

Rural transformation, cereals and youth in Africa: What role for international agricultural research?

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Abstract

Young people are increasingly linked to targeted agriculture and food security interventions. In Africa, the argument is that the combination of agricultural value chains, technology and entrepreneurship will unlock a sweet spot for youth employment. This article examines this argument from a rural transformations perspective. A framework is proposed with which to analyse young people's economic room to manoeuvre in different rural contexts and the differential abilities of young people to exploit associated opportunities. Using cereal agri-food systems as an example, the article identifies two new research areas that address important knowledge gaps: how young rural people in Africa engage with these systems and what pathways they use to become engaged. To address these questions, we propose an analytical framework built around key contextual factors that constrain or enable young people's economic activity. By pursuing the proposed research agenda, international agricultural research could make important contributions to both agricultural policy debates and development-oriented interventions.

Keywords

Young people, smallholder farming, rural economy, development, commercialization

Introduction

Over the last decade, the profile of youth in development policy has increased significantly (DFID, 2016; FAO et al., 2014; MasterCard Foundation, 2015; The World Bank, 2006; USAID, 2012). In sub-Saharan Africa (SSA), this reflects concern about the 'youth bulge' and the related search for the demographic dividend, years of jobless growth, rural outmigration and a purported link between under and unemployment among youth, civil conflict and political unrest (Urdal, 2006; Alfy, 2016). Young people are variously portrayed as an opportunity or a problem, as 'makers' or 'breakers' (Honwana and de Boeck, 2005).

Agriculture is widely seen as having a central role in the provision of productive employment for Africa's youth (AGRA, 2015; Filmer et al., 2014; Losch, 2016). The argument is that agriculture is the only sector that has the potential to provide the number of jobs required in the near term; moreover, it is argued that youth engagement in the sector will help counteract an aging farming population and make a positive contribution to food security and sustainability. However, if agriculture is to be the sweet spot for youth employment, it must become more attractive, more productive and more profitable – it must modernize and be less laborious. It is here that the new-found interest in youth, with its particular emphasis on rural entrepreneurship,

skills enhancement, innovation and value chains, meets the long-standing concerns of agricultural and rural development including technological change, extension, land reform, infrastructure and markets.

Against this backdrop, agricultural research organizations have been prompted to take steps to engage with youth. For instance, the CGIAR (<http://www.cgiar.org/>), a global agricultural research partnership, includes reference to youth in its latest Strategic Research Framework (CGIAR Consortium Office, 2015), and in 2015, it required all proposals for the new round of CGIAR Research Programmes (CRPs) to articulate how they propose to engage youth.

However, the existing policy narratives and programme approaches linking youth, agricultural development and food security are problematic. First, they frame issues such as limited access to land and credit as youth-specific

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(AGRA, 2015; FAO 2014), ignoring the structural nature of these constraints; that is, in most situations, these issues affect other social groups as well as youth. They also conflate situations where young people may be systematically discriminated against in their access to productive resources (Peters and Richards, 2011), with circumstances in which young people, by virtue of being young, are more likely to have fewer assets, less status and less access to resources than older people. Second, they assume that the opportunity to engage with value chains is open to all young people independent of the rural environment in which they live and their individual circumstances (FAO 2014; SNV, 2016). Third, they accept a broad conception of entrepreneurship, to the point where any income generating activity is seen as reflecting entrepreneurial behaviour (Langevang et al., 2015; Schøtt et al., 2015). Fourth, they rely on essentialist thinking, suggesting that all young people share particular characteristics, such as being ‘innovative’ of having a particular mindset (AGRA, 2015; AfDB, 2016; SNV, 2016). Finally, they tend to conceive of young people as isolated economic agents, ignoring the fact that their economic activity is deeply embedded in and dependent on networks of family and social relations (Flynn and Sumberg, 2017).

These same narratives, framings and programme approaches are also discernible within the CGIAR. While a number of the CGIAR’s CRPs have developed ‘youth strategies,’ no clear research agenda has yet emerged. The high-profile IITA Youth Agripreneurs programme¹ seeks to change the mindset of young people in relation to agriculture and promote entrepreneurship, but the research element of the programme is very limited.

With this article, we propose a theoretically informed approach to youth-oriented agricultural research that has wide applicability. Specifically, we build on the work of Filmer et al. (2014) and Losch (2016) and argue that it is critical to highlight processes of rural transformation in any consideration of youth and agriculture in Africa. In the next section, we explore the context of rural transformation in SSA. Following this, we highlight the implications of these processes for young people, taking into account the social and other differences within the category of youth, and how young people are embedded in broader social systems. Subsequently, we provide a new framework for the analysis of the economic room to manoeuvre available to rural young people and identify two key research areas. A more nuanced understanding of young people’s present and future engagement with agri-food systems can provide a more solid foundation for policy and programmes on youth and agriculture in SSA. We use the case of staple cereals to develop and illustrate our analysis. We do so because cereals are central to global food security and are critical to farming systems throughout SSA, accounting in 2011 for over 110 million hectares out of a total arable land area of 252 million hectares (FAOSTAT). If the aim of having millions of young people working in a transformed agricultural sector is to be realized, cereal systems will necessarily play a major role. However, the value of the

approach we describe is in no way limited to cereal systems.

In what follows, we use the terms youth and young people interchangeably to refer to individuals – male and female – who are planning or taking initial steps in livelihood building. Some may be in school or university, while others will have left or completed their formal education; some may be just thinking about the world of work, while others will be looking for work or already working; some will live at home, while others will be living independently, or will have already started a family. Despite these differences, two important notions that give the terms youth and young people meaning are ‘becoming’ and ‘transition’. Youth differ in terms of age, gender, class, ethnicity and other characteristics: it is their diverse social positions and relationships that are central to our analysis.

Finally, the notions of ‘structural’ transformation and social ‘structures’ figure prominently in what follows. While they are rooted in different intellectual traditions, their interaction and co-evolution are central to processes of rural transformation.

Rural transformation

Structural transformation and economic growth

The notion of structural transformation (Johnston and Mellor, 1961; Johnston and Kilby, 1975; Mellor, 1976; Timmer, 1988) is a useful way to conceptualize the core processes of economic growth and rural development. Structural transformation can be understood as several interrelated components. It is often conceptualized as beginning with agricultural productivity growth, led by productive farmers with enough land to generate marketable surpluses. This growth results in income gains which stimulate demand for goods and services from non-farm sectors. Rural–urban migration is stimulated by increasing demand for non-farm labour, driving urbanization. The gradual movement of labour from farm to non-farm activities is reflected in a declining share of agriculture in total gross domestic product (GDP) and employment. Less efficient farmers are likely to exit farming first, driving net efficiency gains. The movement of labour from agricultural to other sectors may enable land consolidation, as more efficient producers obtain land from less efficient producers (reflecting its higher marginal value for the more efficient farmers).

Across the economic system, structural transformation results in productivity increases through two main channels: first, aggregate labour productivity rises as labour migrates from less productive to more productive economic activities; second, productivity growth may occur within sectors, as a result of technological development. Within agriculture, such growth is driven by the exodus of less efficient labour, abetted by technical innovation, scale economies, shifts to higher value commodities (driven, in turn, by the changing demands of urbanizing populations) and improving market infrastructure and supporting services.

Empirical evidence on how this process has played out in recent decades in the developing world highlights several important stylized facts. First, while agriculture's share of GDP and employment has been decreasing across the developing world, the rate of decrease has been relatively small, and agriculture is still the dominant sector. Second, there are very distinct regional variations in the transformation process: only in Asia (and particularly in a few countries, e.g. Vietnam, China) has surplus labour moved from agriculture into more productive sectors (e.g. manufacturing, high-value services). In Latin America and, especially, SSA, the more limited movement of labour out of agriculture has been into lower value services and the informal economy, offsetting the productivity growth that has taken place within agriculture and dampening overall levels of economic growth (McMillan et al., 2014). In the case of Africa in particular, the phenomenon of urbanization without industrialization has been well documented (Jedwab, 2011, 2013). Third, these stylized patterns are reflected to a certain extent in patterns of growth within the agricultural sector: while Asia has seen agricultural productivity growth, rates of growth have been much lower for Latin America and SSA. The agricultural growth that has taken place in these regions has largely come through area expansion, rather than productivity increases (Gollin et al., 2016).

Rural population and land availability

Despite the reduction in agriculture's share of GDP, there are sizeable populations that will remain in rural areas and will be dependent to some degree on agriculture. This is particularly true for SSA, where the population of young people is projected to increase by 95 million between 2015 and 2030 (UN, 2015), the majority of whom will live in rural areas. In contrast, the youth populations of Latin America, North Africa and the Middle East are reducing or growing at a much lower rate (ibid); but even in Asian countries where agriculture's share of employment has seen the largest reductions, the absolute number of people in rural areas will remain very high for the next decades. By 2050, 2.8 billion people will still live in rural areas, and South Asia and SSA will account for two-thirds (Losch et al., 2012: 2). Given the annual volume of new labour market entrants in rural areas, along with the limited absorption capacity of urban economic sectors (particularly in SSA), current thinking is that millions of young people in the developing world will need to find viable employment in the (farm and non-farm) rural economy.

Agricultural land is already a scarce resource in many rural areas of the developing world. In Africa, it was traditionally assumed that cropland was an abundant resource, available to meet the food and other needs of growing populations. However, recent work has shown that surplus land is highly concentrated, with as much as 90% of SSA's unutilized arable land located in just six to eight countries (Chamberlin et al., 2014). In the list of land-scarce countries, are some of the continent's most populous ones, including Nigeria, Ethiopia and Uganda (ibid).

Population increase plays an important part in growing land scarcity. Over the past decades, farms in Africa have become smaller. For example, in east and southern Africa, the arable land area has increased 'only marginally over the 1980–2010 period, but the percentage of households engaged in agriculture has grown threefold' (Jayne et al., 2014: 3). In addition to rural population growth, the allocation of land to transnational corporations and domestic businesses for large-scale ventures can shape farming households' access to land (Chinsinga and Chasukwa, 2012; Sitko and Chamberlin, 2016). There are other factors that make land relatively scarce including the quality of the natural resources and settlement patterns which concentrate near market infrastructure: in SSA, '82% of the population is found to reside in only 20% of total rural land area, and 62% reside within just 10% of this area' (Jayne et al., 2014: 4).

Asia is even more densely populated and has also witnessed a significant decline in farm size: South Asian farms have decreased on average from 2.01 ha to 1.19 ha per holding, while in China and South-East Asia land area per farm has decreased from 2.08 ha to 1.58 ha (Headey and Jayne, 2014). Asian agriculture responded to increasing land pressure with technological change (mainly fertilizer, varieties and irrigation) and as a result, increased total agricultural output, and land and labour productivity, despite shrinking farm size (ibid). This dynamic has not been observed in Africa.

Compared to Asia and Africa, Latin America has significantly more land availability per capita, and in the case of South America, the average hectares per holding have actually increased since the 1970s (probably due to forest clearance). However, Latin America also has the greatest inequality in land ownership, with very large farm owners coexisting with small-scale farmers. Further, as mentioned above, Latin America has been relatively unsuccessful in increasing agricultural output and productivity since the 1970s (Ferreira et al., 2013).

Economic opportunities for rural youth in changing agri-food systems: Thinking beyond the plot

The foregoing changes imply that (a) the number of young people in rural areas will increase dramatically throughout the developing world over the next few decades, particularly in SSA; (b) only a small proportion of this youth bulge will be absorbed by the non-farm sector in urban areas (again, particularly in SSA) and (c) rising levels of relative land scarcity mean that not all of the rural young people entering the labour force will be able to operate their own farms. It will therefore be increasingly important to understand the scope for stimulating viable economic opportunities in both the farm and non-farm rural economies. A narrow focus on 'youth as the farmers and agri-entrepreneurs of tomorrow' will be insufficient at best and disastrous at worst.

Beyond growing land scarcity and the transformation of national economies, globalization has also meant a restructuring of agri-food systems and changes in the opportunity set available within rural areas. At the production end, a

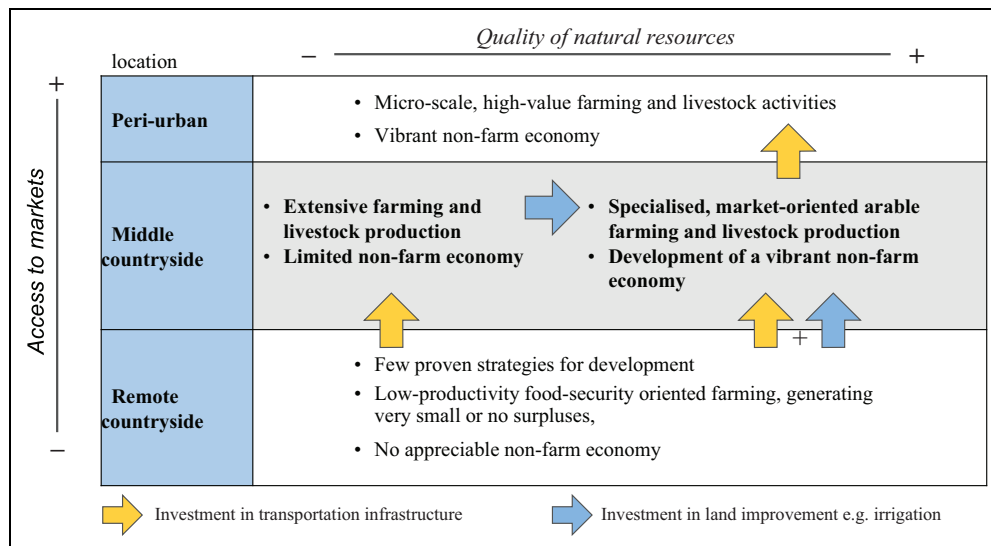


Figure 1. Agricultural development implications of access to markets and natural resource quality (adapted from Wiggins and Proctor, 2001).

focus on local and national markets (nurtured by import substitution policies in the 1960s and 1970s) has given way to increased interest in export-oriented ventures, including traditional export crops (e.g. coffee, cocoa, tea, sugar, cotton and palm oil); high-value agricultural products such as fresh fruit, horticultural products and cut flowers and ‘flexi-crops’ such as soy, sugar and grains for the production of food, ethanol and livestock feed (Bernstein, 2010). Systematic evaluation of where and what the resulting opportunities are, and to whom they might be open, should form a critical component of a youth-relevant research agenda. For instance, growth in export-oriented agriculture may displace cereal production, thus reshaping opportunities for young people. In addition, investments in some crops and value chains may create more employment opportunities than others: for example, Deininger and Byerlee (2011: 38) suggest that ‘Oil palm and (manual) sugarcane generate between 10 and 30 times more jobs per hectare than does large-scale mechanized grain farming’.

The discussion of rural transformations has shown how demographic developments change agricultural production contexts in paradoxical ways. For instance, as a result of African urban population growth – and increasing demand for food – the potential for commercial agricultural production increases. Yet, increasing rural population densities at the same time put farm sizes under pressure (Jayne et al., 2014). Such trends have important ramifications, particularly for the economic geography of cereal-based agri-food systems, whose profitability generally depends on economies of scale, and therefore relatively large land areas, but also on ready access to markets.

Figure 1 distinguishes four types of economic geographies for cereal production, based on the resource quality and access to markets. The basic idea is that market access (represented vertically in the figure) is a fundamental conditioner of production possibilities and choices, following a logic similar to that proposed by Von Thünen in 1826 (Von Thünen, 1966). In areas close to markets, where land prices

are high, horticulture and other high-value products are likely to have a comparative advantage over land-demanding cereal production. Hence, the commercial importance of cereal production is likely to be greatest in areas with moderate market access (labelled ‘middle countryside’ in Figure 1).

A second dimension, reflecting agricultural production potential, distinguishes good and poor biophysical endowments. Natural resource quality is less critical in highly accessible, peri-urban areas, where the returns to investment in irrigation and the inputs to address resource quality deficiencies are high. In very remote areas, even good quality soils and climate may not be enough to make production more commercially oriented, as the fundamental limitation is market access. Within areas of moderate market access, however, such differences may be important, with better biophysical endowments associated with greater likelihood of commercially viable production.

Population growth and development of transportation infrastructure are important drivers that alter the context of agricultural production, enlarging markets and their geographical reach. Directly and indirectly, these forces stimulate investments in increased productivity, influencing the dynamics of rural areas in terms of production orientations, economically viable production options, crop choices, land access regulations and so on. Represented by arrows in Figure 1, these forces shape the dynamics between the four economic geographies. Identifying and characterizing the different development contexts of cereal-based agri-food systems, thus constitutes an important research activity that will lead to a better understanding of young people’s diverse livelihood opportunities, as well as the constraints they face in realizing these.

Young people and rural transformation

The economic and employment opportunities that will arise in urban and non-farm sectors are likely to remain limited,

and particularly so in SSA. This, combined with fears about future food security, underpins the interest of policy-makers, planners and development professionals in what is being portrayed as youth-inclusive rural transformation.

Youth specificity

It is reasonable to expect that both within and between social groups and rural situations, rural transformation will create opportunities for some and challenges for others. Dorward's 'hanging in', 'stepping up' and 'stepping out' framework provides a useful perspective on the different potential pathways for rural people faced with rural transformation (Dorward, 2009). Those who either 'hang in' or 'step up' might remain or become producers in their own right; work as wage labour on farms, or in other associated agricultural (formal or informal) businesses; and/or operate businesses that are in some way associated with agriculture. Those who 'hang in' often only maintain their farming activities, whereas those who 'step up' increase their land and/or labour productivity.

But what, if anything, is youth-specific about these pathways? Are the opportunities and challenges faced by young people qualitatively different from those faced by other social groups? We distinguish between constraints that affect or opportunities that are open to (1) multiple social groups; (2) multiple social groups, but with a stronger effect on, or more easily seized by, young people and (3) young people only or uniquely (i.e. they are youth-specific). We argue that only constraints or opportunities in category (3) would justify youth-specific interventions. Such youth-specific interventions are unlikely to succeed if they simply try to address the symptoms of broader structural issues (like those in categories (1) and (2)).

Unfortunately, this distinction is not made in the current discourse around youth in agriculture, nor does it inform associated programming. Rather, constraints such as lack of access to credit, land and technology are constructed as 'youth-specific', suggesting systematic discrimination and disadvantage. This construction is then used to justify youth-specific interventions such as providing privileged access to credit land and training in business management and technology-based farming. On the opportunity side, youth-specificity tends towards essentialist thinking, with the suggestion that youth, as a category, are innovative and entrepreneurial, more ready to try new things and take risks than other social groups.

There are certainly some instances of systematic discrimination against young people in rural areas (e.g. the case of Sierra Leone, see Peters, 2011). However, other commonly cited examples like young people having limited assets, or banks refusing to open accounts for or lend to young people, reflect the fact that in many situations, the simple fact of being young means you are likely to have fewer assets, less status and less access to or claim on productive resources. In addition, banks and other firms may be legally prohibited from providing credit or entering into contracts with minors (for the young person's own protection).

As rural transformation proceeds in Africa, agriculture in at least some rural areas will become more intensive and more commercially oriented. It should be expected that land, livestock and other agricultural assets will increase in value, creating greater barriers to entry. These barriers may be particularly problematic for young people seeking to establish themselves as producers in their own right, especially if they are not in a position to gain access to these assets through family ties or inheritance. It is not unreasonable to expect that over time, the literature on the 'new farm entrant problem' from the developed world (e.g. Ingram and Kirwan, 2011) will become increasingly relevant to our understanding youth pathways in Africa's rural commercialization hotspots.

Social differentiation

Social categories can be described by the characteristics that individuals have in common, such as age, gender or socio-economic status, which make them distinguishable from other groups and contribute to shared understanding and experience of the world.

While defining youth by age brackets may be a legal necessity, for example, specifying the minimum age for exercising rights, criminal responsibility and so on (te Lintel, 2012), an understanding of youth that omits contextual influences and the interlinkages of age with other social categories is highly problematic. Being young is not a uniformly experienced transitional phase in life between childhood and adulthood. Rather it is above all highly gendered and intersects with other identities such as marital status, ethnic affiliation, class, education or employment status (Langevang and Gough, 2012; Kristensen and Birch-Thomsen, 2013). Young people's embeddedness in families, social networks and communities, as well as norms and expectations related to age and gender, influence the exercise of agency (Huijsmans, 2014) as well as livelihood decisions and outcomes.

Our interest is in how social differentiation *among* rural young people influences the futures they imagine for themselves and their ability to take advantage of agricultural and other opportunities in the rural economy. To illustrate, limited access to or ownership of land has been reported as a major constraint on young people's engagement with agriculture. However, access to land is affected by more than just age. In southern Ethiopia, the transfer of land from parents to children is linked to marriage, which is considered the appropriate time for land transfer (Bezu and Holden 2014). Daughters have less expectation to inherit land from their parents than sons. In Burundi, the traditional and still current pattern of inheritance is that married sons, not daughters, receive land from their fathers (Berckmoes and White, 2014). Finally, in Ivory Coast, land access is differentiated among youth of migrant and non-migrant backgrounds (Chauveau, 2005).

If social differentiation among rural youth in Africa is a fact of life, it has not yet been widely integrated into research on young people and agriculture. Some studies include variables other than age, such as gender,

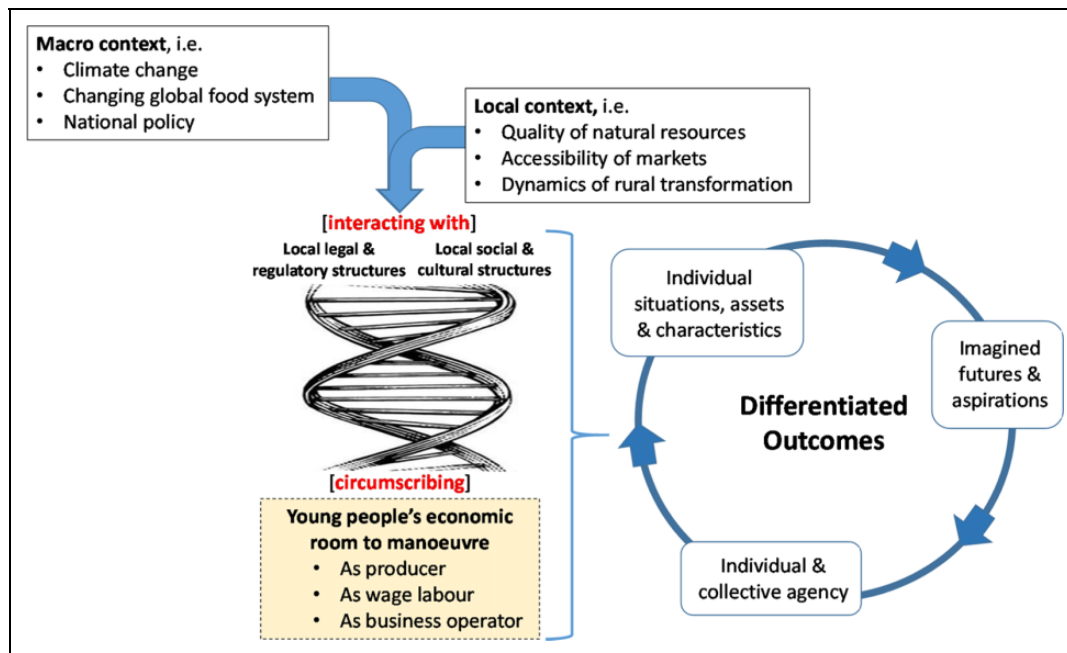


Figure 2. An analytical framework for evaluating young people's room to manoeuvre in different rural economic contexts.

educational achievement or marital status, but most often they do not go beyond counting frequencies, and therefore fail to establish links between different influencing factors and outcomes (Auta et al., 2010; Maele et al., 2015). Sometimes, even reporting on the sex of the researched population is omitted, and the term youth is used implicitly to refer only to young men (e.g. Sharma, 2007).

A role for international agricultural research

It is in this context that international agricultural research has an opportunity to identify and address important knowledge gaps. With this opportunity in mind, here we build on the rural transformations and social science literature on structure and agency, to present a new framework. The framework supports a more analytically coherent approach to understanding the economic room to manoeuvre which is open to specific social categories of people, including young people, in particular rural locations. Using this framework, we identify two key research areas.

An analytical framework

At the core of the framework is the proposition that the interactions of context, place and social structures act to circumscribe livelihood room to manoeuvre. Because of the role of social structures, this circumscribed room to manoeuvre very much reflects social differences. The framework has four elements (Figure 2).

Macro context. This includes national policy, the structure of national and regional economies, changing food preferences, the changing global agri-food system and climate. The macro context is the backdrop against which all else plays out.

Table 1. Institutional structures that circumscribe the economic manoeuvrability of young people.

Legal and regulatory structures	Social and cultural structures
Legal (e.g. property law, inheritance and marriage law, etc.)	Class/caste
Regulatory (e.g. public and private market standards)	Ethnicity
	Religion
	Norms and expectations around gender, family and marriage
	Traditional land tenure regimes
	Traditional arrangements for accessing labour and finance
	Markets

Local context. This includes the quality and availability of local natural resources, accessibility of markets and local manifestations of climate change. Within a country or a subnational region, rural places can differ significantly in relation to these factors. Local context also includes the dynamics of rural transformation, including the introduction of new agricultural technology and services such as water, power and transportation.

Social structures. For our purposes, we take social structures to include laws, regulations, traditions, expectations, values and norms – formal and informal – that act to constrain or enable people's individual and collective agency. These structures are relatively stable but evolving. In Table 1, we identify two broad categories. On the left are those associated with legal and regulatory frameworks: many of these are formal – they are written down and codified

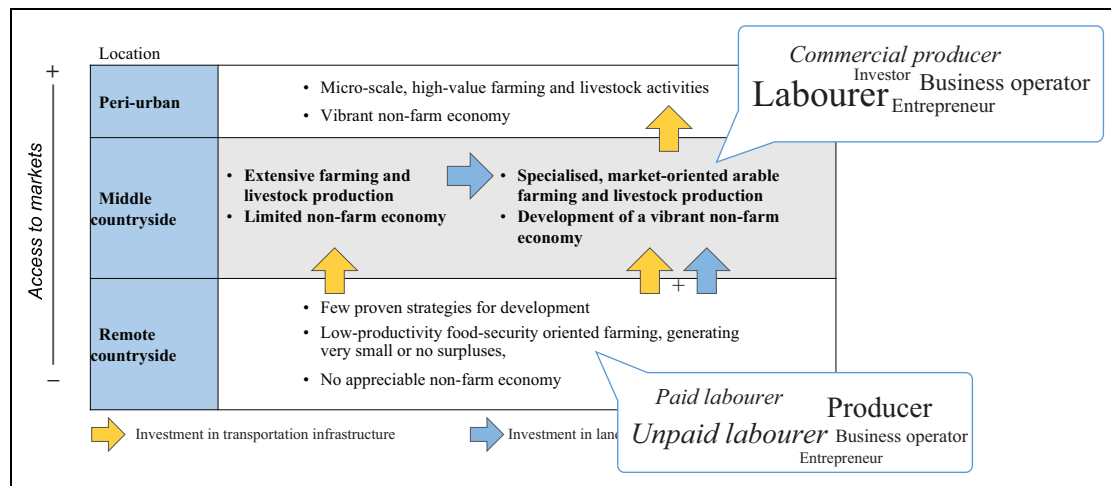


Figure 3. Examples of possible types of engagement with cereal agri-food systems and their distribution within different contexts (large fonts represent larger numerical presence).

– although they may be experienced in very different ways. On the right side of the table are social and cultural structures, and these can range from very informal rules, expectations and social norms, to more formalized structures such as customary land tenure regimes and religious rules.

A basic tenet of the framework is that the dynamic interplay among these different structures plays a critically important role in circumscribing the room for manoeuvre for particular social categories in specific agricultural settings. This interplay goes a long way in explaining differential access to agricultural and other livelihood resources, and thus the differential ability to take advantage of rural opportunities (also see White, 2015).

Individual situations, characteristics and agency. It is the interplay of structures and agency that guide and constrain social and economic relations and exchange (Giddens, 1984). Young people can act individually or collectively to exploit agricultural room to manoeuvre, but of course, do this from very different social and economic positions. They can also exercise agency to challenge social structures: *inter alia* contesting gender and age norms (Kear, 2013), reclaiming customary entitlements to land and other resources (Chauveau, 2006) or demanding state intervention in their favour (White, 2015).

Two research areas emerge from this framework based on the interaction of context, structures and agency. The first asks if and in what ways different kinds of youth engage with cereal agri-food systems. The second interrogates the different life courses or pathways that allow particular young people to engage in commercial cereal production or in associated economic activities.

Research area 1: Young people's engagements with cereal agri-food systems

Although Figure 1 appears oriented towards agricultural production, its logic extends to non-farm economic activities associated with a dynamic of increasing agricultural productivity and commercialization. No appreciable

non-farm economy can be expected in remote rural areas where agricultural production is likely to remain oriented towards household food security. Conversely, an emergent or thriving non-farm economy can be expected in rural and peri-urban areas with increased market access. In such areas, we are also most likely to find supporting services and related economic opportunities. Such opportunities may be both upstream (e.g. input marketing, private extension services) and downstream (e.g. milling, transportation, trading). In cereal agri-food systems, economic opportunities potentially open to young people will be context-specific – this context being shaped by differences in market access and resource quality. We expect most diversity in the types of engagement in cereal agri-food systems – as producer, wage labourer, business operator and/or investor – to be found in middle countryside (Figure 3). A key question for research is therefore to identify the different types of economic opportunities – and their distribution – through which young people engage with cereal agri-food systems in different contexts. What role(s) do staple cereals play in the economic activities of young people in different rural situations and how do these vary across young people in different social categories?

Research area 2: Young people's pathways into cereal agri-food systems

While youth-focused agri-food systems research could, depending on its aim, target any of the four contexts distinguished in Figure 1, we expect most economic opportunities for young people to be in contexts characterized by increasing agricultural productivity and commercialization. Yet, even within particular contexts, the economic opportunities for youth engaging with cereal agri-food systems are not equally distributed. As was argued earlier, young people's room for manoeuvre very much reflects macro and local context and social differences. To date, these interactions and their implications for young people have received surprisingly little research attention.

The framework presented in Figure 2 suggests that within a given context, differences in young people's room to manoeuvre will be explained by individual situations and characteristics (assets, resources, knowledge, skills and networks), social norms and relations, imagined futures or aspirations and individual and collective agency. These constitute potential barriers or enablers for young people aiming to initiate a new farming venture, enter the labour market or start a new business. It is now critically important to develop a better understanding of how local contextual factors and social difference interact to shape the diverse pathways by which young people engage with cereal agri-food systems. Studies of different young people who have successfully navigated the barriers to their establishment as commercial cereal farmers or in associated economic activities would be particularly valuable. A focus on middle countryside areas characterized by agricultural intensification and commercialization will be most valuable.

Conclusion

The new interest in young people as economic agents within Africa's agri-food systems is to be welcomed. However, discourses, policy and programmes that construct and focus on youth-specific constraints and opportunities, and privilege entrepreneurship and imaginaries of millions of rural youth 'pulling themselves up by the bootstraps' are likely to fail. They ignore structural constraints and processes and the importance of social structures as enablers and constrainers. International agricultural research should rather root its engagement with young people in an analysis of rural transformation and its dynamic interplay with rural social structures within particular macro and local contexts.

The understanding of emergent patterns of rural transformation in Africa, the youth-related propositions and the analytical framework presented above have important implications for the study of young people's economic opportunities in agri-food systems. There is a need to step back from the premise that research needs to explain whether, or how, rural young people can be enticed into agriculture. Projected rural population increases and the need for economically viable farm sizes capable of producing surpluses for rapidly growing urban centres suggest neither a countryside devoid of youth nor the need for a massive effort to retain rural youth in agriculture. Rather, to enable the identification of youth-specific constraints to sustainable rural livelihoods (and the subsequent formulation of intervention strategies), there is a need to shift attention towards the diverse ways in which contemporary young people engage with the rural economy. An important challenge for research is therefore to understand (emerging) patterns of young people's engagements with agricultural production and related economic activities, and whether or how this varies across young people of different social categories.

Central to such an analysis should be a relational perspective. People, including young people, have multiple identities shaped by age, gender, class and ethnicity. They are also enmeshed in relationships and networks – as

individuals, as members of a household and a community, and these social relations both enable and constrain. It is time to take seriously the call by Berckmoes and White (2014: 91) that intergenerational dynamics 'should be a core dimension – alongside gender, class and (where relevant) ethnic relations – in the analysis of agrarian structures and their changes over time'. These dynamics will only increase in importance as intensification and commercialization proceed, and agricultural assets become more valuable.

In terms of future research, we advocate a dual approach; with a principle focus on structural and policy changes that lift rural livelihoods as a whole, alongside a lighter focus on understanding the youth-specific dimensions of agrarian change in key geographies and agri-food system contexts. For example, using comparable research frameworks across different thematic and geographical settings, the CGIAR's portfolio of CRPs would be well positioned to generate meaningful and scalable insights.

Finally, we caution against attempts to introduce 'youth mainstreaming' in international agricultural research. The experience with gender mainstreaming in international development has been mixed (Moser and Moser, 2005), and an insistence on youth mainstreaming may reduce the intellectual agenda to concerns with age-disaggregated data and formulaic 'youth participation'. Rather than constructing youth as a new and supposedly homogeneous target group whose concerns can be addressed independently of the rest of society, there is an important opportunity to use the interest in young people to resocialize understandings of, and attempts to influence, African rural transformation.

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1. <http://youthagripreneurs.org>

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