systems are influenced by the intersection of their phase of life with many other factors, such as their gender, marital status, culture, class, location, health and so on. For example, a young woman who cultivates a kitchen garden, or purchases food on the market, on behalf of herself and other household members, carries a responsibility for the household in relation to food and nutrition. However, her influence and autonomy will be different from a young man who, for example, manages the family farm, controls some cash that he earns from a job, and/or purchases his own meals and snacks outside the home.

The youth phase of a life course usually entails lifestyle changes of various kinds, which may have consequences for each person’s food environment, food habits, diets and energy needs. Socially, culturally and psychologically, youth is regarded as a period when changes in lifestyle and food habits can be influenced in positive or negative directions (Brooks and Begley, 2014). Both within households, and especially as youth begin to circulate more frequently, over longer distances and for longer periods outside the home, they are likely to become more independent in decision making around food, and more responsible for providing food for themselves and others. They may consume a greater proportion of food outside the home (e.g., street food and fast food, or meals in institutional canteens). Sites such as schools, gyms and workplaces may exert an influence over young people’s food choices, whether through providing food or exposing the young people to guidance on nutrition and healthy eating (Fernandes et al., 2017; Hossain et al., 2019). Participating in activities and employment away from home will also expose young people to positive and negative influences via peer pressure and other social and cultural signals, including food marketing, which typically promotes highly processed, energy dense, “empty calorie” foods (WHO, 2006; Popkin et al., 2012; Marcus, 2013; Save the Children, 2015; Development Initiatives, 2018).

## Biophysical Dimensions

Biophysical objectives and interests that are linked to food systems include basic food and nutrition security, as well as the energetic and health effects that are associated with eating particular types of foods and diets. As food consumers, people have interests in food safety (e.g., chemical composition and contamination of foodstuffs; toxicity, allergenicity, etc.) and nutritional quality, are motivated by the sensory properties of foods, such as their flavors, aromas and textures, and are also concerned about the freshness, shelf life and decay of comestibles.

The public at large are directly and indirectly affected by the impacts of agri-food systems on the natural environment and ecosystem services, such as air and water quality and safety. Finally, people who work in food systems have interests in the effects of their working conditions on their physical and psychological health, safety and well-being.

We can be confident in making some generalizations about youth as consumers of food, who need adequate energy and good nutrition during a formative phase of the life course (WHO, 2006; Fatusi and Hindin, 2010; Marcus, 2013; Save the Children, 2015; Development Initiatives, 2018). Youth is a period of transformative physical, psychological and cognitive development, for which good nutrition is essential. During puberty, each person gains about 40–50 per cent of their adult weight and 15–20 per cent of their adult height. There is believed to be some limited scope during this period—a second window of opportunity—to compensate for effects of poor nutrition during childhood, such as small size and low weight, which may have ramifications for the physical and cognitive health and vitality of the adult later in life, including the capacity to work, and the ability to bear children safely (WHO, 2006). Alongside protein and energy, young people require increased quantities of many micronutrients to support the production of blood, bone, sex steroids, and growth hormone. Poor nutrition during these periods can have long-lasting negative effects on subsequent life chances and outcomes. Biophysically, males and females diverge during puberty, and these differences translate into different nutritional requirements.

Changes in physical activity such as an increase in sedentary or physically demanding work or pastimes may have consequences for energy metabolism. There is evidence that obesity and other diet-related health problems are increasing among today's urban youth, and even rural youth in some places, due to an increase in sedentary lifestyles and a transition to diets rich in fats and sugars. The ramifications for individual and societal well-being and the costs of healthcare may be significant over the coming decades (WHO, 2006; Marcus, 2013; Save the Children, 2015; Development Initiatives, 2018).

Workers in food systems may be expected to do physically demanding labor in risky environments (e.g., where they are exposed to toxic chemicals such as pesticides, allergenic proteins in foods, or hot stoves). However, it is not obvious that youth are likely to be particularly exposed to these risks. We might speculate that, in certain circumstances, because of poverty and a lack of realistic alternatives, young people may accept work in unsafe, stressful and physically rigorous conditions. However, is this different from poor older people with limited options, especially if they are tied to a location and have dependents to care for? A young adult, with the benefit of formal education, few direct dependents and the ability to move in search of more attractive work, may enjoy certain advantages over older people (Allen et al., 2018), but they may also be more willing and able to accept additional risk in anticipation of better rewards.

We might also assume that, compared to older people, younger workers might be better equipped physically to cope with challenging and unsafe work, but there would be many exceptions to this generalization. What about the psychological

willingness of younger people to accept, and their mental resilience to endure, physically demanding, or unsafe working conditions? One study found that older adults were typically more resilient and self-reliant than younger adults, whereas the resilience of younger adults was more likely to be connected to their social relationships (Gooding et al., 2012). We can speculate that young people who are separated from family and friends (e.g., some migrant workers in food systems) may lack a strong and reliable social network that can support them emotionally and psychologically during difficult times.

## Economic Dimensions

Many people engage in food systems for economic motives, such as generating an income or otherwise pursuing a livelihood (e.g., subsistence farming or cultivation for a market). Food producers and workers in food value chains may be concerned about issues of (in)equity and (in)equality in the distribution of costs, benefits and risks arising from food systems. Consumers and society at large are concerned with the regularity and adequacy of food supplies, including the price of food in general and of particular commodities, especially staple foods and cooking oils, and with the stability or instability of food prices.

The nature and dynamics of youth engagement in food system-related economic activities differs between rural and urban areas, and between male and female youth. Within rural areas, the type of food system-related activity in which young people may be involved is shaped by the mix of agricultural and non-agricultural livelihood opportunities that confront a given household. According to the 2019 Rural Development Report, the great majority of rural youth belong to households that are in transition from, or have already moved out of, farming (IFAD, 2019). In those rural households that are still involved in farming, it is common for children to help on the family farm, and this engagement often continues and expands as they grow older. In these households, the great majority of youth work on the family farm or earn a wage on other farms. In rural households that are less oriented toward agricultural livelihoods, only a very small minority of youth are involved in family farming, and hardly any engage in wage labor on other farms (IFAD, 2019).

Nonetheless, there are still many young people in rural areas who do engage in some kind of agriculture and/or livestock production, even while they are in school, whether primarily for consumption or for sale, on their own account or working with or for others (Yeboah et al., 2020). For many people, engagement in agricultural production comes and goes in different forms at different points during the life course. Leaving agriculture or migrating to an urban area are not necessarily permanent, irreversible transitions. Many young people who migrate away for school or whose primary work is outside agriculture will nevertheless keep a hand in farming (Mwaura, 2017a,b), or will at some later point re-engage with agriculture or live again in a rural area (Nguyen et al., 2020; Rigg et al., 2020). Some young people may aspire to work in farming, even though they may be obliged to seek work in other sectors while they try to gather the resources they need to do so (Filloux et al., 2019). Some young men may see farming as a practical and accessible way to build a

viable economic livelihood in settings where other opportunities are scarce or unappealing (Temudo and Abrantes, 2015).

The types of agricultural livelihood opportunities that are open to particular young rural men and women will be determined partly by the agricultural and economic geographies in which they live, and partly by their access to productive assets and resources, particularly land, but also capital and technology (Doss et al., 2019; Sumberg et al., 2019), as well as output markets (IFAD, 2019). About two thirds of rural youth in developing countries live in areas of high potential for agricultural production, and about one third in areas that have access to potential markets for agricultural products; however, about one third live in areas where agricultural potential is medium or low, and one third in areas with limited opportunities for commercial production (IFAD, 2019). Around 43 per cent of rural youth live in areas where the agricultural potential is good but access to markets is poor, or where agricultural potential and market access are moderate; both categories are dominated by African nations (IFAD, 2019). In countries that have experienced low levels of both rural transformation and structural transformation, over 50 per cent of rural youth live in regions where the agricultural potential is good but the opportunities to produce for the market are poor (IFAD, 2019).

There is an important generational dimension to whether, when and how young people can access land for farming (Amanor, 2010; White, 2012; Berckmoes and White, 2014; Bezu and Holden, 2014; Allen et al., 2016; Kosec et al., 2018; Filloux et al., 2019; Scoones et al., 2019). Almost by definition, youth are (in a narrow, strict sense) landless, even in households that do have access to agricultural land.<sup>3</sup> Control over access to resources, including land, represents a potential point of influence, if not control, over younger by older generations. The resulting tensions can manifest as a mild irritant, as a “push factor” driving migration, or as a major frustration to the livelihood, social, and/or political ambitions of young people (e.g., in Sierra Leone, see Peters and Richards, 2011; in Rwanda, see Sommers, 2012). Nonetheless, in some instances young people are able to access land—e.g., through family, and/or rental markets—and make a start in farming, pay their own school fees, feed their young families and begin to build an independent livelihood (Temudo and Abrantes, 2015; Mwaura, 2017a,b). Gender often has a strong influence over whether, and under what terms, a young person is able to access land, credit or other productive resources. Gender also affects the likelihood that a young person will choose or be able to engage in migration, whether it occurs for short or long periods, over short or long distances, or for the purposes of entering further education, seeking better job opportunities, getting married or asserting independence from parents or grandparents.

Some youth are engaged in a wide range of off-farm food-system activities, such as selling farm produce in a market, processing food products for consumption or sale, helping to run a small kiosk, grocery shop or street food stall, driving a delivery truck, or working on a production line in a canning factory

(Yeboah et al., 2020). A young person’s mode of engagement in these activities might include contributing to the household or a family enterprise, self-employment in the formal or informal economy, or working in casual, long-term or seasonal jobs for small-, medium- or large-scale companies in the formal sector. Wage work in off-farm food system activities is more common for rural youth than entrepreneurial activities (IFAD, 2019). In rural households that are less oriented toward agricultural livelihoods, only a small minority of youth are involved in family farming, and hardly any engage in wage labor on other farms. However, youth working in off-farm food-system jobs is quite common, either for a wage or in a private enterprise, but these activities are less common than employment in work outside food systems (IFAD, 2019).

While agriculture continues to be the largest source of employment in many African countries, food-related activities beyond the farm gate are expected to be important for future job opportunities, including for youth (Townsend et al., 2017). The availability and accessibility of opportunities for youth to work in different off-farm food-system roles are not evenly distributed. They vary spatially (for example, in remote and rural areas compared to peri-urban or urban areas), by commodity/value chain, and by the personal circumstances of individuals, including wealth, education, and so on (IFAD, 2019; Sumberg et al., 2019). Gender is often a strong determinant of whether a person working in the food system is engaged in farming or in other activities, such as food processing, marketing, retail or food service (Allen et al., 2016, 2018; Sumberg et al., 2019).

The potential capacity of agriculture and the agri-food sector more broadly to provide jobs and decent work for young people is a matter of active debate among policy makers and academics (Filmer and Fox, 2014; Jayne et al., 2014, 2016; Kaneene et al., 2015; Sumberg et al., 2015; Chigumira, 2019; John and Manyong, 2019; Yeboah, 2019). This literature is extensive, and it is beyond the scope of this paper to review it in detail; however, a few key axes of debate can be identified. A prominent theme is whether young people are interested in farming or aspire to farm (Anyidoho et al., 2012; Petesch and Rodríguez Caillava, 2012; Tadele and Gella, 2012; White, 2012; Berckmoes and White, 2014; Leavy and Hossain, 2014; Temudo and Abrantes, 2015; BMZ, 2017; OECD, 2017; Elias et al., 2018; Filloux et al., 2019). The types of agriculture-based livelihoods that different kinds of young people (including male and female youth) might be interested in, are also explored (Okali and Sumberg, 2012; Sumberg et al., 2017; Ruiz Salvago et al., 2019). Linked to this debate are discussions about whether engaging in some kind of farming enables young people to achieve their personal life and work objectives (Okali and Sumberg, 2012; Temudo and Abrantes, 2015; Filloux et al., 2019). This literature shows that it is inappropriate to generalize about what youth want, what opportunities they have, and what they can achieve. Contrary to the widely shared view that very few young people are interested in pursuing livelihoods linked to agriculture, there is good evidence from various countries that some youth do find farming appealing, if the terms of engagement are attractive. However, young people may face substantial obstacles in gaining access to sufficient

<sup>3</sup>We are grateful to an anonymous reviewer for encouraging us to emphasize this point.

land, capital and other productive resources, as well as the necessary skills.

The economics of food markets have an important, structuring influence on consumption. Young people's food choices and behaviors are shaped by the food environments in which they move (Cullen et al., 2015; Herforth and Ahmed, 2015; Fernandes et al., 2017; Turner et al., 2018; Holdsworth and Landais, 2019). As indicated above, food marketers routinely target youth. In addition, the ready accessibility, affordability and convenience of processed food, as well as the high cost of accommodation (which makes it hard to afford a dwelling that has adequate facilities to cook and eat balanced meals), leads many young people to select less healthy food (Holdsworth and Landais, 2019).

Food is sometimes offered as a form of wages for work. This is common in farming (Richards, 1989) and typical of the informal economy in general, but is also seen in some formal industrial and agricultural settings, such as in locations where workers are constrained to live in dormitories and eat their meals on site or in workplace canteens. People who work in food service and food retail may also be paid partly with a formal entitlement to claim food during each shift worked, or they may supplement their wages informally by pilfering food or intercepting pre- and post-consumer food waste before disposal. In situations like these, the worker may sacrifice some autonomy in relation to food choice and could also be systematically short-changed for their labor in terms of the monetary value of food provided or consumed. On the other hand, such a compromise might be attractive for the benefit of regular meals (Kurosaki, 2011). Again, it is not possible to say that youth as a category are systematically more or less likely to be exposed to this kind of trade-off, compared to older workers.

In many societies, the kinds of food system-related jobs and enterprises that are commonly open to youth may differ between young men and young women. It is common for agricultural tasks to be divided into types of work that are traditionally considered suitable for men or for women, respectively, and where such conventions exist, they are likely to apply to youth as well as adults. In some rural societies, women are more likely to be involved in producing food principally for domestic consumption, though they may also cultivate and process some types of crops for sale. Men are more likely to be expected to engage in commercial production systems. Off-farm food system jobs may also be sorted according to gender, for example, in restaurants and food processing factories some jobs are more likely to be occupied by men than by women, and vice versa.

## Cultural Dimensions

Food is important to people and social groups for symbolic and spiritual reasons, as a signifier of cultural status, identity and belonging, and as a central feature of many traditional practices, rituals and celebrations. Ethnic, cultural and religious meanings, norms and values are attached to many foodstuffs, dishes, beverages and styles of food preparation, and to the places, occasions and peoples with which they are associated. Symbolic repertoires and cultural statuses are often displayed through food consumption practices (e.g., modernity and tradition,

wealth and poverty). These practices are sometimes understood as a shorthand for a whole lifestyle and set of values (e.g., vegetarianism or religious avoidance of foods). Iconic cultural and traditional roles are often attributed to work that is connected to food and food systems, where gender is often an important dimension (e.g., in some societies, professional “chefs” are predominantly male, while domestic “cooks” are typically thought of as “housewives”).

Food choices and dietary habits are intimately connected to a young person's emerging sense of identity, cultural belonging and independence (Bisogni et al., 2005; Newcombe et al., 2012; Anderson et al., 2015; Park and White, 2015). Young people may begin to adopt food habits that differ from their parents' or community's, which is sometimes done to express personal values or cultural commitments, e.g., to environmentalism, healthy nutrition or modernity (Bissonnette and Contento, 2001; Chapman, 2015; Esau et al., 2017; Sedupane, 2017). Identity has been an important theme of youth studies literature and it is clear that consumption, of food as well as other commodities, has strong connections to the performance of culture and expression of identity (Nayak and Kehily, 2013).

Some development scholars and health professionals are concerned that factors such as the prevalence of convenience foods and ultra-processed foods are creating deficits in the “food literacy” and culinary skills of youth, and inhibiting their capacity to source, prepare and consume a healthy diet (Brooks and Begley, 2014; Cullen et al., 2015; Sumner, 2015; Truman et al., 2017; Slater et al., 2018).

Transitions such as marriage, leaving the family home, and entering employment may expose young people to new expectations and norms in relation to food-related activities and consumption. Such cultural change has large implications for food systems as changes in diets and consumption patterns are inseparable from changes in systems and technologies of production and distribution, and the jobs, livelihoods, activities and skills associated with them (Tschirley et al., 2015).

## Social Dimensions

Many social roles, relationships and statuses are expressed through food and engagement in food systems, such as professional and artisanal work (e.g., baker, butcher, food safety inspector), reproductive roles (e.g., motherhood, breadwinner, provider) and types of traditional livelihood (e.g., herder, forester, hunter, fisher). Food consumption practices are very often connected to social relationships and commitments (e.g., caring for family members) and emotional and affective states (e.g., “comfort food,” nostalgia for “mom's home cooking”). Gender is a very important feature of many domestic and social relationships that are expressed through food provision and food-related work.

For most people, home is where food consumption habits are formed. The influence of family and home continues during youth, but it also changes in character and intensity. Younger members of a household typically take on increasing responsibilities for domestic work and tasks associated with care and social reproduction around the home. These would generally include helping to procure food items, prepare and cook ingredients, serve meals, and feed infants, young children,

and household-members who are sick or physically disabled. Very often the distribution of these tasks is gendered, with girls and young women more likely to be responsible for food preparation and family care work (Eyben and Fontana, 2011; Park and White, 2015). Young women who are mothers and carers may exert a strong influence over the food consumption and nutrition of other household members, especially children, and will themselves be influenced by prevailing social norms; for example, a bias in some societies that favors feeding boys before girls (Sraboni and Quisumbing, 2018).

Migration is likely to have large effects on food practices and habits. Migration for work, education or other purposes will separate a young person from their home environment, exposing them to different foods and foodways, as well as novel health risks and hazards (WHO, 2006; Marcus, 2013; Save the Children, 2015; Development Initiatives, 2018). Migrant youth are likely to become more responsible for themselves, which might include sourcing food from markets, street vendors and fast food retailers; cooking or sharing cooking responsibilities with other people in shared accommodation; and/or making food choices daily in school dining halls and workplace canteens. While migrants may mix with people from different cultural backgrounds, they often live and socialize with members of their own family or diaspora community. Either way, the social networks of migrant youth are liable to expand significantly, and they are likely to be exposed to unfamiliar foods, cuisines and consumption practices, often while also trying to maintain some familiar food habits in a new setting.

Marriage and parenthood will endow youth with new domestic relations and caring responsibilities. Relocation to join a spouse's household could also entail changes in dietary habits and practices to accommodate the habits, preferences and routines of the spouse's family.

## CONCLUSIONS AND IMPLICATIONS FOR POLICY, RESEARCH, AND PRACTICE

In this paper we examined the multiple ways that young people engage with food systems in order to achieve their objectives and advance their interests across four domains: biophysical, economic, cultural, and social. We drew on the generational, life-course and intersectional perspectives on youth, to explore whether there is anything unique or distinctive about young people's engagement with food systems, compared to other generations and social groups. Our exploration found that, while there are a few ways in which young people's engagement with food systems is distinctive, in many ways their interests overlap with those of non-youth. Everybody has an interest in the availability and accessibility of safe and healthy food, clean air and water, a stable and habitable climate, decent jobs, and the fair and equitable distribution of the goods, services, hazards and harms that food systems produce and distribute. In terms of objectives, interests and modes of engagement, there is much in common between today's youth and their parents' generation. The fact of being young may be no more important to a person's connections with a food system

than other identities, attributes and circumstances, including gender, ethnicity, economic geography, socio-economic position (including migrant status), educational attainment, access to productive resources, the quantity and quality of economic growth, and so on. These factors condition and channel the available opportunities through which food-related objectives and interests are pursued.

Young men and women do have specific nutritional needs during puberty, which is especially important if they have had the disadvantage of poor nutrition during the early years of childhood. It is also the case that most youth, simply because they are young, will engage and interact with food systems from a position of less experience, knowledge and skill than an adult, and in most cases a less powerful position. It follows that there is little justification for reifying youth as potential agents of change, who could or will play the central role in driving food system transformation toward greater sustainability. Youth are likely to lack productive resources, such as land and capital, or an influential voice in political arenas. While it is plausible that young people may be less committed to existing ways of doing things, the belief that they are intrinsically more innovative or creative than older people does not have a solid foundation (Sumberg and Hunt, 2019). The inexperience of the youth generation also cuts both ways: although its members may be more open than their parents and grandparents to novel practices and patterns of behavior, they may also struggle to perceive the historical contingency of the food system structures and institutions within which they have grown up. Taking these for granted, they might find it hard to step outside them. Owing to inexperience, they may variously under- and overestimate their ability to bring about change.

How should food systems researchers, policy makers and development practitioners apply these insights in their work? The size of today's youth generation makes it imperative for policy makers to appreciate and address the problems and challenges that confront young people, who are striving to discover or create viable livelihoods. Society at large has a keen interest in ensuring that these emerging livelihoods are economically, ecologically and socially sustainable.

The generational approach should help food systems researchers and development practitioners to understand that today's youth generation is historically situated as a "generation in itself," facing a unique and unprecedented conjunction of historical processes which is creating novel opportunities and challenges that are conditioned by uncertainty and risk. The world into which youth are coming of age is being defined by the effects of powerful secular processes such as population growth, urbanization and climate breakdown, changes in the worlds of work and employment, intensifying connectivity and mobility, and the deployment of radical new technologies, including artificial intelligence and automation. A generational perspective should also help analysts to study the equity and efficiency with which food systems generate and distribute different benefits, costs and risks, taking into account the fact that younger generations will live with both the beneficial and harmful effects of the food system for a longer time than older generations.

At the same time, this paper has explored how the complexity of youth, as an identity and a connected, situated condition of being, makes it difficult and inappropriate to generalize about young people. Instead, we have highlighted the utility of a relational and intersectional approach which should avoid treating youth as a homogenous category, because the condition of being a young person may not be the critical factor in every situation. Meanwhile, the life course perspective provides a useful reminder that being a youth is a transitional phase, not a permanent condition. Whatever strategies are selected to grapple with food system issues as they affect youth, they should be sensitive to the passing of time, the needs of the future, and the dynamics of continuous change.

With these caveats duly recorded, we suggest three guiding principles for food systems researchers, policy makers, and practitioners.

First, avoid any generalizations about youth. Instead, recognize the locally, socially and culturally specific, context-dependent meanings and significance of youth. Take the time to appreciate the multifarious ways in which young people are implicated in food systems: think carefully about which categories of young people are of interest or concern, then characterize their connections to food systems, deliberately and carefully, without necessarily leaping to the conclusion that their youth is or should be the primary characteristic of concern. Be explicit about any beliefs or assumptions regarding the unique and special ways in which youth are implicated in food systems and be ready to address issues that affect other social categories in similar ways as they affect young people.

Second, a key priority for policy and practice is to ensure that young people have access to macro- and micro-nutrition of sufficient quality and quantity to support healthy growth and the transition to sexual and reproductive maturity. Yet even this, while it may be especially important to youth, is not unique to them, since adults also need continuous supplies of adequate nutrition to support healthy reproduction, childbearing and breast feeding. Other important priorities are to remove or lower structural barriers that exist because of, or are exacerbated by, being young. Depending on the context and circumstances, these might include difficulties in accessing productive resources, jobs, training, information, capital, credit, and so on. If these problems are not unique to young people, they might be tackled within an integrated approach that also seeks to benefit older and younger generations.

Finally, we recommend a cautious and circumspect attitude toward youth as potential agents of change. The youth movement that has emerged in recent years around Greta Thunberg, the young Swedish climate activist, is emblematic, for some observers, of special qualities of idealism and iconoclasm that animate youth, which hold the potential to transform the world. Certainly, the “School Strikes for Climate” and “Fridays for Future” campaigns have mobilized millions of school-age youth and inspired many adults around the world. However, the generational perspective should lead us to wonder whether the wide resonance of Thunberg’s inspirational stand, among not only people of her own age but also many who are older and younger, stems from special qualities belonging to Thunberg

and her generation, or arises from the common predicament that faces them. As food systems transform in response to macroeconomic change and the climate emergency, the next generation will very likely be called upon to undertake new kinds of activities and adopt novel practices. In general, young people may be more open than older generations to embracing new ways of doing things, but this may be due to structural causes—such as a lack of prior commitment to existing activities and practices, or a shared rejection of a dismal economic and environmental inheritance—rather than an intrinsically more innovative, creative or risk-seeking personality. Just because the stakes are higher today, we should not expect today’s youth generation to be better equipped to face the challenge on behalf of society. In other words, there are certainly very good reasons for policy makers and practitioners to work with or support youth if they want to change food systems, but the approaches taken may not be very different when working with adults. All social groups, including youth and others, are likely to need support to overcome structural obstacles, access resources, acquire skills, build confidence, and feel empowered to create, build and pursue new, sustainable and productive livelihoods, including new ways to produce, process, distribute and consume food. The generational, intersectional and life course perspectives show that change agents are not necessarily a special kind of person, but people whose agency is embedded within, and contingent upon, wider biophysical, economic, cultural and social networks, structures and relationships that support them to achieve change.

## DATA AVAILABILITY STATEMENT

The original contributions presented in the study are included in the article/supplementary material, further inquiries can be directed to the corresponding author/s.

## AUTHOR CONTRIBUTIONS

The paper was written and edited jointly by DG and JS, who worked together on the review of literature, refinement of the conceptual framework and development of the argument. The paper was conceived by JS, who proposed the idea and secured funding for the work to be done. All authors contributed to the article and approved the submitted version.

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**Conflict of Interest:** The authors declare that the research was conducted in the absence of any commercial or financial relationships that could be construed as a potential conflict of interest.

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