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Young People and Agriculture in Africa: A Review of Research Evidence and EU Documentation

Emma Asciutti, Arnaud Pont and James Sumberg

August 2016

Alliance 2015
towards the eradication of poverty

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August 2016

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Summary

This report presents the results of a desk-based study to assess the available research evidence in relation to African young people's engagement with agriculture, and to analyse how this evidence is reflected in current European Union (EU) policy and programming in Malawi, Ethiopia and Kenya, three of the 89 countries in which Alliance2015 members work. With the aim of stimulating constructive dialogue and debate with the EU and member states in Europe and in countries in Africa, the study sought to address the following questions:

- Are rural young people in Africa turning their backs on agriculture?
- What does the research evidence say about young people's attitudes toward and engagement with agriculture?
- How is this evidence reflected in Europe's current policies and programming in the selected A2015 countries?
- What alternative approaches to policy and programming are suggested by the evidence?

The work was structured around a framework that identified four chains of explanation, each of which addressed the question: *Why are rural young people in Africa turning away from agriculture?* Broadly, these chains focus on structural issues within the agricultural sector/agrarian economy (Chains 1 and 1a); on the interplay between increasing education and rising aspirations (Chain 2); and on a lack of awareness of the opportunities offered by agriculture (Chain 3). While Chains 2 and 3 are specific to young people, Chains 1 and 1a are not – for example, the effects of poor rural institutions and low farm productivity act on people of all ages.

A first finding is that the available evidence provides no clear answer to the question of whether an increasing proportion of young people are turning away from agriculture. Some studies point in this direction, but with continued growth of Africa's rural populations, even a real decline in the percentage of young people working in agriculture could still mean an increase in the absolute number of young people who are living in rural areas and are dependent on farming or livestock production.

We conclude that for a number of countries and contexts, some important elements of Chains 1, 1a and 2 are reasonably well supported by the available research evidence. These include: low investment in agricultural research, limited use of modern agricultural technology, low farm productivity, constrained access to land, increasing primary education and a limited interest in agriculture on the part of young people. Little evidence was found in relation to Chain 3. Overall, we conclude that the links (i.e. the cause and effect relationships) in these chains of explanation are not well supported by evidence.

Beyond the area of education, young people do not figure prominently in the EU's policy and programmes in Malawi, Ethiopia and Kenya. It should not be surprising therefore that the documentation that was reviewed made little direct or indirect

reference to the research evidence concerning the factors affecting young people's engagement with agriculture. In as much as some programmes seek to strengthen rural institutions or reform land tenure regimes, young people are implicated along with other elements of the rural population.

The relatively strong evidence around the research–technology–productivity nexus and issues around access to land suggest that they should continue to be a central focus, even though they cannot (and should not) be framed or justified as a 'youth-specific' policy or programme focus. It will be important to reflect on whether, how and in what situations the EU's strong orientation toward economic growth, market-based approaches and broadly applicable principles and frameworks are appropriate in relation to the structural transformation agenda.

Keywords: youth; youth bulge; unemployment; underemployment; food security.

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Alliance2015 members work together to demonstrate better results, value for money, and increased transparency and accountability. Their presence in **89 countries** gives them access to better infrastructure and a greater reach than each would have individually. In countries where two or more members are represented, their teams exchange information and share learning initiatives. Where and when possible, they also design and implement joint programmes, and share offices.

We gratefully acknowledge the support of Olive Towey and Martine Billanou of Alliance2015, as well as their colleagues who provided documentation and comments on an earlier draft of this report.

The views expressed in this report are solely those of the authors.

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Abbreviations and acronyms

A2015	Alliance2015
ACP	African, Caribbean and Pacific countries
ASTI	Agricultural Science and Technology Indicators
CABS	Common approach budget support
CfPs	Calls for Proposals
CGIAR	Consultative Group on International Agricultural Research
CRF	Coffee Research Foundation (Kenya)
CRAL	Climate Resilient Agricultural Livelihoods
CSO	civil society organisation
DCI	Development Cooperation Instrument
DEVCO (DG)	European Commission's Directorate-General for International Cooperation and Development
EC	European Commission
EDF	European Development Fund
EU	European Union
EUD	European Union Delegation
FAO	Food and Agriculture Organization
FIDP	Farm Income Diversification Programme
FSTP	Food Security Thematic Programme
GDP	gross domestic product
ICT	Information and Communication Technology
IFAD	International Fund for Agricultural Development
IGPWP	Income Generating Public Works Programme
IITA	International Institute of Tropical Agriculture
ILO	International Labour Organisation
ISEM	Improving Secondary Education in Malawi Programme
HABP	Household Asset Building Program
KARI	Kenya Agricultural Research Institute
KCEP	Kenya Cereal Enhancement Programme
KRDP	Kenya Rural Development Programme

LGAF	Land Governance Assessment Framework
M&E	Monitoring and Evaluation
MDG	Millennium Development Goal
NGO	non-governmental organisation
NIP	National Indicative Programme
NLP	National Land Policy
NSA	non-state actor
Obs	observation
PAEPARD	Platform for African–European Partnership on Agricultural Research for Development
PPP	public–private partnership
PSNP	Productive Safety Net Programme
PSTICB	Programme for Science and Technology Innovation and Capacity Building
QDA	qualitative data analysis
R&D	research and development
SSA	Sub-Saharan Africa
STEP	Skills and Technical Education Programme
SUN	Scaling Up Nutrition Movement
TFP	Total Factor Productivity
UNECA	United National Economic Commission for Africa

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1 Introduction

The challenge of providing meaningful employment for young people in Africa has moved toward the top of the development agenda (Box 1.1) (Gough, Langevang and Owusu 2013; Hino and Ranis 2013; Filmer and Fox 2014; MasterCard Foundation 2015). National governments, international agencies, non-governmental organisations (NGOs) and others highlight the magnitude of the challenge, with the International Labour Organisation (ILO) estimating that 10–12 million young Africans enter the labour market annually. The social and political dangers associated with unemployment and underemployment are also highlighted. These actors promote a variety of policy and programme responses – including educational reform, entrepreneurship training, skills development and access to credit – to address the challenge. The Joint Youth Employment Initiative for Africa, launched in 2011 by the African Development Bank, African Union, ILO and United National Economic Commission for Africa (UNECA) is but one manifestation of this concern.

Box 1.1 'Youth' and 'young people' are problematic terms

Any attempt to precisely define the terms 'youth' and 'young people' is fraught with difficulty. African governments and international agencies most often define youth by using an age range, often starting at 15, and going to 25, 30 or 35. While this approach has the advantage of being straightforward, it masks the variation in the ways that different societies and cultures understand the period of life that is bracketed by childhood and adulthood. It also masks very real differences in the lived experiences of young people at the same chronological age.

In this report we use the terms 'youth' and 'young people' interchangeably, and somewhat loosely, to refer to people who are planning or taking the initial steps in livelihood building. Some youth 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 important differences, two important notions that give the terms 'youth' and 'young people' meaning are 'becoming' and 'transition'.

The paradox is that while many African economies have experienced strong economic growth over the last two decades (AfDB, OECD and UNDP 2014), the rate of creation of new formal sector jobs has been very low. As a result of this phenomenon of 'jobless growth' (Bhalotra 1998), many young people find themselves having to settle for precarious informal sector jobs. There is a growing academic literature on the various ways that young people negotiate these precarious employment situations (Honwana 2012; Langevang 2008; Langevang and Gough 2009).

It has become increasingly common to portray agriculture as the sweet spot for rural youth employment in Africa (Filmer and Fox 2014; AGRA 2015; FAO, CTA and IFAD 2014; Losch 2012). The core vision is of young people as agricultural entrepreneurs engaging with value chains, to reap the financial and livelihood benefits of commercialisation within a context of globalisation. This vision informs policy and programmes across the continent, again with a particular focus on entrepreneurship training and access to key resources including land and credit.

The International Institute of Tropical Agriculture (IITA) Youth Agripreneurs programme is a particular case in point.[1]

It is important to note that policies and programmes along these lines must work around a significant but seldom articulated disjuncture. On one side of this disjuncture are authors who take a long-term view informed by a recognition of the need for a structural transformation of African agriculture (Box 1.2) (e.g. Brooks, Zorya and Gautam 2012; Filmer and Fox 2014; Losch 2012). This transformation will only come about if the constraints to agricultural productivity are addressed. Not surprisingly, many of these are the same constraints that have been the focus of agriculture and rural development efforts over decades: a lack of research; limited use of modern technology, including crop varieties; poor rural infrastructure; limited availability of credit; a need for land reform, etc. It has proved to be difficult to gain the required leverage on some of these problems, which suggests that raising productivity and creating jobs will require a step change in the 'level of investment, pace of implementation and quality of programmes' (Filmer and Fox 2014: 114). On the other side of this disjuncture are the set of short-term interventions that are commonly associated with programmes that aim to promote youth employment in agriculture, including awareness raising, entrepreneurship and business skills training, the formation of farmer organisations, integration into contract farming models, and promotion of savings and microcredit. The mismatch between these interventions and the complexity of the structural barriers identified earlier is stark.

It is in this context that Alliance2015 (A2015) commissioned the Institute of Development Studies (IDS) to undertake a desk-based study to assess the available research evidence in relation to young people's engagement with agriculture, and to analyse how this evidence is reflected in current European Union (EU) policy and programming. With the aim of stimulating constructive dialogue and debate with the EU and member states in Europe and in the countries in which A2015 works, the study sought to address the following questions:

- Are rural young people in Africa turning their backs on agriculture?
- What does the research evidence say about young people's attitudes toward and engagement with agriculture?
- How is this evidence reflected in Europe's current policies and programming in the selected A2015 countries (Malawi, Ethiopia and Kenya)?
- What alternative approaches to policy and programming are suggested by the evidence?

In addressing these questions we were acutely aware that the discourse, and much of the programming meant to encourage young people into agriculture, fails to acknowledge the diversity that is evident among both rural young people and rural areas in Africa. It should be obvious that the categories 'youth' and 'young people' mask much diversity in terms of gender, age, ethnicity, education, wealth, access to

1 The IITA Youth Agripreneurs is a group of young graduates involved in agribusiness with the aim of serving as a model to other young people planning to venture into agribusiness. The Agripreneurs also hope to get involved in training of trainers (see https://iitayouthagripreneurs.wordpress.com/).

Box 1.2 Structural constraints and structural transformation

Structural transformation: 'Normally, economic development is accompanied by a declining share of agriculture in both GDP and the labor force with convergence in agricultural factor incomes [e.g. wages] and productivity towards those of other sectors at a relatively late stage in the process. However, despite a declining share of agriculture in total output, agricultural output keeps increasing throughout the process in absolute terms. Such growth can make a key contribution to poverty reduction through a number of routes, including by: raising agricultural and rural non-farm profits and labor income; leading to lower prices for (non-tradable) foods, and, by tightening urban and rural labor markets, raising unskilled wages in the wider economy. Unfortunately, unlike in the advanced and better-performing developing countries, such a structural transformation has not taken place in Africa' (Binswanger-Mkhize, McCalla and Patel 2010: 115).

Structural transformation of African agriculture: 'The lack of structural transformation is also evident within the structure of [African] agriculture itself: the value-added shares of crops and livestock have remained at around 77 percent and 23 percent respectively […] the growth of agricultural output has not been by technological change and a more intensive use of land and labor, as such growth was primarily achieved by area expansion and increased labor supply […] And neither the productivity of land, nor the productivity of labor, increased rapidly […] In addition, the level of fertilizer input today is still at about the level of 7 kg per ha (the same level as in the 1970s). The capital intensity of agriculture in terms of fixed and working capital has not increased. African agriculture remains extremely decapitalized' (*ibid.*: 124).

Constraints to structural transformation: The most commonly identified constraints to the structural transformation of African agriculture are:

- Unsound macroeconomic policies;
- Poor investment climate;
- Poor infrastructure;
- Agricultural taxation that disadvantages African farmers;
- Weak national and regional agricultural institutions for agricultural trade, bio-safety, phytosanitary regulations, seed production, regulation and trade, and technology generation;
- Insufficient investment in generation of agricultural technology;
- Insufficient investment in dissemination of agricultural technology; and
- Poor services to farmers.

resources, social networks, motivation and aspirations (Sumberg and Okali 2013). Similarly, the rural areas that young people find themselves in vary tremendously – for example, in terms of the natural resource base, land availability and access to markets – and this variation has real implications for the viability of different agricultural development pathways (see e.g. Wiggins and Proctor 2001). Thus, in relation to both the research evidence and development initiatives it is important to keep two questions in mind: *Which young people?* and *Which rural areas?*

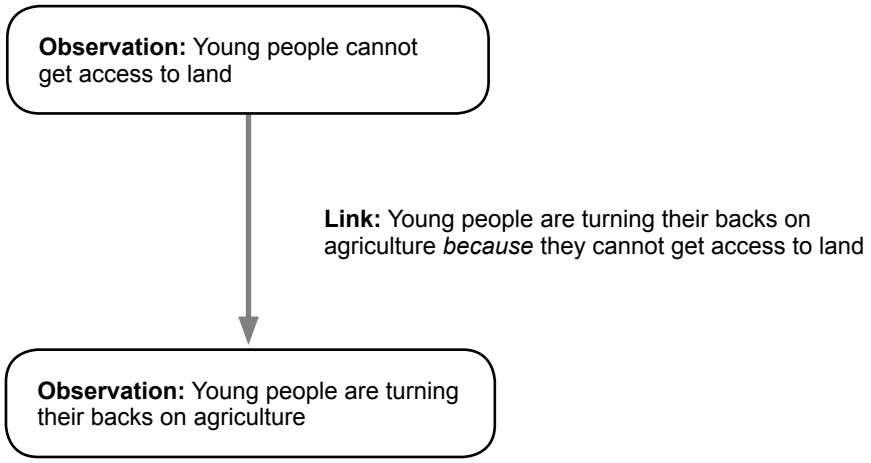
We are also mindful of the fact that there are important trends in Africa, and globally, that will likely affect the agricultural sector and its attraction – or otherwise – to young people. These include population growth and urbanisation; the growth of the urban middle class, and consequent changes in food consumption patterns; and changes in patterns of food production and trade associated with global capital and international trade agreements.

2 Framework and method

2.1 Chains of explanation

This research was built around the notion of a chain of explanation. Here we use this term to refer to a series of logical steps that, taken together, appear to provide a reasonable explanation for a phenomenon or an observation of interest. We are particularly interested in the chains of explanation that researchers, policy actors and others use to explain (to themselves, to the public, to their constituents, etc.) why young Africans appear to be turning their backs on agriculture, and how this can be addressed.

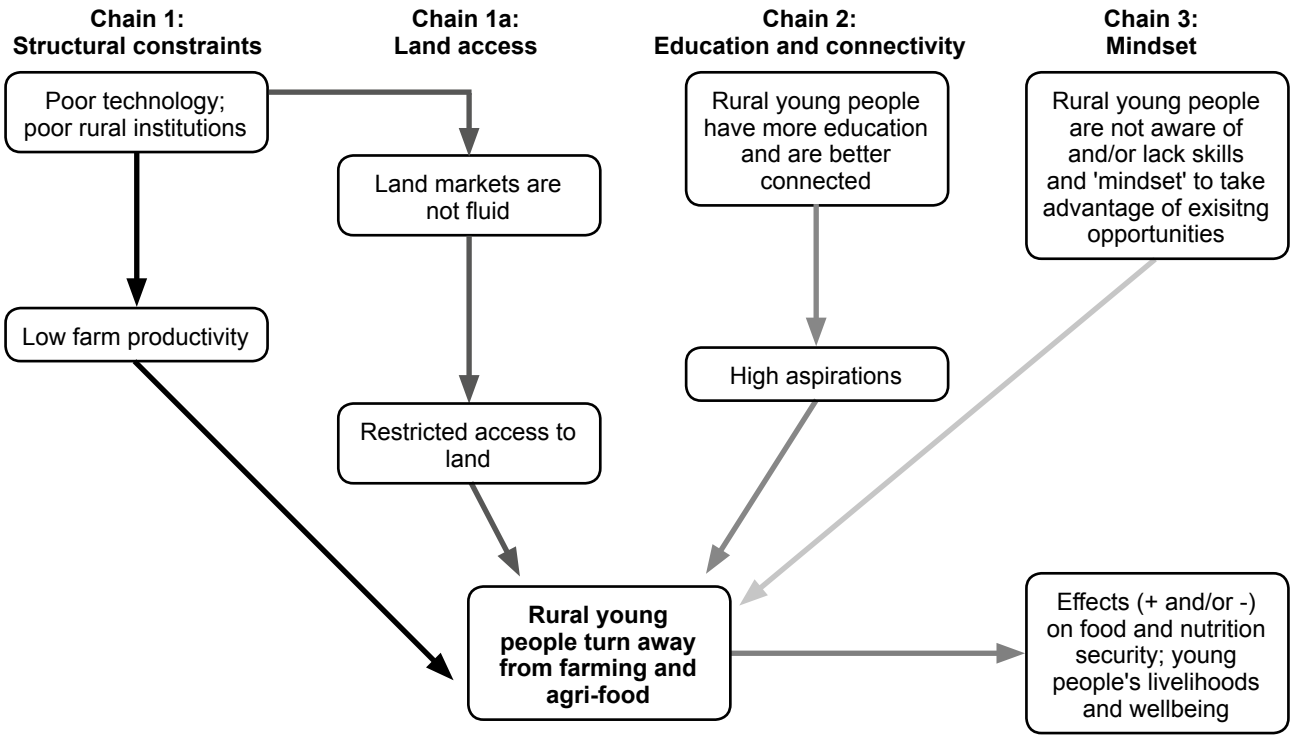
Figure 2.1 A chain of explanation is made up of observations and relationships



A chain of explanation can be thought of as being made up of two components: **observations**, and logical **links** that tie observations together. For example, Figure 2.1 depicts two observations ('young people cannot get access to land' and 'young people are turning their backs on agriculture') that are linked together (young people are turning their backs on agriculture *because* they cannot get access to land). The exact nature of the relationship could be specified in various ways: for example, A causes B; B happens because of A; B is associated with A, etc. What is depicted in Figure 2.1 can be seen as a single link in a longer chain of explanation: chains of explanation associated with a complex, multidimensional phenomenon – like young people leaving agriculture – are likely to have many observations and links.

Chains of explanation can be useful because they help to identify and analyse the logic that underpins particular policies or programmes. In this sense a chain of explanation is closely related to a policy narrative (Roe 1991). For the purposes of this project we used chains of explanation to help organise and evaluate evidence, claims and arguments relating to why young people in Africa are (or might be) turning their backs on agriculture.

Figure 2.2 Simplified chains of explanation



Based on our knowledge of the associated research and policy literatures, we developed an initial framework that identified four chains of explanation, each of which addressed the question: *Why are rural young people in Africa turning away from agriculture?* (Figure 2.2). Broadly, these chains focus on structural issues within the agricultural sector/agrarian economy (Chains 1 and 1a); on the interplay between increasing education and rising aspirations (Chain 2); and on a lack of awareness of the opportunities offered by agriculture (Chain 3). While Chains 2 and 3 are specific to young people, Chains 1 and 1a are not – for example the effects of poor rural institutions and low farm productivity act on people of all ages.

Two important points must be noted. First, these chains are depicted as independent and mutually exclusive, but in reality there are many cross-overs between them (for example the observation 'low farm productivity' in Chain 1 could be linked to the observation 'high aspirations' in Chain 2. Second, as depicted in Figure 2.2, the three chains of explanation are synthetic in the sense that they synthesise observations and arguments from a range of documents and sources. Most research papers, for example, address only one or two observations or links, and not an entire chain. Similarly, many policy documents may make reference to one or more components of a chain, but seldom to an entire chain.

2.2 Method

The objective was to identify and review research evidence and EU/European Commission (EC) policy documentation relating to young people's involvement in agriculture. In relation to the research evidence we specifically sought to use this review to validate and improve the chains of explanation; map the available

evidence to the chains; and thereby determine which of the observations and links are supported by evidence, and the location of any evidence gaps. With the policy documents we sought to determine what evidence, assertions, claims and assumptions are used to frame and justify EU policies and interventions, and to map these to the different chains of explanation. It is important to note that given the time and resources available the review was never meant to be exhaustive.

Type of literature: The focus was twofold. Firstly on social science, economic and policy literature that reports the results of field-based research or new analysis of secondary data. This excluded some papers and reports that were either literature reviews or essentially promotional in nature. Most of the literature reviewed was published in international, peer-reviewed academic journals. Secondly on EU-related documentation, where given the multiple and complex arrangements that govern EU aid to the African, Caribbean and Pacific group of states (ACP countries), and the quantity of documentation available, a clear strategy for identification of relevant documentation was required. Our focus therefore was on the EU/EC Treaty with the ACP countries, the Cotonou Agreement; EC decisions and communications to the EU Parliament; EU and national government joint strategic and operational documents such as Country Strategy Papers, National Indicative Programmes and project fiches; annual reports or evaluation reports. In terms of programme implementation, we opted to analyse only the Calls for Proposals (CfPs) to award grants to civil society organisations (CSOs) and non-state actors (NSAs) that were issued over the last two programming cycles (2007–13 and 2014–15).

Geographical focus: With the research literature we considered evidence from anywhere in sub-Saharan Africa (SSA). Where evidence from the three selected A2015 countries – Malawi, Ethiopia and Kenya – was found, it was highlighted. With the policy documents the focus was specifically on Malawi, Ethiopia and Kenya.

Search strategy: A multi-pronged search strategy was used to identify relevant research literature. This started with the literature that was already known to us and then moved to other papers and documents that were identified by searching through Google Scholar and Web of Science.[2] Papers were also identified by close inspection of the references cited by other papers. For the policy documentation, a series of 13 key words was used to search for relevant documents.[3] The main websites searched were EuropeAid, EC's Directorate-General for International Cooperation and Development (DG DEVCO), EU Commission, and EU Delegations to Malawi, Ethiopia and Kenya. A number of documents were also provided by A2015 members.

2 Web of Science is a platform that allows searching of more than 18,000 academic journals and more than 90 million records (http://wokinfo.com/).

3 **High priority**: Agricultural extension, Agricultural research, Aspirations, Education, Training, Land tenure, Productivity, Resources access, Rural institutions, Rural livelihoods, Agriculture technology, Agriculture, ICTs, Youth, Employment, Unemployment; **Lower priority**: Agribusiness, Agriculture, Agri-food, Food, Food security, Land, Markets, Nutrition, Regional development, Rural areas, Rural business, Rural Development, Rural Economy, Rural policies, Trade.

Analysis: Research documents were read and coded using Nvivo.[4] The objective of the coding was to link evidence presented in the document to one or more of the observations and/or links in the chains of explanation (or to observations and/or links that should be added to a chain of explanation). In extracting evidence from the research documents care was taken to note the details of the context within which the research took place (for example the country, district, agro-ecology, etc.). The aim was to develop a better understanding of how the evidence speaks to the diversity of contexts in rural SSA. Coding in this way does not itself produce an analysis, it simply helps to organise information from multiple sources in a way that facilitates analysis. Overall, more than 70 documents were analysed in this way. Coded evidence was then extracted, synthesised in tables and mapped to the relevant chains of explanation.

A similar strategy was used with the policy documents; however, due to the length of many of the documents, a search strategy using key words was used to identify key parts of the text. Coding was done with Nvivo, but here the focus was on statements, claims and assumptions as opposed to evidence *per se*. Coded text was then extracted, synthesised in tables and mapped to the relevant chains of explanation.

4 Nvivo is a qualitative data analysis (QDA) computer software package produced by QSR International. It was designed for researchers working with very rich text-based and/or multimedia information, where deep levels of analysis of small or large volumes of data are required.

3 Findings

This section presents the findings from the review of research evidence and policy documents. First some essential background to EU/EC development aid and diplomacy in Africa is provided. Then evidence relevant to the question *Are rural young people in Africa turning their backs on agriculture?* is reviewed. Following this, research evidence and policy documentation is reviewed in relation to the four chains of explanation.

3.1 Background to EU development aid and diplomacy

The EU's development aid and diplomacy in Malawi, Ethiopia and Kenya are governed by the Cotonou Agreement, a treaty signed in 2005 by the EU and the ACP countries. For the purposes of this treaty African countries are placed in regional groupings: Kenya (East Africa), Ethiopia (East and Southern Africa) and Malawi (Southern Africa). These regional groupings are reflected in the governance arrangements of the EC, and different regional bodies steer processes of strategic planning, financial allocation and operations. However, regional distinctions are put aside in some strategic documents that treat Africa as a macro-region.[5]

In the three countries EU development assistance (EuropeAid) is funded mainly through four financial instruments:

- 'The Budget' (i.e. European Development Fund (EDF) programming cycle 10 (2007–2013) and 11 (2014–2020);
- The Development Cooperation Instrument (2007–2013);
- The Pan-African Instrument 2014–2020 (part of the Development Cooperation Instrument 2014–2020); and
- The Trust Fund for Africa 2015 (under the EDF 11).

Policies and programmes are generally developed through a process of consultation between the EC and national governments. Bilateral and multilateral actors also participate, and through these negotiations can influence strategic planning and financial allocations. As set out in the Cotonou Agreement (2014), institutions with responsibility for political negotiations include the EC–ACP Councils of Ministries, the EU–ACP Committee of Ambassadors and the National Regional intra-ACP Authorising Officer, with the latter being appointed by ACP governments. This process sets up the priorities that will be addressed in Country Strategy Papers and National Indicative Programmes that are associated with seven-year programming cycles. Implementation is steered by the EU delegations and semi-autonomous development agencies set up in the countries, along with national governments, CSOs and NSAs.

Resulting policies and programmes reflect both the Sector Wide Approach and the Common Approach Budget Support. Interventions are implemented through

5 EU (2005), EU Strategy for Africa; EC (2007), Communication from the Commission to the Council and the European Parliment, No. 440, Advancing African Agriculture.

public–private partnerships (PPPs) in response to a Call for Proposals (CfPs), with *grants* being awarded to CSOs or NSAs; *service and supply contracts* to consultancies or experts; and *twinning contracts* to EU member states that provide technical assistance to a particular country.

With specific relevance to young people, Article 26 of the Cotonou Agreement states that 'youth potential can be realised through coherent and comprehensive policies protecting youth rights, promoting skills to enhance economic, social and cultural opportunities, and enlarge their employment opportunities in the productive sector'.[6] Within EUROPE AID strategies, an economic growth paradigm frames all interventions to tackle poverty among the young.[7] EU policies and programmes to support young people in Malawi, Ethiopia and Kenya focus primarily on education, unemployment, migration and reintegration: all are informed by a market-driven approach.

3.2 The big question: Are rural young people in Africa turning their backs on agriculture?

As might be expected the big but apparently simple question – *Are rural young people in Africa turning their backs on agriculture?* – turns out to be quite complex. The answer is intimately linked to the movement of young people from rural areas. Over many decades, young people and others throughout Africa have left their rural areas – on a temporary or a permanent basis – to look for opportunities in other rural areas, in nearby towns, in large urban areas, in mines and overseas. So it is not so much a question of whether today's young people are turning their backs on agriculture, but whether a greater percentage of them are doing this, and whether they are doing it in a more permanent way. Involvement in agriculture in urban areas is possible – through for example urban gardening (Drechsel and Dongus 2010; Zezza and Tasciotti 2010) and 'telephone farming' (Leenstra 2014) – but considerably less likely (Ahaibwe, Mbowa and Lwanga 2013). While it is often assumed that mass movement of young people from rural to urban areas fuels rapid urbanisation, recent analysis by authors such as Potts (2012, 2013) and Beauchemin (2011) cast some doubt on this. First, the rate of urbanisation has declined in some SSA cities in recent years; and second, much urban growth is more closely associated with demographic dynamics of existing urban populations as opposed to migration. There are studies that document the movement of young people back to rural areas after having migrated to urban areas, including, for example, in Zambia, Ghana and Zimbabwe (Berckmoes and White 2014; Potts 2006; Langevang and Gough 2009; Tadele and Gella 2012). In some cases this is explained by a lack of success in the urban areas; but in others, young people (and others) use migration as a strategy to accumulate capital which is then invested in agriculture or other aspects of the rural economy.[8]

6 EC (2014), Cotonou Agreement and Multiannual Financial Framework 2014–20.

7 EC (2012), Measure in Favour of the Federal Democratic Republic of Ethiopia – Action Fiche; EC (2014), Cotonou Agreement and Multiannual Financial Framework 2014–20.

8 There is an interesting contrast with the young people in Brong Ahafo, Ghana, many of whom used capital accumulated from intensive tomato production to invest in non-agricultural activities (Okali and Sumberg 2012; Sumberg and Okali 2006).

Nevertheless, studies from Uganda, Kenya and Ethiopia point to a decrease in the percentage of youth working in agriculture and an increase in youth migrating to urban areas (Ahaibwe *et al.* 2013; Bezu and Holden 2014). Two macro studies, the first focusing on six African countries and the second on SSA overall, came to similar conclusions (McMillan and Harttgen 2014; Petesch and Rodríguez Caillava 2012).[9] A key point is that with continued growth of Africa's rural populations, which is expected to continue for some time to come, even a real decline in the percentage of young people working in agriculture could still mean an increase in the absolute number of young people who are living in rural areas and are dependent to some degree on farming or livestock production. This basic fact looms large in the analysis of those focused on the need for structural change in the agricultural sector and the factors that constrain it (e.g. Losch 2012; Filmer and Fox 2014).

No research literature was identified that directly addressed the effects that rural young people leaving agriculture has on food and nutrition security (at individual, household, village or national levels) or livelihoods and wellbeing. On the other hand, there is a vast research literature on risky sexual behaviour, drug use and other anti-social behaviour amongst African urban youth (e.g. Davidoff-Gore, Luke and Wawire 2011; Tadesse and Yakob 2015; Gardner *et al.* 2015) and much policy documentation (not specifically EU/EC documentation) assumes that negative personal, social and political outcomes are associated with the migration of rural young people to urban areas.

3.3 Chain of explanation 1. Constraints to structural transformation

This chain highlights the importance of low farm productivity and low profitability – associated with the limited use of modern technology and poorly functioning rural institutions – in explaining why young people turn away from agriculture (Figure 3.1). It is important to note that the issues raised by this chain are relevant to the wider rural population, not just young people. There is a significant body of research literature relevant to different parts of this chain, of which we have reviewed only part.

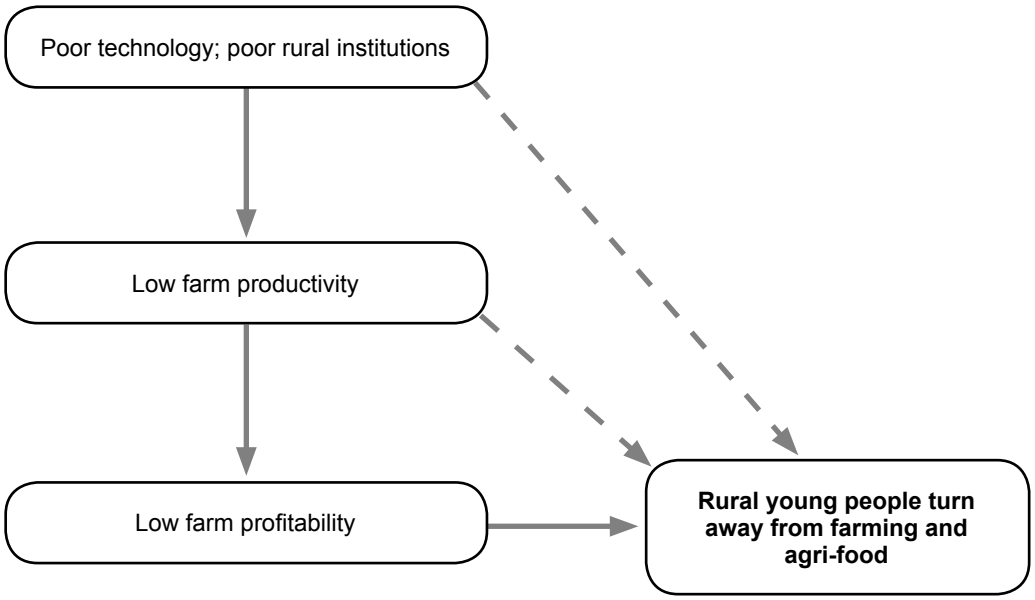
3.3.1 Limited use of modern technology

Here we understand technology to include agricultural production technology including crop varieties, inputs (chemical and organic) for soil fertility and pest management, crop and soil management practices, storage technology, improved livestock breeds and the like. We do not assume that modern agricultural technology is necessarily based on the heavy use of chemical inputs.

A first and critically important point is about investment in agriculture research and development (R&D) which makes an essential contribution to the development of

9 *Africa Agriculture Status Report 2015: Youth in Agriculture in Sub-Saharan Africa* (AGRA 2015) also contains an analysis of the evidence of young people leaving agriculture. It draws heavily on McMillan and Harttgen (2014) and an another unpublished and unavailable paper (Maiga, Christiaensen and Palacios-Lopez 2015).

Figure 3.1 Chain 1: Structural constraints



new technology. The most recent analysis of ASTI data[10] for Africa suggests that 'during 2000–2011, only 13 of the 27 SSA countries for which a full set of time-series data was available recorded growth in public agricultural R&D spending in excess of 1 percent per year, and just 5 countries succeeded in attaining the more ambitious target of 5 percent per year' (Beintema and Stads 2014: 14). Further, 'although agricultural R&D spending and human resource capacity has grown considerably in the region since 2000, it was concentrated in only a few African countries. In 2012, just three countries – Nigeria, South Africa and Kenya – accounted for half the region's agricultural R&D investments' (*ibid*.: 2).

There is a long list of studies based on national-level data that show positive returns to investment in agricultural R&D in the developing world. There are, however, far fewer studies that chart the extent and/or dynamics of the actual use of specific technology by farmers in Africa. This reflects, in part, some important methodological challenges (i.e. being able to actually define and identify the technology in use; and dealing with issues like partial adoption and dis-adoption).[11] Nevertheless, it has recently been estimated that the share of cropped area under modern varieties in SSA increased from 20–25 per cent in 1998 to 35 per cent in 2010. Fertiliser use in Africa is minimal compared to other developing areas (Morris *et al.* 2007).

For the EU, knowledge and technology are public goods, and as such should be accessible to all, especially the rural poor.[12] The Cotonou Agreement highlights the positive relationship between research and technology on the one hand, and

10 ASTI stands for Agricultural Science and Technology Indicators, a database of information on agricultural R&D expenditure and capacity in developing countries (see www.asti.cgiar.org/).

11 See Andersson and D'Souza (2014) for a treatment of these issues in relation to conservation agriculture in Southern Africa.

12 EU (2012), Annual Report on the European Union's Development and External Assistance Policies and their Implementation in 2011.

economic growth on the other.[13] Universal access to knowledge and technology should enhance food security of the poor by increasing agricultural productivity. This logic leads to prioritisation of research, technology transfer and innovation to enhance food security, with a special accent on access by poor farmers.[14] This approach is also reflected in the Kenya Country Strategy Paper (2008–2013) which links agricultural research, technology and increased productivity. Here research is seen to have an important role in tackling climate change, the deterioration of natural resources and the problem of food preservation. Specific funding priorities included the Kenya Agricultural Research Institute (KARI) and Coffee Research Foundation (CRF) to 'support research in development of drought resistant and high yielding varieties of crops and livestock';[15] and through the Food and Agriculture Organization (FAO), the EU supported KARI to undertake research on arid and semi-arid lands with a particular emphasis on drought-resistant sorghum, grass and fodder crop varieties.[16]

EU strategy papers for the three A2015 countries highlight the importance of adapting production to the characteristics of different agro-ecological zones. Such adaptation will promote diversification and help tackle resource and environmental degradation.[17] In Malawi, policies to improve productivity support what are thought to be sustainable and environmentally friendly cultivation techniques.[18] According to Kenya Agricultural Sector Development Strategy (2010–2020), promoting ICTs and technology will help prevent land abandonment, engage youth in agriculture and reverse rural–urban migration. The development of irrigation also figures prominently in the Kenya government's vision, as a lack of irrigation is identified with low levels of rural development and crop productivity. It is suggested that proper irrigation systems could increase productivity by 300 per cent.[19] From an EU perspective strategies to develop irrigation should be mainly market-driven and funded by private sector investors.[20]

One challenge is to coordinate agricultural research across multiple African and European initiatives, and with the work of the Consultative Group on International Agricultural Research (CGIAR). In Ethiopia for example, the focus is on coordinating across national programmes, various CGIAR efforts and the Programme for Science and Technology Innovation and Capacity Building (PSTICB).[21] The Platform for African–European Partnership on Agricultural

13 EC (2014), Cotonou Agreement and Multiannual Financial Framework 2014–20.

14 EC Food Security Thematic Programme (FSTP) 2011–2013 (https://ec.europa.eu/europeaid/sectors/food-and-agriculture/food-and-nutrition-security/food-security-thematic-programme-fstp_en).

15 EU (2010), Kenya Rural Development Programme (KRDP) Annex I: 6.

16 EC (2014), Evaluation of the European Union's Co-operation with Kenya, Final Report, Volume 1.

17 Government of Kenya and EU (2007), Country Strategy Paper and National Indicative Programme 2008–2013.

18 EC (2011), Country Level Evaluation, Republic of Malawi, Vol. 1.

19 Government of Kenya (2010), Kenya Agricultural Sector Development Strategy 2010–2020: 54.

20 EU (2005), EU Strategy for Africa.

21 Government of Ethiopia and EC (2007), Country Strategy Paper and National Indicative Programme 2008–2013.

Research for Development (PAEPARD) was funded to promote farmer-led research, in line with the EU's belief that research should be demand-driven and planned with farmers' organisations in a participatory way.[22] In theory these approaches should be more effective in delivering new and useful technology to farmers and pastoralists.[23]

Despite the prominence it gives to research and the links between research, technology and productivity, no recent EU CfPs relating to research or technology were identified in the three A2015 countries. This might be because national governments and ministries have an important role in research and technology activities, and funds are allocated through direct awards, rather than through CfPs aimed at CSOs or NSAs.

3.3.2 Poor rural institutions

We understand institutions broadly to include, for example, input (including credit and insurance) and output markets, extension services, quality standards, and rules and mechanisms governing contracts and the settlement of disputes, etc. The general case that institutions, and specifically markets and market coordination mechanisms, have a significant impact on African agriculture has been well developed (Dorward, Kydd and Poulton 2005; Poulton, Kydd and Dorward 2006; Dorward *et al.* 2009; Poulton, Dorward and Kydd 2010).

The availability and quality of agricultural extension is closely tied to the discussion of technology use, but in much of SSA extension services have limited capacity and remain under severe pressure. For example, in Uganda only 20 per cent of agricultural households reported receiving extension services, and among these, only a third received advice on fertiliser use (Okoboi and Barungi 2012). Women in Malawi saw the lack of extension services as limiting their engagement in agriculture (Chinsinga and Chasukwa 2012). There is also some evidence that young people have less access to extension services than adults (Ahaibwe *et al.* 2013). More generally, the 'lack of effective public investment in smallholder farming and the public infrastructure needed to link to markets' was cited by young people in a study covering four countries in Africa as a reason why they were not attracted to agriculture (Leavy and Hossain 2014: 40).

Another institutional failure is the lack of access to credit, which is often cited as a major constraint to smallholder farming in Africa (Meyer 2015). In Uganda, for example, access to credit is considered to be a constraint for everyone and more specifically for young people: according to one study only 5.1 per cent of adults and 2.8 per cent of young people had access to finance (Ahaibwe *et al.* 2013). Similar findings were reported from Uganda and Zambia, where lack of capital was perceived by young people as a 'serious obstacle for farm development' (Kristensen and Birch-Thomsen 2013: 198). In Malawi, young women were reported to have difficulties in accessing credit for investment in agriculture (Chinsinga and Chasukwa 2012). In Nigeria, it was reported that 'inadequate credit facilities […]

22 EU (2005), EU Strategy for Africa.

23 Government of Kenya and EU (2007), Country Strategy Paper and National Indicative Programme 2008–2013.

lack of agricultural insurance for produce during glut period […] lack of access to tractors and other farm inputs' were perceived by young people as major constraints to their participation in agriculture (Adekunle *et al.* 2009: 105). In recent years there has been growing interest in the use of village savings groups as a mechanism for providing financial services, including credit, to young people in Africa (e.g. Allen and Panetta 2010; Gash and Odell 2013). Some programmes seek to link these groups to banks in order to increase the amount of credit available.

It is interesting to note that the inability of young people to access credit for agriculture is usually portrayed either as institutional (market) failure or an injustice. It is probably the case, however, that young people throughout the world, who are trying to get themselves established in any sector, will have difficulty accessing credit. A lack of affordable credit is not unique to young Africans wanting to farm.

Strengthening land management institutions, and improved infrastructure and risk management practices are seen to contribute to enhanced agricultural productivity.[24] Rural infrastructure, development of farmers' associations, stakeholder networking, monitoring and evaluation, capacity building and farmer training are the main activities funded by the EU in Kenya.[25] A recent CfPs in Malawi sought actions to engage stakeholders in the implementation of Scaling Up Nutrition (SUN) activities at district level, which involved strengthening market-oriented rural institutions through training and coordination.[26] The Kenya Country Strategy and National Indicative Programme (2008–2013) suggest that harmonising the legal framework will remove limits to production, processing and marketing of agricultural production. The new Pan-Africa Instrument (2014) is moving in the same direction.

The problems farmers have in accessing credit and other financial services are also recognised by the EU. In Kenya, for example, the Kenya Cereal Enhancement Programme (KCEP)[27] and Climate Resilient Agricultural Livelihoods (CRAL)[28] both seek to increase cereal production *in order to increase farmers' incomes and make them creditworthy*. In Ethiopia and Malawi, EU support to the agricultural sector promotes access to credit, investment in rural roads, and the development of rural cooperatives.[29] In Malawi, there is a specific aim to engage all actors in the implementation of national programmes and policies.[30]

24 EC (2014), Cotonou Agreement and Multiannual Financial Framework 2014–20.

25 Government of Kenya and EU (2007), Country Strategy Paper and National Indicative Programme 2008–2013.

26 EC (2015), Malawi Farm Income Diversification Programme (FIDP) Phase II – Scaling Up Nutrition (SUN) Component.

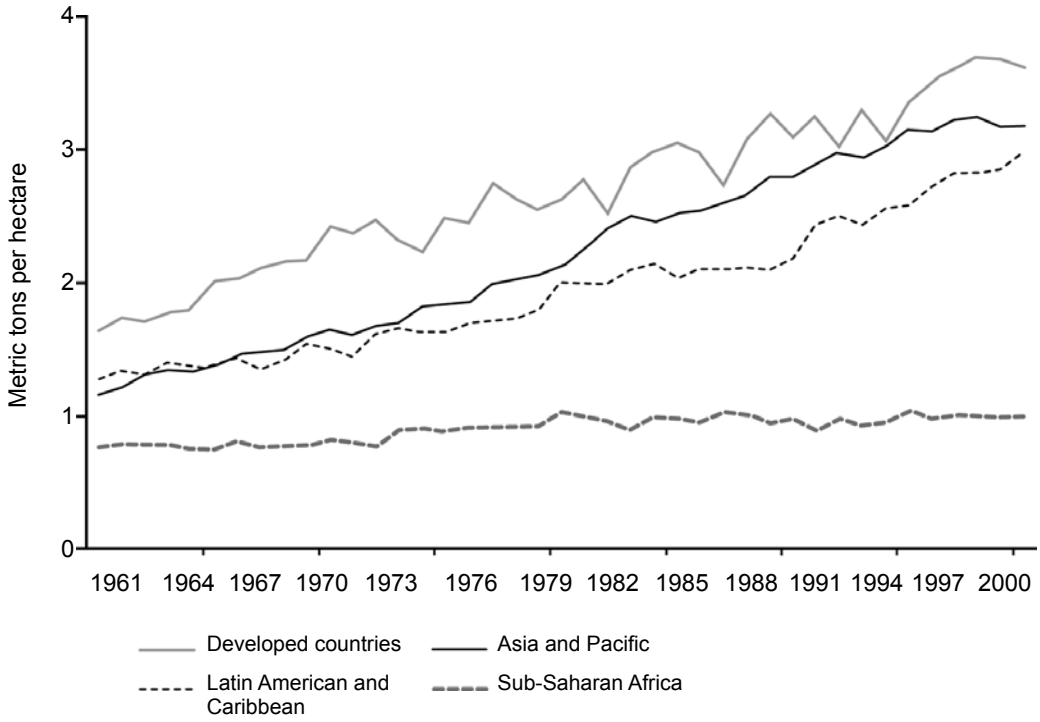
27 IFAD (2015), Kenya: The Kenya Cereal Enhancement Programme – Climate Resilient Agricultural Livelihoods Window (KCEP and CRAL).

28 *Ibid*.

29 EC (2011), Innovative Approaches to Food Insecurity: Increasing Micro Finance Services to PSNP and HABP Beneficiaries in Ethiopia; Government of Malawi (2005), Development Strategy for Malawi 2006–2011.

30 EC (2015), Improving Smallholder Farmers' Land Rights in Malawi.

Figure 3.2 Stagnant cereal yields in SSA



Source: Content reproduced by kind permission of Jayne, Mather and Mghenyi (2010: 1387).

3.3.3 Low farm productivity

The low productivity of smallholder agriculture in Africa is well documented. For example, Fuglie and Rada reviewed ten studies of Total Factor Productivity (TFP) growth in agriculture in SSA (Fuglie and Rada 2013: the reviewed studies included Block 1995; Fulginiti, Perrin and Yu 2004; Alene 2010; Fuglie 2011; Ludena *et al.* 2007; Nin Pratt, Johnson and Yu 2012; Block 2010; Avila and Evenson 2010). They concluded that despite different methodologies, eight out of ten studies found similar patterns: 'slow or negative growth in the 1960s and 70s, followed by recovery in the 1980s and subsequent decades, but with long-term TFP growth averaging less than 1 percent per year since 1961' (*ibid*.: 12).[31] Figure 3.2 compares cereal productivity in Africa with other regions: during the period 1961–2000 productivity increased significantly in all regions, but was essentially stagnant in SSA. Within SSA, Ghana, Benin, Niger and Nigeria had the highest productivity growth. Focusing on the post-1990 period, Wiggins paints a more optimistic picture, suggesting that between 1990–92 and 2009–11, agricultural production (not productivity) grew by an annual average of 3.2 per cent, slightly faster than the rate of population growth (Wiggins 2014). These gains in production came in part from higher productivity of land and labour; and again, significant differences between countries are apparent.

Another way to look at productivity is through the analysis of 'yield gaps', the difference between a benchmark yield and the yields that farmers actually achieve. Over the last decade there has been much research around yield gaps and how they can be closed (Sumberg 2012; van Bussel *et al.* 2015;

31 One per cent average growth is only half the growth rate achieved by all developing countries.

van Ittersum *et al.* 2013). Analysing data from 21 regions within eight SSA countries, Dzanku *et al.* demonstrated that the crop yield gap is smaller when fertiliser is used in combination with improved planting materials (Dzanku, Jirström and Marstorp 2015). The availability of extension services also significantly reduced the yield gap, and Hillocks also found a link between the availability of extension services and cotton yields (Hillocks 2014). Simulations using data from 32 countries between 1977 and 2005 suggested that investment in agricultural research would be the most significant factor to enable a long-term increase in productivity, with economic policy reforms also having a positive impact (Fuglie and Rada 2013). More generally, others argue that growth in agricultural productivity would come from investment in and the use of technologies such as 'improved seeds, breeds, cropping methods, conservation practices, and equipment' (Filmer and Fox 2014: 12).

Low productivity, or an inability to increase productivity, may motivate young people to abandon agriculture, but the link is not necessarily straightforward. Research from Burundi reported that young men and women 'expressed discontent with current farming practices', because low crop yields oblige them to work for others, which in turn reduced their ability to work their own land (Berckmoes and White 2014: 193). While their income sources may be more diversified, working for someone else sits uncomfortably with their aspirations for independence and self-sufficiency.

Low productivity of African agriculture and agribusiness is also highlighted by the EU, but in a variety of different ways. For example, in the Kenya Country Strategy Paper (2008–2013) low productivity is linked repeatedly to environmental degradation, while the Malawi Country Strategy Paper and National Indicative Plan (2008–2013) cites low productivity of land, rainfed agriculture and subsistence agriculture, and links these to 'deteriorating coping capacity'.

This analysis is echoed by the Friends of Europe: 'Africa's agricultural productivity is essential to eliminate hunger and ensure food security […] agriculture across the continent is in dire need of investments in input and infrastructure as well as stronger and more effective policies to boost productivity, including for small farmers, encourage research, open up new employment opportunities for Africa's growing number of young people and establish a thriving agri-food sector' (Friends of Europe 2014: 25).

In terms of implementation, an EU CfPs for Kenya sought to improve agricultural productivity and livelihoods in arid and semi-arid lands through innovative approaches to risk mitigation, value chain analysis, water conservation, capacity building, livestock marketing and community contingency planning.[32] A CfPs in Ethiopia in 2011 aimed to help food insecure farmers to become more market-oriented, more entrepreneurial, and increase their productivity and profitability.[33] This was to be achieved by setting up ad hoc networks of private actors including market operators, and engaging farmers in marketing groups. In theory, technical support would increase smallholders' financial literacy (for example to better handle production risks, savings and investments) and increase their credit worthiness.

32 EC (2011), Kenya Rural Development Programme.

33 EC (2011), Innovative Approaches to Food Insecurity: Increasing Micro Finance Services to PSNP and HABP Beneficiaries in Ethiopia.

3.3.4 Low farm profitability

Analysis of the profitability of current farming systems and practices in SSA does not figure prominently in the research literature. This most likely reflects an assumption that low productivity and low profitability are inextricable linked. Nevertheless, two studies were identified that link low profitability to young people moving out of agriculture. Adekunle *et al.* interviewed 120 young people from rural communities in Kwara State, Nigeria, 73.3 per cent of them were 15–17 years old, and reported that 'poor returns to agricultural investment' were perceived as a major constraint for youth participation in agriculture (Adekunle *et al.* 2009: 105). Similarly, in Uganda, limited profitability was seen as one of the important 'challenges to young households engaged in the agricultural sector' (Kristensen and Birch-Thomsen 2013: 190).

According to the assumptions in the guidelines provided with the 2015 FIDP II call in Malawi, young people do not engage in agriculture because of their perception that it is not profitable enough, not dynamic and is 'old fashioned'. This EU call was designed to mitigate these perceptions through an array of activities (including capacity building, technical training, M&E, provision of inputs and material support, infrastructure support and legal and advisory services). The aim is to support all farmers – not only young farmers – to differentiate their products and better meet market demand.

3.3.5 Conclusions relevant to Chain 1

Much of the information about this chain relates to rural people generally, and is not specifically focused on young people. There is certainly ample evidence of the generally low productivity of food crop agriculture in SSA (i.e. the yield gaps), although there is also some indication that productivity in some countries has improved significantly. There is also evidence linking low productivity to a lack of investment in research and development, limited use of basic technology like fertiliser and improved crop varieties, and limited access to extension services. However, profitability does not figure at all prominently in the research literature, perhaps because it is assumed that it is highly correlated to productivity. Furthermore, while the literature provides some hints that poor institutions, poor technology and low productivity may be linked to young people moving out of farming, there is little evidence of causation, and no evidence that addressing these issues will keep young people in farming.

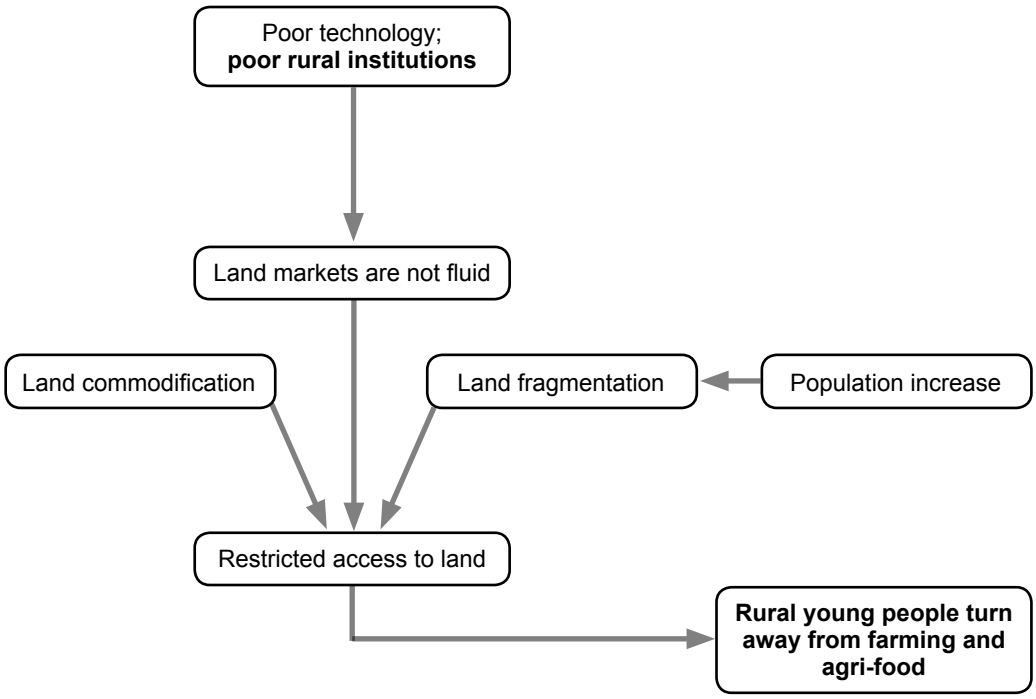
From an EU perspective, technology, machinery and improved rural institutions are considered crucial in order to boost agricultural productivity. Research is crucial for creating technologies that can meet the needs of markets, farmers and pastoralists; it is also a means of stimulating economic growth and tackling climate change. However, the institutional context supporting research and agricultural productivity enhancement is characterised by a lack of coherence and capacity. There are also important constraints around rural infrastructure. In response, most interventions are market-oriented and designed to solve technical problems and strengthen management and marketing capacities among farmers. Many EU-supported actions are designed to first improve livelihoods in rural areas and only subsequently to strengthened institutions. There is some indication that these kinds of market-

oriented interventions, implemented through PPP arrangements, suffer from weak leadership and too often deliver unsatisfactory development outcomes.[34]

3.3.6 Potential questions for discussion and debate

- Do young people look for different things in choosing or evaluating agricultural technology compared to their elders?
- Should profitability figure more prominently in the evaluation of agricultural technology?
- Is there a youth–adult angle to the yield gap story that deserves research attention?
- What is the evidence to support the oft-repeated claim that when it comes to new technology in agriculture, young people are more innovative and willing to experiment than their elders?
- How can extension services be made more accessible and more useful to rural people, including young people?
- What roles can ICTs play in making extension services fit for purpose?
- Is there a good argument that young people starting off in agriculture should have privileged access to credit and/or extension services?

Figure 3.3 Chain 1a: Land access



34 See: EC (2011), Country Level Evaluation, Republic of Malawi, Vol. 1; EC (2014), Evaluation of the European Union's Co-operation with Kenya, Final Report.

3.4 Chain of explanation 1a. Land access

Chain 1a is a subsidiary of Chain 1 in that rural institutions are at its core (Figure 3.3). It highlights the role of poorly functioning rural institutions (and primarily those associated with customary land tenure regimes) in limiting young people's access to land. Specifically, 'insecure and unclear land rights, as well as constraints on renting or otherwise using land' (Filmer and Fox 2014: 13) explain why young people turn away from (or are shut out of) agriculture. Some describe this in terms of poorly developed or poorly functioning land markets, and suggest that more 'fluid' markets would help promote a much needed structural transformation and thereby open opportunities for young people (*ibid*.). Others see ongoing processes of commodification of land within customary access regimes (and of agrarian relations more generally) as narrowing opportunities for rural young people (Amanor 2010).

This section is informed by research articles published between 2007 and 2014. Many of these present data from individual countries including Burundi, Ethiopia, Ghana, Côte d'Ivoire, Kenya, Malawi, Nigeria, Uganda, Rwanda, Sierra Leone and Zambia, while a few have a multi-country or Africa-wide focus. Again, it is important to remember that arguments about land availability, tenure regimes and land markets have significance for other segments of the rural population, not just young people.

The tenth EDF, and the associated National Development Plans and Country Strategy Papers, prioritise coherent, broadly applicable guidelines and principles to support land reform. Through its activities supporting land reform in the three A2015 countries the EU essentially plays a coordination as opposed to a primary implementation role.

3.4.1 The rural population increases, the land does not

Thirty years ago, with the exception of areas like Rwanda, Burundi, some parts of Eastern Nigeria and the commercial farming areas of East and Southern Africa, it was commonly said that land was abundant and that anyone who wanted to farm could gain access to land. The phenomenon of rural landlessness, so common in parts of Asia, was rarely encountered in Africa. However, rural population growth has changed this situation dramatically, and there is now a need to fundamentally re-think established perspectives on land and land availability.

The UN projects that Africa's population of young people (between 15 and 24 years old) will grow from approximately 193 million in 2015 to 295 million in 2035 and 362 million in 2050 (Filmer and Fox 2014). This has led some to suggest that young people will increasingly experience the challenge of accessing land in new ways, because of land fragmentation driven primarily by population growth (Leavy and Hossain 2014).

In an increasing number of areas average farm size is already small. Nationwide surveys in Ethiopia, Kenya, Mozambique, Rwanda and Zambia found that 'at least 25% of the small-scale farm households […] are approaching landlessness, controlling less than 0.11 ha per capita' (Jayne *et al.* 2010: 1385). While small plots were not necessarily a problem in Asia during the Green Revolution, the situation for most African farmers is different as they do not have the same access to irrigated land, and returns to investment in fertiliser are therefore limited.

More recent analysis highlights the importance of the ongoing land squeeze. Between 1960 and 2000, the population engaged in agriculture in Ethiopia, Mozambique, Rwanda and Zambia tripled, while the amount of cultivated land increased only marginally' (Jayne, Chamberlin and Headey 2014).

3.4.2 Customary inheritance and tenure regimes produce sub-optimal results; land markets do not exist or do not function well

Rules and norms governing inheritance can have a dramatic effect on farm size. In Ethiopia the average land size is 0.86ha per household (to support seven people). However, if parents were to allocate land to each of their sons and daughters, they would receive only 0.22ha (Bezu and Holden 2014). In Uganda, subdivision of land through inheritance is an important contributing factor to the decline in farm size (Kristensen and Birch-Thomsen 2013). In Burundi the custom is that youth inherit from their parents, but it is inevitable that with each generation the plots will be progressively smaller. As one young man explained: '… we have only a small plot of land on which the house is built, and you, as a boy, you will let your mother stay there and you go find your own land' (Berckmoes and White 2014: 194). In this context, land inheritance is also perceived by young people as a constraint on their engagement in agriculture. This same study also showed that young men have higher expectations in regards to inheritance than women. To counter the process of land fragmentation the government of Rwanda has prohibited the sub-division of agricultural land into units smaller than 1ha (Ali, Deininger and Ronchi 2015). In West Africa it has been suggested that complex modes of inheritance lead to young people having 'to borrow or rent land from inside or outside the family group'.[35]

The research literature on land tenure in Africa is too vast to review here. In many ways the case of Uganda is typical: 67 per cent of land used by small scale farmers is under customary tenure regimes, and it is suggested that the insecurity of tenure limits investment in the land and its use as collateral (Ahaibwe *et al.* 2013). There are however long-running debates about the effects of customary tenure on investment (Migot-Adholla *et al.* 1991), and the advantages and disadvantages of a shift to more individualised modes of tenure, where land can more easily be sold or rented (Jayne *et al.* 2014).

With the food price crisis in 2007/08 investor interest in African agriculture increased dramatically. Some have suggested that the limitations on property rights associated with customary land tenure, and the complicity of national governments, enabled land grabbing by foreign companies (Peters 2013). Some of these land deals resulted in displacement of farmers without providing them with adequate compensation (although data is scarce, the scale of any such displacement has probably been quite limited; see for example, Brautigam 2016). As a result, Peters has claimed that customary law is 'threatening millions of rural producers' (Peters 2013: 538). Along similar lines there has been pressure from some quarters to 'transfer land out of customary tenure (under the control of traditional authorities) to the state or to private individuals who, it is argued, can more effectively exploit the productive potential of the land to meet national food security objectives' (Ahaibwe *et al.* 2013: 11). While not so clearly implicating customary tenure regimes,

35 Quan (2007: 58); Quan's analysis was based on a study conducted by Chauveau *et al.* (2006)

Deininger concluded from a review of studies in 14 different countries that 'land acquisition often deprived local people, in particular the vulnerable, of their rights without providing appropriate compensation' (Deininger 2011: 224).

For some observers, the establishment of more vibrant and fluid land rental and sales markets will be an important and necessary step, because 'in general, [they] lead to reallocation of land from land-rich to land-poor households' (Holden and Otsuka 2014: 91). It is not particularly helpful to see this as a simple choice between customary and market-based regimes, as rental and other forms of transfer are well known within some customary regimes.

Within the EU documentation and the national policy narratives from Malawi, Ethiopia and Kenya, the land access and tenure problem is usually framed as having three dimensions: legal, economic and institutional. Concerns include the nature of the legal framework governing land access, ownership and transfer, the lack of records, land fragmentation and the nature of decision-making processes. Inequality of land access, ownership and decision-making are identified by the EU as major constraints to development. Access to land is recognised as a major cause of poverty in Malawi, since livelihoods depend so directly on agriculture production. In Kenya, restricted access to land is often cited as a cause of poverty, low productivity and resource degradation, conflict and migration.[36] Even though land is accessible to some degree, people may not have access to enough land to lift themselves out of poverty. Land management decisions are often taken by wealthier individuals, who also play other prominent roles within their communities. This can leave little room for broader community participation.[37]

Conflict between farmers and pastoralists, and migration, can be associated with limited access to land (and resources in general, including water). In Kenya the solution is seen in the development of a functional National Land Policy (NLP). In order to address these issues the interventions foreseen by the EU–Kenya Government strategic plan includes support for the NLP,[38] a reformed legal framework, and strengthening of the governance capacities of relevant sectorial institutions (i.e. to improve quality of records, transparency, and resolution of land disputes).[39]

Three CfPs were identified for Malawi that touch on issues of land access. The first targeted strengthening the 'land governance framework' in order to address the problems of access to land and tenure security, which are seen to stem from uncertainty around land entitlements, lack of transparency and participation in decision-making, and poor land administration and use.[40,41] Two activities were

36 Government of Kenya and EU (2007), Country Strategy Paper and National Indicative Programme 2008–2013: 66.

37 Government of Malawi (2005), Development Strategy for Malawi 2006–2011.

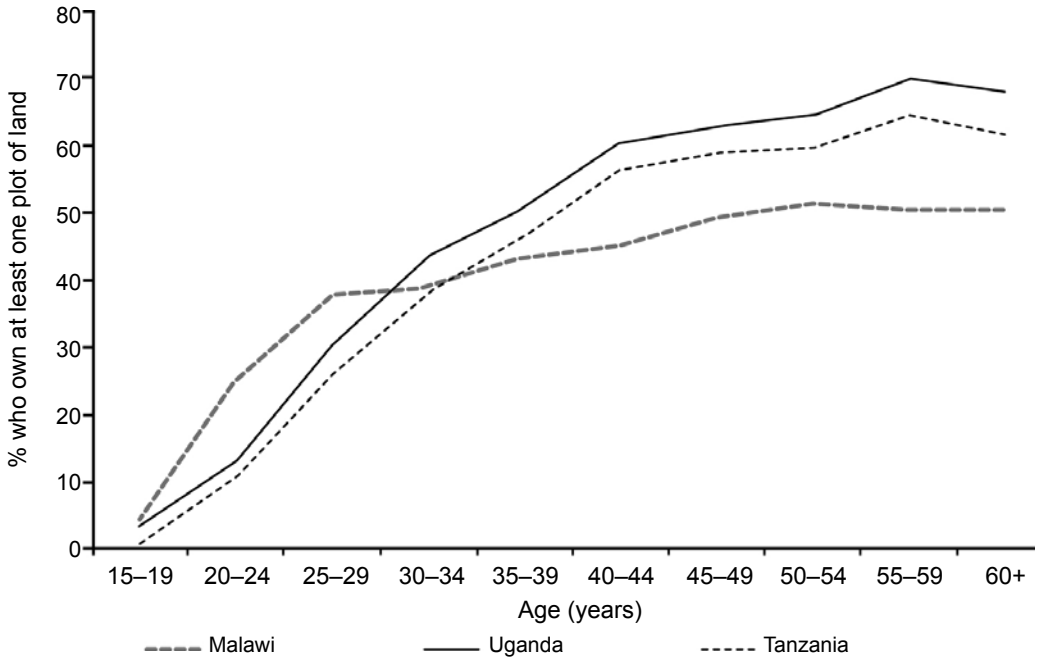
38 Government of Kenya and EU (2007), Country Strategy Paper and National Indicative Programme 2008–2013.

39 *Ibid*.

40 EC (2015), Improving Smallholder Farmers' Land Rights in Malawi.

41 Government of Malawi (2005), Development Strategy for Malawi 2006–2011.

Figure 3.4 Young people are less likely to own land



Source: Filmer and Fox (2014: 14).

called for: a review of policies, laws, strategies, frameworks and participatory approaches to support land tenure reform; and study tours to familiarise rural communities with the functions and tasks of the institutions responsible for land governance and reforms. The second CfPs addressed the problem of 'long-term equitable access to forests by seeking actions that support co-management of forest resources, decentralising forest governance and implementing the National Forestry Programme.[42] The third CfPs called for a community-oriented intervention to enhance the stakeholder networks in forestry management, strengthen monitoring and data collection activities, and improve the rule of law.[43]

3.4.3 Implications for young people

But what does all of this mean for rural young people? Some studies highlight the difficulties that young people have in accessing land, and some researchers emphasise 'ownership' when access may be more important. For example, in a study from Ethiopia only 21 per cent of the youth involved in agriculture were reported as landowners (only 3 per cent for women) (Bezu and Holden 2014). World Bank data for Tanzania, Uganda and Malawi also highlight the fact that youth are less likely than their elders to own land (Figure 3.4). Whether the land is owned or managed, the patterns are similar: in Uganda, 42 per cent of the youth reported that they manage a plot of land compared to 77 per cent of adults, and the plots were also smaller (0.89ha for young people compared to 1.1ha for adults)

42 EC (2012), To Improve the Livelihoods of Forest-dependent Communities through Participatory Management.

43 EC (2014), Improved Forest Management for Sustainable Livelihoods Programme Phase II.

(Ahaibwe *et al.* 2013).[44] A study of 200 youth from the rural Busia County in Kenya found that lack of ownership and small size of plots limits young people's ability to obtain credit (Afande, William and Mathenge 2015).

Young people in Madagascar, Malawi, South Africa, Zambia and Zimbabwe who were asked about agriculture suggested that parents' unwillingness to relinquish control of land was one of the most important constraints (SACAU 2013). An extreme case of this might be seen in the civil war in Sierra Leone between 1991 and 2002, as it was argued that one of the root causes of the conflict was the difficulty that young people had in accessing land through customary leaders (Paramount Chiefs) (Peters and Richards 2011).

An interesting example of the difficulties that can be associated with customary systems comes from fieldwork in Malawi (Chinsinga and Chasukwa 2012: 74). Because of the matrilineal system young men are expected to relocate to their wife's home area after marriage. However, young men said that they did not want 'to invest their hard-earned resources in "foreign land" because they can be chased out at any time', and the authors concluded that this was the 'most important factor for the young men's disinterest in agriculture in the area'.

Do young people fare any better under more market-based regimes, which might include purchase, rental and sharecropping? The case of the rental land market associated with pineapple production in Côte d'Ivoire has been used to argue that more fluid land markets can have negative impacts (Kouamé 2010). Specifically, it was suggested that intra-family conflict arose because land went to Burkinabé to the detriment of local young people. Conflict was also linked to the fact that young people were excluded from decisions about land management and the use of rental income. Amanor (2010) suggests that in Ghana, commodification in the guise of sharecropping creates an important problem for young people who want to farm but can no longer access family land through traditional mechanisms. First, it creates conflict between youth and elders (elders do not want to give away their land but would rather promote sharecropping). Second, it excludes poor youth, as sharecropping is increasingly dominated by wealthy tenants. Two areas in Malawi were affected by programmes of land alienation (400ha sold to Greek farmers for maize and tobacco; and smallholder farmers were asked to consolidate their land to be part of a government irrigation project) (Chinsinga and Chasukwa 2012). The young people felt that they were at the periphery of any decisions regarding land. They also complained that land given to investors should have been redistributed to them, and that even if some agreed that these investors provided employment, the nature of the employment was not given due consideration.

Do young people move out of agriculture because they cannot access land? Young people in Ethiopia stated that even if they considered farming after having been to school they would face difficulties in accessing land (Tadele and Gella 2012).

44 Similar observations about differential access to land are also commonly made in relation to women (World Bank 2011). For example in Benin, on average women owned 1ha of land while men owned 2ha. In Burkina Faso, on average men use plots that are eight times larger than those used by women. Analysis of results from the Land Governance Assessment Framework (LGAF) from ten African countries, found that customary land systems were discriminatory against women, with only 20 per cent of registered land being in their names (Deininger, Hilhorst and Songwe 2014).

Research with 600 households in five districts in Southern Ethiopia led to the conclusion that the larger the land area held by parents, the less likely it is that their children would leave farming (Bezu and Holden 2014). Here land cannot be purchased and long-term rental arrangements are restricted: all arable land has already been allocated. Young people should gain access to land through their parents, but if the plots are too small to be viable they end up looking for other job opportunities. A similar pattern was found in Nigeria where among 100 farmers there was a positive relationship between the size of the farm and the probability that young people would remain in farming (Agwu, Nwankwo and Anyanwu 2014). In Ghana, a study of 35 youth involved in farming found that in addition to personal confidence, the 'ability to gain access to land played vital roles in informing decisions of youth to farm' (Ampadu 2012: 14). Youth in Uganda all viewed the limited access to land as 'the main obstacle for young people entering farming and especially for farming to generate sufficient income to cover household expenses' (Kristensen and Birch-Thomsen 2013: 190). Similar findings were reported from Kenya where availability of land was the biggest barrier to entering farming, not a lack of interest (Leavy and Hossain 2014). A former leader of a youth association in Ethiopia felt that young people without access to irrigated land were the ones migrating to urban areas, while those with irrigated land were staying at home (*ibid*.). The difference in migration patterns between Uganda and Zambia, with young men from Uganda migrating to urban areas while those from Zambia remain in rural areas, was explained by differential access to land (more problematic in Uganda), but also by the proximity to the city (Kristensen and Birch-Thomsen 2013). Finally, two studies suggested that access to land was not a particular problem for young people. In Ghana, irrigated land for intensive tomato production land could easily be rented by the season (Okali and Sumberg 2012), while secondary school students did not highlight difficulties in accessing land as affecting their attitudes toward farming (Sumberg *et al.* 2015).

3.4.4 Conclusions relative to Chain 1a

The literature around land in Africa is very large and diverse, and reflects many different disciplinary and theoretical perspectives. Scholarship in this area received a major boost over the last decade with the rise of large-scale land investment in Africa. Elements of this chain are therefore relatively well supported by evidence. There are multiple local factors, including population growth, agrarian institutions and inheritance rules and norms, that play out in the context of broader dynamics of agrarian change, and that can make it difficult for rural people – including young people – to get access to adequate land. Local exacerbating factors can include high population density and land fragmentation, processes of commodification and climate change. For particular study areas in particular countries there is credible evidence that the inability to gain access to adequate land is associated with young people turning away (or being turned away) from agriculture.

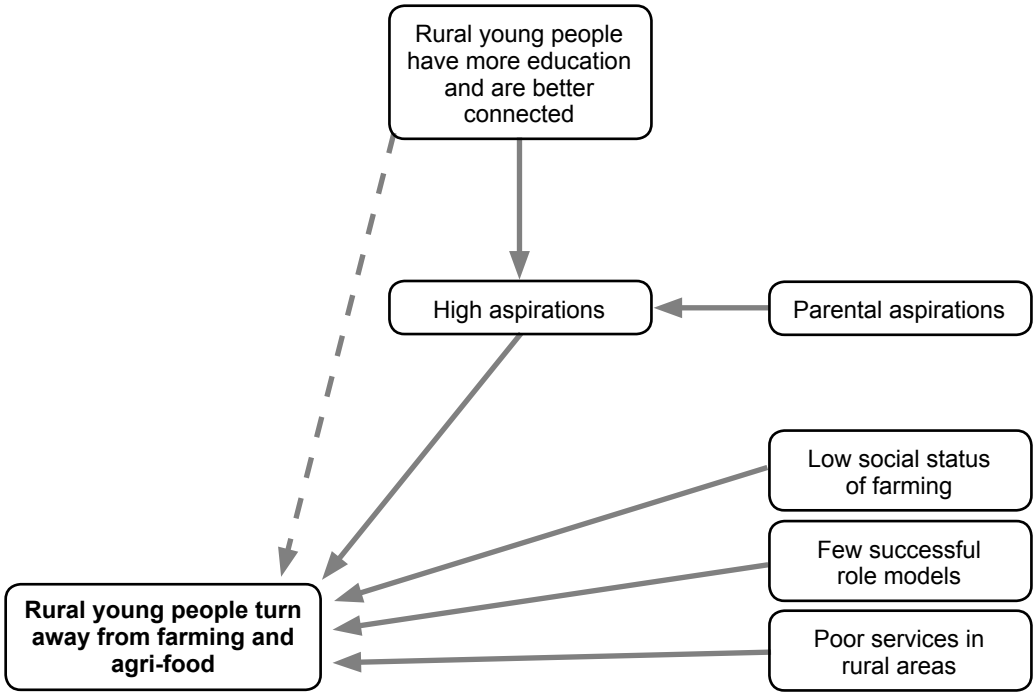
EU involvement in relation to this chain focuses on institutional and legal issues. Land tenure regimes are identified by the EU as the biggest causes of rural underdevelopment in the three countries, and land tenure reform is very much on the agenda. Enhancing the rule of law is a primary objective, framed also at strategy level, but the links between this objective and the actions identified in CfPs are not always clear. Despite the fact that strategies were developed to address the problem of the lack of functional institutions, the interventions appear too timid and

weak to impact on institutional and governance problems. There are also questions about the value of an approach based on continent-wide guidelines and principles.

3.4.5 Potential questions for discussion and debate

- Should we be surprised that in some situations young people own or have access to less land than adults? Does this necessarily indicate that rural institutions are not functioning efficiently or fairly?
- In other situations do 'new entrants' immediately have access to the same level of productive resources as experienced operators?
- Should young people have preferential access to land compared to other social groups (e.g. women or migrants)? How might schemes for preferential access be designed and implemented?
- What policy responses *vis-à-vis* young people might be appropriate in areas where rural population densities are already particularly high and/or plot sizes are already particularly small?

Figure 3.5 Chain 2: Education and connectivity



3.5 Chain of explanation 2. Education and connectivity

This chain suggests that increasing levels of education and greater connectivity through cell phones and ICTs are associated with higher aspirations, which small-scale agriculture as it is presently practiced is unable to satisfy (Figure 3.5). In addition, parental aspirations for their children; the low social status of farming; a dearth of successful farmers to serve as role models; and the limited services

Table 3.1 Enrolment rates by region and education level

Region	Enrolment rate (%)		
	Primary school	Secondary school	Tertiary or higher
East Asia and Pacific	108	83	30
Europe and Central Asia	105	97	64
Latin America and the Caribbean	102	71	21
Middle East and North Africa	107	74	33
South Asia	99	48	23
Sub-Saharan Africa	**108**	**38**	**8**

Source: World Development Indicators (2013).

available in rural areas all contribute to the mis-match between the futures that young people imagine for themselves, and what appears to be on offer through agriculture. Twenty-four studies were analysed in relation to this chain, with a focus on Burundi, Ethiopia, Gambia, Ghana, Liberia, Kenya, Malawi, Nigeria, Sierra Leone, South Africa, Uganda and Zambia.

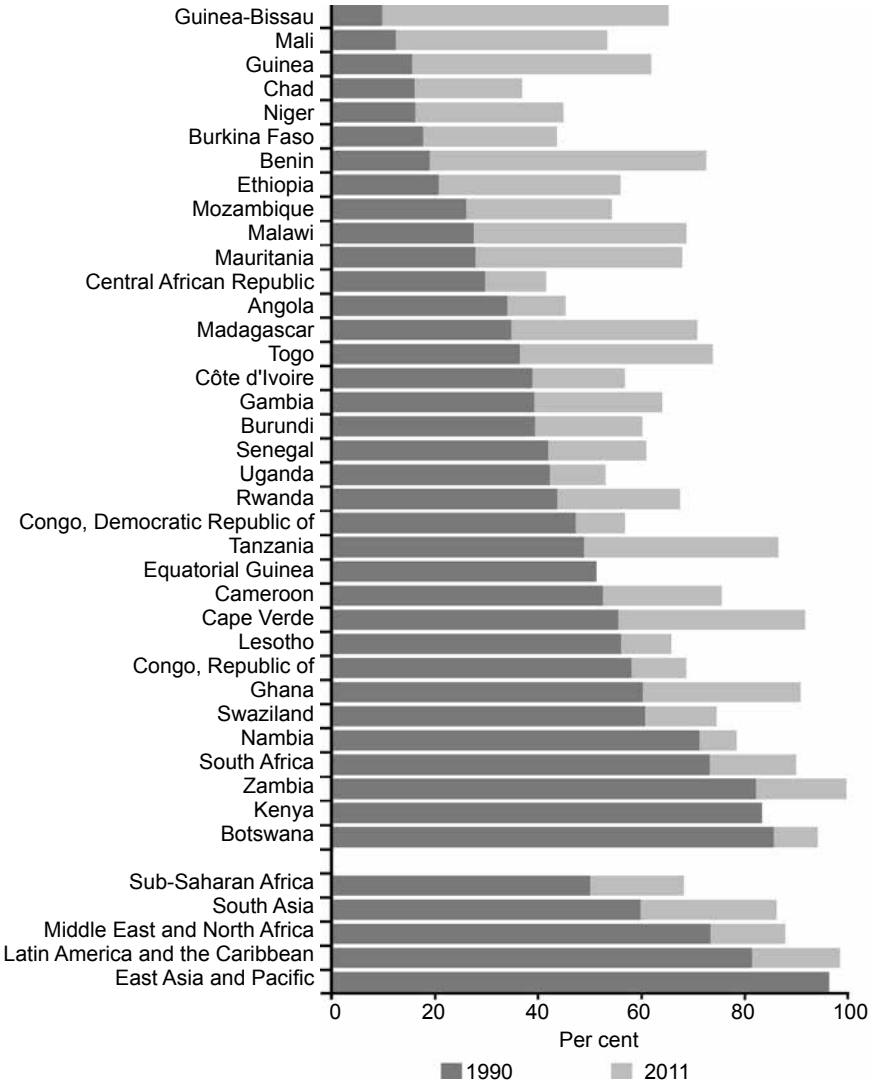
3.5.1 Rural youth have more education and are better connected

Universal primary education was enshrined in the development agenda via Millennium Development Goal 2. Figure 3.6 clearly demonstrates the increase in the rate of primary school completion in SSA – from 51 per cent in 1990 to 70 per cent in 2011. There are several other studies – from Uganda, Burundi, Ghana and Ethiopia – that point in the same direction, either based on enrolment or school completion data (Ahaibwe *et al.* 2013; Berckmoes and White 2014; Chuta and Morrow 2015; Lieten, de Groot and van Wieren 2007). Nevertheless care is required in the interpretation of these results. First, concerns have been expressed about the quality of primary education in rural areas in Africa (Boyden 2013). In Ethiopia, enrolment of children below the age of eight increased from 66 per cent in 2002 to 77 per cent in 2009, but this was associated with an increase of only 2 per cent in the literacy rate (Boyden 2013). This lack of foundational skills is a major problem: 80 per cent of 'third-graders [in Mali] and more than 70 per cent of Ugandan third-graders cannot read a single word' (Filmer and Fox 2014: 76). Thus, despite the common agreement that the number of children enrolled in school has increased during the past years, there is a general lack of information regarding the quality of education that these students have received (Gough *et al.* 2013). Second, while the increase in enrolment is striking for primary school, much less has been achieved at secondary and tertiary levels (Goldin *et al.* 2015).

Table 3.1 shows the decline in enrolment rates with the level of education, and relatively low levels of secondary and tertiary enrolment in SSA compared to other regions.

A participatory study with young people in Burkina Faso, Liberia, South Africa, Sudan, Tanzania and Togo found that even though they understand the importance of education (i.e. enhancing their sense of dignity and as a route to a better

Figure 3.6 Primary school completion rates



Source: Filmer and Fox (2014: 69).

job), most of them could not complete school (Petesch and Rodríguez Caillava 2012). For girls, early marriage as well as a system that privileges boys' school attendance over girls' were the main reasons they drop out. Some young men and women, realising that more schooling does not always result in a better job, and facing the necessity of supporting a family, decide to withdraw from school. In Ethiopia, while enrolment in primary school has increased from 22.5 per cent in 1992 to 85.3 per cent in 2010/11, many do not complete their schooling (Chuta and Morrow 2015). In conflict-affected countries, insecurity is also an important constraint on school attendance. Finally, one study found, perhaps surprisingly, that in Zambia young people were less educated than their parents. This would appear to represent a special case, and was explained by the erosion of a previously well-functioning education system (Locke and te Lintelo 2012).

The second important element of this chain is increased connectivity, with access to new communications technology 'opening young eyes to the promise and

Table 3.2 Rural child's job aspirations and gender (%)

	At the age of 8 in 2002			At the age of 12 in 2006			At the age of 15 in 2009		
Child's aspired job	Girl	Boy	All	Girl	Boy	All	Girl	Boy	All
Farmer	**2.9**	**8.7**	**5.9**	**0.4**	**3.7**	**2.1**	**0.4**	**4.4**	**2.4**
Teacher	59.3	46.8	52.9	39.3	23.3	31.3	23.2	14.4	18.7
High aspirations	21.4	22.7	22.1	38.9	51.2	45.3	55.4	61.2	58.4
Other non-farming	16.4	21.7	19.2	21.4	21.4	21.4	21.1	20.1	20.6
Total (%)	100	100	100	100	100	100	100	100	100
Total (N)	280	299	280	280	299	578	280	299	579

'High aspirations' include occupations such as pilot, doctor (physician), university lecturer, engineer, lawyer and scientist; 'Other non-agricultural' occupations include being a civil servant, nurse, shopkeeper, singer, sportsperson, domestic worker, labourer and driver.
Pearson P-value 0.0000; Likelihood ratio P-value 0.0000.
Source: Tafere and Woldehanna (2012).

prospects of the wider world' (Leavy and Hossain 2014: 31). According to GSMA, by mid-2014, there were over 600 million SIM connections in SSA, equivalent to a 68 per cent penetration rate (GSMA Intelligence 2014). At the same time there were estimated to be 329 million unique subscribers, for a penetration rate of 38 per cent (with national penetration rates ranging from less than 25 per cent in Burundi to more than 75 per cent in Botswana). However, 'a significant proportion of the still unconnected population live in rural and in some cases geographically remote areas' (*ibid*.: 31). In the coming years the industry expects to see rapid expansion of coverage and use, including in rural areas, and adoption of new apps and services. In Ghana, Malawi and South Africa, mobile phones are used in rural areas to keep contact with family or kin who live in urban areas; nurturing these links is considered 'part of an exit strategy' from rural areas (Leavy and Hossain 2014: 156). In the words of Porter *et al.,* 'rural dwellers maintain and nurture networks with city-based relatives wherever and whenever possible through phone contact: such networks are perceived as a route to funds, to kin solidarity and to work' (Porter *et al.* 2012: 159). Work in Uganda suggested that 'the possession of mobile phone handsets at the household level increases an individual's chance of leaving his or her rural village to find a job' (Muto 2012: 26). The phone is used to build and maintain a social network that will help the new migrant to find a job and accommodation in the city. It is also important to note that mobile phone connectivity enables the phenomenon of 'telephone farming' referred to in Section 3.2.

3.5.2 Rural youth have high aspirations

Farming, as with other manual work, was given the lowest priority as a potential job by youth interviewed in Ghana (Anyidoho, Leavy and Asenso-Okyere 2012). Young people from Liberia and Sierra Leone (872 individual interviews and 133 focus group discussions) also did not consider physical labour as a 'job'. For them a job, which in Sierra Leone is sometimes referred to as an 'Englishman job', 'provides a sustained and sufficient source of income to support a family' (Rebosio,

Table 3.3 Caregivers' job aspirations for their children at age 12 and 15

Caregiver's aspired job for a child	When child was 12 years old (%)	When child was 15 years old (%)
Farmer	**0.86**	**0.52**
Teacher	19.1	15.3
High aspirations	34.3	51.8
Other non-farming	34.7	32.8
Farming	100	100
Total	580	580

'High aspirations' include occupations such as pilot, doctor (physician), university lecturer, engineer, lawyer and scientist; 'Other non-agricultural' occupations include being a civil servant, nurse, shopkeeper, singer, sportsperson, domestic worker, labourer and driver.
Pearson chi^2 44.6504, P-value 0.0000.
Likelihood ratios chi^2 48.0607, P-value 0.0000.
Source: Tafere and Woldehanna (2012: 6).

Romanova and Coman 2013: v). Interviews with 129 respondents aged between 15 and 30 from a lowland region in Kenya showed that 26.4 per cent saw farming as their ideal career choice, while 27.1 per cent preferred business, 13.2 per cent medicine and 8.5 per cent teaching (Lewa and Ndungu 2012). In Nigeria, only 10 per cent of 120 school age young people interviewed in Kwara State wanted to become farmers: the highest ranking job was lawyer (20 per cent) (Adekunle *et al.* 2009). In Malawi, youth 'do not see working in the agricultural sector as a viable means of realising their dreams, which they link instead to employment in urban areas, engagement in non-farm business enterprises and migration to South Africa to do casual labour' (Chinsinga and Chasukwa 2012: 75).

Table 3.2 shows data from 12 rural communities in Ethiopia and demonstrates how job aspirations can vary across different groups of young people. A key point is that being a farmer is given little priority. This is reflected in one respondent's thinking that was captured at two different points in his development:

> At age 13: 'My family depends on agriculture. The harvest sometimes gets better, other time less […] I will be better than my farming family because I will be government employee with monthly salary […]. That is why I want to finish my education. [At age 17] I will have a better life than my father has. He works day and night because he is a farmer. My father loses much energy in work and this would lead him to have a short life. But I will be an educated man who sits in an office in town with salary. I will waste less energy so that I will live longer than my father' (Tafere and Woldehanna 2012: 8).

Kritzinger reported that teenage girls aged 15 to 17 in South Africa do not foresee their futures as a wife or a mother on a farm, but rather aspire for 'a lifestyle characterized by tertiary education, a professional career, material affluence, and a family life that allows women to actively participate in the labor market' (Kritzinger 2002: 568). In Gambia, young girls (aged 9 to 14 years) and female adult farmers said they found farming too difficult and 'that they would stop farming

once they married and left home' (Kea 2013: 113). Indeed, the significance of marriage has changed over the years, from being about a 'way in which patrilineal groups could access female agrarian labour, ideally skilled rice producers, and rice fields', to a 'way in which women can free themselves from "the burden of farm labour"' (Kea 2013: 113). A grandmother named Amie interviewed in January 1997 confirmed that:

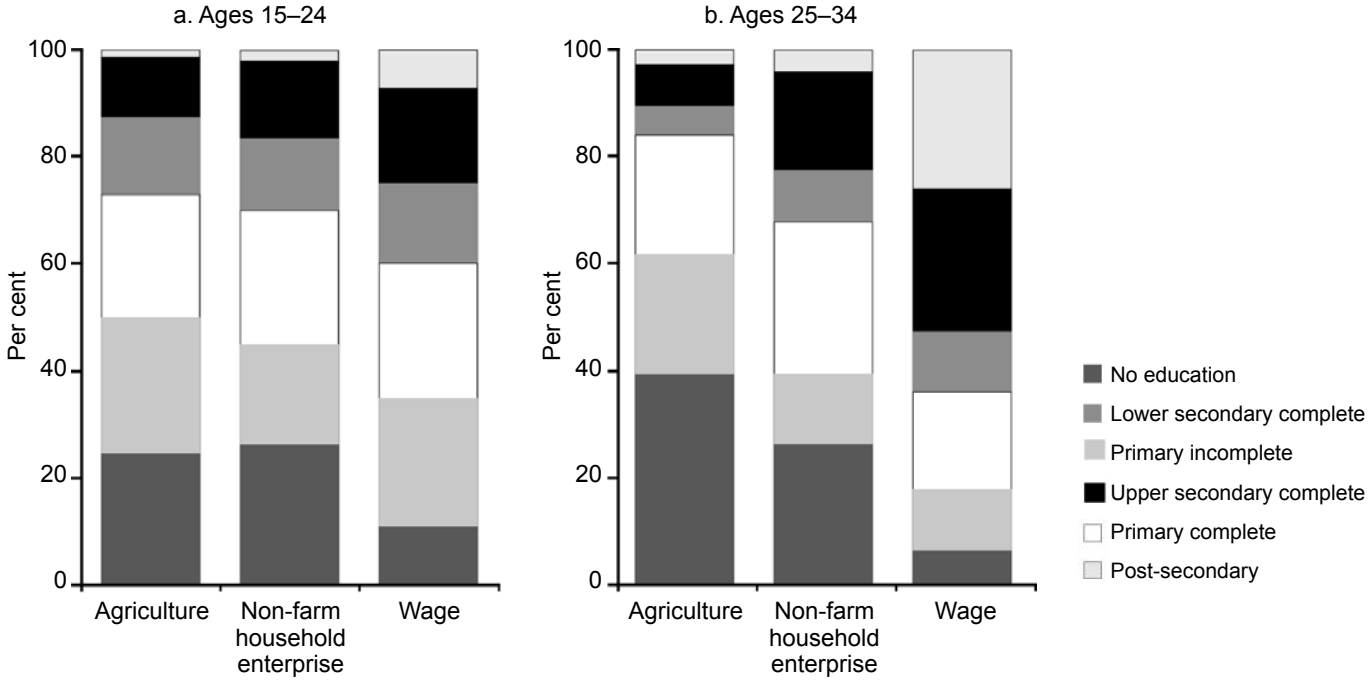
> [y]oung people from Suma Kunda [...] marry people who can free them from coming to the fields. Some marry in Banjul [...] The young women of today don't want to work as farmers. They want to sit in offices. They want white-collar jobs. Fewer girls work here now because of education. It has changed their attitudes. There are other ways to earn money and many people prefer to sell (Kea 2013: 114).

Parents throughout the world generally want the best for their children, and there has been some research in Africa on the aspirations of rural parents for their children. A study with secondary school students in two rural areas of Ghana (Ashanti and Northern Region) showed a strong preference for salaried, professional jobs among students; parents also thought these were the most desirable jobs for their children (Yeboah *et al*. 2016). In Ethiopia, 80 per cent of the parents interviewed hoped that their child would reach the highest level of schooling, while less than 1 per cent wished their child to become a farmer (Table 3.3) (Tafere 2014). Poor and/or illiterate parents also had high aspirations for their children, in part because a job in government or an office job would allow the child to support the parents in later life, and also contribute to the development of their country (Tadele and Gella 2012; Tafere 2014, 2015). A similar picture is evident in Gambia where being a farmer was found to be very low on the list of caregivers' aspirations for their children (Kea 2013).

Finally, despite these studies demonstrating that in many countries young people do not aspire to farm and/or have other aspirations, some studies still find that some youth are interested in farming. In Ghana, interviews with young people suggested that some want to farm, and that 'self satisfaction, social approval and not necessarily monetary' returns are important, even though the need to make money in order to survive is recognised (Ampadu 2012: 13). Youth in Burundi who are not in school see farming as a realistic option for their futures. As one young man put it: 'Because it is the profession of our forefathers. We grew up seeing our grandparents farm and breed cattle. It is not us now who will just leave this profession like that' (Berckmoes and White 2014: 193).

Some evidence was identified that makes tentative links between education and aspirations. In Ethiopia, young people who were still in school (at the time of the study) were more likely to later choose an urban job than those who had already left school (Bezu and Holden (2014). And another study found a correlation between the completion of school and aspirations: Ethiopian children who aspire to be a farmer at the age of 15 are the ones who did not complete primary education (Tafere and Woldehanna 2012). It was reported from Nigeria that the probability of youth working in agriculture declines with higher levels of school attainment (Agwu *et al.* 2014), while in Ghana, aspirations to get involved in cocoa farming declined with 'actual or expected educational attainment' (Anyidoho *et al.* 2012: 28).

Figure 3.7 Schooling maps to sector employment



Source: Filmer and Fox (2014: 70).

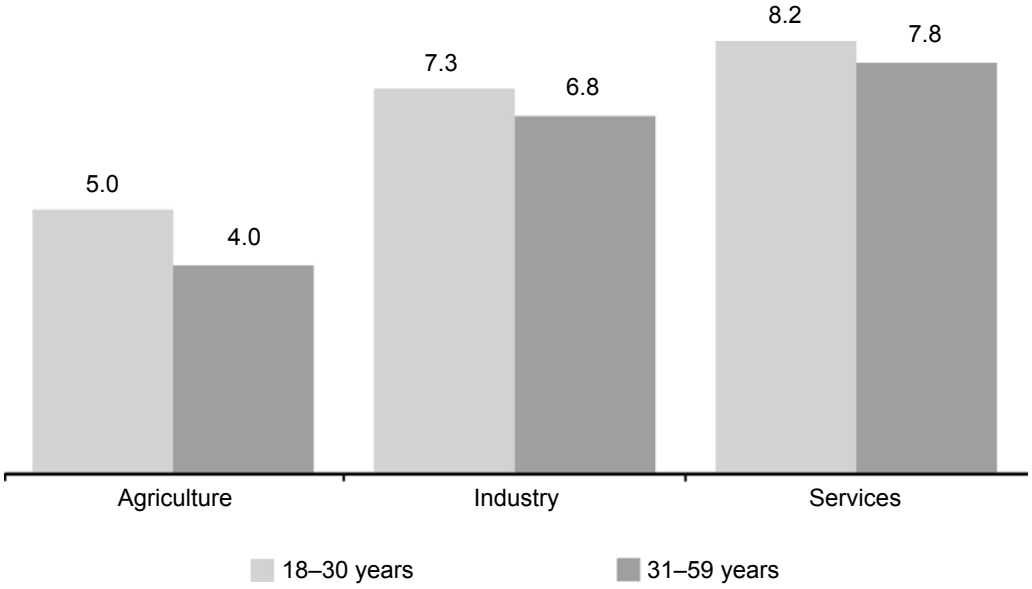
In Ethiopia, it is reported that only after reaching a certain age and level of schooling do youth begin to have an idea of what they would like to achieve. A girl interviewed in 2011 said: 'When I was young I did not know what level of education I can reach, but now I want to finish a university and become a doctor' (Tafere 2015: 1). Tafere further explains that such aspirations should not be dismissed as unrealistic, and notes the complex dynamics between achievement, aspirations and expectations (also see: Tafere 2014, 2015; Leavy and Smith 2010). Rapid increases in education are associated with an increase in youth aspirations and a decline in how agriculture was perceived (Leavy and Hossain 2014).

Young people's own perception of the relationship between higher education and employment is seen in the commonly held view that school is the best way to reach a government or salaried job. This is illustrated by the following extract from an interview with a young boy and young girl in Burundi:

> You will have a diploma and you work and they pay you with money […] When you finish your studies you become financially independent. You are no longer in need of aid… [Without education] you can only enter into a local association, but you cannot have a position with responsibility in those associations. I would like to add that if you finish your studies you can find work in project businesses that implement big projects like the construction of schools and hospitals and you can have them constructed in the area you live (Berckmoes and White 2014: 196).

Another girl interviewed in Ethiopia said: 'If we were not attending school, we wouldn't have had anything to aspire to besides our parents' livelihood and their simple tools (*maresha*, *misar* and *wubar*). But we have come to know that there is more to life than that and it is all because of our education' (Tadele and Gella 2012: 37).

Figure 3.8 Levels of schooling by sector of employment



Source: Ahaibwe *et al.* (2013: 12).

3.5.3 More education and high aspirations mean young people leave agriculture

Much of what has already been reported suggests that more education and higher aspirations are associated with young people leaving agriculture. However, no evidence that would directly link rising aspirations to youth leaving agriculture was discovered. Similarly, an extensive review of the relationship between education, aspirations and attainment found little relevant literature from Africa (Leavy and Smith 2010).

Research on young people's engagement with and interest in cocoa farming suggest that despite high aspirations, youth were realistic about the possibilities open to them (Anyidoho *et al.* 2012). Thus, while many respondents pointed to 'white collar' jobs as the most desirable, they also knew that because of the skill and education requirements, these jobs were out of their reach. Further research from Ghana suggests that the decision to remain in agriculture could be intended or unintended, hence independent of an individual's aspirations (Ampadu 2012). Some young people want to farm from the beginning, while others go back to farming after trying other things. Similarly, work in South Africa with girls showed that achievement was perhaps less dependent on aspirations than on context (Kristensen and Birch-Thomsen 2013).

Figure 3.7 shows the relationship between the percentage of people in each level of schooling and their occupations. It is clear that higher levels of education are generally associated with employment in non-farm household enterprises and wage sectors. This relationship is also highlighted in Figure 3.8: in Uganda, youth and adults involved in agriculture have fewer years of schooling than those involved in industry and services.

In some places, agriculture certainly has an image problem. The vast majority of youth interviewed in Burundi agreed that young people who are in school look down on those who are not:

> 'They [youth in schools] think it [farming] is shameful […] When [a student] passes you […] you see, when you go to the farm you do not wear clean clothes. He can pass you and you are dirty with mud, sweat. […] It is hurtful' (Berckmoes and White 2014: 196).

In Malawi, the vision of a 'good life' was not associated with farming, which was considered by young people to be 'laborious, less rewarding, exploitative and requiring a long time to reap rewards' (Chinsinga and Chasukwa 2012: 71). Instead, the good life was linked with having a TV, a roof, food, or having children in boarding schools. In a number of countries, youth viewed agriculture as 'tough and financially unrewarding (for small farmers)' and that 'it is seen as low status, dirty work', while urban life was seen as 'easier, cleaner, and more comfortable' (Leavy and Hossain 2014: 18). A 30-year-old mother from Kenya said: 'If you say agriculture, it is second class priority for youth in this area. Those who did not go to school can do agriculture' (*ibid*.: 22). In Ethiopia, agriculture is seen a 'backward, demanding and even demeaning' (*ibid*.: 41), especially for young people who have been to school and have higher expectations. For youth who were still in school when interviewed, 'the life of the farmer was perceived as tiring and hard, a life of endless toil with little gain' (*ibid*.: 37). This was even stronger among female students in Ethiopia (e.g Tadele and Gella 2012). Along similar lines, in South Africa, a lack of interest in agriculture was associated with its 'poor image' and 'the perception that agriculture is risky and therefore there is a fear to tread into it' (SACAU 2013: 9).

There are long-established patterns and behaviours that reinforce the idea that agriculture is low status. In Kenya, some young people saw agriculture as 'a form of punishment': in some schools, when a student needs a punishment he will be sent to the farm to dig (Proctor and Lucchesi 2012: 29). It is reported that in East Africa educators see agriculture as a 'poor man's job' (*ibid*.) studying agriculture. The fact that in some countries young people are expected to contribute unpaid labour to family farming activities probably does little to enhance the status of farming.

No direct evidence was found that addresses how the availability or absence of role models affect young people's aspirations and engagement with agriculture. However, a glimpse into this is provided by a councillor in Zambia, who explained that providing land and markets to youth would not be enough. He suggested that young people are not exposed to agriculture and they don't know the benefit of it, which is why there is a need for role models who are doing well in farming (this is similar to the idea of 'mindset' highlighted in Chain 3). Young people in Ethiopia expressed a similar desire to follow role models in order to learn from them and apply their techniques (Leavy and Hossain 2014). In Burundi, youth talked about the lack of guidance from adults, who they described as being 'like a pillar that holds the house' (Berckmoes and White 2014: 195).

The lack and/or poor quality of services in rural areas of Africa – including electricity, health, education, internet, transportation and entertainment – is well recognised and was not reviewed for this study. However, the literature provided limited evidence relating to the link between the lack of services and young people leaving farming. One official in Malawi explained that young graduates do not wish to live and work in rural areas: '[T]hey are the "network" generation which cannot imagine living in areas without electricity, where phones cannot

work, where internet is inaccessible and roads are in a bad shape' (Chinsinga and Chasukwa 2012: 73). Another study found that schools, electricity, infrastructure, etc. were important concerns of young people in rural areas (Porter *et al.* 2012). One girl from South Africa said: 'Here in [xxx] there are no schools, no roads and no transport and clinics. We don't have all these things so I don't see myself staying for long' (*ibid*.: 155). In Uganda and Zambia, while youth see some advantages of staying in rural areas, they also describe disadvantages such as the 'expensive, unreliable and infrequent transport associated with their rural location […] absence of modern conveniences, not least electricity' (Kristensen and Birch-Thomsen (2013: 191).

None of the EU documents reviewed emphasised a link between increased education, connectivity and aspirations on the one hand, and young people losing interest in agriculture on the other. Rather, the suggestion is that youth are not interested in agriculture primarily because it is not profitable. However, the prominence of both 'Youth Issues' (under article 26) and education in the Cotonou Agreement, and the EU's long-standing commitment to education (20 per cent spending target) link EU policy and programmes directly to this chain of explanation. Indeed, the commitment to education comes across very clearly in the documents reviewed, including, for example, the Pan-Africa Programme (2014) with its focus on higher education; the EU–Ethiopia Joint Cooperation Strategy (2013) which highlights quality in primary education and girls' access to education; and the 2015 Malawi annual action plan,[45] which identified education and vocational training as one of three priority areas. It is striking that across these documents the discussions about education and training on the one hand, and agriculture on the other, seldom if ever intersect. This would appear to be a missed opportunity for cross-sector coherence, and addressing this is particularly important given that young people also bridge both sectors. Earlier work by A2015 highlighted the cases of the Netherlands and Denmark where their approach to education is linked to the priority they put on support for food security programmes (Petersen 2014).

3.5.4 Conclusions relevant to Chain 2

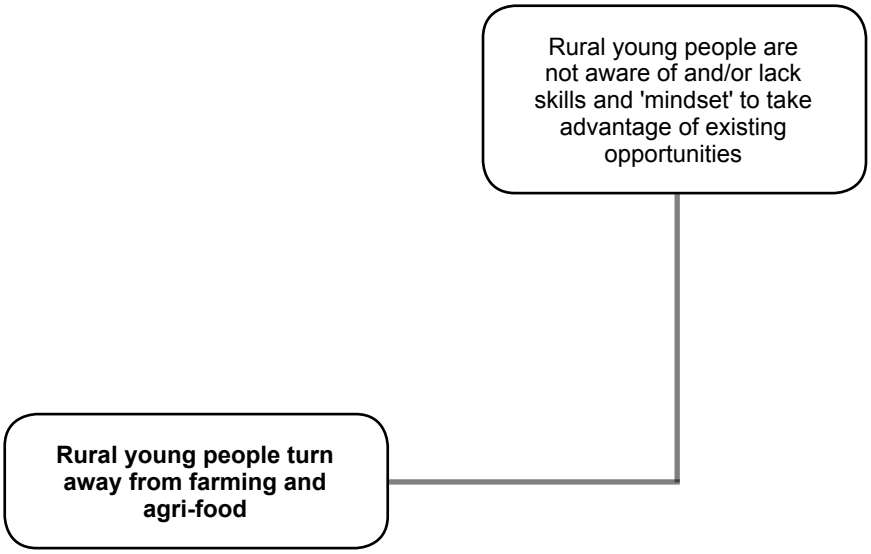
Some elements of this chain of explanation are well supported by evidence. Young people are benefiting from more education; they are increasingly connected through mobile phones; and rural areas have notoriously poor services. Other elements are less well supported: how young people's aspirations are changing; parents' aspirations for their children and their effects on young people's choices; and the effects of the low social status of farming. There is much that is suggestive, and the chain makes strong intuitive sense, but we found little direct evidence to support the links in this chain. There would appear to be significant opportunities to increase coherence between policy and programmes in education and agriculture, with young people and their imagined futures acting as the inter-sectoral bridge.

45 EU (2015), Annual Action Programme 2015 for Malawi.

3.5.5 Potential questions for discussion and debate

- Is the education system inadvertently socialising young people away from agriculture and rural life?
- What would agriculture need to look like in order to be compatible with young people's aspirations?
- What would rural areas need to look like in order to be compatible with young people's aspirations?
- If only a structurally transformed agricultural sector can be attractive to well-educated young people, where does that leave current policy and programmes meant to entice young people into agriculture?
- Is the challenge for policy and development actors to make agriculture more attractive to young people, or to facilitate young people's self-actualisation?

Figure 3.9 Chain 3: Mindset and lack of skills



3.6 Chain of explanation 3. Mindset and lack of skills

This chain suggests that young people turn away from agriculture because they are not aware of the income generation and livelihood opportunities that it offers, and/or because they do not have the skills or the entrepreneurial mindset to take advantage of these opportunities (Figure 3.9). In the remainder of this section we explore the limited evidence relating to this chain.

3.6.1 Rural youth not aware of, and/or lack the skills and mindset to take advantage of, existing opportunities

According to a major review, agricultural training and education curricula in Africa tend to be 'outdated and disassociated from the economy' and 'few institutions have so far made the major changes required to produce significantly different

types of graduates' (Johanson and Saint 2007: 31). Southern Africa Confederation of Agricultural Unions (SACAU) also concluded that the way agriculture was approached in the curricula was not 'exciting' to young people (SACAU 2013). In Uganda and Zambia, the need for appropriate training was identified by the youth themselves (Kristensen and Birch-Thomsen 2013), while young people in Burundi who did not go to school were aware that they lacked professional skills: 'We, who have not studied, we are in need of professional skills training schools to be able to survive' (Berckmoes and White 2014: 195). In a study of fertiliser use in Uganda, 25 per cent of the young people interviewed explained that they did not use fertiliser because they lacked the knowledge of how to use it (Okoboi and Barungi 2012). Access to training centres and informal learning opportunities has also been identified as a constraint: while 25 per cent of the young people in urban areas in SSA have been an apprentice, in rural areas it was only 11 per cent (Filmer and Fox 2014).

We identified few research papers that made reference to the mindset of young people in Africa. SACAU argued that rural young people did not have the mindset to farm, but rather to work in public extension services. One community health worker in Kenya explained that even when it was available, young people did not attend free training on gardening, which she interpreted to mean that these youth did not understand the advantages of agriculture (SACAU 2013; Leavy and Hossain 2014). It is perhaps for this reason that the IITA Agripreneurs programme focuses on 'mindset change' (AGRA 2015: 55); while AGRA suggests that the desired 'change in mindset on how youth perceive agriculture can only be achieved through a positive image of the opportunities that exist if youth engage in agriculture, applying business principles, new innovations and developing individual skills sets' (*ibid*.: 170).

The idea that young people lack an attitude or mindset which would enable them to take advantage of the opportunities offered by agriculture is contradicted by the findings of a survey in Uganda: rural youth were more entrepreneurial than their elders, and also more entrepreneurial than both youth and adults in urban areas (Kristensen and Birch-Thomsen 2013).

The EU strategy and programme documents make little if any reference to the elements of this chain. Neither the mindset nor the attitude of young people in relation to agriculture are identified as constraints or problems to be addressed. This could be simply a matter of semantics, with knowledge, awareness and skills capturing some of the meaning of mindset. However, in constructing this Chain, we chose the term 'mindset' not only to indicate a potential deficit of awareness and skills, but more importantly the sense of a frame of mind or attitude, as in 'she has her mind set against farming'. The research literature provided some evidence of attitudes like this, but no reference to anything equivalent was found within the EU documentation.

3.6.2 Conclusions relevant to Chain 3

The main finding about this Chain is that it is poorly researched and poorly understood. That being said, the quality of schooling is a concern, especially if primary education does not provide even basic core competencies. Secondly, concerns have been raised about the orientation of the agricultural curriculum.

Nevertheless, no evidence was identified that would link these issues to young people moving out of agriculture. We also found little evidence to support the rhetoric around the need for a mindset change, and no evidence to support the idea that young people are simply not aware of existing opportunities.

3.6.3 Potential questions for discussion and debate

- Does young people's lack of interest in farming represent ignorance, keen insight or a problematic mindset?
- For what young people in what kinds of rural areas do real opportunities exist, and in which agricultural value chains?
- Could it be argued that it is actually the policy and development actors who have a mindset problem in how they think about young people and agriculture?

4 Discussion and conclusions

In designing this review of research evidence and EU/EC documentation we were guided by four questions:

- Are rural young people in Africa turning their backs on agriculture?
- What does the research evidence say about young people's attitudes toward and engagement with agriculture?
- How is this evidence reflected in Europe's current policies and programming in the selected A2015 countries?
- What alternative approaches to policy and programming are suggested by the evidence?

Our strategy was to approach these questions through three chains of explanation. The preceding sections reviewed the research-based evidence in relation to these chains. Perhaps not surprisingly, some elements of these chains are reasonably well supported by evidence from various disciplines, countries and settings, while others are not.

With Chain 1 (Constraints to structural transformation), key observations like low investment in agricultural R&D, limited use of new technology, low productivity of food crop agriculture and poor rural institutions are generally well supported by evidence. While it would appear to make perfect sense that conditions like these would push young people to leave agriculture, there is little if any direct evidence of causal links. The thrust of Chain 1a is that an inability to gain access to land plays an important role in young people leaving agriculture. There is considerable evidence that appears to support this, but there are two important caveats. First, much of the research comes from a handful of countries with high rural population densities and where average farm size is already small. Second, there is little evidence that, in general, customary tenure institutions are at the root of the problem, or that young people would be better off if alternative tenure arrangements were in place. Nevertheless, as rural populations continue to grow, this Chain is likely to become increasingly important and more broadly relevant.

Chain 2 (Education and connectivity) puts the rising aspirations of young people centre stage. Impressive gains have certainly been made in primary school enrolment and mobile phone penetration. There are clearly concerns about quality, and the more limited progress in relation to post-primary education. There is, nevertheless, a body of statistical evidence that points to a negative relationship between education level and involvement in agriculture, and much qualitative data that reinforces the idea that farming is not an attractive option for many students. There is still need for a more nuanced understanding – Which students? In what kinds of rural areas?

Chain 3 (Mindset and lack of skills) is the least well supported by the research evidence, but is arguably the most influential line of thinking underpinning policy and programmes aimed at engaging young people in agriculture.

Overall, we conclude that the links in these chains of explanation (i.e. the cause and effect relationships) are not well supported by evidence. This is particularly

disheartening because it is only on the basis of an understanding of these links that effective interventions can be designed and implemented. Without evidence relating to these links, policy and development actors are, for all intents and purposes, just guessing.

It is important to reiterate the fact that the observations and links in Chains 1 and 1a are relevant to all segments of the rural population who are engaged in agriculture, and not only to young people. This means that policy and programmes that address, for example, agricultural research and technology development or land reform will be of critical importance to young people even though they are not conceived of or labelled as 'youth-specific'. In fact, there is a strong argument that until and unless the deep structural issues that are at the heart of these chains are addressed successfully, much of the more youth-specific programming will remain largely irrelevant.

Much of the evidence that we reviewed originated from either macro (national level) econometric studies or very context-specific case studies. It can be difficult to join these two kinds of analysis into a coherent story. Many studies did not grapple effectively with the tremendous diversity that characterises young people and the rural areas in which they live. As a result, the discussion has not yet moved much beyond the categories 'youth' and 'young people'. Effective policy and programmes will need to be much more clearly targeted than is possible when these very broad categories are relied upon.

Where does the review of research evidence framed by the chains of explanation leave us in relation to the four research questions?

Are rural young people in Africa turning their backs on agriculture? It is impossible to provide a satisfactory response to this question. Some young people are clearly turning away from agriculture (as they have always done); but rural population growth means that in the coming decades there will likely be an increasing number of young people who are dependent on agriculture for their livelihoods. Again, the available evidence does not provide very much insight in relation to the social or spatial dynamics of young people's exit from agriculture. Further research along these lines should be a high priority. It would be very beneficial to understand much more about how different groups of young people in different rural areas imagine their futures, and their strategies for moving toward those imagined futures.

What does the research evidence say about young people's attitudes toward and engagement with agriculture? Family, social, personal and spatial factors certainly come into play, but much of the available research highlights young people's negative attitude toward agriculture. Farming as they most often see it practised (e.g. by their parents) is hard, risky, poorly remunerated and of low status, and it does not fit their image of a modern job. This does not mean that they will not at some point end up farming, but as young people take the first steps into the world of work, farming is generally not anywhere near the top of their priorities. Could this change if the agricultural sector were to go through the kind of structural transformation envisaged by some commentators? Possibly, but any such transformation is likely to be a long-term process, and might therefore be most relevant to some future generation of young people.

How is this evidence reflected in Europe's current policies and programming in the selected A2015 countries? Young people do not figure prominently in the EU's policy and programmes in the three A2015 countries under consideration. It should not be surprising therefore that the documentation that was reviewed made little direct or indirect reference to the research evidence concerning the factors affecting young people's engagement with agriculture.

In as much as some programmes seek to strengthen rural institutions or reform land tenure regimes, young people are implicated along with other elements of the rural population. Unfortunately, at least from the documents reviewed, it is difficult to discern how the EU's investments through CSOs and NSAs will contribute to this structural realignment. It may be that EU/EC investments, through other instruments and with other partners, are more directly addressing these challenges.

What alternative approaches to policy and programming are suggested by the evidence? The relatively strong evidence around the research–technology–productivity nexus and issues around access to land suggest that they should continue to be a central focus, even though they cannot (and should not) be framed or justified as a 'youth-specific' policy or programme focus. In our view, it would be ill-judged to prioritise youth-specific measures when these large structural issues persist. Until and unless the structural constraints are addressed, it is probably misguided to focus on how to change young people's aspirations and/or mindset in relation to agriculture. There is much heavy lifting to be done before the agricultural sector can offer fulfilling and rewarding employment to significant numbers of young people, and no one should be fooled about the effort or the time this will take.

It will be important to reflect on whether, how and in what situations the EU's strong orientation toward economic growth, market-based approaches and broadly applicable principles and frameworks are appropriate in relation to the structural transformation agenda. It is also important to consider the implications of the strong market-based orientation of policy and programmes for the EU's commitment to rights, including the right to food and the right to education (Petersen 2014).

4.1 Potential questions for discussion and debate

- Can the EU work effectively with and through CSOs and NSAs to further the structural transformation agenda?
- Are the CSOs ready to work in this direction?
- What kinds of youth-specific policies and programmes, if any, make sense in the absence of structural transformation?

4.2 Using this report to stimulate constructive dialogue and debate

In commissioning this report a key objective of Alliance2015 was to use it to stimulate constructive dialogue and debate with the EU and member states, and in the countries in which A2015 members work. To facilitate this, a number of potential questions for debate and discussion have been provided at a number of points in the report.

Here we narrow these down to a small set of eight questions that we believe should be particularly useful in stimulating dialogue and debate.

- In the spirit of evidence-based policymaking, what alternative approaches to policy and programming are suggested by the evidence in relation to the engagement of African young people in agriculture?
- What arguments support the proposition that young people should have privileged access to land, credit and/or extension services, and what evidence supports these arguments?
- What policies and programmes are appropriate in areas where rural population densities are already high and/or plot sizes are already small?
- What would agriculture and rural areas need to look like in order to be compatible with young people's aspirations?
- For what young people in what kinds of rural areas do real opportunities exist, and in which agricultural value chains?
- Is the education system inadvertently socialising young people away from agriculture and rural life?
- If only a structurally transformed agricultural sector can be attractive to well-educated young people, what does this mean for current policy and programmes meant to entice young people into agriculture?
- What kinds of youth-specific policies and programmes make sense in the absence of structural transformation?

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