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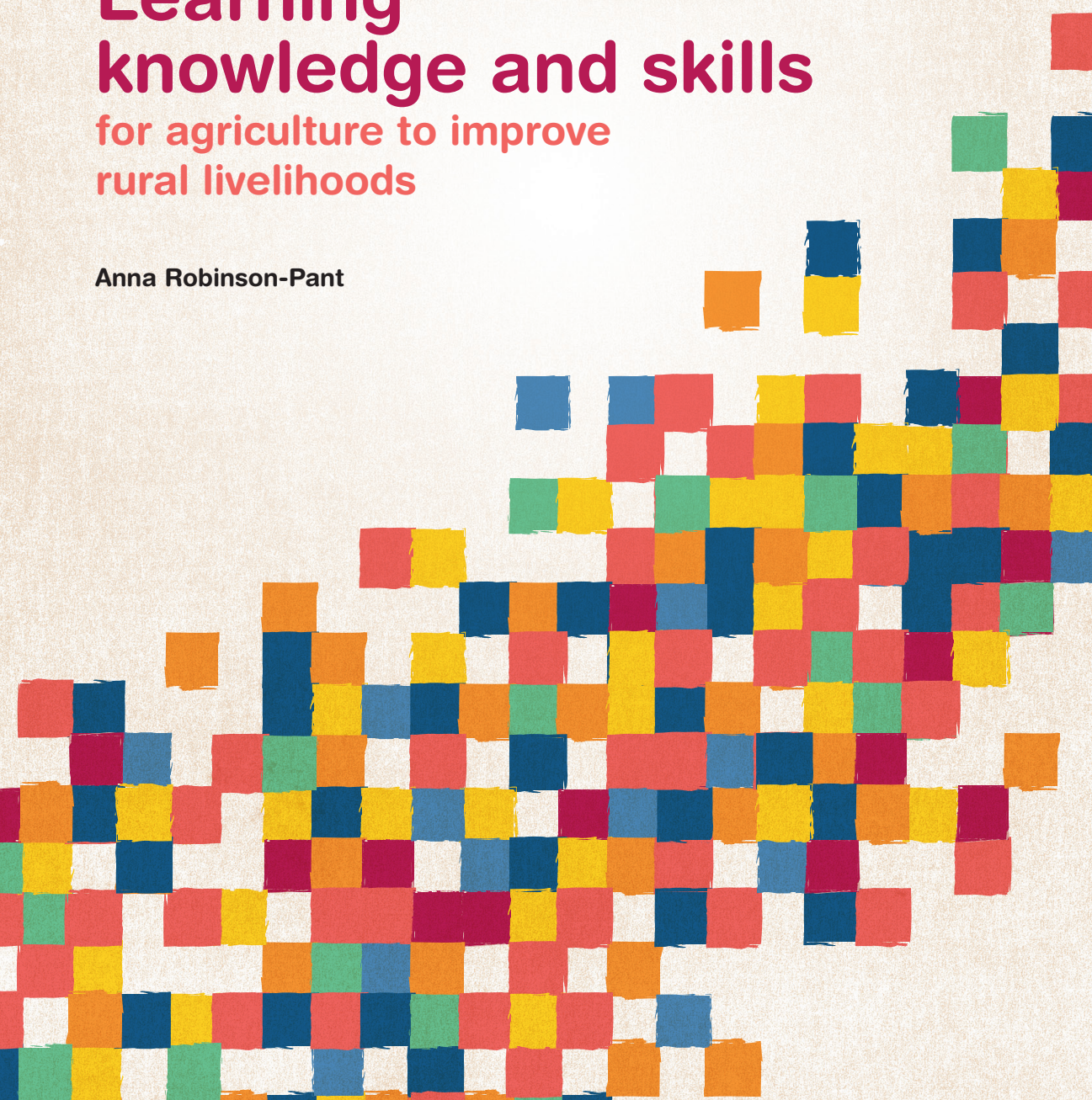


Investing in rural people

# Learning knowledge and skills

for agriculture to improve  
rural livelihoods

**Anna Robinson-Pant**



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rural livelihoods**

**Anna Robinson-Pant**

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# Foreword

Enhancing knowledge and skills has never been so vital for the creation of inclusive and sustainable societies as in today's globalized, knowledge-oriented world. It is a key to eradicating poverty, promoting equitable economic and social development, human rights, creating global citizens, combating inequality and sustaining our environment. It also helps make these changes in harmony across development sectors in a more integrated way, as required by the 2030 Agenda for Sustainable Development. Without appropriate knowledge and skills, people are excluded from access to even the most basic information they need for daily life, and thus from societies.

This publication, *Learning Knowledge and Skills for Agriculture to Improve Rural Livelihoods*, offers insights into how young people in rural areas see their learning and lives, a perspective often overlooked in rethinking and enhancing learning. It is a synthesis report of country studies conducted in Cambodia, Egypt and Ethiopia within the framework of the research project on 'Learning knowledge and skills for agriculture and rural livelihoods' (2012–2014) designed by the International Fund for Agricultural Development (IFAD) and the United Nations Educational, Scientific and Cultural Organization (UNESCO) as an education response to youth unemployment and poverty in rural areas as well as concerns about food security. By exploring what knowledge and skills for agriculture and rural livelihoods are acquired by young people, especially young women, and how, the research intends to contribute to agricultural development and rural transformation.

The researchers used ethnographic-style research methods to immerse themselves in the realities experienced by young people in rural areas where schooling, other forms of learning, agriculture and rural livelihoods, social identities, social change and rural transformation, are all closely connected. They found that the perspectives of rural young people are not homogeneous, with significant differences by gender, status and contexts. For many of the young people involved in the studies the traditional boundaries that exist between

generations, policy areas (such as education and agriculture) and programmes are less prominent in their thinking than in the prevailing administrative systems.

Young people arrange their learning, livelihoods and social practices according to their needs, lifestyles, traditions and evolving environments. Future farmers learn from their parents and role models. Even with limited literacy skills, young people find ways to benefit from mobile phones to obtain information that they need. When it comes to knowledge and skills for agriculture and rural livelihoods, for many of these young people, schooling plays a relatively minor role. Rather it is valued as a means to pave the way for employment in the formal sector, and to develop their social status and image.

The rich insights gained from the research lead us to various questions. How can the relevance of learning be enhanced to cater to needs and aspirations of rural young people? How can knowledge and skills obtained through non-formal and informal learning be more visible and integrated in lifelong learning? What can be done to address highly gendered learning and livelihoods in rural areas? What kinds of partnership are required to break the boundaries of policy areas and administration to promote more holistic and meaningful learning for rural young people? How do we need to position learning processes in our efforts towards agricultural development and rural transformation?

We hope that such questions will be an inspiration in rethinking the kinds of learning and sustainable development that empower rural young people to lead happy and fulfilling lives. This report is therefore intended to be a contribution to strengthening our collective efforts towards the attainment of the 2030 Agenda for Sustainable Development, including Goal 4 on ensuring 'inclusive and equitable quality education and promoting lifelong learning opportunities for all'. The research findings send a strong message about the need to revisit issues related to the relevance and modes and processes of learning that lie behind the statistical data and administrative information.

In this era of stark disparities, it is a necessity to increase access to relevant knowledge and skills, through formal, non-formal and informal learning. Learning can help young people to find decent work, to transform their realities and to realize their own aspirations with dignity. We hope that this publication will prompt further reflection, enrich future research endeavours, stimulate change and inspire action.



We would like to take this opportunity to express our sincere gratitude to the three country research teams anchored in partner institutions for their important contributions to rethinking learning: the Council for Agricultural and Rural Development in Cambodia, the Adult Education Center at the Ain Shams University in Egypt, and the Ethiopian Institute of Agricultural Research. We are also deeply grateful to Anna Robinson-Pant, professor at the University of East Anglia, United Kingdom, for her outstanding and thoughtful work in leading the research as the global research coordinator and providing support to the country research teams. We would also like to thank the multi-country IFAD-UNESCO project team.



Josefina Stubbs  
Associate Vice-President  
Strategy and Knowledge Department  
IFAD



Qian Tang  
Assistant Director-General  
for Education  
UNESCO

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This final report was strengthened by advice and inputs from the UNESCO Headquarters team and country research teams. Professor Alan Rogers gave valuable comments on the draft literature review, as well as contributing new sources.

# List of acronyms

<b>ADDA</b>	Agricultural Development Denmark Asia
<b>ADLI</b>	Agricultural Development-Led Industrialization
<b>AGP</b>	Agricultural Growth Program
<b>APPEA</b>	Asia Pacific Programme for Education for All
<b>ATVET</b>	Agricultural technical and vocational education and training
<b>CARD</b>	Council for Agricultural and Rural Development and training
<b>CMDG</b>	Cambodia Millennium Development Goal
<b>CSPATWC</b>	Community Self-prevention against Trafficking of Women and Children
<b>EIAR</b>	Ethiopian Institute for Agricultural Research
<b>EFA</b>	Education for All
<b>FAO</b>	Food and Agriculture Organization of the United Nations
<b>FDI</b>	Foreign direct investment
<b>FFS</b>	Farmer field school
<b>FGD</b>	focus group discussions
<b>FTC</b>	Farmers' Training Centers
<b>GDP</b>	Gross domestic product
<b>GFSI</b>	Global Food Security Index
<b>GMR</b>	Global Monitoring Report
<b>GNP</b>	Gross national product
<b>ICT</b>	Information and communication technology
<b>IFAL</b>	Integrated Functional Adult Literacy
<b>IFAD</b>	International Fund for Agricultural Development
<b>IIEP</b>	International Institute for Educational Planning
<b>INRULED</b>	International Research and Training Centre for Rural Education
<b>ISCED</b>	International Standard Classification of Education
<b>MDGs</b>	Millennium Development Goals
<b>MoARD</b>	Ministry of Agriculture and Rural Development
<b>MoE</b>	Ministry of Education
<b>MoEYS</b>	Ministry of Education, Youth and Sport
<b>MoWVA</b>	Ministry of Women's and Veteran's Affairs

<b>NGO</b>	Non-governmental organization
<b>OECD</b>	Organisation for Economic Co-operation and Development
<b>PACT</b>	World Heritage Partnerships for Conservation Initiative
<b>PADEK</b>	Partnership for Development in Kampuchea
<b>PRA</b>	Participatory rural appraisal
<b>REFLECT</b>	Regenerated Freirean Literacy through Empowering Community Techniques
<b>RLM</b>	Real literacies material
<b>TVEDO</b>	Technical and Vocational Enterprises Development Office
<b>TVET</b>	Technical and vocational education and training
<b>UIS</b>	UNESCO Institute for Statistics
<b>UIL</b>	UNESCO Institute for Lifelong Learning
<b>UN</b>	United Nations
<b>UNESCO</b>	United Nations Educational, Scientific, and Cultural Organization
<b>UPE</b>	Universal primary education
<b>VET</b>	Vocational education and training

# Executive summary

## Research design and aims

This is a synthesis report of three country studies conducted in the Kingdom of Cambodia (Cambodia), the Arab Republic of Egypt (Egypt), and the Federal Democratic Republic of Ethiopia (Ethiopia), within the framework of the research project on ‘Learning Knowledge and Skills for Agriculture and Rural Livelihoods’ (2012–2014) jointly designed by the International Fund for Agricultural Development (IFAD) and the United Nations Educational, Scientific and Cultural Organization (UNESCO). The main aim of the IFAD-UNESCO research project was to contribute to understanding about the kind of education and learning opportunities needed to address the currently high levels of youth unemployment in rural areas, as well as rural poverty and food security.

Research teams in Cambodia, Ethiopia and Egypt set out to find out how young people learned knowledge and skills in rural communities, how they regarded such knowledge and skills gained, and what aspirations and perceptions of agriculture and rural livelihoods they held, with a particular focus on young women. A literature review by the global research coordinator helped to frame the project in terms of international policy frameworks and to develop understanding of key terms related to learning that inform the research design and analysis. The three country research teams based in partner institutions – the Council for Agricultural and Rural Development (CARD) in Cambodia, the Adult Education Center at the Ain Shams University in Egypt, and the Ethiopian Institute of Agricultural Research (EIAR) – developed their country-specific studies through two workshops with national stakeholders and an initial literature review to inform the selection of two contrasting rural sites in each country.

The concept of ‘situated learning’ (and ‘situated literacies’) enabled the teams to explore young people’s learning in these places in terms of engaging in social networks, everyday practices and relationships. Adopting this holistic perspective on skills development for agriculture and rural livelihoods was a necessary step

before investigating how and whether formal educational providers took account of and built on those skills. The ethnographic-style research was conducted over three weeks in each country during 2013. The research tools included ethnographic observation, life history interviews with around 30 young people and some older farmers, focus group discussions (FGDs) using participatory and visual methods such as timelines, and semi-structured interviews with providers and employers in the local area.

The project concluded with a Global Seminar on 'Learning Knowledge and Skills for Agriculture and Improving Rural Livelihoods' organized by UNESCO in collaboration with IFAD in Paris on 27 and 28 February 2014.

## **Key findings**

Cambodia, Egypt and Ethiopia are engaged in similar processes of rapid social, political and economic transformation, which have influenced markets, communication infrastructure and access to natural resources. All three country studies revealed the severe challenges faced by poorer people in the agriculture sector, which focused around their diminishing access to productive land because of environmental and climate changes, and large-scale production funded by foreign direct investment (FDI). Young farmers faced additional constraints involving land inheritance and access to credit. Young women and young men were increasingly engaged in off-farm activities, such as trading beverages (Ethiopia), factory and hotel work (Cambodia) and sewing head-covers from home (Egypt). They emphasized the strong linkages between off-farm and on-farm livelihood activities, seeing some form of family farming as a 'given' at various points of their lives. Clear gender differences emerged in the Egypt study, with young married women conveying their affection for the land and their agency in growing food for family consumption. Both younger and older respondents emphasized that indigenous knowledge, skills and technology were insufficient to meet the current challenges of generating a rural livelihood.

Young people interviewed believed strongly in the potential benefits of schooling for basic education as leading to employment in the formal sector, and also the social status of being seen as an educated person. Despite having more access to schooling than their parents' generation, many had dropped out because of

financial pressures and the need to work on the family farm. There was more ambivalence in the pastoral community in Ethiopia, where elders saw schooling as a threat to their traditional way of life. Young people's reasons for looking for alternative and new livelihoods were related not only to aspirations for more secure sources of income than farming, but also to their desire for independence and a more sociable working environment (for instance, in Cambodia, young women saw working in factories as a way to meet future spouses). There was also evidence of changing social structures, and young people moving away from communal to more individualized values and livelihoods (such as the 'free-rider' mentality noted in Ethiopia, which undermined group-based development activities). In the Egypt field sites, a strong moral belief in hard work was emphasized, and communal activities such as clearing drains were evident.

The studies all revealed the importance of informal learning with regard to both traditional agricultural skills and new knowledge. Young people learned technical skills related to growing crops and rearing animals from their parents and siblings, often from a very young age. All the younger respondents had mobile phones (except unmarried women in the Egypt study), and this was a major area of rapid and widespread informal learning of new skills. Non-literate respondents in Ethiopia explained how they developed their own strategies to use their mobile phones through visual symbols to represent callers, repetition and help from peers. The more successful agricultural extension activities drew on informal learning approaches like this, with one-to-one interaction and individualized support at the point of need. Commercial farming contractors and traders in the Cambodia sites had adopted this client-led and embedded approach to learning new agricultural knowledge and soft skills. In contrast, findings on formal and non-formal adult learning and extension programmes provided by non-governmental organizations (NGOs) and government in all the sites revealed more dependence on classroom-based approaches, and a tendency to adopt a 'one size fits all' model (particularly in adult literacy).

Interviews with respondents and providers in the research sites indicated serious concerns about the complete absence of effective extension workers in the field sites and of necessary agricultural support services, which they assumed were the outcome of corruption in cooperatives in Fayoum, Egypt. Targeting the poorest was a major challenge, sometimes exacerbated by the requirement that young people should own land or have a minimum educational level to participate in skill development programmes. Both providers and respondents emphasised the



importance of soft skill development, including confidence-building and negotiation skills, to ensure the sustainability of new micro-enterprises in the face of fragile markets and exploitation of small farmers. However, agricultural extension agents, television and radio programmes and formal agricultural courses continued to prioritize hard skills and technical agricultural knowledge.

### *Implications for policy and future research*

The diversity of contexts and livelihoods described in the country reports presents the greatest challenge for policy-makers. For this reason, the project held final workshops to draw out and respond to specific issues, and suggest strategies for each country (detailed in the separate country reports). The following points from the comparative analysis above have implications for future policy and research more generally.

### *A more complex view of learning, schooling and farming*

Learning, schooling and agriculture carried very different meanings for the people in these studies, according to their gender, age, socioeconomic and cultural context. The study showed that young people viewed learning and farming, not only in terms of outcomes (such as increased income), but also as processes shaping their social identities and relationships. This more complex model for exploring the interconnections between schooling, agriculture and social change is an important area for future research, which could be conducted in a wider range of countries.

### *Recognizing and valuing informal learning in policy*

The analysis revealed the importance of informal learning, in relation to new technologies, intergenerational transfer of agricultural skills and knowledge, and its potential to enhance formal training programmes. Policy needs to take greater account of processes of informal learning, not only through assessment and accreditation mechanisms, but also in curriculum and teaching/learning approaches, to ensure the relevance and effectiveness of agricultural extension activities, adult learning programmes and the media.

### *Prioritizing soft skill development*

The rapid changes affecting rural livelihoods in the research areas meant that young people had already engaged in many different off-farm and on-farm

activities, and recognized the need for enhanced skills to adapt to and create new opportunities. This notion of lifelong learning and the priority that young people attached to gaining confidence, and entrepreneurial skills, were not reflected in the kinds of skill development and educational programmes on offer. Policy in the educational and agricultural sectors should encourage the development of a wider range of transferable skills, including integrating information and communications technology (ICT) into such training, and introducing 'green' skills and gender awareness initiatives.

### *Challenging policy and research silos*

The holistic approach that young people took towards enhancing their own livelihoods contrasted with that of many providers, who worked largely within their own sector. Young people's perceptions of the strong interconnections between off-farm and on-farm activities challenged policy discourses around the divide between rural and urban, agricultural and non-agricultural employment. Intersectoral linkages and integrated approaches to learning skills for rural livelihoods need to be promoted in policy frameworks. Above all, longer-term additional support (including credit and legal reform regarding land ownership) could help ensure that the poorest young people do not continue to be excluded from effective agricultural skills development programmes. The project also suggests ways in which educational and agricultural researchers could work more closely together in future to break down research 'silos'.

### *Gender, education and rural livelihoods: moving beyond access*

The young women and young men in this study give an insight into how strongly their learning and livelihood experiences are influenced by gender. Young women made livelihood and educational decisions based on considerations around gender violence and abuse, and community expectations of gender roles. Processes of informal as well as formal learning were highly gendered, influencing both men's and women's aspirations and capacities. The project pointed to the importance of taking a gendered approach to research on agricultural learning and livelihoods – not simply in terms of analysing where women need to 'catch up' on skills or basic education or employment, but also to develop greater understanding of how gendered identities and gender relations shape people's livelihoods, learning and outlook on life.

# 1.

## Background to the research

Today's generation of young people is the largest in history. Some 1.8 billion young people worldwide are between the ages of 10 to 24, and 90 per cent of them are living in less developed countries (UNFPA, 2014). Although many of this younger generation have abandoned the rural context and migrated elsewhere, a major proportion of unemployed young people still live in agrarian societies and in rural areas. Accordingly the focus of attention is increasingly shifting to young rural people, and in particular, the next generation of farmers.

For many countries, one of the main concerns is to provide sustainable livelihoods and employment opportunities in agriculture for young people. Understanding the way that future farmers are acquiring knowledge and skills, and their perceptions of the sector, is critical in forming responses to rural poverty and food security. The neglect that agriculture has suffered in terms of national budgets, policies and investment is often being reinforced through inadequate education and training systems.

The potential pro-poor benefits of finding innovative ways to equip the new generation of rural young people with the knowledge, skills and means of introducing sustainable technology to their agricultural practices is enormous. Young rural women and men need to have access to education and training of good quality, as well as to technology and supporting environments. Only then will they be able to contribute with innovative ideas to transform the agricultural sector and rural development, and ensure that they have greater opportunities for sustainable livelihoods than their parents' generation.

This IFAD-UNESCO project was designed to respond to these concerns through deepening understanding of how teaching and learning for agriculture and rural livelihood is taking place in rural communities, and what kinds of knowledge and skills are communicated to rural youth, especially young women. Within the framework of the project, research was conducted in 2013 and 2014 in Cambodia, Egypt and Ethiopia in collaboration with the following partner institutions: the Council for Agricultural and Rural Development (CARD) of Cambodia; the Adult Education Center at Ain Shams University, the Arab Republic of Egypt; and the Ethiopian Institute of Agricultural Research.

# 2.

## Overview of the research design and methodology

The main aim of the research project was to contribute to better understanding about what kind of education and learning opportunities might help to address the currently high levels of youth unemployment in rural areas, responding particularly to gender inequalities in both education and employment. It was intended to find out how young people learn knowledge and skills in rural communities, their views and what aspirations and perceptions of agriculture and rural livelihoods they hold. Adopting an ethnographic style approach, the project set out to explore young people's experiences in two contrasting rural communities in the different country contexts of Cambodia, Ethiopia and Egypt.

Participant observation is central to ethnography – the idea that the researcher is both an insider and part of the world that they observe, as well as being an outsider in the sense of having the role of documenting and analysing that community for a wider audience.<sup>1</sup> In a project like this, the ethnographer intends to gain an understanding of people's viewpoints through becoming immersed in their worlds. This could be seen as a 'bottom-up' perspective on educational providers and development programmes, in contrast to much policy-focused research that is influenced largely by 'top-down' government and development agency objectives and viewpoints.

Field sites were chosen in each country to represent differing agricultural resources and livelihoods, infrastructure, topographical features, and contrasting levels of education and poverty. These were Popis and Ou Touch villages near to Siem Reap and Kampot (Cambodia), Gemi and Tounis villages in Fayoum Governorate<sup>2</sup> (Egypt), and Basona Werana woreda and Yabello woreda (Ethiopia). An initial literature review conducted in each country, together with discussion during the first country workshop, also informed the site selection through analysing previous research and national educational and agricultural policy and programmes. This analysis was drawn on to investigate the different channels of learning, skills in demand, and roles of providers at national and local levels. A literature review by the global research coordinator helped to frame the project in terms of international policy frameworks and in developing understanding of key terms related to learning that inform the research design

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- 1 For an accessible account of ethnography as a research approach within development, see Rogers and Street (2012, pp. 17–20). Roberts et al. (2001) provides a useful introduction to underpinning principles and methods in Street's chapter 'Ethnography for linguists'.
  - 2 The choice of field sites in Egypt was also influenced by the security situation at the time of the fieldwork in October and November 2013. These villages were both only a few hours' journey from Cairo.

and analysis (such as the idea of informal, non-formal and formal learning as a continuum rather than polarized approaches).

The concept of 'situated learning' (elaborated by Lave and Wenger, 1991) was central to the research design. This focus on investigating learning in everyday life is a quite different starting point from the more usual policy focus on providers, programmes and formal learning. It enabled the country research teams to analyse informal learning in terms of social networks, real-life practices and relationships, and adopt a more holistic perspective on skills development. The related concept of 'situated literacies' (Barton, Hamilton and Ivanic, 2000) recognizes many literacies (including digital literacies) and diverse literacy practices, rather than focusing on the one dominant literacy (reading and writing 'standard' texts) associated with schooling (Street, 1995). By acknowledging the multiple languages, modes (visual, oral, written) and scripts that people encountered in everyday life, the research teams were able to explore how 'illiterate' (un schooled) respondents learned through everyday literacy practices, such as sending and receiving mobile phone texts. This conceptual framework allowed the country-based research teams to investigate the ways in which young people are already learning and using vocational skills, multiple literacies and knowledges within their communities. This was a necessary step before investigating how and whether formal educational providers took account of and built on those skills.

The research design and methodology was shaped by the research questions set by the IFAD-UNESCO project team in their initial development of the project:

- what skills are in demand (e.g. individuals, collective demand, employers, community, etc.);
- the kinds of knowledge and skills specific to agriculture and rural *livelihoods* which are currently acquired by young women and men through different programmes and learning channels in rural communities;
- the specific modes of learning and teaching of knowledge and skills for agriculture and rural *livelihoods* (informal, non-formal and formal ones), the roles of providers and learning places and the dynamics of interrelations between different channels;

- how such knowledge and skills are communicated and learned (various means of communication used in various modes of learning and teaching – oral, written, ICT such as computers and mobile phones, etc.);
- who provides this learning;
- how such knowledge and skills are transmitted from generation to generation;
- the role that literacy can play in the learning and teaching of agricultural knowledge and rural livelihood skills (e.g. relations between literacy levels and learning of other skills, role of literacy component in learning programmes);
- the perceptions of those who teach and learn knowledge and skills on the modes, means and values of the process, on the effectiveness of learning for agriculture and rural *livelihoods*, including the views of young people disaggregated by gender;

(adapted from the IFAD-UNESCO Project Terms of Reference, 2012)

Following the appointment of the country research teams in Cambodia, Egypt and Ethiopia, each team was engaged in a similar research process over a couple of months, including a period of around three weeks of field research. The research activities included:

- Documentary analysis of relevant policy documents, programme evaluation reports and previous related research in this area.
- A first country workshop organized in each country for the research team and relevant national stakeholders to agree on research methodologies and data collection methods as well as an overall work plan.
- Ethnographic/participant observation in the two communities, focusing particularly on agricultural activities and literacy/numeracy practices in everyday life. This could be seen as a scoping phase to gain an understanding of the institutions as well as different groups in the village. Researchers chatted with people they met, took notes and photos of activities taking place, and collected materials (such as agricultural extension service leaflets). The research teams also asked young people to guide them around the community and introduce them to key places and people related to learning



and agricultural skills (a variation on the participatory rural appraisal (PRA)<sup>3</sup> method 'transect walk').

- Life history interviews with at least fifteen people in each field site, with the majority being young women and men aged 15–24 years. The interviews focused on how, when and from whom they learned different skills and practices that they now use in everyday life (including soft skills like confidence), any 'lost' moments for training/learning in their lives (constraints they faced and lack of opportunities), views of training needs in the area and their opinions about current provision.
- Focus group discussions (FGD) with young people using facilitation tools from PRA: timelines (to compare women's and men's activities over a typical day), seasonal calendars (patterns of youth employment), mobility mapping (skills used and needed in various everyday contexts) and institutional diagramming (views of providers in the area). A focus group was also conducted with older people in order to compare their livelihood strategies and perspectives on learning, skills and providers.
- Semi-structured interviews conducted with around ten providers of adult learning and skills development training in the area, including some key employers. The interviews explored their views on the effectiveness and appropriateness of current provision, ideas on training needs and the experiences of their institution in terms of enhancing adult learning for rural livelihoods. Based on the interview data, the teams developed at least two case studies of programmes/institutions working in this area.
- A second national workshop organized in each country to review the draft country study and to discuss key research findings and policy implications. These workshops were attended by a wide range of national stakeholders in order to disseminate results to relevant entities of the government and partners.

In all the sites, research was conducted in the respondent's first language and data was translated into English for extracts quoted in the country study reports.

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3 Participatory rural appraisal (PRA) is an approach developed to facilitate local people's participation in planning development programmes through collaborative, visual activities (see Chambers, 1994). In this project, we were using PRA methods primarily to facilitate focus group discussions through practical activities, but also in other group contexts in order to encourage young people to have a role in shaping the agenda. A guide to the research methods used in this study (including instructions for facilitating the PRA activities) is available on the IFAD-UNESCO project website.

In Egypt, the country study report was written and published in Arabic, then translated into English for the purposes of this synthesis report.

The main limitation of the study was related to the time that was available for fieldwork. For this reason, it would be more appropriate to term this 'ethnographic-style' research (Green and Bloome, 1997), rather than ethnography – which would involve intensive fieldwork (particularly participant observation) over many weeks or months. In addition, a majority of the researchers in the project had no prior experience in ethnographic (or in some cases, qualitative) methodology. This meant that 'on the job' learning was an essential element of the research process. The global research coordinator (an ethnographer) provided initial research training where needed, and supported the teams at a distance through giving advice by email on research activities, including sharing ideas on the interpretation and analysis of the data and the writing-up process. The partner institutions in each country commented on the valuable contribution that the project had made to capacity-building in terms of professional development of their staff in qualitative research, and in pointing to new directions for future research initiatives by these institutions.

As the project was intended to have a direct impact on policy and practice, involvement of relevant stakeholders from the outset has been an important element. A launch workshop in each country involved other participants – including young people from local NGOs in Fayoum (Egypt) – in shaping the specific objectives and research design. At the end of the field research period, a final workshop brought together national and local-level stakeholders (including key actors in government institutions) to discuss the findings and their ideas on policy implications.

The project concluded with a similar process at the international level by holding a Global Seminar in Paris (on 27 and 28 February 2014). With participation from around sixty countries and development partners – including young people, civil society, experts, donors and multilateral organizations, and members of the country research teams – this forum explored an educational response to global concerns of agriculture and food security, youth unemployment, rural poverty and sustainable rural development. The Global Seminar had the following specific objectives:

- to disseminate key findings of the research on learning of rural young people for improving agriculture and rural livelihoods conducted in Cambodia, Ethiopia and Egypt;

- to reflect upon urgent issues for future action with regard to the learning of knowledge and skills for improving agriculture and rural livelihoods;
- to explore ways forward to build on this project and other existing initiatives, potentially via advocacy, partnership-building, and programmes for future research, operational activity and policy analysis.

Introducing the seminar theme, Mr Venkata Subbarao Ilapavuluri, Chief of Section for Literacy and Non-Formal Education, UNESCO, global project coordinator, highlighted the value of the project in terms of developing an interdisciplinary perspective on farm and non-farm livelihoods, literacy, skills development, youth and gender, in contrast to conventional approaches, which have tended to study each of these areas in isolation. Mr Borhene Chakroun, Chief of Section for Technical and Vocational Education and Training, UNESCO, also emphasized the importance of strong intersectoral linkages between policies and programmes, to respond to young people's need for transport, micro-credit and other resources, alongside skill development and educational support. Ms Maria Hartl, Technical Advisor, Gender and Social Equity, Policy and Technical Advisory Division, IFAD, noted that the seminar marked the beginning of a collaboration between IFAD and UNESCO, and that the particular challenge now was how to build on the research findings to reach 'the motivated poor'. Specific points made by stakeholders in seminar discussions have been included in relevant sections of this synthesis report. The policy recommendations made at the Global Seminar are presented in the conclusion.

# 3.

## Mapping the field: findings from the review of international literature

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## 3.1. Aims and approach of the literature review

The research process began with the global research coordinator's review of previous research and policy documents, as well as theoretical literature relevant to the ideas underpinning this project – particularly the concept of informal learning. The review of international literature aimed to identify and analyse key debates around learning skills and knowledge for agriculture and rural livelihoods, which have influenced research and policy in this field and could provide a framework for documentary reviews conducted later by each country team. Through reviewing empirical data from relevant research in a range of country contexts (including developed economies), it became clear that the IFAD-UNESCO project was unusual in bringing together formal, non-formal and informal learning for agriculture and rural livelihoods. Research on technical and vocational education and training (TVET) has rarely prioritized the agriculture sector, and when it has, it has tended to focus on formal and non-formal training programmes. This project also broke new ground in looking at informal learning in everyday contexts, and using this as the entry point for research, rather than beginning with providers and programmes.

The country research teams collected and analysed policy documents, programme evaluations and previous research studies conducted in their specific country contexts. Two main areas were covered in these reviews, and later helped inform the design and interpretation of empirical data in each country study:

- informal learning in the community: how young people learn skills in everyday life, including agricultural practices, and basic literacy/numeracy;
- policy and providers: an overview of government policy in relevant sectors (particularly agriculture and education, and including reform initiatives, school curricula and skill assessment frameworks) and mapping government and NGO provision of agricultural skills development and learning programmes for young people to identify innovative practice.

The detailed findings of this documentary analysis can be found in the three country reports. The full international literature review is also available. The

section below summarizes the findings from the review of international literature in the fields of agriculture and development, youth and skills development, and adult literacy, and identifies the themes that were particularly significant in shaping this project.

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## **3.2. Transforming agriculture for development and poverty reduction**

Given the fact that at least 70 per cent of the world's poorest people are living in rural areas (IFAD, 2010), agriculture has been widely identified as key to development and poverty reduction and as the main driver of non-farm economic opportunities. It is also evident in many countries that more women than men are working in agriculture (World Bank, 2009). At least 80 per cent of rural smallholder farmers worldwide are women (World Bank, FAO & IFAD, 2009), largely because greater numbers of men are migrating and searching for off-farm jobs. Young people are recognized as a significant part of the agricultural workforce: World Bank data on fifteen African countries indicated that 90 per cent of rural young people were employed by their families or self-employed in agriculture and household enterprises, compared with 69 per cent of urban youth who were similarly occupied (Brooks et al., 2013). There were significant gender differences too, with more young women than young men self-employed or working for their families (Brooks et al., 2013). Women are over-represented in producing and selling food crops, while men take the lead in selling cash crops (UNESCO, 2012a).

Young people have been identified as an important group for taking forward new advances in technology in the sector and responding to a context of rapid social, economic and environmental change. However, recent research has highlighted why agriculture has proved increasingly unattractive: smallholder farmers face severe challenges in terms of climate change, decreasing soil fertility and changing markets, social structures and patterns of land ownership (Tadele and Gelle, 2012). Although smallholder farms have been seen by some as a key to sustainable and equitable rural development (IFAD, 2010), many developing countries have witnessed the growth of 'super farms' and increasing

opportunities for governments to sell or rent large areas of agricultural land to foreign investors. With increasing globalization, foreign direct investment (FDI) has become widespread. Fernandez (2012) reveals the tendency for governments to use the land of smallholders and displace indigenous communities. Local stakeholders have had little voice in such decisions, indicating the need for farmers to develop their negotiation skills through cooperatives and organizations to promote workers' rights.

A wider perspective has been taken on rural development than simply equating agriculture with farming. This implies a greater range of skills, roles and activities than have been identified in earlier literature, particularly those around representation, voice and organization. As UNESCO International Research and Training Centre for Rural Education (INRULED) (2012, p. 13) discusses in relation to skills needs in rural areas, major rural occupations could include persons directly engaged in agriculture, persons engaged in off-farm commercial activities, and general services personnel – rural administrators, planners and technical experts. Young people in particular – with limited access to land and resources – do not view farm and non-farm activities as separate and discrete, but recognize their interdependence, and that they move between different livelihood activities at different times of the year and their life cycle. Whereas policy-makers have often had 'negative perceptions of migration' (Bennell, 2011, p. 12), seasonal migration can be seen as an important strategy by which many rural people are coping with the multiple risks outlined above.

This picture from the international literature of changing patterns of land ownership and migration through rapidly globalizing economies emerged strongly in the IFAD-UNESCO studies from Egypt, Cambodia and Ethiopia. The understanding of multiple and changing livelihood strategies informed the field research activities (particularly analysis of participant observation and FGD data) as the researchers investigated the synergies between on-farm and off-farm activities. They also broadened the exploration of agricultural skills and knowledge beyond farming in response to young respondents' experiences, to include, for instance, perspectives on migration. Such an approach also implied the need to investigate possible skills development and educational responses to the experiences of young migrants. At the global seminar, an example was given of a training centre in Nepal which targets people going to work in the Gulf, through developing awareness, confidence and knowledge of legal rights to deal with possible exploitation (by Ms Frederique Weyer, Swiss Development

Corporation). The research teams adopted a gendered perspective on analysing such livelihood strategies over the respondent's life cycle (particularly in the life history interviews), building on the literature to construct a nuanced account of the constraints faced by young women compared with young men.

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### **3.3. Youth and agriculture: the occupation of 'last resort'?**

The dominant discourse on youth and agriculture is that young people do not want to stay in rural areas, and that they find agricultural work 'dirty' or 'degrading' (Tadele and Gelle, 2012). Research has revealed that the situation is in fact more complex – that parents as well as young people regard agriculture as 'an occupation of last resort' because of the lack of land and environmental risks among other factors (Njenga et al., 2012). For young people forced to work as labourers on their family's or other people's land, the issues around lack of voice and independence are particularly significant (Chinsinga and Chasukwa 2012). White (2012) describes a period of 'waithood': that time when young educated people are helping their parents while they wait for a 'real' job (in the formal sector) or because they are waiting to inherit the land. With changing patterns of land ownership, young people may only ever be able to work as labourers since the land is being sold off or leased by their parents to large companies (White, 2012). There is a significant gender dimension here too. While men may have enhanced access to land and resources over their lifetime, women are more likely to face increased dependency on others and limited mobility after marriage. Young girls are also likely to suffer lack of access to secondary education compared with boys, which later influences their roles in paid agricultural employment and their decision-making and bargaining power in the household and society.

'Youth' has been described as a social category 'laden with risk and uncertainty' (UNESCO, 2004a, p. 6). Definitions of youth vary greatly according to the country and context, even when they are based on age-related/based definitions. For example, the African Youth Charter considers youth to be aged between 15–35 years (te Lintelo, 2012). This IFAD-UNESCO study focused on the age range



15–24 years (the official UN definition) in order to facilitate comparison across the three countries studied. In all three studies, there was a similar tension around whether to include older respondents within their sample of ‘youth’ – reflecting the recognition in the literature that youth could be seen to be lasting longer because of education and later marriage in some contexts (White, 2012). Conversely, some researchers have pointed out that in many countries children are expected to engage in subsistence and waged work from a young age, and marry early too (Bennell, 2011), challenging the traditional view of youth as the transition from childhood into adulthood and from dependence to independence.

Young people have tended to be defined and addressed as a homogeneous group in policy, overlooking in particular, differences created by gender and poverty. In his analysis of youth policies, te Lintelo (2012, p. 100) identifies this tendency as the major reason why the ‘youth in agriculture problem’ has not been addressed, and discusses the construction of youth in different contexts as ‘passive clients, constrained decision makers and autonomous agents’. Sumberg and colleagues (2012) suggest that many governments take an ‘instrumental’ approach to engaging young people as future agents of change, rather than considering their role in the ‘here and now’.

In agricultural policy and programmes, researchers have argued for a more holistic approach that recognizes the diverse needs and practices of young people. Brooks and colleagues (2013, p. 13) present a framework for analysing policy initiatives in this area through identifying four agricultural career paths followed by young people:

1. full-time on existing family holding
2. full-time on new holding
3. part-time combined with household enterprise (e.g. sale of services)
4. off-farm waged work.

They analyse the need for land, for capital and for skills in relation to each of these types of employment. For instance option 2 involves a high need for land, capital and skills, whereas option 4 requires no land or capital, but has a medium or high need for skills.

Models like this from the international literature provided a way for the IFAD-UNESCO country research teams to categorize young people’s livelihood

strategies and analyse their experiences in relation to possible policy directions, such as legal reform, resource inputs and training initiatives. The literature review findings in this area of youth and agriculture also pointed to important conceptual debates that had implications not only for sampling decisions (who were the 'youth' respondents?) but also for designing the research activities. For instance, the problematization of 'youth' as a category (rather than accepting it as a 'given') suggested that young people could be encouraged to discuss the differences that they saw between themselves as a group (see the FGD in Ethiopia on different categories of youth). The importance of recognizing young people's perspectives on employment was emphasized in discussions at the Global Seminar, for instance, in an observation that migration was not always about seeking better economic opportunities, but also indicative of young people wanting independence from conventional family and social structures (by Mr Santosh Khatri, UNESCO Cambodia).

Above all, the literature review informed the policy analysis in each country report, through highlighting the value of adopting a holistic policy perspective on youth and agriculture. This presented a contrast with certain national policy that viewed skills development in isolation from the legal, financial and institutional reforms needed to ensure that young people have greater voice and security in employment. The question of how policy-makers should respond to young people's voices is not straightforward. In the Global Seminar debates on policy implications, a tension was identified between the holistic perspective on youth (emphasizing the importance young people gave to social identities, status and relationships) and the more conventional policy discourse around 'drivers to production', which kept 'creeping in' (comment from Mr Clinton Robinson, expert consultant).

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### **3.4. Agriculture and skills development policy: from basic skills to lifelong learning**

While the international literature review focused on skills development for agriculture rather than TVET more generally, it is worth noting that some previous research reports have chosen not to include agriculture in their analysis of skills development to produce improved rural livelihoods (e.g. King and Palmer, 2010; Johanson and Adams, 2004). The assumption that basic skills of literacy and numeracy can make a difference to productivity in the home, farm or household enterprise has long informed research around skills development and agriculture (King and Palmer, 2010). Lockheed and colleagues' (1980) influential finding that four years of education makes a difference to farmer productivity has since been qualified as only being effective in more dynamic agricultural environments. For instance, UNESCO (2014a, p. 147) cites evidence that educated farmers were more likely to make better use of technologies (irrigation technology in China, increased fertilizer use in Ethiopia) and move into higher-value crops.

The linear view that basic literacy and numeracy learning should precede vocational training has continued to dominate policy in this area. The concept of 'embedded literacies' (Rogers and Street, 2012) has however challenged the idea that basic literacy is a necessary prerequisite for learning specialized vocational skills. Ethnographic research on everyday learning has shown that people can and do learn literacy and numeracy informally through vocational training and on-the-job experience, rather than only in classrooms.

The emphasis of the Millennium Development Goals (MDGs) on universal primary education (UPE) has greatly shaped the educational policy agenda to date, leading to the continued lack of prioritization of adult learning in national educational plans. King and Palmer (2012) suggest this is why there has been more attention to foundational and transferable skills than to technical/vocational skill development. Reflecting on post-2015 education, UNESCO (2013) proposed a strengthened and broadened Education for All (EFA) vision as an integral part of the broader international development framework, highlighting 'equitable access to lifelong learning opportunities to develop skills and competencies for life and work' as a focus. Following consultations with countries and

partners, this vision was adapted as Goal 4 of the 2030 Agenda for Sustainable Development adopted in 2015. The *EFA Global Monitoring Report: Teaching and Learning: Achieving quality for all* (UNESCO, 2014a, p. 49) emphasizes the need for young people to learn not only foundation skills, but also transferable skills (such as advocacy and conflict resolution) as part of becoming ‘responsible global citizens’. This shift towards seeing skills development in terms of lifelong learning, rather than focusing on initial education, is reflected in other recent reports (see OECD, 2013).

The distinction in the early literature between ‘basic skills’ and ‘vocational skills’ has thus been expanded to embrace a wider range of capacities and the broader notion of ‘skills development’. In this definition, skills development is not seen as ‘an isolated and self-contained area of activity’ (UNESCO INRULED, 2012, p. 10), but as having strong connections with the formal education system, as well as with non-formal and informal learning. There is recognition of the diverse ways and locations in which skills development takes place, including in and beyond the four kinds of institution defined by King and Palmer (2010): public school-based vocational education and training (VET); vocational training centres; and private for-profit institutions; and NGOs.

Many typologies for categorizing skills have been proposed for analysing, assessing and planning skills development. The UNESCO *EFA Global Monitoring Report: Youth and Skills* (2012a) identified three main types of skill: foundation skills (literacy and numeracy skills ‘necessary for getting work that can pay enough to meet daily needs’), transferable skills (‘needed to adapt to different work environments’, such as the ability to solve problems) and technical and vocational skills (‘specific technical know-how’ for certain jobs such as growing vegetables). In relation to agricultural skills training, there is increasing recognition of the importance of developing a range of soft skills. UNESCO INRULED (2012) proposed two main ways of developing ‘typologies of learning needs’ in agriculture: first, through focusing on occupational categories, and second, through identifying the basic tools of learning, skills related to the quality of life, productivity skills and skills related to organization, attitudes and values. With attention now turning to sustainable development, the notion of ‘green’ skills has also been introduced, including environmental awareness, adaptability to apply new technologies and risk analysis skills (UNESCO INRULED, 2012).

Many of these skills may be learned informally on the job, and are seldom reflected in an individual's qualifications. Responding to increasing mobility, globalization and rapidly changing economies, attempts have been made to develop qualifications frameworks and national assessment procedures that are more flexible, transparent and transferable across countries (OECD, 2011). The main problem faced by those developing such qualifications frameworks is how to avoid an extremely complex model, which would undermine the aim of ensuring that skills are transparent to potential employers and educational providers (for instance, the Brookings 'Global Compact on Learning' identifies five domains of competencies and eighteen sub-domains). Of particular relevance to this IFAD-UNESCO study are debates around the kinds of knowledge and competency that are prioritized, and the possible exclusion of indigenous skills and knowledge.

The review of previous research and evaluation of skills development policy provided analytical tools for the IFAD-UNESCO research teams to investigate the assumptions underpinning national policy – for instance, the notion of a linear 'literacy first' model or to map skills provision onto the threefold typology of foundational, transferable and vocational skills (UNESCO, 2012a). The distinctions made within as well as between different kinds of skills – such as the wide range of soft skills identified in UNESCO INRULED (2012) – also guided the researchers to recognize and probe further into the skills and attributes that interview respondents had learned in everyday life.

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## **3.5. Strategies for skills development in agriculture and rural development**

Following the identification of three categories of skills, the *EFA Global Monitoring Report (GMR)* (UNESCO, 2012a, p. 279) recommended focusing on three main areas of skill development for rural youth:

- improving access to primary and post-primary education, especially for girls;
- expanding training for basic and vocational skills to make up for gaps in the rural labour market; and

- providing business and entrepreneurial skills training to improve understanding of market opportunities and improve managerial expertise.

The report put more emphasis on skills development for non-farm work, suggesting that new developments in agricultural production would mean fewer jobs in the future. Research on school education has revealed that curricula are often not appropriate or relevant to the needs of rural areas, particularly agriculture, and are biased towards theoretical academic knowledge, rather than offering 'hands on' practical experience or recognizing indigenous knowledge (UNESCO, 2009b). The recognition of a need to support new opportunities beyond agriculture can be seen as a response to young people's own desires, but also reinforces the idea explored earlier that off-farm and on-farm livelihoods need to be seen as closely interlinked.

All too often, skills development programmes have not led to enhanced incomes or employment opportunities in rural areas because they have adopted a 'needs-based' rather than an 'asset-based' approach (Rogers, 2013). Froy and Giguere (2010) point to the fragmentation that can occur when a variety of providers offer educational programmes in 'silos' or fail to combine basic skills with more specialized occupational skills. In the literature on skills development programmes for agriculture, farmer field schools (FFS) have received particular attention, although the results reported have been mixed (Todo and Takahashi, 2013). FFS promoted by the Food and Agriculture Organization (FAO), a specialized agency of the UN, in one study showed that income had increased by 61 per cent, that younger farmers were more likely to participate and that female-headed households benefited the most (Bennell, 2011). Educational approaches used include open-air lectures, demonstration plots and cascade models of training using 'master craftspeople'. Agricultural extension programmes have traditionally adopted top-down centralized approaches to instruction, but some have evolved to empower farmers to seek advice for their specific problems (Brooks et al., 2013). There are limited examples of programmes offering skill development in new technologies (such as using mobile phones for marketing), although community radio (often accessed through mobile phones) has been used to provide technical advice to smallholder farmers. UNESCO (2014b, p. 78) discusses Project ABC in Niger, which taught newly literate people to access up-to-date agricultural market information on their mobile phones.

Young women face particular constraints in accessing training opportunities: they have restricted mobility as a result of social norms or limited transport, and a weaker bargaining position to attend training programmes (UNESCO, 2012a). It has long been recognized that many skills development programmes ended up reproducing gender stereotypes through offering training only in 'female' areas of work such as handicrafts or kitchen gardening rather than more profitable activities such as commercial agriculture (Robinson-Pant, 2001). While it is difficult to challenge the gender division of labour through offering women training in 'male' areas of work, programmes have been successful in providing opportunities in new occupations which are still gender-neutral, such as solar technology and computer repair. Women-only programmes can provide a 'safe space' for women to develop their confidence, catch up on basic skills and access extension services through collective action (Collett and Gale, 2009; Leach et al., 2000). Recent findings on mobile reading in seven developing countries revealed significant gender differences, with women making greater use of mobile phones for reading (UNESCO, 2014b).

Such findings from previous research helped the teams to develop a gendered analysis of skill development interventions in the field research sites, and to analyse the teaching and learning approaches being adopted not only in formal training programmes but in the private sector too. This area of the literature review also offered insights into strategies for strengthening on-farm/off-farm livelihood synergies and for soft skill development.

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### **3.6. Adult learning: moving beyond a schooling paradigm**

Since the 1960s, there has been increasing attention to the differences between teaching adults and children. As Knowles's (1970) term 'andragogy' (as opposed to 'pedagogy') indicates, the issues have often been discussed more in relation to teaching than learning, and have largely focused on formal learning programmes for adults. The growing literature on informal learning is particularly important to this IFAD-UNESCO study in developing understanding of how people learn

new skills and knowledge in everyday life as well as in formal and non-formal educational programmes.

There have been many attempts to construct typologies of learning, most of which distinguish between three forms (informal, non-formal and formal learning). The definition provided by the European Commission in 2001 is cited in many reports, including UNESCO (2009a). The 2011 International Standard Classification of Education (ISCED, 2011) of the UNESCO Institute for Statistics (UIS) provides a similar definition, although significantly this defines formal and non-formal *education* (rather than formal and non-formal learning) and compares this with informal *learning* (UIS, 2012). Though criticized for assuming that all learning is individual rather than social (Colley et al., 2003), the European Commission definition provides an accessible analysis of some key characteristics and contrasts: notably, the amount and kind of structure, whether planned (systematic) or ‘incidental’ (haphazard); differences in purpose (for certification or for an immediate functional purpose); and the degree of learner control or agency. As it avoids making a distinction between education and learning in order to distinguish between formal and informal, this definition provided a useful frame of reference for this project:

**Formal learning:** Formal learning occurs as a result of experiences in an educational or training institution, with structured learning objectives, learning time and support which leads to certification. Formal learning is intentional from the learner’s perspective.

**Non-formal learning:** Non-formal learning is not provided by an educational or training institution, and typically does not lead to certification. It is, however, structured (in terms of learning objectives, learning time or learning support). Non-formal learning is intentional from the learner’s perspective.

**Informal learning:** Informal learning results from daily life activities related to work, family or leisure. It is not structured (in terms of learning objectives, learning time or learning support) and typically does not lead to certification. Informal learning may be intentional but in most cases it is non-intentional (or ‘incidental’/random).

(European Commission, 2001, as cited in Colley et al., 2003, p. 25)



Rather than thinking of formal, non-formal and informal learning as discrete categories, Colley and colleagues (2003) suggest that it is 'more accurate to conceive of formality and informality as attributes present in all circumstances of learning'. Rogers has proposed seeing informal and formal learning as 'lying on a continuum ranging from accidental/incidental learning, through task-conscious learning, through self-directed learning to non-formal and formal learning' (2013, p. 5). In his model, Rogers also introduces the notion of measuring or evaluating progress, where informal learning is measured by task. Singh (2015), drawing from country cases in considering recognition, validation and accreditation frameworks, points out diverse realities, stating that the line between non-formal and formal learning systems in the South is not so sharply drawn. The relationship between formal and informal or non-formal learning is an aspect often overlooked by school teachers and educational planners, and is sometimes invisible to adult learners themselves. Tough's (1979) image of the iceberg has been used to explain the importance of informal learning to formal education: the visible part of the iceberg represents formal and non-formal learning, whereas informal learning lies below the waterline. Rogers (2013) outlines some of the many different types of informal learning: incidental, task-conscious, self-directed and/or unintentional. He distinguishes between the intentions of the learners and providers – for instance, in the case of a health campaign using posters, the learning is 'intentional' on the part of the provider but may be 'incidental' by the learner.

The conceptualization of a continuum between formal and informal learning (rather than a hierarchical model of discrete categories, with formal above informal) has informed the research design of this IFAD-UNESCO project. This model helped to broaden the investigation by emphasizing the learner's perspective as well as the provider's ('unplanned' and 'unintentional' can be on the part of the learner as well as the provider in Rogers' continuum), and avoiding a simple mapping of 'formal' onto formal institutions or 'non-formal' onto all adult literacy programmes. For instance, researching the experiences of participants in formal learning programmes and educational institutions implies also investigating how and what skills they are learning informally. The attributes of formal and informal learning listed above also proved useful for analysing planned interventions (for example, to what degree young people have control over the learning programme or to analyse their relationship with teachers and facilitators).

The above definitions informed the team's approach in analysing learning processes, so an agricultural extension programme might be termed informal, non-formal and/or formal depending on the activity and learning processes described. The terms 'informal', 'non-formal' and 'formal' are sometimes used in different ways in the country study reports, reflecting the meanings given by research respondents (for instance, some providers conflated 'non-formal' and 'informal' learning in the interviews). During the project Global Seminar, Mr Manzoor Ahmed (BRAC, an international development organisation based in Bangladesh), commented that the difference between non-formal and informal was 'fuzzy' and needed more clarification in this study. He saw 'informal' as incidental and based on experience, whereas non-formal was organized somewhat: through programme extension, for instance.

Researching informal learning presented particular challenges for the field research teams. The question of *how* people learn informally is difficult to separate out from *what* people learn. Polyani's (1967) term 'tacit knowledge' (defined as 'that which we know but cannot tell') identifies the difficulty of discussing this kind of knowledge and learning process in tangible ways, such as we do for formal education. In this project, respondents were not always able to articulate how they had picked up skills informally when asked directly in interviews, and were more likely to describe what skills they had learned. Ethnographic observation and spontaneous conversations thus played an important role in collecting information about informal learning in the communities being studied (for instance, how young people learned to use mobile phones).

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### **3.7. Literacy and rural development: exploring the links**

Debates about the links between adult literacy and development have dominated the literature in this field – based largely on statistical correlations between literacy rates (particularly women's literacy) and various indicators of development (see Robinson-Pant, 2006). There have been some studies of the relationship between schooling and agricultural improvement (Eisemon and Nyamete, 1990), but as with studies on literacy and fertility or child mortality, there have been few

attempts to disaggregate the effects of schooling from literacy (Basu, Maddox and Robinson-Pant 2009). Ethnographic and other qualitative research has turned attention to the nature of this relationship (for instance, why literacy may have an impact on health improvement) and the assumptions about literacy that informed earlier research.

The shift from what has been termed an 'autonomous' model of literacy (Street, 1984) to an ideological or social practice model is discussed in UNESCO's *GMR Literacy for Life* (2005), and underpinned this IFAD-UNESCO project. Rather than assuming that there is one universal neutral literacy and a divide between literate and illiterate individuals and societies, the social practice model recognizes multiple literacies, some more dominant than others, and a continuum between literacy and illiteracy. The social practice or situated literacies approach has informed many studies of how apparently illiterate people use and learn literacy in everyday life, including in rural and agricultural communities. A disconnect has often been revealed between the literacy learning in schools or adult literacy programmes, and the literacies learned in everyday life. Such research has challenged the common assumption that literacy is an individual and isolating activity, emphasizing the collaborative nature of many literacy activities.

The concept of 'literacy mediation' has led to more in-depth exploration of how informal networks of support develop in communities. Building on Vygotsky's seminal theories on different classes of mediation (see Moll, 2014), anthropologists have also investigated 'scaffolding' in everyday situations as one aspect of informal learning (which includes semiotic and social mediation). However the focus of literacy researchers on construction of social and cultural meanings in a community (including understandings and values of literacy) has contributed a broader perspective on learning – to include not only structured approaches to informal learning (scaffolding) but also incidental and unplanned support for learning. 'Situated' literacies are not just about learning reading and writing in context or through everyday activities, but also offer insight into how literacy practices are shaped by social and cultural hierarchies.

As a result of the prioritizing of universal primary education (UPE) and formal education in the MDGs and the EFA agenda, adult literacy has been marginalized and under-resourced in most countries' educational and development policy agendas, remaining one of the most neglected educational goals (Wagner, 2011). There have been significant shifts in direction in adult literacy policy over

the decades, which are described by Joshi and Ghose (2012). It has moved from 'education as a universal good for men and women' in the 1950s and 1960s, to the instrumentalist 'functional literacy' of the 1970s, literacy for empowerment in the 1980s and 1990s, and market-oriented approaches from 2000 onwards. Within these broad policy approaches to literacy, there have been particular pedagogical initiatives and programmes.

The functional literacy approach – fostered by UNESCO's Experimental World Literacy Programme in the 1960s – continues to be one of the most popular ways of developing a curriculum to connect vocational skills and knowledge with literacy learning. In Cambodia, Ethiopia and Egypt, the programmes researched by the IFAD-UNESCO teams were informed by this approach. Such programmes are usually based on a primer or textbook – an agriculture-focused course might have reading passages on goat-rearing or kitchen gardening – which are then linked to practical skill development in these areas. There are several problems with this approach. For instance, generic literacy skills are taught, rather those related to the specific area of skills development. A one-size-fits-all approach also means that functional skills may not be marketable locally, and that the literacy teachers lack agricultural/vocational skills expertise. The 'literacy second' (Rogers, 2000) or 'embedded literacies' approach has a similar aim, but involves finding out what literacy practices people are already engaged in, and then developing and building on those specific literacies, rather than introducing 'new literacies', as functional literacy programmes often do (the 'literacy first' approach).

In this kind of approach, facilitators are encouraged to use everyday written texts as the basis for teaching literacy. It is sometimes called the real literacies material (RLM) approach. This approach is not always classroom-based, and has included a literacy drop-in centre to help people with their immediate literacy tasks. The concept of the literacy environment was proposed by UNESCO in the 2006 EFA GMR, *Literacy for Life* (UNESCO, 2005) as the 'third strand' of policy, and is now taken into account in collecting literacy statistics with measures of street names, public lighting and newspaper stands (see UNESCO, 2012a, p. 95). This idea influenced the 'transect walk' research method in this study, as research teams documented the literacy environment through photographs as they walked along with a young person from the community.

Paulo Freire's radical approaches to literacy in the 1970s in the Brazilian slums have influenced many literacy for empowerment programmes (Lind, 2008). Since Freire's early experiments, governments and NGOs have adapted the approach so that the keywords are around self-improvement or development interventions (such as 'family planning') rather than political activism. REFLECT (Regenerated Freirean Literacy through Empowering Community Techniques: see Archer and Cottingham 1996) combined Freire's literacy teaching methodology with the visual activities of participatory rural appraisal (PRA), and has been widely used to raise awareness of caste, gender and other forms of social and economic oppression. UNESCO UIL (2013) documents several programmes addressing gender violence, including Community Self-prevention against Trafficking of Women and Children (CSPATWC) in Cambodia, which aims to 'empower women to proactively participate in advocacy and awareness campaigns' (UIL, 2013, p. 46). With regard to literacy approaches developed to address gender inequalities, legal literacy has proved particularly effective in helping women to claim rights to landownership and tackle domestic violence (Stromquist, 2006). As in skills development, a gendered approach to literacy has resulted in women-only programmes and in recognizing the diversity of women's roles and situations. Ethnographic research has revealed the importance of taking into account issues around identity and status (particularly the 'symbolic' value of schooling: Rockhill, 1993) in relation to women's literacy.

The concept of 'situated literacies' and a social practice approach to researching literacy had particular importance in this project. Fitting with the aim to explore the relationship between informal, non-formal and formal learning, the social practice approach involves taking a holistic perspective on how people engage with literacy practices in everyday contexts. The recognition of multiple literacies meant that the country research teams explored different literacies in different domains (particularly digital literacies), and in formal learning programmes, reviewed the kind of literacy being introduced. Rather than just looking at how 'relevant' learning was to people's lives, the researchers used the notion of 'situated learning' to explore how literacy and learning was shaped by specific social and cultural contexts. Like 'communities of practice', 'situated literacies' encouraged researchers to investigate informal networks and the role of social relationships in relation to literacy learning, particularly literacy mediation.

For instance, the team in Ethiopia drew on this idea of mediation to discuss with a market trader how she used family networks to help her check her calculations

from selling eggs. Rather than categorizing people as illiterate or literate, the team started out with the idea that everyone engages in literacy practices, even if they do not themselves recognize this. (Nabi and colleagues (2009) refer to this as 'hidden literacies'). Taking a gendered perspective on literacy also involved exploring women's and men's differing identities and roles in relation to literacy learning and livelihoods, rather than focusing, for instance, on barriers encountered by women attending non-formal educational programmes. Above all, adopting this perspective on literacy involved valuing young people's everyday literacy practices and finding out more about the strategies that they had developed for their own learning.

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### **3.8. How did the literature review shape the overall study?**

The purpose of reviewing the literature was partly to compare the current study findings and to relate, for instance, the contextual understandings of the rapid social, cultural and economic change observed in each field site to wider processes of globalization influencing agricultural livelihoods elsewhere in the world (such as FDI). Specific findings that differ from or support previous studies are highlighted in subsequent sections of this report. A major contribution of the literature review was to find ways to avoid taking key concepts (such as gender, literacy, adult learning, youth, agriculture) at face value. Through exploring debates in these areas, the team began to develop new lenses for collecting and analysing data in the field sites in order to adopt an ethnographic perspective. The researchers began to use these ways for looking at the field site communities differently, to make 'the familiar strange' (Mills, 1959).

Consequently, the teams viewed agriculture as much wider than 'farming', and took the relationship between rural and urban, on-farm and off-farm livelihoods, as a critical starting point to investigate young people's experiences, their perceptions of agriculture and ideas on their future livelihoods. Typologies of different categories of skills – particularly the wide range of 'soft skills' – encouraged the researchers to look beyond occupational 'hard' skills associated with agriculture when conducting life history interviews, and to analyse planned educational interventions in terms of the kinds of skill prioritized. When formulating

policy implications, the researchers recognized the need to consider ways of supporting agricultural livelihoods outside the agriculture sector too.

Gender became an important dimension of the analysis, not only in relation to the barriers or constraints encountered by women in formal educational programmes, but also as a way to explore young people's aspirations, identities and livelihoods more holistically. Literacy was conceptualized more broadly than simply the reading and writing associated with school, to include multiple literacies (particularly digital literacies) and to investigate the literacy practices and strategies that people (including the so-called 'illiterate') engaged in during their everyday life. Looking at education as more than functional skills/knowledge, the team were able to explore the symbolic value of schooling too. 'Youth' was not taken unproblematically as a category in the study – rather, researchers drew on the literature discussions to seek out diversity, and to use concepts such as 'waithood' and 'transition' to explore young people's experiences and perspectives compared with those of their elders. The distinction in the literature between policy for young people in the 'here and now', and policy preparing young people to be future citizens, helped the teams to shape policy recommendations in response to the views and experiences related by the young respondents.

As the main research questions of this study focus on learning processes, the literature on adult learning and informal learning was particularly important in challenging the static and hierarchical view of informal, non-formal and formal learning often adopted in policy debates. The concept of a continuum between informal and formal learning (according to whether learning is planned, intentional, task conscious) provided a framework for analysing the kind of learning taking place – not only in relation to the institution/site of learning and whether this was considered to be 'formal'. This more complex understanding of learning helped to move the team away from (for example) a simple mapping of formal learning onto formal institutions, and to enable it to look instead at how learning in a classroom could also move along a formal–informal continuum. Rather than conceptualizing learning as a highly individualized activity, the ideas of situated learning and situated literacies provided ways of analysing the collaborative, social and cultural dimensions of learning knowledge and skills, including intergenerational transfer of indigenous knowledge. The need to investigate, for instance, informal networks supporting literacy and vocational skills learning pointed to the value of adopting a holistic research approach such as ethnography in the study as a whole.

# 4.

**The country studies from  
Cambodia, Egypt and  
Ethiopia: understanding  
the findings in context**



The aim of this project was to compare the findings from the research studies conducted in Cambodia, Egypt and Ethiopia on issues connected with young people's learning, their aspirations and perceptions of agriculture and rural livelihoods. Adopting an ethnographic-style approach meant that the teams also had to adapt methods of data collection and analysis to take account of their specific context. The first step was for the country research teams to develop an in-depth holistic understanding of meanings, values and practices in the two selected rural communities, as well as exploring policy priorities and directions at national and local levels. The need to recognize and respond to the uniqueness of each case on its own terms, and yet also to draw out similarities between findings from very different country contexts and communities, has been a constant tension in this project.

For this reason, this section provides greater contextual information about the field sites researched in each country, insights into specific policy, and methodological reflections, including the ways in which the research teams extended and adapted the research design outlined in Section 2. While key findings and policy recommendations for each country study are included in summary here, more detailed analysis of research data is to be found in the country reports and in the synthesis section of the report (Section 5). The accounts of the individual research studies given below draw strongly on the country reports, and the reader is advised to refer to these for full details of statistical data and literature cited here.

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## 4.1. Cambodia country study

### Members of the country research team anchored in the Council for Agricultural and Rural Development (CARD)

Dr Likanan Luch	Team leader
Mr Kong Ratha	Researcher
Mr Huy Em	Researcher
Ms Srynith Lim	Research Assistant
Ms Sileak Guan	Research Assistant

### Country context

Since the late 1960s Cambodia has been through major political upheavals – regime changes, genocide and civil war – which have had a long-lasting effect on the nature of the politico-economic system and culture. Under the Khmer Rouge regime, social, cultural and economic structures were destroyed: the whole population was forced to work in the agricultural sector and religion was abolished. In the aftermath of the Khmer Rouge regime, many Cambodians suffered from psychological symptoms linked to poor health and poverty, the loss of male heads of household and the continuance of wars and abuses. This led to greater inequality, since female-headed families tended to be poorer and were dominated by male-headed households in decision-making. A new democratic regime was installed after the Paris peace accord in 1991, the economic structure was changed (to a free market economy), foreign aid and FDI increased significantly, and the culture and religion were restored. However many older Cambodians remain traumatized and are divided by economic inequality.

After the achievement of peace and political stability in 1998, Cambodia's annual gross domestic product (GDP) grew by 9.1 per cent a year on average from 1998 to 2008, and hit double digits between 2004 and 2006 (World Bank, 2013). Despite high economic growth in the decade to 2015, Cambodia is registered as a poor country. The per capita gross national product (GNP) is approximately US\$1,020 (World Bank, 2014). The majority of people, however, live in rural areas, are employed in the agricultural sector (56 per cent of the population) and have a poorer

standard of living. The per capita GDP in agriculture was only US\$280 compared with US\$855 and US\$644 in the industry and service sectors respectively (Luch, 2012). According to the 2008 population census, Cambodia's young people comprised 33 per cent of the total population.

Cambodian law grants men and women equal rights in the family context, in terms of parental authority, inheritance, ownership, physical integrity and civil liberty (OECD, 2010). However there are still considerable gender inequalities in relation to access to employment and education. Hing and colleagues (2012), drawing on baseline survey data, point out that male household members are more literate than their female counterparts (literacy is defined here as the ability to read and write). Gender inequality in education is quite high, with 73.8 per cent of women having not completed primary education versus 52.3 per cent of men, and only 1.5 per cent having at least an upper secondary diploma versus 4.6 per cent of men (Education Statistics and Indicators, 2011).

Although women receive fewer educational opportunities than men, they contribute significantly to household income (through agricultural activities, trading, gathering of forest byproducts, and aquatic products (Chap et al., 2012). Many young women also seek employment in major cities and towns, often in garment factories (which provide jobs for around 300,000 workers). Luch (2010) found that remittances from garment factory workers accounted for around 40 per cent of total household income. While migration represents new job opportunities, it is also affecting traditional values and family structures. For those who remain in rural communities, opportunities are limited. Some young men worry about the paucity of potential female marriage partners, while others experience dwindling land resources, insecure land tenure and unanticipated economic shocks, which lead them to sell assets including land.

### **National policies and strategies for agricultural education and livelihood in rural areas**

Because agriculture plays a prominent role in the everyday livelihoods of more than 56 per cent of the total working-age population, promoting agriculture and agro-industry has been seen as the best strategic response to macroeconomic crises, to improve food security and rural livelihoods and reduce poverty. The Royal Government of Cambodia's Rectangular Strategy – Phase II (2008–2013) in the Fourth Legislature of the National Assembly sets out a long-term vision

for growth, employment, equity and efficiency. With respect to agriculture, the strategy seeks to improve (i) productivity and diversification (including animal husbandry, food security and nutrition, and rural development); (ii) land reform and de-mining; (iii) fisheries reform; and (iv) forestry reform (including environmental protection and conservation) (Hem, 2012). A number of incentive schemes have been designed to increase exports, as well as land reform and clearance of land mines, water source management, and livestock investment. Private investment has also been encouraged through economic land concessions, and has contributed to the growth in rice, rubber and other cash crops.

Rice is the dominant crop in Cambodian agriculture. As a low-income country, Cambodia is dependent on rice as a strategic commodity for income growth, poverty reduction, and national and household food security. The government now has an ambition to turn Cambodia into a major 'rice-white gold' exporting country in the international market (Royal Government of Cambodia, 2010) and has adopted a three-pronged strategy: productivity enhancement, diversification and agricultural commercialization (moving from subsistence to commercial agriculture). This involves implementing a package of interrelated measures:

- infrastructure building and enhancement (roads, irrigations, energy/electricity and ICT);
- improvement in the provision of extension services and agricultural inputs;
- land management reform;
- finance;
- marketing;
- farmer organization; and
- institution-building and coordination.

These areas all have implications for training and skills development, particularly the emphasis on soft skills required for marketing, organization and institution-building.

Turning to education policy, the main objective is to promote economic growth through increased productivity, the acquisition of new skills and attitudes, and the accumulation of knowledge itself. The Education Strategic Plan (2009–2013) outlines the government's efforts in promoting the National Plan for Education for All (2003–2015) to achieve the Cambodia MDG by 2015 of ensuring access

to nine years of basic education for all young people. A key indicator of progress in this regard is that national expenditure on education has steadily increased annually. Budgets have been allocated primarily to primary and lower secondary education, for schools, materials and teacher training. The government has also promoted policies to encourage greater participation in education by girls and disadvantaged young people (for instance, those with disabilities and ethnic minorities).

Despite these achievements, access to education at all levels continues to be unevenly distributed in rural and remote areas, where many of Cambodia's poor and very poor inhabitants reside, and costs such as informal fees remain a barrier. The government's educational plan indicates the need for more relevant curricula linked to the employment opportunities of the future. Priorities include more science and mathematics, to promote problem-solving skills that can help workers to make decisions and to work together in teams, as well as more practical courses that build on and strengthen agricultural and vocational skills (such as carpentry and basic machinery) (from the Education Strategic Plan 2009–2013).

Youth literacy rates (15-24 years) are higher than adult literacy rates (15 years and over), and the adult literacy rate increase overall is higher for women than men. There are two adult literacy programmes most commonly being used in Cambodia at present, both of which are offered by the Ministry of Education, Youth and Sport (MoEYS). These literacy programmes are often a prerequisite for students to participate in a vocational training programme. Developed in 1993 and 1994 by the MoEYS in collaboration with the Ministry of Women's and Veteran's Affairs (MoWVA), one programme covers basic literacy, numeracy and daily life skills, using a teacher-centred key word approach. The other programme adopts a functional literacy approach, and is based on a model created by UNESCO's Asia Pacific Programme for Education for All (APPEA), which includes four categories of functional knowledge: family life, economics and income, health, and civic consciousness. Both programmes have had problems finding suitable teachers and adapting a generic curriculum to local needs.

## Research design and process

To develop a better understanding of young people's concerns and experiences in rural areas of Cambodia, CARD and the UNESCO-IFAD team jointly implemented this research project from February to September 2013. The team of researchers – Dr Likanan Luch, Mr Ratha Kong and Mr Huy Em – worked in close cooperation with members of the country reference group from related line agencies and institutions of Cambodia, and in liaison with the UNESCO country office lead, Mr Santosh Khatri. The researchers and steering group had strong expertise in the area of agricultural development, reflecting CARD's high profile in this area of policy-making in Cambodia, and particularly that of the national research coordinator of this project, H.E. Darith Srun, deputy secretary general of CARD. In view of the gender imbalance on the research team, two female assistants, Ms Srynith Lim and Ms Sileak Guan, were later recruited to conduct interviews and FGDs with women respondents.

At the launch workshop in February 2013, the advisory group commented on the proposed research design, and discussed in particular the criteria for selection of research sites. They advised conducting the research in three sites, rather than two, in order to represent the three main topographical areas of Cambodia (coastal, hill and plains). However, there was not the time or budget to extend the study in this way. There was also concern that the title of the study ('Learning knowledge and skills for youth to improve agricultural rural livelihoods') did not reflect the small-scale ethnographic approach to be adopted, suggesting instead a survey on a national level. For this reason, 'A case study of two villages in Cambodia' was added to the original title.

There was much debate at the final workshop (when findings were discussed with stakeholders) about whether and how ethnographic-style research could inform national policy. Several key stakeholders stated then that the main value of the project had been to identify areas for future quantitative studies, rather than to directly inform current policy. An example was the team's observation that none of the interviewees had ever met an agricultural extension worker – which could form the basis of a survey over a wider number of districts. In this respect, the research team (who were themselves unfamiliar with ethnography) faced an additional challenge, over those encountered by the Egypt and Ethiopia country teams, in convincing government stakeholders of the possible value of qualitative research insights.

As part of the larger cross-country study, the research team in Cambodia adopted the definition of youth according to the United Nations General Assembly: youth are defined as individuals aged between 15 and 24 years, and young people as those aged between 10 and 24 years (UN, 1995*b*). It should be noted however that MoEYS defines youth as those individuals aged between 14 and 30 years. Excluding those aged 25–30 was significant in Cambodia, since the youth group under 25 were born in the late 1980s, and their perspectives and learning attitude were very different from those born in the 1980s when Cambodia was affected by civil war. The team ended up interviewing older people as well, partly because of the difficulties of accessing young people (who were away working in factories or in school), but also because they wanted to capture the contrasting perceptions of people who had lived under the Khmer Rouge and those who had not. The gap between the attitudes and values of younger and older generations appeared wider in Cambodia than in the other two contexts because of the suffering that older people had endured. Many older people had also been forcibly engaged in hard agricultural labour under the previous regime, which influenced the communities' attitudes to rural livelihoods.

The fieldwork took twenty-four days to complete (four days for piloting plus ten days of data collection at each field site) Since the researchers were from a quantitative background and unfamiliar with ethnographic study, they conducted a pilot study in Siem Reap province to develop the life history interview approach. The team used visual methods for facilitating the interviews and FGD, drawing particularly on the PRA methods of timeline, social mapping, seasonal diagrams and diagrams exploring gender differences. They asked respondents to accompany them on a 'transect walk', which gave an opportunity to observe and learn from their agricultural practices. However, it was not easy to get young people together for research activities. As a researcher commented, 'While we conducted a group discussion with young men, the mother of one of the group members came to us and asked him to get his jobs on the farm done first.' Another said, 'On another day, young people did not come because they had attended a wedding and were still hung over!' The team felt constrained by the short period available for fieldwork, suggesting that 'We needed more time to get to know young people well enough in order for our study to be more representative'.

## Site selection

Two provinces were selected for the study based on their geographic distinction – one coastal and mountainous (Kampot) and one flat (Siem Reap)– and socioeconomic differences. Siem Reap province is located in the north-eastern part of the country, and as one of the poorest provinces in Cambodia, has high rates of seasonal migration (including illegal seasonal migration to Thailand). This province is also at the heart of ecotourism and cultural tourism in Cambodia owing to its historical sites at Angkor Wat, an ancient temple city (where the number of foreign tourists surpassed 4 million in 2013 and is predicted to increase steadily). As a coastal region, Kampot province has potential for greater tourism, but the majority of people currently make their living through subsistence agriculture. The geographical contrast between the two provinces was the main reason for their selection, since we recognized that the pattern of agricultural practices in the flat land area (Siem Reap) would be very different from that of the coastal and hilly area (Kampot). *u Touch village*

In Kampot province, Ou Touch village, located on the slope of Mount Bokor in the north-western region of Cambodia and about 2.5 km from Kampot Town (near to Kampot market), was selected due to its diversity in livelihoods. The villagers are engaged in rice production, tending fruit orchards (durian and mango), weaving bamboo containers, family-based animal raising, and collecting forest byproducts.

Not far from Kampot town with its thriving tourist industry, Ou Touch is accessed by a paved road connecting with the Toek Chhour resort, and then by a path off the paved road. Villagers living along the paved road have houses with tin roofs and wood walls, or brick roofs and wood/cement walls. Farther inside the village, most houses have tin roofs and thatched walls. There are 442 households. The village is reported to have neither a health centre nor a hospital. There is one primary school attached to the pagoda (temple), and students have to travel around 1–2 km on foot or by bicycle to the nearest secondary school. When they finish lower secondary school, they have to travel a long distance to the provincial town for upper secondary schooling.

Villagers can commute back and forth from the market to the village, and as the village is also on the slope of Mount Bokor, most of the male villagers go into the jungle to collect forest byproducts, especially bamboo for weaving containers. Rice is not the main source of livelihood because the village has very limited



paddy fields, so most villagers grow fruit and vegetables. The main sources of income in the village are selling bamboo containers and fruits from orchards, collecting forest byproducts, and engaging in waged labour.

### *Popis Village*

Popis village is located in the southern part of Cambodia, 3 km from Siem Reap Town, where a number of hotels, restaurants and markets are concentrated, with access to the Great Lake. Agricultural activities range from growing rice and vegetables to raising pigs and domestic chickens. Rattan basket weaving is one of the main livelihoods, in addition to other off-farm jobs. There are many NGO programmes in this area, offering agricultural skills training, particularly for vegetable growing (including specialist organic techniques) for supplying hotels in the tourist town, Siem Reap. Foreign tourists have contributed greatly to the economic development of Siem Reap city. New businesses have significantly mushroomed, creating new job opportunities for local people and contributing to economic growth at the provincial and national level.

Compared with those in Ou Touch, the villagers in Popis seemed to be better off in terms of material and social well-being. They have toilets, pumped wells, and new houses with roofs made from brick and cement walls. Comprising 78 households, Popis village has both primary and secondary schools. As the tourist sector has expanded, so has consumption, and villagers nearby have become suppliers of agricultural products. The research team observed that most villagers possessed some durable assets such as bicycles and new motorbikes.

The location of Popis is similar to that of Ou Touch, as they are both not far from the main town, but the structure of these villages is very different. In Popis, the houses are clustered within a small space of land: all the villagers live close together; their paddy fields and farmlands are located mostly outside the village; and there are some banana trees and kitchen gardens around the houses. Walking across the village, the team observed that there were many older women, mostly weaving rattan baskets and taking care of children. Compared with Ou Touch, Popis has more agricultural land and a good irrigation system. Young people encountered by the team in the village tended to stay longer in school. A significant difference between the villages is the existence and activity of agricultural skill providers. In Popis village, there are more skill providers (NGOs

and village associations) operating than in Ou Touch village. Since Popis is near Siem Reap town, villagers can conveniently sell their agricultural commodities at the markets, restaurants and hotels, and NGO training programmes have targeted skills for this market.

## **Research activities**

The following research activities were conducted:

- twenty-seven life history interviews (thirteen respondents from Ou Touch, fourteen from Popis): six of these were with older farmers (and there was a balance of male/female respondents);
- four FGD in each village (two groups of young people formed according to gender and two groups of older people/seniors);
- ethnographic observation/ transect walk; and
- interviews with skills providers, including NGOs (PADEK – Partnership for Development in Kampuchea, and ADDA – Agricultural Development Denmark Asia), government institutions (Kampot Provincial Vocational Training Centre under the Ministry of Labor and Vocational Training, and the Department of Agro-Industry under the Ministry of Agriculture), educational institutions (Faculty of Agro-Industry, under the Royal University of Agriculture), and also a private sector company (Mong Rithy Group).

The following case studies were developed for analysing skill development approaches for agriculture.

In Popis, a French NGO, AgriSud, offers fifteen-day agricultural training programmes to women, comprising 30 per cent in-class training and 70 per cent in-field practice. The courses include vegetable growing, chicken and pig rearing, market linkage training, a savings group and nutrition. AgriSud selects five people for training, who become model farmers who are intended to train other villagers and form a savings association. They can then request individual financial support to buy necessary inputs. However, the programme had not recruited younger people for the training, and interview data suggested that people were reluctant to follow advice from the ‘model farmers’.

ADDA is a Danish NGO in Siem Reap, focusing on women through a project called 'Integrated Women's Empowerment'. Based on an FFS approach,<sup>4</sup> ADDA emphasizes practice in the field over classroom learning in areas such as vegetable growing, chicken raising and savings group formation. Participants are selected according to whether they have enough time for training, and have sufficient land for growing vegetables or building chicken cages (meaning younger people were less likely to be selected). Like AgriSud, after the training programme, villagers are encouraged to form a savings association.

A private company, Mong Rithy Group, was also selected as an example of how contract pig farming can help farmers to raise their living standards. The project is designed on a risk-sharing principle, in which the selected farmers and the company share both risk and benefit. All the inputs for pig rearing are supplied by the company (piglets, food, medicine, vaccinations, technology, veterinary expertise and training), and the pigs are collected back at harvest time. Farmers need to have sufficient space and labourers to implement the scheme, which means that younger and poorer farmers are excluded from the programme. The company's on-the-job training, opportunities to observe other successful pig raisers, individualized support with farm management and knowledge of new technologies, have contributed to ensuring that farmers become successful in this area.

## Overview of the main findings

The following areas emerged from the findings and formed the basis of policy recommendations developed by the team after discussions at the second workshop:

- Perceptions of young people about learning agricultural skills and knowledge varied greatly according to age and marital status. The young married individuals were more interested in agriculture skills as they owned land after marriage, and had more responsibilities and commitment. The younger age groups were more interested in entertainment, such as Korean and Thai television drama and drinking, and wanted to work in a place where they

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4 The farmer field school (FFS) approach was developed by FAO and partners nearly 25 years ago in South-East Asia as an alternative to the prevailing top-down extension method of the Green Revolution (see the FAO website: [www.fao.org/agriculture/ippm/programme/ffs-approach/en/](http://www.fao.org/agriculture/ippm/programme/ffs-approach/en/))

could socialize with other young people. The youngest group saw farming as too hard and exhausting, and had no perception of other possible professions in agriculture beyond working on a farm.

- Learning by observation through everyday activities was a major part of skills learning and transfer in agriculture, and also contributed to learning in formal skills development programmes. Usually young people learned from parents and other family members through watching, observing and doing (not going and asking directly), and being corrected when they made mistakes. People copied new techniques from neighbours who had been on training programmes, but did not acknowledge this or ask them questions.
- The role of formal education was seen as taking young people out of agriculture, rather than encouraging their interest. Young women in school appeared to experience a particularly strong disconnect between education and the land (supporting findings from other countries – see Tadele and Gelle, 2012). People saw success in school as leading away from agriculture, for instance, into a possible career in accountancy. This may have been influenced by young people having only one idea about agriculture as a career (involving working directly on the land).
- Different kinds of learning were associated with different kinds of providers: private, NGOs, government and media. The private sector providers and clients were more motivated to participate in training programmes, which were efficiently run. There was profit and risk borne by both parties, but such programmes did not include the poorest for this reason. The private sector provision was characterized by more on-the-job, one-to-one intensive customized training, and was developed on a larger scale. NGOs targeted the poorer groups, providing more subsidy or incentives, and soft skills training (such as marketing).

In this study, no respondents offered comments on the government's programmes in the agriculture sector in the two villages. Regarding the media, in these communities it had not played a significant role in helping young people acquire knowledge and skills, with many perceiving that agricultural programmes on television are not interesting, and many using mobile phones for the purpose of socialization. In addition, when ICT is used in adult learning programmes, it is often introduced in a very 'schooled' or formal way without involving much learning by doing. This is often the case for learning through using ICT (such as

using laptops in adult classrooms to learn to read), and also about learning to use ICT, which in fact has been done by many people informally.

## **Policy recommendations**

From the study of these two villages, the team recommended that ways needed to be explored to bring together the strength of the private sector in providing high-quality and profitable knowledge and skills development programmes (for instance, in contract farming) with the NGOs' and government's commitment to targeting and enhancing the livelihoods of the poorest in the community. Policy and programmes in this area urgently needed to respond to the differing perceptions and aspirations of young people, according to their age, gender, economic condition and marital status (rather than assuming that young people form a homogeneous group), in order to counter the common perception that working in agriculture and farming is an occupation of last resort.

Three key issues were identified and developed at the final workshop with stakeholders as possibilities for informing future policy direction:

- Increase the use of media to influence the perception of agriculture in the minds of young people and help them to access knowledge and skills development initiatives. It was recommended that there should be closer coordination between agents from either public or private institutions to make agricultural television and radio programmes more attractive, relevant, instructive, and also linked to potential profits generated from agricultural development. Media programmes should highlight different aspects of employment and income-generating opportunities associated with the agriculture sector, to encourage young people to consider it as a viable option for their future.
- The research team also found that married young people tended to approach learning new agricultural knowledge and skills more seriously than their unmarried counterparts, and could benefit from being targeted more specifically. In order for such programmes to be effective, land distribution as well as incentives and subsidies should be prioritized. Married couples cannot generate profits from a small piece of farmland. Yet the larger the farmland, the more labour and capital are required, so subsidies will be needed.

- It is also important to create linkages between agriculture and other sectors in which farmers are trained in various knowledge and skills, including soft skills (particularly marketing), to reap further benefits. These programmes could be enhanced and broadened to develop a wider range of benefits that people can enjoy from working in agriculture and farming, and to attract more young people in the future.

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## 4.2. Egypt country study

### Members of the country research team anchored in the Adult Education Center at Ain Shams University

Prof. Dr Moheb el Rafei	Director of the research team and director of the Adult Education Center at Ain Shams University
Prof. Dr Gehan Kamal	Director of the National Center for Education Research and Development
Associate Prof. Reda Abdel Sattar Mohamed	Head of Adult Education Sector, National Center for Education Research and Development
Dr Omneya Nour Eddin	Assistant professor, Institute of Environmental studies and Research, Ain Shams University
Ms Nahla Gamal Mohamed	Researcher in Humanities, Ain Shams University

### Country context<sup>5</sup>

With over 83 million inhabitants, of whom around 57 per cent live in rural areas, Egypt is one of the most populous countries in the world. The estimated labour force (economically active population) is 32.4 million, with 30 million people actually employed (according to the 2009 Census). The unemployment rate is on the rise, from 9 per cent in 2009 to 13 per cent in 2013. Women constitute only 23.9 per cent of the employed labour force. Egypt is a middle-income country with a GDP annual growth rate of 2.2 per cent (World Bank, 2013). Agriculture represents an important sector of the national economy, engaging about 34 per cent of the total employed population. The sector contributed about 15.5 per cent of GDP in 2005/06, with a growth rate of 3.2 per cent per year.

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5 Unless otherwise stated, the statistical sources for this section are: CAPMAS (2012), Adult Education Authority (2012), Information and Decision Support Center (2012, 2009).

While many indicators reflect the country's remarkable progress, there remain challenges. The poverty rate in Egypt is 25.2 per cent of the population, with 4.8 per cent of the population (4.32 million) living under conditions of extreme poverty. The poverty rates of 17 per cent in Lower Egypt and 51.4 per cent in Upper Egypt reveal significant regional disparities. Of 1.6 million child labourers, 83.8 per cent reside in rural areas and 64 per cent work in agriculture. About 24.9 per cent of the population are illiterate, with particularly high rates among women and in rural areas.

In spite of the economic importance of agriculture there has been a decrease in government investment directed to the agriculture sector in recent years.

### **National policies and strategies for agricultural education and livelihood in rural areas**

The long-term agriculture development strategy was prepared for the period until 2030. The Ministry of Agriculture and Land Reclamation prepared a short-term national programme until 2017, based on the following:

- achieving rural development and improving the living standard of farmers, through the creation of new job opportunities in rural areas, including agricultural industrialization programmes and development of marketing systems;
- conservation of natural resources and developing their uses, through the introduction of modern irrigation systems; and
- developing policies and applied research to serve farmers through new agricultural extension programmes and partnerships with the private sector.

Notable features are the emphasis on the reclamation of new land, rationalizing consumption of irrigation water, encouraging private investment in agricultural development projects, reducing the use of chemical fertilizers and pesticides, and expanding green development. Recognizing the limited sources of fresh water in Egypt, the National Environmental Action Plan addresses the need to conserve the Nile against all sources of pollution. Overall, the government has taken a holistic approach to this area in terms of encouraging the development of supporting institutions such as credit, marketing operations and cooperatives to boost agricultural development.



The Ministry of Education (MoE) is concerned with developing agricultural knowledge and skills among young people. A large number of secondary agricultural schools have been established, amounting in 2010/2011 to 133 agricultural high schools scattered in different cities and districts. Agricultural education is divided into a three-year and a five-year system, both providing theoretical aspects taught in the classroom in addition to the practical aspects taught in laboratories, workshops and farms. There is close coordination with the Ministry of Agriculture in order to provide training opportunities for teaching staff about technical farming issues at agricultural research centres, to ensure farming plots are provided to schools and to offer job opportunities for graduates at institutions affiliated to the Ministry of Agriculture. There has been an unusual emphasis on dissemination of agricultural research through the Vercon Project, which has adopted a multimedia approach (see [www.vercon.sci.eg](http://www.vercon.sci.eg)). There have been extensive radio and television programmes through the Ser el Ard project, to air technical recommendations from research centres to farmers in an accessible form.

## **Research design and process**

The research design for the Egypt study drew on the team's previous experience of ethnographic research on adult education and their strong ideological commitment to the empowerment of women through education. The project was initiated at the first workshop held at Ain Shams University in September 2013, where fifteen researchers were appointed from within the Adult Education Center and from the National Center for Education Research and Development in order to complete the project by December 2013. The research team conducted five 'brainstorming' sessions to develop the theoretical section and the data collection tools. Data collection tools were presented to five academic referees from a range of relevant academic disciplines (anthropology, psychology and education) to test their validity. The field data was collected in the period between 29 October 2013 and 7 November 2013, led by the head of the research team and director of the Adult Education Center at Ain Shams University, Professor Moheb el Rafei. The whole team lived in the research area for ten days. The second workshop was held in December 2013 to discuss the analysis of findings and policy recommendations. The data was collected and the report written in Arabic, then translated into English by Dr Omneya Nour Eddin (assistant professor, Ain Shams University). From the UNESCO Cairo

office, Dr Ghada Golam liaised with the research director to provide advice and support throughout the research process.

With regard to the general research methodology outlined above in Section 2, the team put particular emphasis on participant observation, recording in detail the following aspects:

- ecology of the researched community in the village (e.g. total area, cultivated area, number of residents (male and female), current activities, main roads, and the major places the young farmers visit, such as school, health unit, agricultural association, café, sport club, literacy classes, development bank, internet centres);
- practices and agribusiness among the research population (e.g. cropping patterns, techniques of irrigation, fertilization, using technology in agriculture, methods of crops transfer and marketing, and durations of working in agriculture);
- identifying the daily life pattern of young people (males and females) in the research population: how they spend a day from beginning to end, in terms of watching television, using mobile phones, listening to the radio, playing computer games, agricultural knowledge level, formal education (schools) and non-formal education (literacy classes), community schools, one-class schools, the economic level of poor households, and availability of different educational stages in the village; and
- political, economic, and cultural factors that influence rural livelihoods, such as women's roles, activities and their readiness to learn, whether in systematic or unsystematic education.

For the FGD, the team used shapes and materials as symbols, and noted that 'sentences uttered by the respondents were considered more significant beyond the direct meaning'.

## **Site selection and sample**

Fayoum Governorate was selected for the field research, partly because of the security situation as this area is within easy reach of Cairo. Fayoum is one of Upper Egypt's largest governorates, with a total area of 6067 km<sup>2</sup>, and around 2.8 million inhabitants. Fayoum is characterized by a green oasis located in the

Western Desert, to the south-west of the Cairo Governorate. The main economic activity in Fayoum is agriculture, in which most of the population are employed (the total cultivated area is about 434,600 feddans). The percentage of illiteracy in Fayoum (among young people aged between 15 and 35) is 23.97 per cent (of about 260,165 inhabitants) (Adult Education Authority, 2012).

Two villages in Fayoum were selected for conducting the field research: Tounis and Gemi, affiliated to Monshaet Senoras, based upon differences in their demographic and socioeconomic conditions. Tounis represents a village with relatively good living conditions as a result of tourism activities, while Gemi is a relatively poor village with limited natural resources.

The following groups participated in the research activities:

- A sample of young farmers (seventy-eight respondents) was selected for conducting the FGD. Seven FGDs were held, three with males and three with females, of which six had a participant age range of 15–30 years, and one was held with the older age group. There were thirty-six respondents from Tounis village and forty-two from Gemi village.
- Thirty young men and women (fifteen males and fifteen females) were selected for conducting life history interviews in Tounis, and another thirty were selected in Gemi (making a total of sixty respondents).
- Eleven service providers were interviewed in the two villages, and two case studies were investigated: the Evelyn pottery school run by an NGO at Tounis village; and the National Adult Education Authority's 'field classrooms for illiterate young men and women'.

### *Tounis*

This village is called Tounis since it is located on a high hill. The vegetation at lower levels can be seen from all sides, and extends to the coast of Lake Qaron, a popular tourist destination. Landowners have built tourist villas there as a form of investment. Although tourism is the major source of income after agriculture, usually external investors gain most of the profits rather than the local community. Tounis village includes two primary schools, an agricultural cooperative, two community development associations, a youth centre and three nurseries. A healthcare centre also exists as well as a preparatory school and a secondary

school. The total population of the village is 11,160, including 176 university graduates and 1,027 technical college graduates.

The main road is paved. The side roads extending from the village to the agricultural areas are not paved, and have accumulated waste at their sides. Some salt ponds exist on the outskirts of the village as a result of the rising level of groundwater. Streets become muddy in winter when the rain falls, and community members dig drains around the residential area to absorb large amounts of the water and salinity from the land. A clear change in the building material of the village houses can be witnessed from the mid-1980s, when people could afford to build with concrete and red and white bricks. Respondents explained that before the Arab Spring, Saudi Arabia, Libya and Jordan enjoyed political stability, and it was easy for young people to obtain a work permit and find work in those countries.

The land ownership system determines the relations between tenants and landlords in agricultural areas. Prior to the current law the legal system split revenues from agriculture between the farmers and the land owners. The new tenancy law specifies fixed sums for rent, which tenants have to pay in advance. For this reason, many individuals have ceased farming and travelled to Cairo, other cities or Arab countries to seek income opportunities to support their families.

In general, agriculture in Tounis is considered to follow a traditional pattern, as follows:

- Winter season: from November/December until May/June. The prevalent crops are wheat, trefoil, tomatoes, wormwood, sunflower, maize and olive;
- Summer season: from May/June until November/December. The prevalent crops are sorghum, onion, cotton and corn; and
- Nile season: from September/October until February/March. Sorghum and tomatoes are planted.

The research team noted the scarcity of water during the winter, the reason that huge areas were left uncultivated. The situation gets worse during the summer, leading farmers either to plant crops that do not require extended amounts of water (such as olive or sorghum) or to plant only half of their land since there is not enough water to irrigate all of it.

There is an agricultural extension centre in the village, supervised by the agriculture cooperative, but it was considered ineffective by respondents. Farmers are now indicating that they need to learn new farming techniques to meet the changes in land conditions and the water scarcity, yet they still depend heavily on traditional crops and on applying inherited family farming experience. As a respondent explained, 'We are farming as we learned from our parents and grandparents .... No one gives us new information.... We wish to introduce new farming techniques that would be suitable for the current conditions, but we do not know how.'

The village bank provides soft loans for funding agriculture and livestock projects (cattle, poultry, olives or agriculture equipment), intended to improve living conditions among the local community members. However, this has seldom led to profitable activities, as a community member explained: 'We go and get a loan from the bank, we plant olives, we end up making pickles out of them and we are not able to pay the loan back to the bank.'

### **Gemi**

This village was named after a person called Gemi, who belonged to the feudal class of the village before 1952. He owned hundreds of feddans in the area. After 1952 he mysteriously disappeared, the village was established on the land he used to own and it was named after him.

The village is officially part of Monshaet Senoras, overlooking Qaroun Lake. Gemi lacks basic infrastructure services to supply the needs of the local community, such as health, education, social and infrastructure services including potable water and sanitation, as well as agricultural services. Community members visit the neighbouring village at Monshaet Tantawy (3 km away) to access health, security and agricultural services. Children from Gemi are given primary and pre-primary education in surrounding villages. Secondary and technical girls schools are located at Senoras, while universities are available at Fayoum city and other large Egyptian cities. There are twenty children enrolled in primary education, ten in preparatory education and three in secondary school. The village is connected to the main road by an agricultural unpaved road around 300m long.

The village is surrounded by a drain on all sides. Agricultural drains are used most of the time for discharge of sewage wastewater from the surrounding houses.

Houses in the residential area use septic tanks for collecting wastewater, which contributes to increasing the levels of groundwater in the area. During the rainy season the roads become too muddy to walk along, so the community members have to wait until the clay dries before they can use them. In order to deal with the rising levels of groundwater in residential areas, the residents clean the drains during the winter.

Previously, simple cottages were built using corn sticks and palm fronds, or as clay houses with wooden roofs. Now houses are built from bricks and cement, with wooden or reinforced concrete roofs. Although only a few residents own a house more than one storey in height, other nearby villages have multi-level houses. People had to increase the height of their houses in order to avoid the rising level of groundwater and water from sanitation. Some local community members have changed the roofing of their houses from corn sticks or palm fronds to wood or reinforced concrete.

There is no unreclaimed land in the village. Gemi and its surrounding villages have adopted the traditional agricultural system:

- Winter season: from November/December until May/June, includes wheat, trefoil, tomato, wormwood, beetroot and corn; and
- Summer season: from May/June until August/September, includes sorghum, cotton and corn.

The research team noticed a shortage of irrigation water during winter and an absence of irrigation water during summer. As a consequence, farmers could only grow crops that did not require large amounts of water, or could only plant on half of their plot. The absence of agricultural extension services was also noted. Industrial and commercial activities were not as prevalent as in neighbouring villages, which had higher income and were located closer to the main roads. Gemi only has two small grocery shops which operate from inside two houses. There were significant health problems in the village, including malnutrition.

The agricultural extension centre at nearby Monshaet Senoras was observed to be ineffective, and unable to provide farmers with necessary information about farming in general, crops and how to improve their production. People in Gemi received very few loans from the rural bank, since most of the funding was provided to larger investors at neighbouring villages or in Monshaet Tanatawy where the bank is actually located.

## Overview of the main findings

Similar issues emerged in both Gemi and Tounis with regard to the difficulties faced by young people engaging in agricultural livelihoods. In particular, their communities suffered from environmental problems, lack of social services, shortage of irrigation and fresh water, and increasing prices for fertilizers and pesticides. Patterns of land ownership were pointed out as an important issue. The plots of land owned by many families are extremely small, forcing families to seek other sources of income. The poorest young people did not own land, and worked as low-paid wage labourers during the farming seasons, supplementing this with work in non-farming sectors (such as plumbing and electrical work) to sustain their lives. Local employment opportunities were extremely limited in both communities, however, so many young men sought daily waged work in Cairo.

A major pressure on young people was the need to generate enough savings to get married, or for their sister's marriage. Some had opted not to get married so that they could avoid this expense. Travelling for work abroad had previously offered the opportunity to earn and save money, but such opportunities were no longer easily available. Strong community values and solidarity were evident in both Gemi and Tounis, with examples of the village members paying the funeral expenses for a respondent whose father had died, and working together regularly on communal activities such as digging and clearing drains.

The research revealed significant gender differences. Women demonstrated strong ambitions to be educated and high levels of self-confidence. Although rates of girls attending school were lower than for boys in both villages, girls were more determined to continue their education. Young women in Tounis had strong aspirations to study further, particularly in open degree programmes. However, they faced many constraints, especially regarding mobility (since it was not acceptable for a woman to travel alone) and the financial demands (paying fees and loss of labour). In Gemi, women were less likely to have completed their school education because of poverty and parents' preference for boys to be educated. On the other hand, non-literate males did not tend to join literacy classes. They were busy with farming and other manual work such as plumbing, painting or electrical repairs. Young men usually joined intermediate technical schools to learn a handicraft in order to find a job opportunity. Girls joined intermediate commercial schools, which might allow them an opportunity

to join Open University programmes at a later stage. They worked as nursery teachers, literacy teachers or nursery supervisors in order to pay university fees. This pattern was more prevalent among girls and women in Tounis, while in Gemi more girls were non-literate and suffering from extreme poverty.

Women in both locations discussed their multiple roles in farming, domestic labour and other work (such as sewing), as Aleya Heikal from Tounis village explained: 'I have three jobs; I work in the farm in the early morning, I work at an NGO and I do all the house work.' From the FGDs, it emerged that many women in Tounis were educated, working, ambitious and highly self-confident, compared with those in Gemi. Conversely, no significant differences were found between males in Tounis and Gemi villages. The role they performed was similar in supporting the extended family, so they were keen to find better job opportunities in cities such as Cairo or Giza. Women appeared to have stronger ties to the land, and were positive about agricultural livelihoods, aspiring to own a piece of land.

Respondents in both locations commented on the lack of support for agricultural development, making strong observations about the corruption in agricultural cooperatives (meaning that fertilizer and other inputs were not available or were very expensive) and the inactivity of agricultural extension services. Both government and NGO services in agricultural development were regarded as ineffective. Respondents also stressed the need for basic capital and relevant knowledge to set up new enterprises such as fish farms.

With regard to the two case studies, the following findings emerged:

- The Evelyn pottery school in Tounis village set out to teach young people the skills to produce pottery from the available local raw materials in the Fayoum governorate. The programme also helped trainees with developing marketing skills, aiming to generate income opportunities. Trainees developed cooperation, independence, creativity and leadership skills, and were able to increase their income levels as a result of the programme.
- The second case study was the programme, 'Field classrooms for illiterate young men and women', provided by the National Authority for Adult Education in 2013. The initiative targeted literacy among the rural population with a focus on women. It also included developing learning skills in addition to providing the necessary environment to gain wide range of knowledge,



skills and experiences. The training programmes offered (in collaboration with the agriculture directorate at Fayoum) included team-building skills, managing small projects and decision-making. Another initiative provided was an Integrated Pest Control Project (October 2003–June 2012). This project offered a positive example of collaboration among different governmental bodies concerned with adult education.

Overall, young participants in this study had the perception that the government, public bodies and civil society organizations concerned with the provision of agriculture knowledge and skills programmes for young farmers were falling back from providing effective learning programmes. In their view, there was a gap between the national policies and strategies and the actual activities implemented.

## **Policy recommendations**

This section presents a future vision for learning knowledge and skills for livelihood among Egyptian young people in rural areas as follows:

- National policies and strategies should be linked with rural development plans and programmes, in addition to monitoring implementation and providing transparency and accountability among administrative bodies responsible for the implementation of plans and programmes.
- A vision of lifelong learning should be far-reaching in state public policy. Policies and programmes targeting deprived rural young people, particularly women, should give greater importance to the acquisition of relevant skills such as modern farming techniques that can lead to enhanced productivity. Models such as ‘farming schools’ and ‘field schools’ which cater for the needs of farmers have the potential to improve the relevance of learning and therefore contribute to improved agricultural production, making job opportunities in rural areas more attractive, and reducing migration to cities.
- Informal teaching and learning must also be recognized as part of coordination efforts between different ministries and sectors, such as education, social affairs, labour and employment, agriculture, communications and environment.
- It is recommended that rural young people be involved in planning training programmes related to agriculture and associated activities such

as marketing, as well as cooperation with trade unions (commercial or agricultural), agricultural cooperatives, and agricultural banks concerned with rural development. It is believed that this will improve the relevance of programmes and strengthen links with the local labour markets.

- A second chance for education – for those who missed the opportunity of education or did not complete their basic education – should be made available for acquisition of basic literacy and life skills to enable people to live with dignity. The provision of quality literacy programmes needs to be an integral part of national plans, and the budget should be increased.
- The effective use of modern technology should be explored to enhance learning of new knowledge and skills. Video recordings, radio broadcasting and television programmes can be used to train small-scale farmers on skills associated with agriculture. As the most prevalent technology, mobile phones can be used for sending tips on farming, such as combating pests in a particular season, and information on poultry stock. The Internet can also be an effective tool to increase young people's access to relevant knowledge and skills, and to discuss and share information.
- Farmers' unions should be established to enhance skills in marketing and negotiation, considering potential resources or crop storage areas and the behaviours of large merchants, who tend to monopolize the market. Enhanced agriculture cooperatives and extension centres can also be effective for expanding the range of young farmers' business skills and strengthening their capacities in managing environmental challenges (such as deteriorating soil and lack of irrigation water) and increasing productivity through the introduction of new crop patterns.
- Opportunities for non-farming businesses should be promoted through training on financial skills, small project management in rural areas, and provision of more accessible soft loans to young people.
- Capacities of service providers, such as officers at the agriculture cooperatives, village banks, local NGOs and local councils, should be enhanced in order to activate their roles in enhancing knowledge and skills among young farmers.

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## 4.3. Ethiopia country study

### Members of the country research team anchored in the Ethiopian Institute for Agricultural Research

Dr Dawit Alemu	Country research team coordinator, Ethiopian Institute for Agricultural Research (EIAR)
Mr Kaleb Kelemu	EIAR
Mr Mekonnen Hailu	EIAR
Mr Tesfaye Haregewoin	EIAR
Mr Alemu Sokora	Haramaya University
Ms Turuwark Zalalam Warkineh	Bahir Dar University

### Country context

Ethiopia is the most populous country in Eastern Africa, and the second most populous on the continent, currently numbering more than 86 million (CSA, 2013). With presently more than 2 per cent annual population growth, the population might reach 120 million by 2030 (Ethiopia, 2012). Approximately 85 per cent of people live in rural areas, with 84 per cent of these residing in the highlands as smallholder farmers, and 16 per cent living in the lowlands as pastoralists or agro-pastoralists (Ringheim et al., 2009). Agriculture is not only the main means of livelihoods for both smallholders and pastoralists, but also the mainstay of the national economy, contributing 45 per cent of GDP, 85 per cent of employment and 90 per cent of exports (Nederlof et al., 2011; MoARD, 2010).

However, in recent years, smallholder agriculture has faced increasing challenges, including fragile soil and environmental degradation, small and declining size of holdings, fragmentation of farm plots, population pressure, poor road networks and weak markets. Likewise, those in Ethiopian pastoral livelihoods have been under huge pressures as a result of frequent drought, resource conflicts, population growth, climate change, increasing urbanization, rangeland appropriation and obstructive land tenure, and inaccessibility of livestock markets across borders.

Since 1993, the Government of Ethiopia has instituted a policy of Agricultural Development–Led Industrialization (ADLI) to stimulate the economy (Gebreselassie, 2006). Because of such policy reforms and government commitments, Ethiopia came to be among the twelve fastest-growing economies in the world, with an average growth in GDP of 10.6 per cent between 2004 and 2011 (World Bank, 2013). However, despite these economic development and poverty improvements over the past two decades, Ethiopia still remains among the poorest countries in the world. According to the current Global Food Security Index (GFSI), Ethiopia is ranked ninetieth out of the 107 countries with the highest rates of malnutrition, and food shortage affects around 40.2 per cent of the population.

### **Policies and strategies for enhancing agricultural livelihoods and education in rural areas**

The main focus of the government is now on promoting FDI and domestic investment in large-scale agriculture, especially in lowland pastoral areas (Alemu, 2012). This policy has been promoted since 1995 with the aim of boosting exports and raw materials for domestic industries, facilitating technology transfer and energy security. However, implementing such projects has proved difficult because of the lack of irrigation systems, roads and communication, so the large majority of the FDI projects endorsed have not actually been implemented (Alemu, 2012).

With regard to the youth population, unemployment is perceived as a problem of urban areas, and nearly all development strategies have targeted the urban context. Ethiopian development policies explicitly discourage rural–urban migration. If a rural household migrates to the urban area, it will lose its plot of farmland, and migrants from rural areas have less access to good work opportunities in urban areas. Rural young people face particular constraints as they depend on inheriting land from their parents or allocation from land administrators. As a result of the government’s villageization policy, their access to land is continuously diminishing (Bezu and Holden, 2013).

In the education sector, the government’s focus on EFA by 2015 has led to increases in primary school enrolment and national literacy rates (from 35.9 per cent in 2004 to 39 per cent in 2011: UNESCO, 2012a). Although the gender disparity is improving at primary school level, it remains very high in secondary

and tertiary schools and between male and female literacy rates. In 2011 the female literacy rate was 28.9 per cent, compared with 49 per cent for men (UIS, 2013). Literacy rates were twice as high in urban areas (78.0 per cent) as in rural areas. The youth literacy rate was 55 per cent (men 63 per cent and women 47 per cent), and the country had 7 million illiterate youths (of whom 58.9 per cent were women) (UIS, 2013).

Education and training has been receiving the largest proportion of total public expenditure since 2004. The Education Sector Development Plan (adopted in 1997, and at the time of the research embodied in the Education Sector Development Program IV: 2010–2014) goes beyond formal education and includes non-formal education (functional literacy, distance and continuing education), second-chance education for school dropouts, out-of-school children and young people. The Ethiopian National Youth Policy of 2004 defines youth as between 15 and 29 years old, and states that the unemployment and underemployment of young people is owing to their lack of skills and the limited number of employers. For this reason, the government targets young people through expanding technical and vocational education and training (TVET) and encouraging them to establish their own micro enterprises immediately after graduation. As a result, formal non-agricultural TVET institutions increased from seventeen in 1996/7 to 199 in 2004/5 (MoE, 2008), and enrolment has increased proportionately, although the government has reported that many graduates were not employed.

In order to tackle the acute shortage of agricultural extension agents (in 1991 there were only 2,500 agricultural extension agents for more than 11 million farm households: Abate, 2007), the government established twenty-five agricultural technical and vocational education and training (ATVET) colleges throughout the country. The country is now reaching the strongest extension agent–farmer ratio in the world, although there are concerns about quality and that ATVET programmes are not accessible to those who have not completed secondary education (Davis et al., 2010).

## Research design and process

This study was implemented by EIAR and a team of experts drawn from Bahir Dar and Haramaya universities. All the team members participated in the study, from the data collection process up to analysis and writing of the report. An initial workshop was held with stakeholders in Adama in October 2013 to discuss the proposed design. Much critical debate focused on the research aims and questions, especially whether or why young people should be encouraged to stay in rural areas or work in agriculture. Workshop discussions raised the importance of recognizing the different issues and experiences of young people in the highland areas, and in lowland pastoralist communities. The study was therefore conducted in two purposively selected locations that represented different agro-ecological contexts with different livelihood activities. Basona Werana *woreda*<sup>6</sup> was selected to represent the highland agro-ecology where a mixed type of farming is practised as a source of livelihood. Yabello *woreda*, where livestock production is a dominant source of livelihood, was selected to represent the lowland agro-ecology in Ethiopia. The comparative analysis between the two selected communities became an important element of the country study.

In order to ensure maximum participation by young women and all members of the pastoralist communities, the team included a female member and a researcher who was originally from the Yabello area, who could speak the local language. The team was led by Mr Kaleb Kelemu, an agricultural scientist from EIAR, and included agricultural scientists, a sociologist and an adult education specialist. From the UNESCO Addis Ababa office, Dr Paul Mpayimana and Mr Demelash Zenebe Woldu, provided guidance and support during the research process.

As this was the team's first experience of conducting ethnographic research, they arranged for a weekend 'hands-on' training course with Mr Alemayehu Hailu Gebre from the World Heritage Partnerships for Conservation Initiative (PACT), who had previously conducted ethnographic research on literacy practices in rural Ethiopian communities. The team incorporated some of these activities involving participant observation in their study, to look for instance at how non-

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6 *Woreda* can be regarded as meaning a 'district'. In the government structure constituted under the *woreda*, *kebele* is the lowest administrative unit and under each *kebele* there are villages.

literate people were learning to use mobile phones or calculating transactions in the markets. They also collected visual evidence of the literacy environment in the communities through photographs and materials found during fieldwork. A final workshop was held in December 2014 to share the initial findings with stakeholders and discuss policy implications. The director of EIAR commented on the contribution that the project had made in terms of developing staff capacity in qualitative research methodology and in pointing to important future areas of research that the Institute could undertake.

## Site selection

Two sites were selected based on their geographic and agro-ecological differences, one *woreda* from the highland area and another *woreda* from the lowland area. They represented distinctive differences in geography and livelihood sources. Basona Werana was chosen as an example of highland agro-ecology where mixed farming is predominantly the major source of income, and Yabello was selected as it represents lowland areas where pastoralism is a major source of livelihood.

### Basona Werana Woreda

In the highland area, Basona Werana includes three agro-ecological zones: *wurch* (afro-alpine) (2 per cent), *dega* (temperate) (50 per cent) and *woynadega* (subtropical) (48 per cent), with mean temperatures ranging from 10 to 22°C. It has an altitude range of 1,300–3,400m above sea level. The *woreda* has 42,828 ha of arable land, with 1,597 ha of irrigable land. Crops grown in Basona Werana *woreda* include tef,<sup>7</sup> barley, wheat, faba beans, field pas, sorghum, lentils, chickpeas, onions, potatoes, temperate fruits and oil crops. The productivity of major crops such as wheat and barley has been constrained by frost, disease, pests and erratic rainfall. Farmers rear cattle, sheep and goats, chicken, horses and donkeys, and keep traditional and modern beehives. The *woreda* has 6,828 forest plantations. Eucalyptus tree production is becoming the primary source of cash income for many families. Livestock are kept mainly to generate cash income, and this is becoming more popular due to increasing demand for livestock and rising prices in the market.

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7 Tef is a crop unique to Ethiopia, which forms a staple in the diet (it is used to make bread, *injera*).

There are around 27,753 households in the *woreda*, with almost 100 per cent reporting that Ethiopian Orthodox Christianity is their religion and speaking Amharic as their first language. Goshe Bado *kebele* – the area where the research was conducted – is located 20 km from Debre Birham town. The number of female-headed households is increasing mainly as a result of divorce. A major source of livelihood for divorced young women is beverage trading, regarded as a low-skilled female occupation requiring locally available materials and little initial capital. These women vendors were often subject to sexual abuse and exploitation. Land shortages have led to young men and women migrating to Addis Ababa and Debre Birhan in search of casual labouring jobs.

### **Yabello *woreda***

Yabello *woreda* is on the rangeland of the Borena zone, located in the southern part of Oromia region with land area of 5,550 km<sup>2</sup>. The *woreda* is dominated by a semi-arid climate with an annual mean temperature varying from 25 to 37°C with little seasonal variation, and an altitude ranging between 1,450 and 2,200 m. The average annual rainfall is 500–650 ml. There is a lack of basic infrastructure (for instance, there is no electricity) in most rural villages, which has affected the promotion of small and micro enterprises.

Yabello *woreda* is predominantly a pastoralist community, and the major source of livelihood is livestock production (particularly camels, goats and cattle). In addition to consuming milk and meat products, the community's survival is largely reliant on the production of surplus animals and animal products which they exchange for crop commodities with highlander people. The amount of livestock sold by households varies depending on the seasonal availability of pasture, water, and the price of grain to be purchased. Even though there are huge numbers of livestock in the *woreda*, the prevalence of animal disease, water shortages, and declining pastureland are well-recognized constraints affecting livestock productivity. Livestock marketing is also problematic as the price is very low and volatile. Most traders buy livestock on credit, and there is no guarantee that buyers will pay. Some households are also using petty trading, firewood selling, non-timber forest products and charcoal making as additional sources of income.

Data was collected from one of the *kebeles* of Yabello *woreda* called Haroboro. Haroboro *kebele* is located 30 km from Yabello town and is composed of



five villages, with a total number of 442 pastoralist households. The *kebele* is inhabited by pure pastoralist households, whose livelihood is entirely dependent on livestock management. Young people recognized the importance of pastoralism, but also looked to other sources for their livelihood, working in trading and transport services, as fare collectors and snack vendors (for young women). Some young men have migrated to urban areas such as the towns of Yabello, Bule Hora and Dilla in search of casual waged work.

Work becomes strongly gendered at the age of 11–13 years. Caring for livestock is seen as the role of children and young men. Young women become more focused on domestic work in order to prepare for marriage, and their mobility is restricted. Unmarried women are not allowed to attend meetings or other social events, even with other women.

## **Research methods**

As with the other country studies, the team collected data from diverse sources:

- Interviews with key informants from different government offices and NGOs operating in the study areas. In Yabello, this included the agricultural development agent; heads of the *woreda* health office, agricultural office, education office and women's affairs office; and personnel from a small and micro-enterprise promotion office, Yabello agricultural college and a local NGO, SoS Sahel Ethiopia. In Basona Werana the informants were agricultural development agents, heads of the district health, agricultural, education and women's affairs offices, one local NGO, an employment agency owner, and personnel from micro enterprises and the technical and vocational promotion office;
- Focus group discussions were held with a group of elders, and with separate groups of male and female youth (for a total of three FGDs at each field site);
- Life histories were taken from elders, male and female rural young people, and migrant young people (a total of fifteen life history interviews at each site); and
- Documentary analysis of government plans, policy reviews and previous research studies.

Three case studies were developed for analysing educational interventions related to agricultural livelihoods.

The Technical and Vocational Enterprises Development Office (TVEDO) is one of the major training providers, primarily targeting landless and unemployed young people in both urban and rural areas of the *woreda*. Young people are required to form a team or user group to access services, and the main beneficiaries are males between 15 and 24 years old, with up to eight years of school education. An example of a successful initiative in Basona Werana *woreda* is the Biqat Irrigation Cooperative, which was set up in 2012 with inputs and farmland supplied by TVEDO. The cooperative has forty-two members (six of whom are female), and produces carrots, cabbages, beetroot and peppers. The challenges faced by TVEDO include the lack of accessible land (they liaise with the rural land administration office to obtain land), difficulties for rural young people in accessing regular credit from banks, and the limited budget and staff resources in the district TVEDO office. Young people participating in the programme often do not want to be organized into groups, preferring to set up individual enterprises, but the government strongly encourages cooperatives as a way of coping with the scarcity of capital and land. In Yabello *woreda*, the only services provided by TVEDO were in the urban areas, focusing on small enterprises such as animal fattening, beauty salons and small-scale trading.

The Integrated Functional Adult Literacy (IFAL) Programme is being implemented jointly by the district offices for agriculture, health and education. It has two levels. The first level targets non-literate youths and adults while the second level targets semi-literate and school dropout young people and adults. The curriculum is wide-ranging and covers agricultural issues including crop, vegetable and fruit production, irrigation development, environmental protection and conservation, natural resources management, health care, life skills and gender issues, income generation, and civic and ethical education. The literacy materials, teaching and learning guides are prepared by the regional education bureau and distributed to each zone and *woreda*. The role of the *woreda* education office is to adapt the ready-made materials to the local context and mobilize facilitators from various specializations, such as primary school teachers, health extension workers and agricultural extension workers. In Basona Werana *woreda*, the programme has faced challenges in responding to the diverse needs of farmers (young and old, women and men), very low pay for the facilitators, and insufficient training (only three days). The schedule for the IFAL programme was the same for all regions,

meaning that the timing of classes did not fit well with the farming season in the *kebele*.

A national NGO, SoS Sahel Ethiopia, has been promoting self-employment opportunities in Yabello pastoralist villages, providing non-formal education integrated with income-generating and livelihood activities. Currently SoS Sahel Ethiopia is undertaking a programme that promotes rural saving and credit institutions and aloe soap production through establishing cooperatives. The idea came from the experiences of a Kenyan entrepreneur who provided technical training on how to produce soap from the aloe vera plant to a group of pastoralist women. A group of pastoralist women then travelled with SoS staff to learn from Kenyan experiences of aloe soap making. SoS has integrated literacy classroom teaching with income-generation activities so that members can effectively record transactions, read and understand agreements, and manage their accounts. Prior understanding of markets was also essential, although the market grew as local people gradually recognized the health benefits of the soap. While the group approach helped members to work together on literacy and skills training, there was also evidence of a ‘free rider’ effect as not everyone showed equal commitment in running the day-to-day business activities.

## **Overview of the main findings**

As indicated above, a major aim of the Ethiopian country study was to compare learning of knowledge and skills and the livelihood strategies between the two contrasting highland and lowland communities, and the comparative analysis is summarized below. Specific findings around learning and skills are presented later in the synthesis of findings section below.

- Challenges and opportunities for enhancing rural youth livelihoods: in both locations there was an increasing tendency for rural families to send their sons and daughters to enrol in formal education. However, the reasons were different for the two study sites. For Basona Werana, the increasing trend resulted from the potential perceived benefits of formal education as a source of livelihood and employment in formal sector of the economy. In Yabello people did not consider education as a source of livelihood, but rather they needed it to improve their self-esteem. However, the EFA movement has contributed to increasing awareness of the importance of education in both cases.

- Data on young people's perceptions and practices, revealed that agriculture was not the only option for making a living. In the mixed farming area, young people engaged in diverse livelihood options beyond agriculture, although they were constrained by many risks and uncertainties (particularly abuse and exploitation when making and selling local alcohol). In the Yabello *woreda*, pastoralism is still almost the only livelihood option for young people. However, some young women were involved in small-scale trading, which was relatively lucrative. In both contexts young people did not have any aspiration to remain in agriculture. For young people in the mixed farming area, little access to land, capital, poor infrastructure and limited access to improved agricultural technologies were the main reasons to leave agriculture. For young people in the pastoralist area, factors such as erratic rainfall and drought, shortage of pastureland, shortage in the supply of animal feed, and the prevalence of animal diseases presented threats. In both cases, young people believed that they had sufficient skill and knowledge to live as arable farmers or as pastoralists. When they aspired to engage in livelihoods beyond agriculture, the main constraints they anticipated were first, lack of initial/seed capital, and second, the need for modern skills and knowledge.
- The government and other development agents have been attempting to create youth self-employment opportunities in both sites. Despite this objective, respondents considered these efforts to have been mostly irrelevant, sporadic and non-targeted. The government aimed to create different youth cooperatives to support them, but had not considered young people's diverse interests, educational levels and capacities. In particular, participants mentioned that youth cooperatives had been constrained by lack of equal commitment among members ('free rider' behaviour) and some people's lack of aspiration for change. Further, the study revealed that youth policy intervention had been more targeted on urban youth, indicating for example a lack of access to credit in rural areas.
- Gender differences in participation in cooperatives was significant in both sites. Youth cooperatives were particularly limited in pastoral areas because of the nature of pastoralists' lifestyle (most male youths are mobile cowboys) and culture (unmarried girls are not allowed to meet with the rest of the community). Young women faced particular challenges in the mixed farming area, where risky livelihoods such as alcohol selling often exposed them to sexual and domestic abuse. In Yabello, young women were not exposed to such risks since they did not go beyond their family before marriage, and

even rarely after marriage, because of their communal culture. This culture of supporting each other was serving as a buffer zone protecting people from livelihood crises as was migration in some cases.

- Regarding the interaction between informal, non-formal and formal learning, in both sites formal learning was exclusively emphasized, and learning was associated with going to formal schools. In the Yabello *woreda*, health workers had been forced to integrate informal learning and experiences of community with non-formal training, since the community would not accept any learning that was detached from their local knowledge. Unlike in the Basona Werana *woreda* where traditional birth attendants were banned and their skills had been rejected by the *woreda* health office, in the pastoralist area traditional birth attendants were encouraged, and even provided with additional training on sanitation and proper midwifery skills. It is worth noting that since the research was conducted, the government has developed a national qualifications framework.
- Currently most rural young people have access to formal schooling, thanks to the EFA movement which has expanded formal schools throughout the country. However as the team observed in both sites, many young people had dropped out of school, and some had never attended formal education. In Basona Werana, the reasons for dropping out and/or illiteracy were the family's economic situation, distance from school, and cultural impacts (including early marriage and sorcery). In Yabello, the reasons were mostly related to lifestyle (most young men spend their time tending to cattle), marriage, lack of a school nearby, scattered settlements and absence of teachers.
- The IFAL programme in both areas was hampered by the distant location of its centres, inappropriate schedules, shortage of materials, lack of staff motivation and weak coordination. However the programme was more effective in mixed farming systems than in pastoralist communities, because the literacy text books had been prepared at the regional level, while there was no literacy material prepared for pastoralist communities. In both sites, the team reported that the programme provided 'school-like literacy skills, devoid of functional livelihood skills'.
- On issues influencing learning of new skills and knowledge for rural livelihoods, in both areas informal learning was the dominant form of learning agricultural skills, which came from parents, neighbours, friends

and relatives. All respondents believed that informal learning was almost the only way of acquiring skills to make a living in their local context. As well as agricultural skills, rural young people in both study locations had learned how to use mobile phones, and had acquired skills in cooking, carpentry, masonry and calculating accounts. Such practices were mainly acquired informally through repeated exercise, self-experimentation, and through help from peers and family members. In both sites the team observed gender differences emerging in access to learning opportunities as the children grew up. This was particularly so in the pastoral community, where from the age of 10, girls were not allowed to attend various trainings and community gatherings where they could develop soft skills in the way that young boys and men could. The other factors hindering young women in both areas were marriage and overloading with domestic responsibilities.

## Policy recommendations

Based on insights from the desk study and fieldwork in the two communities, the country research team made the following suggestions for policy:

- As the number of landless young people increases at both sites over time, the importance of creating and diversifying livelihood opportunities outside agriculture is becoming more crucial. Non-farm-related enterprises are also an important means to address the employment problems of landless young people;
- It is also crucial to strengthen farmers' training centres (FTCs) to provide skills and knowledge that can help to develop the capacity of young to engage in self-employment and activities. Also, the training has to be diverse enough to include areas other than agriculture;
- It is necessary to strengthen the IFAL programme by increasing the number of locations in each *kebele* where the programme is delivered, and making the schedule convenient for farmers in both highland and lowland areas by following the crop calendar;
- Training that targets rural young people to engage in self-employment and income-generating activities needs to include interventions such as the IFAL programme adapted to the local area and culture;
- The important skills, such as soft skills and life skills, are often most lacking, and need to be integrated into interventions that target rural young people.

# 5.

## Synthesis of findings



This Synthesis Report sets out to identify and then to compare the key findings that emerged in each of the country studies. Some of the results have been highlighted above, whereas other findings were developed through comparative analysis across the three country studies. While we recognize that it would be inappropriate to generalize from these small-scale ethnographic-style studies, it is important to share these insights into young people's learning and livelihood strategies across cultural and country contexts. This section of the report brings together the findings from Egypt, Ethiopia and Cambodia in order to draw out the issues and perspectives which may have particular relevance for international and national policy and research elsewhere in the world.

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## **5.1. Rapidly changing worlds: the widening generation gap**

### **Evolving country contexts**

As the evidence from the country studies revealed above, all three countries are engaged in processes of rapid social, political and economic transformation, with the result that young people's worlds are changing at an even faster rate than in their parents' times. Increasing globalization has led to massive changes in economic structures, markets and communication infrastructure – with implications for natural resource development and poverty reduction.

Young people make up a significant majority of the population in the three countries: in Cambodia, 36 per cent of the population are aged 10–24 years (UNICEF Cambodia 2009), and in Egypt, 23.7 per cent of the population are between the ages 18 to 29, of whom 51.9 per cent are living in poverty (CAPMAS, 2014). An increasing challenge for the governments of these countries is to find ways to respond to high youth unemployment rates, particularly in rural areas. The review of policy in Cambodia, Egypt and Ethiopia indicated economic growth, including strategies to enhance the contribution of agriculture to national development (see Cambodia's strategy to turn the country into a 'rice-white gold' exporter and Ethiopia's policy of agricultural development-led industrialization).

Agriculture is the largest sector in the Ethiopian economy, contributing 41.9 per cent to GDP, 84 per cent of exports, and supporting 80 per cent of the country's population (World Bank, 2014).

With greater access to communication, transport and informal institutions facilitating migration, young people now have greater opportunity to seek work in urban areas and other countries. The Egypt study reveals that these external opportunities can be precarious too, with changing migration patterns to neighbouring countries affected by political instability after the Arab Spring. The rapid expansion of ICT was reflected in the research sites, where almost all the young participants had access to and had learned to use mobile phones and the Internet. Improvements in educational provision and awareness promoted through the EFA agenda have led to higher literacy rates among the youth population in these three countries. The impact of economic growth and educational expansion is marked by strong differentials between urban and rural areas (particularly in relation to inadequate infrastructure and lack of social services), and above all, continuing inequalities between young women and men. However, unlike their parents, this generation of young people have a growing awareness of their rights to education, training and employment – even in the face of social and economic injustice, exploitation and poverty.

### **Land: a shrinking resource**

In all three studies, interview data revealed the severe challenges faced by poorer people in the agriculture sector because of their diminishing access to productive land (and particularly to water for irrigation in the case of Egypt).

In Cambodia and Ethiopia, the studies draw attention to the impact of FDI schemes in which foreign investors have been encouraged to lease land in rural areas. The Cambodia study noted that although the size of FDI in agriculture was relatively small, this investment has contributed nationally to the growth in rice, rubber and other cash crops. However, economic land concessions have often brought new challenges to smallholder farmers, and the benefits tended to be skewed to either industrialists or large-scale agricultural landowners. In Ethiopia, where FDI has been encouraged since 1995, the study noted local government officials' belief in the advantages – including boosting exports and raw materials for domestic industries, job creation for local people, facilitating technology transfer and energy security (through biofuel plants). However, empirical evidence

has shown that local communities have unwillingly lost farmland, rangeland, woodlands and water sources, and that these large-scale agricultural projects only employed a few experts specialized in the relevant new technologies. In Egypt, similar concerns were expressed about poorer people's inability to benefit from this kind of large-scale production. The review of government policy from the Ministry of Agriculture and Land Reclamation notes the objective of increasing the value of agricultural exports and encouraging private investment, either Egyptian, Arab or foreign investment, in agricultural development projects and in the agriculture sector in general.

The study findings from Fayoum in Egypt reveal the pressures on cultivable land created by the increasing population and widespread new building projects. Life history data showed that even when farmers had a plot of land, they were unable to cultivate much of it because of shortages and salinization of water. In Tounis, farmers who own eight feddans<sup>8</sup> are only able to plant four during the winter season and two during the summer season. An older farmer said, 'I wish the government could provide water during summer, we are able to farm only in winter. In summer water is hardly available for drinking and bathing.' They commented on the decreasing productivity of the land and widespread use of chemical fertilizers (an interviewee with red eyes turned out to have been spraying without any protection). A man in Gemi village described how he had decided to use his ration of water to start a fish farm instead, which proved more profitable than crops: 'I inherited a land plot from my father. I have turned half a feddan into a fish farm, then I opened a shop to sell my fish.'

The study sites in Ethiopia suffered similar problems to those described in Fayoum, with the landholding size decreasing as the population grew, and erratic rainfall making cultivation increasingly difficult. Smallholder agriculture there has been particularly affected by the fragmentation of land ownership, and by soil and environmental degradation. A participant in Basona Werana explained, 'I have 0.75 ha of land. I am not able to feed my children throughout the year. Rain may come early or late, several weak species are expanding, disease on the major crop – particularly wheat rust – is diminishing the yield I get from my small plot of land.' These observations about environmental and climatic change led respondents to express concerns about the limits of indigenous knowledge and skills in agriculture: 'We are no longer able to survive with the knowledge

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8 A feddan is a unit of area used for land, equivalent to 4,200 m<sup>2</sup>.

informally learned that is obsolete and incapable of sustaining agriculture any more' (participant in FGD in Basona Werana). Pastoralist livelihoods were similarly under threat because of drought, resource conflicts, climate change, increasing urbanization and difficulty accessing markets across borders. In the highland area (Basona Werana), the introduction of eucalyptus twenty years ago was regarded as a 'life saver', and every household had planted it as a source of cash for when traditional crops were hit by disease or frost.

Legal reforms were noted to have exacerbated the problems faced by people wanting to cultivate land. In Egypt, a new law of tenancy had been introduced, in place of the previous system where the owner and tenant split the revenues and expenses from agricultural activities. In the field site of Gemi, currently most of the farmers are deterred from renting land because the owner demands such a high rent, as a respondent noted: 'We work a lot on the land and then the owner takes all the revenue. We find nothing remaining to feed our children.' In Ethiopia, although rural young people (both male and female) have the constitutional right to use land for agriculture, the same constitution states that the land is public property and cannot be transferred through sale or purchase. As the law restricts the rental market, in reality young people can only gain access to land through inheritance from their parents and/or allocation from land administrators. Young women who marry and move to their husband's village are even less likely to inherit land. A similar situation was reported in Cambodia. This suggests that legal reform has not addressed the problems faced by young people in accessing and owning their own land. (This reflects findings in the international literature review about youth as a period of 'waithood': White, 2012.)

### **Alternative livelihoods: changing values**

People's response to diminishing land and natural resources in the three study countries has often been to seek alternative employment in local towns or outside the area. In the Cambodia study, young women found work in nearby garment factories, young men worked in construction, and in Siem Reap, a major tourist destination, there were opportunities to work in hotels as a 'room man' (cleaning the bedrooms). By contrast, in Tounis (Egypt), which is also a tourist area, respondents emphasized that they needed to be in the right networks to get such jobs. In Basona Werana (Ethiopia), local beverage trading has become a major source of income for divorced young women, as it requires little capital

and the drink can be made with local materials. The life history accounts reveal the risks of this occupation, with traders being subject to sexual abuse and even rape by their customers.

Exploitation by employment agencies was also reported, where brokers demanded high fees to find young people jobs in hotels and cafés, which they were unable to repay. In particular, agents often moved young women from job to job to get more commission, and sometimes tricked them into prostitution. In Egypt, the study reports that a majority of rural women worked in small agricultural businesses, such as the collection, packaging and wrapping of crops. Other occupations included marketing and selling food crops, and some small-scale industries such as crop drying and producing cheese and butter, sewing head-covers at home or working as wage labourers on large farms.

What emerged through all three reports were the strong linkages between on-farm and off-farm employment, and the fact that even those who appeared to be engaged completely in non-agricultural activities or education still spent time helping with the family farm. In the Egypt study, water shortages meant that agriculture was a seasonal source of livelihood, as a respondent explained: 'We do not own land, so I work as a wage labourer to provide some income to my family. Sometimes I do some work related to plumbing or electricity since farming is seasonal.' In this area, women felt strong ties to the land and were often the ones who looked after the farm while their husband had paid work, as a female respondent described: 'After my marriage, my husband inherited the land from his father. He wanted to sell it, but I encouraged him to farm it instead. I am in charge of the agricultural activities as he is employed and does not have time. I plant wheat, which provides the food supplies for the family.' Women described their multiple roles in the household – including paid work outside, home-based sewing jobs, looking after children, cooking, and juggling all this with feeding poultry and tending crops.

In the Cambodia study, several of the interviewees had migrated or had family members who had migrated to Thailand or other provinces for seasonal work. On their return they invested their remittances in durable goods such as motorbikes, house construction and improvement, and sometimes in agricultural land. In Ethiopia, migration was mentioned as a more permanent escape, as a woman explained: 'The land is infertile, overexploited and unproductive. Due to this fact, I shall never marry in this area. If I get the chance, I may go to the highland

area. My mother and I are also planning to migrate to the urban area and work as a domestic workers to change our lives.’ Findings from the TVEDO case study in Ethiopia suggested that whereas parents would sell everything to ‘send their children to the Arab world’, they were unwilling to support them to start enterprises in their own locality, believing that this was the government’s role.

It is clear that in the interviews from Egypt, Ethiopia and Cambodia, respondents saw on-farm and off-farm livelihoods as closely interrelated. Young people were often engaged in a variety of occupations, but regarded some kind of agricultural activity as a given within their rural lives, as it had been in past generations. In interview discussions about changing livelihoods, there was however recognition of traditional values and social structures being transformed and challenged. In Ethiopia and Cambodia, this sense of rapid social transformation was perhaps stronger than in the Egypt study, where people still referred to collective practices such as clearing the village drains together, and believed in a strong work ethic, conveyed by proverbs such as ‘the unemployed hand is unclean’.

In Ethiopia, the interview data revealed a tension between traditional communal values and a more individualistic attitude, described as ‘free rider behaviour’. A young man explained how this made it difficult to work in group enterprises: ‘Because most youths in the group I belong to are seeking short-term benefits and are not committed to executing responsibilities, they erode the spirit of working together and affect other members’ morale.’ In the pastoralist community (Yabello) these changes seemed to be linked to the ambivalence that the older generation felt about formal education, as leading their children away from traditional collective values and practices into a settled lifestyle. An older pastoralist woman explained how grazing land was becoming scarce and that children no longer worked in this way: ‘The community is forced to send their children to school. So it is no longer possible to make them cowboys or girls. I am worrying pastoral life may not exist in the future, yet I love pastoralism since it is almost in my blood...’

In the Cambodia study, the young respondents emphasized the importance of leisure activities in their lives. Young men spent their free time drinking and watching Thai or Korean films in order to learn romantic phrases to try out with their girlfriends when they chatted on their mobile phones at night. Young women also placed great importance on finding opportunities to meet their future spouses, and this was why they preferred the social environment

of working in a factory to working on the family's farmland. After the years of genocide and suffering during the Khmer Rouge era, older respondents talked about the legacy of 'secrecy' and mistrust in their own generation's culture, and the contrasting carefree attitude of the younger generation. In the Ethiopian communities studied, there seemed to be a similar gulf between young and old respondents, particularly in the pastoralist community. Dramatic changes had taken place in family structures, illustrated by the growth of female-headed households and divorced women running beverage enterprises alone.

In Cambodia and Ethiopia, all the younger study respondents had mobile phones, which they used mainly for social purposes. In the Egypt field sites, only men and married women owned a mobile phone. When a girl became engaged, a phone was the first present from her fiancé. A few examples were also given of how mobile phones were being used for work purposes. In Yabello (Ethiopia), a pastoralist explained how he had sold eight bulls on credit two years ago and is still waiting for the trader to return and pay him. He did not have the trader's address, only his mobile phone which the man had switched off long ago.

The overall impression from all three countries is of the rapid social and economic changes taking place in the communities studied. The younger people interviewed had more access than their parents to education, evidenced by higher literacy rates in this age group. Yet many had had to drop out from school as a result of poverty or parental resistance to schooling. This was more so for women in all three contexts. The growth of mobile phones and access to television and the Internet also contributed to the difference in attitudes and aspirations of young people, compared with their parents. In Cambodia, young people interviewed were expected to find their own partners, which influenced the kind of employment they sought and their lifestyles. The gap between young and older generations is nothing new. However the evidence from all three studies suggested that the rapid pace of change in communications, technologies, markets and spread of formal education has contributed to the sense that young people inhabit and are creating a quite different world from that of their parents.

These findings from the country studies into the ways in which rural areas were being affected by changes in communications infrastructure and agricultural development, patterns of land ownership, environmental degradation and weather variation, were an important starting point for exploring the research

question ‘Which skills are in demand?’ This contextual analysis also helped to identify what skills people learned in everyday life, and factors (such as the changes in social values discussed above) that influence intergenerational skills transfer. Both younger and older respondents emphasized that indigenous knowledge, skills and technology were insufficient to meet the current challenges of rural livelihood generation.

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## **5.2. Young people and agriculture: their views, aspirations and challenges**

Although in all the studies there was evidence that young people wanted to move from rural areas, this was not necessarily because they wished to leave agriculture. As indicated above, respondents recognized the interdependence of off-farm and on-farm livelihoods and expected to engage in different kinds of activities at various stages of their lives. The life history of Somean in Ou Touch village (Cambodia) gives an insight into how this 20-year-old had alternated between waged labour on a neighbour’s orchard, working as a waiter in Phnom Penh, weaving baskets, working on his father’s land, and all this time, saving to train as a car mechanic.

Several respondents in the Cambodia study saw farming as too physically demanding: ‘I did not want to work in farm because farming is tough and earn little. I had to work from morning to night under the sun and in dirty conditions’ (from the life history of a young man). This supports the findings from the wider review of literature that young people saw farming as an occupation of ‘last resort’ (Njenga et al., 2012). This view was generally shared by their parents: ‘I do not want my daughter to get involved in farming like me because it is difficult and dirty and the income from vegetables cannot make my daughter rich. So I want her to be a medical doctor’ (mother of a schoolgirl in Popis village). However, the picture was not so clear-cut: even the young man quoted above who worked as a room man in Siem Reap explained that he still helped his family in growing vegetables whenever he could, but had ‘no intentions to work in agriculture’. Some young people who had off-farm employment suggested that it was the social environment that was more attractive – the opportunity to mix



with other young people in a factory or hotel. A young woman in Popis village described how she cycled back and forth to a job for a meagre daily wage, but that 'working in the construction sector made her happy because she had a chance to make new friends, both male and female, and had a lot of fun'.

In the Ethiopia study, young people expressed similar disillusionment about working in agriculture, but the reasons they gave were about the lack of productivity rather than the working environment. Focus group participants in Basona Werana explained how erratic rainfall, pests, weeds and disease meant that agriculture was a risky and less profitable business. However they recognized that agriculture provided important employment opportunities for young men in particular, even though work such as harvesting and weeding was very seasonal. A migrant young man had been keen to set up in vegetable production in his own village, but explained that because of the serious land shortages, 'I am very unlikely to get even a small plot of land from my parent's holding, let alone from any other sources.' He had earlier dropped out of school to 'serve' his ageing grandparents in the hope of inheriting their land. In Yabello, young people expressed stronger views about not following the pastoralist way of life, saying they would opt for any casual labour rather than livestock rearing. They were keen to set up businesses in the town, but lacked the seed money for this.

In the two Egypt field sites, young people were more positive about agriculture as one source of livelihood among many. As in Ethiopia, the seasonal nature of agricultural work was emphasized as a reason for seeking other work, and young men were burdened with worries about earning enough income to save for the marriage of themselves and their sisters. As a result, many young men in Fayoum were working as labourers in Cairo. Significant gender differences emerged in the data, as young women appeared to take the lead in cultivating crops for home consumption, and expressed strong emotional ties with the land, seeing it as a source of food and well-being. Women who worked as agricultural labourers yearned to own land and not have to work for others: 'I wish I owned even one *qarat*.<sup>9</sup> I would be in heaven and fill the house with its food and blessings.' A younger woman running a shop said, 'I wish I owned a land plot, even if it was very small. It's better than the shop. We can at least grow our food. I like the land and nature.' Similar sentiments were expressed by

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9 A qarat is 1/24 of a feddan, or around 175 m<sup>2</sup>.

an older woman in Yabello (Ethiopia) as she explained that pastoralism requires loving cattle, 'without which it is difficult to bear the challenges'. These insights into people's affection for the land and animals suggested that arable farming and pastoralism was much more than just a job for them.

Aside from the problems related to land ownership expressed by young people in all three countries, issues emerged around a lack of supportive infrastructure (including banks, training and technology) and access to necessary inputs. In Egypt, where government cooperatives were supposed to supply fertilizer and pesticides, farmers faced shortages because of their corruption, and had to buy them instead on the black market. They noted issues around their lack of voice: 'Farmers who own small plots suffer from injustice, but if a farmer owns 20 *feddans* the cooperative cannot rob him in the same way. In short the poor have no place in this country.' In the Cambodia field locations, respondents said they had never met government extension workers, so they relied instead on buying fertilizer and getting advice from traders. In Yabello (Ethiopia), the dean of the pastoralist college expressed his concerns that young graduates were leaving agriculture because of their failure to run successful micro enterprises. Although they received loans from the Small and Micro Enterprise Promotion Office, there was limited follow-up and technical support.

The findings from the country studies suggest that the majority of young people were understandably hesitant about relying on agricultural work, because of the declining productivity of the land, their lack of independence when working on others' land, and recognition of the constraints involved in running their own enterprises, such as the need for capital and relevant training. They emphasized that farming alone could not meet their living costs, and in Egypt, they mentioned the additional pressure of having to save even more for their own and their sisters' marriages. The Cambodia study revealed a greater belief in education as a route out of agriculture (held particularly by young women and their parents) – and similar reflections from young people emerged in the pastoralist area of Ethiopia. These support findings from the international literature review about school discouraging young people from going into agriculture. However, in the Egypt study villages, young women aspired to own and cultivate their own land as a source of food. Although many of the respondents (particularly in Cambodia and Yabello, Ethiopia) equated agriculture with poverty and a subsistence lifestyle, they also saw potential if they had access to larger plots of land and the necessary support and inputs. It was not a simple question of wanting to move

from the rural area to the city – and young women in Basona Werana (Ethiopia) related the great suffering women endured when they worked as traders in beverages in local towns.

This analysis suggests that young people were active in seeking new livelihood opportunities alongside or instead of smallholder farming. Although waged employment was sometimes seen as a more sociable environment for meeting other young people than the family farm, there were also worries about exploitation. Self-employment through setting up micro-enterprises was the preferred or only alternative for many young people. However young respondents' difficulties in sustaining such enterprises highlighted the paucity of relevant skill-development programmes (particularly those providing training in soft skills) and the need for institutional reform to improve their access to credit, land and other resources.

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### **5.3. Learning skills and knowledge for agriculture: young people's experiences**

A major aim of this study was to investigate the kinds of knowledge and skills specific to agriculture and rural livelihoods being acquired by young women and men, and the relationship between differing modes of learning. The importance of informal learning for acquiring both indigenous and new skills and knowledge emerged in all the country studies. As noted earlier, one of the hardest challenges for the researchers was to understand in such a short time *how* people learned skills and knowledge in their everyday lives. However, the findings revealed much about the learning strategies adopted by people who had not been formally educated, and gave an unusual insight into situated learning.

## **Informal learning in the family and community**

Farming (or rearing animals) was seen in all three contexts as a natural part of growing up, and learning as a natural process of this. As a young person in the Ethiopia study commented, 'Learning agricultural knowledge and skills in a rural village like Goshe Bado is not a question of choice, we learned them because it is the way of life of our parents, and where we were born.' All the informants in the Cambodia study also referred to their parents as their first source of knowledge, and although some had later upgraded these skills, they felt that these traditional practices were still very useful for them. In Tounis village (Egypt), in the absence of men who had gone to work in the town, young people had learned from their mothers, as a respondent emphasized: 'My mother taught me everything about farming, she is the source of inspiration to the whole family.' They had learned various skills including combating pests, seasons for farming and harvesting, transporting crops from the land to the house using a donkey or motorcycle, enhancing the quality of crops, and using farming tools such as the axe, saw and plough. In Ethiopia, young women mentioned that they had learned cooking from their family, which later helped them in obtaining paid work in cafés in nearby towns.

Respondents in the pastoralist community in Ethiopia explained how they had learned livestock-rearing skills by starting with small animals such as goats, then moving onto larger cattle. Another explained how at around 5 years old he had learned to keep calves with his older brothers and sisters, moved on to keep calves alone at the age of 7, and keeping a large herd from the age of 8. Sake, an older pastoralist woman, summed up the learning and qualities that were needed: 'To become a cattle keeper or cow girl, it needs skills of knowing the place where the water and fodder is available in which season; it needs alertness; physical endurance to travel to distant places and fight with wild animals and protect the cattle from attack.' Significantly, these detailed accounts of informal learning were given by older members of the pastoralist community, and they considered that schooling had interrupted this process of intergenerational knowledge transfer.

In the Cambodia study, young girls learned to weave pots to be marketed in Siem Reap. They described how they would watch and then copy their mothers weaving rather than receiving any explicit instruction or being encouraged to ask questions. If they went wrong, their mother or an older sibling would correct

their mistake. There were also insights into how people engaged in learning from peers. In Popis village (Cambodia), respondents talked about how they learned 'secretly' by observing their neighbours who had been on agricultural training programmes and were using new techniques. Sometimes this was someone from another area: a farmer in Ou Touch (Cambodia) had learned about new varieties from watching a family who had moved there from another province, where vegetable growing had been the dominant livelihood. They copied whatever seemed to work, but did not ask any questions of their neighbours or openly acknowledge that they had learned from them. The research team related this to a culture of mistrust enforced by the Khmer Rouge.

In Ethiopia, a respondent explained how he had learned by chance from watching a farmer being instructed by an extension worker: 'I remember one day on my way to the nearby market, I visited a development agent showing a fertilizer application method to a farmer on this land, and I approached, saw and learned how fertilizer could be applied when the method of sowing is in rows.' This respondent was unable to access extension services directly as he did not own any land. In Tounis (Egypt), a farmer described how he had gained knowledge about drip-system irrigation from an engineer whose family had land nearby. These examples have particular relevance for the popular cascade model of extension or training based on formal demonstration, suggesting that informal learning from model farmers can be accidental, and is shaped by local practices (such as the culture of secrecy). The findings also raise questions about who is targeted by extension services (see Section 5.4).

The most effective and widespread learning took place when people recognized its potential benefits. In Basona Werana (Ethiopia), eucalyptus was introduced by Save the Children, an NGO, in 1979, but since that time there has been no support or training. However every farmer has learned how to grow eucalyptus, how and when to harvest it, and what needs to be done to regenerate the stump, because they saw how this could solve their problems of shortage of fuel and construction materials. The most widespread informal learning of new skills and knowledge – one that has also crossed the gender divide – has been the adoption of mobile phones by young people at all the field sites. In Basona Werana (Ethiopia), illiterate young people explained how they had learned skills such as saving numbers with a contact name from friends who were literate, and through repeated exercise of the procedure. In Yabello, non-literate respondents explained how they used visual symbols to acquire the skills of recognizing who

was calling and dialling, receiving calls, identifying numbers from a contact list, opening the radio and saving numbers. They used pictures of a butterfly, ball, dog and so on to save the phone numbers of different people and then recognize who was calling. They also memorized the last two digits of a number as another way of recognizing the call. A young pastoralist woman demonstrated how she could read numbers up to 5,000 correctly on her phone, although she had never attended school and could not write down any numbers. Traditionally, Borana pastoralists have taught their children to count up to at least 100 when they start speaking, so that they develop the skills of counting and calculating money from the sale of cattle.

This kind of informal learning has been effective because people adapted the technology to their needs and developed their own strategies for use (such as visual symbols on the phone). They were also collaborating in their learning with literate peers who could help with the initial stage. In a market in Basona Werana (Ethiopia), the team found that illiterate traders had developed similar learning strategies. An older woman selling eggs explained that she checked her calculations with her grandson when she got home from market to ensure she was not cheated. If the change was not correct, she would then meet the buyer next market day and ask for the balance. It also emerged that traders had their own ways of making calculations easier by setting prices that were free from fractions.

In Cambodia, the team identified gender differences with regard to how young people learned new skills. Although women had learned many skills informally at home, they did not have the chance to go out and socialize in the evenings, so were less likely to share their knowledge than their male counterparts. The Ethiopia team also reported that in Yabello, informal learning became increasingly gendered. For example, once pastoral girls reached the age of 10, they were not allowed to attend various trainings and community gatherings, and this prevented them from learning soft skills like their brothers.

Striking gender differences were also identified by the country research team in Egypt. Although women who participated in the research activities showed strong ambitions about learning and good self-confidence, they also talked about the difficulties they faced in continuing their school education for economic and social reasons.

In contexts where there was no formal agricultural extension service, or one of limited effectiveness, it was evident that farmers had to find other sources of knowledge. Aside from peer learning, there were examples in Cambodia of reliance on commercial traders who adopted an additional role as instructor and advisor. A woman near Siem Reap explained how she had learned how to apply chemical fertilizer and pesticide from a seller at the market. Afterwards, she would return to tell the seller about her specific vegetable disease and symptoms so that they could mix up various kinds of pesticides for her to try. As the bottle labels were in Thai or Vietnamese (rather than her own language, Khmer), this respondent had to follow the seller's instructions. If a particular mix did not work, she would return to the seller for further advice. Farmers welcomed this kind of individualized informal instruction, but there are obvious dangers when the trader's main motive is profit. In the Cambodia field site, commercial companies were also providing similar one-to-one support to farmers as part of contract pig farming programmes. This kind of embedded and client-oriented learning approach contrasted with the formal classroom or group-based approaches of NGO and government skills training programmes.

## **Schooling and rural livelihoods**

Findings from all three studies indicated that young people were increasingly being enrolled in formal education, and as a result had stronger literacy and numeracy skills than their parents. Parents in Popis (Cambodia) spoke about the importance of supporting their children's education, in the hope they would have a better future. A young woman explained, 'My mother can do everything to keep me at school. She works harder on the farm and at home so I can concentrate on my studies.' Even so, the team found that young men appeared to work more on the farm (watering vegetables in the morning and evening, ploughing and harvesting) as well as having more chances than young women to go to high school and even on to higher education. The Ethiopia team found a contrast between the two field sites with regard to attitudes towards schooling. Whereas people in the mixed agricultural area (Basona Werana) saw financial benefits in achieving educational success, those in the pastoralist area (Yabello) saw schools as a threat to their traditional livelihoods. Schooling was also an additional financial burden. A girl in Basona Werana explained how she had sold drinks and snacks to cover her school expenses. In the Egypt field sites, girls in particular had to give up school to work as agricultural labourers, and this

was a great source of regret when they were older, as a woman respondent reflected: 'I wish I could have finished my school in order to get out of poverty, and that we do not have to accept living under my strict uncle who refused to let me continue my education.' Other respondents described how they continued working on the family farm while studying, as a university student explained: 'I help my father in farming during school breaks, my brothers and I help to spare him from paying labourers.' Some young people at the Egypt field sites have extended their education to avoid or shorten military service, and to allow them to continue supporting the family.

Alongside a strong belief that schooling offered economic rewards in the long term, respondents talked about the ways in which formal education shaped people's identities and social status. In Ethiopia, being 'uneducated' and 'illiterate' was seen as a disability (despite the examples given earlier of such people engaging in literacy and numeracy practices). A respondent described himself as feeling 'like a moron' because he could not read and write, and a girl who was unable to attend school described herself as 'deaf' as a result: 'Since I am uneducated, deaf, the only fate I have is supporting my family by doing various domestic work, animal rearing and agricultural work.' Another girl who had dropped out of school explained how she had bought and wore a watch so that people would think she was educated. Schooling had great symbolic value in this community among young people. A pastoralist young man stated that 'a schooled foolish person is better than an unschooled clever person', going on to say that an illiterate person had no confidence and was more suspicious: 'If you're illiterate in the current world, you do not understand what is going on and people do not understand you.' These comments were in sharp contrast to the older pastoralists, who emphasized the value of traditional beliefs and practices over modern schooling (which was symbolized for them by reading and writing).

School was associated with a new way of life leading away from traditional roles and rural livelihoods. However, in some field sites, respondents observed that they had also learned relevant skills and knowledge for agriculture in school. In Cambodia, where under the Khmer Rouge farming had been promoted as the only possible education, older people related how they had been forced to learn farming skills through working on the land as children. Younger respondents had also had the experience of cultivating school gardens and learning some skills through practical demonstration, although some said this was only repeating the provision of knowledge they had already gained informally from their parents.



In interviews, respondents from the Basona Werana *woreda* education office suggested that students from farming families performed better on agricultural courses because they had learned skills and knowledge informally at home.

A strong theme running through all three country studies is the increasing value attached to school education by younger people in these communities, particularly in terms of the confidence gained through becoming literate and the social status of being 'educated', while school is a minor mode of learning for young people when it comes to knowledge and skills for agriculture and other rural livelihoods.

### **Formal and informal learning: understanding the relationship**

Returning to this project's research questions around the modes of learning and intergenerational transmission and how young people are acquiring knowledge and skills, the findings give an unusual insight into processes of informal learning. Supporting Rogers' (2013) analysis cited in the literature review, the findings show that people learned new skills (particularly the use of mobile phones) quickly when they saw benefits, and that they did this through interaction with peers and inventing their own ways of learning (such as using visual cues). The findings also reveal how 'illiterate' people engaged in literacy and numeracy practices through similar self-directed learning and with help from literate family members and friends. Intergenerational learning was an important part of becoming a farmer – not only the technical know-how, but also the attributes and values needed, and in the case of the Yabello community, oral numeracy at a very young age.

Looking at the interrelation between different modes of learning, a strong disconnect was apparent between informal, non-formal and formal learning. The various formal and non-formal programmes researched (including adult literacy) did not appear to take account of participants' prior learning. Schooling in particular was seen by some as interrupting learning in everyday rural life through taking young people away physically and culturally from 'hands-on' farming or herding experience. While some parents and most young people interviewed welcomed formal education (as offering new knowledge and potentially new opportunities), others were concerned about the impact on their traditional way of life. An interesting finding involved private providers in Cambodia (a contract farming company and individual traders) who appeared to value, support and build on informal learning in their teaching approaches. These findings about

the importance of informal learning in relation to people's livelihoods need to be considered in relation to national educational and agricultural skills policy priorities and programmes in the three countries.

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## **5.4. Agriculture and skills development for young people: from policy to practice**

The research studies included a review of national agricultural and educational policy in order to identify the main approaches promoted and to discuss young people's views of and involvement in these initiatives.

### **Policy frameworks and priorities**

Egypt, Cambodia and Ethiopia share a common commitment to the EFA agenda, and this has shaped national priorities in the education sector, particularly a strong emphasis on UPE. The higher youth literacy rates (relative to older adults) in these countries demonstrate the impact of this policy. Cambodia has adopted policies to encourage greater participation by girls and disadvantaged young people (including ethnic minorities and those with disabilities), such as subsidies for school attendance, media campaigns and adapting curricula to local needs. Although the research team described TVET as 'in its infancy', it forms one of three education 'streams' (the others being general (compulsory) education and higher education). In the agriculture sector, the government seeks to improve productivity and diversification through land reform, fisheries and forestry reform (including environmental protection).

In Egypt there is evidence of a stronger history of vocational education, and many agricultural secondary schools have been established, 133 by 2011 (although there were none in the field site area). The agricultural education system is divided into three-year and five-year pathways, and provides both theoretical aspects taught in the classroom and practical learning in laboratories, workshops and farms. Coordination with the Ministry of Agriculture has helped to provide farming plots for schools and training for teaching staff on technical issues. The review of policy in Egypt brings out an unusually holistic approach,

emphasizing intersectoral linkages (as in the above example). Agricultural policy addresses environmental, gender and health issues as well as including strategies for increasing production.

In Ethiopia, the government has adopted a policy of ADLI to stimulate growth, income and employment. This includes a focus on diversification and commercialization for small farmers. As mentioned earlier, the government is actively promoting FDI and domestic investment in large-scale agriculture, especially in lowland pastoral areas. In the education sector, the second policy goal of the government – along with EFA – is the expansion of vocational training. There is a dual approach of expanding small and micro enterprises as job creation alongside TVET, and specifically targeting young people. Formal non-agricultural TVET institutions have increased as a result, and twenty-five agricultural technical and vocational colleges have been established to train youth extension agents. The country report also highlights the government's Agricultural Growth Program (AGP), which targets rural young people with technical training for income-generation activities that do not require farmland. Despite these initiatives, the team's review of the government's youth policy suggests that rural young people have been neglected, and that in the five-year development plans, youth unemployment is perceived as a problem of urban areas. These findings support the earlier review of international policy, which noted a lack of attention to young people and to agricultural skill development in TVET (see Section 3).

The three country studies all note that legal reforms have taken place to promote gender equality. Cambodian law grants women and men equal rights in the family context, in terms of parental authority and inheritance, as well as ownership and civil liberty. In Ethiopia, the constitution recognizes that women should have equal rights to obtain and use rural land. The Egypt team's policy review highlights the government's objective of integrating gender issues and ensuring there is an active role for women and young people to play in environmental plans.

While education policy, in Egypt for example, has tended to focus on the formal sector (schooling, including vocational high schools), agricultural policy has also included non-formal adult learning through training and extension activities. In Cambodia, the FFS has been regarded as an important mechanism for reducing poverty and disseminating new technologies. It involves training model farmers who then share new ideas informally with their neighbours. In Egypt, the Vercon

project is a research support network, which is using multimedia approaches to disseminate agricultural information from research centres to farmers. Short movies, radio and television programmes about animal and plant production have been produced for use in agricultural seminars and for the general public to watch at home. Agricultural policy in Ethiopia has included a great emphasis on training youth extension workers, with the aim of deploying one extension agent for every 476 farmers.

These approaches to adult learning in the agriculture sector contrast with adult basic education policy in these countries, which has generally taken a functional literacy approach (combining literacy learning with vocational skills or development knowledge), and is classroom-based. In Cambodia, the government adult literacy programme is taught to a class of around twenty adults for two hours a day, six days a week for six months, and uses textbooks based on four categories of 'functional knowledge': family life, economics and income, health, and civic consciousness. Evaluation reports have noted the problem of saturating local markets, as many people in the same village were being trained in the same vocational skills, such as chicken and pig-raising techniques, vegetable farming and farm management.

In Ethiopia, the government launched a literacy campaign in 2012 which adopts a similar approach, the IFAL programme. In Egypt, where cross-sectoral policy linkages have been encouraged, classroom-based adult literacy instruction was combined with training for women farmers with technical expertise from the agricultural sector. The case study from Fayoum of female farmer empowerment classes is an example of a programme developed by the Adult Education Authority and the Integrated Pest Control Department of the Directorate of Agriculture. Unlike functional literacy programmes, this involved two separate phases – first training female farmers in producing high-quality export crops, followed by field classroom experience (including literacy, decision-making, team work and farm management skills).

The review of related policy initiatives in the three country reports reveals similar educational priorities in relation to the EFA agenda (particularly to encourage girls' enrolment) and classroom-based functional adult literacy programmes, and the growth of agricultural schools in Ethiopia and Egypt. In the agriculture sector, extension services are regarded as an important vehicle for disseminating

new knowledge to farmers, although they had only rarely adopted the 'client-led' approach identified by Rogers (1993).

The above analysis suggested differences in modes of communication being promoted in each country, such as the greater focus on multimedia in Egypt and integrated agricultural/education sectoral approaches. In the country documentary reviews there was surprisingly little mention of ICT in policy priorities, in relation to both expanding distance learning opportunities, and recognizing the potential for mobile phones and the internet to be used for enhancing and diversifying agricultural livelihoods.

### **Learning for agriculture and rural livelihoods: what kind of learning and for whom?**

Research findings from the field studies offer an insight into how young people and other stakeholders responded to the above policies and programme initiatives in their local area. This section looks at young people's experiences of educational and skills development programmes in the various field sites, to help to answer the study's research questions about 'the perceptions of those who teach and learn knowledge and skills ... on the effectiveness of learning for agriculture and rural livelihoods'.

#### **Inclusion and exclusion**

All three studies bring out critical issues around targeting educational and agricultural programmes for young people, with particular policy implications for reaching the poorest groups. In contrast to the policy documents above, which tended to emphasize 'youth' as a homogeneous group, young people saw themselves as a very diverse group. An example is the ways in which the focus group participants in Basona Werana (Ethiopia) classified young people in their village according to five different axes of difference:

- school drop-outs dependent on their families versus school drop-outs engaged in casual labour and income-generating activities
- migrants to Arab countries versus those who migrate to major towns in Ethiopia
- the landless versus those who own or have access to land

- young people with disabilities versus the able-bodied
- the literate versus the illiterate.

Several of these dimensions proved significant in terms of whether young people were eligible to participate in agricultural development programmes. In particular, extension services were often targeted only on those who owned land, resulting in great differences between the access to training of the married and single (in all three countries). In Ethiopia, the team reported that demonstrations were organized mainly for farmers regardless of age and gender, but only for those who had farmlands. The report also revealed that in this pastoral area, young people not attending schools and engaged in cattle herding were not reached by any services. A focus group of young men in Yabello reported that extension programmes designed to improve the productivity of livestock targeted only a few young people. Out-of-school unmarried women in this community faced even greater constraints, as their elders did not allow them to attend meetings or training programmes with married women and men.

With regard to the literacy/illiteracy distinction, the formal agricultural high schools and vocational colleges in each country usually required the students to have a minimum formal educational level. In Ethiopia, the team noted that non-formal training, if it existed for rural youths at all, required basic literacy skills as a precondition. NGO programmes often aimed to target the poorest, and included non-literate farmers too. In the two tourist areas researched, there was evidence of NGOs providing effective skills development that led to enhanced income (training for vegetable production to sell to tourist hotels in Siem Reap in Cambodia, and the pottery school in Tounis in Egypt which now exports ceramics to the European Union). Though small-scale, these initiatives suggest ways in which poor young people without formal education can learn new occupational skills as well as marketing expertise.

The case study of the Mong Rithy Group contract farming in Cambodia revealed that they preferred to target farmers from 30–50 years old because they had sufficient experience to run this kind of business (pig rearing). Within this age group, the company preferred those under 40 years, as they were considered to be ‘young, dynamic and less resistant to new techniques’. This commercial initiative proved highly successful in training farmers, but it indicated that younger people – particularly those without existing resources or experience – were not included in the scheme. The Cambodia report notes the difficult

of evaluating the effectiveness of training initiatives when the group of trainees are 'self-selected' (representing more educated and wealthier groups) as in the case of private company schemes and some vocational training institutes. In view of government policies encouraging private direct investment in rural areas, the findings from Cambodia suggest that these new employment opportunities may seldom reach the poorest farmers or the youngest groups. Conversely, the Cambodia report found that the TVET centre in Kampot only accepted farmers who were identified as poor, but was regarded as 'ineffective' by those who had attended courses.

These findings related to the difficulties of targeting effective programmes point to the need to consider how entry criteria around age, ownership of land and educational qualifications set up specific barriers for particular groups of young people. Although gender had been taken into account in that a stated aim was to target young women, few programmes appeared to have responded to gendered constraints, such as those faced by pastoralist single women. The first-hand accounts of programmes from research participants in the field site areas challenge some assumptions by policy-makers, and point to certain principles for best practice, discussed below.

### **Which skills and whose knowledge?**

Overall, the findings suggest the importance of transferable soft skill development, such as negotiation skills and marketing expertise for poorer young people, many of whom are being economically and sometimes sexually exploited (as in the example of employment agencies in Basona Werana in Ethiopia). However, the data from focus groups and interviews reveals that often technical or occupational skill development was over-prioritized, particularly in formal institutions such as technical schools, but also in non-formal approaches such as agricultural extension services and functional literacy programmes. In Basona Werana, discussion with *woreda* agriculture office experts revealed that extension services were delivered to farmers through 'packages' of training focused entirely on technical knowledge such as frequency of ploughing, compost preparation and disease identification. Soft skill training such as marketing and life skills development was absent.

Television and radio programmes designed to reach farmers also focused exclusively on technical advice about disease and pests rather than other kinds

of knowledge. In Ethiopia and Cambodia, interviewees said they rarely listened to or watched such programmes (although in Ethiopia they used mobile phones to listen to the radio and in Cambodia young people watched television for entertainment daily). In Egypt, respondents said they had learned about wheat diseases and how to deal with them from a television show, but observed that the programmes related to investment crops rather than their traditional type of farming.

A similar bias occurred with regard to the kinds of technical skills and knowledge prioritized in technical schools. Respondents in Gemi village (Egypt) complained that they needed training in carpentry or plumbing that would enable them to find work locally. Instead, they had had training in handicrafts and forging, and commented, 'These crafts are not important in our poor village: these skills are desired in places like Cairo' (young male respondent). The more successful skills development programmes built on indigenous knowledge. An example is the Traditional Birth Attendant training programme in Yabello, Ethiopia, which introduced new knowledge (like using a clean blade) to traditional midwives who already had the skills and confidence needed for their role. A district official explained, 'The only thing they lack is sanitation and some immediate care facilities.' This recognition and valuing of people's existing knowledge and skills was not often apparent in the field sites. In the agriculture sector, the study in Ethiopia investigated how indigenous skills were being passed on across generations through informal learning. However, the findings revealed the perceived limits of that knowledge from the perspective of young farmers encountering new diseases and environmental challenges.

Large-scale functional adult literacy programmes also faced the challenge of how to incorporate indigenous knowledge and respond to the differing needs of young people. In Basona Werana (Ethiopia), education office experts explained that the IFAL programme was developed at the regional level and that they did not have the resources to adapt it to the diverse contexts of their adult learners. The policy assumption was that 'one curriculum fits all contexts and groups', yet the implementers were aware that the textbooks were 'totally divorced' from indigenous knowledge and ways of knowing. The result was that the literacy classes tended to focus on reading and writing skills in isolation from real-life contexts, and no account was taken of participants' diverse interests and needs. (An example was given of a person who had no interest in bee-keeping being forced to learn about modern bee-keeping methods.) The schedule for the IFAL



programme was the same in all agro-ecological areas, ignoring the differences in farming and harvesting seasons between lowland and highland areas. The Ethiopia country report highlights the problems associated with 'one size fits all' programmes.

These findings suggest that although providers have adopted a range of different delivery modes (such as non-formal adult literacy programmes, formal agricultural schools, and informal learning through the media and extension services), the emphasis has been extensively on technical occupational expertise, rather than the soft skills needed for lifelong learning and diverse livelihoods in these rapidly changing economies. The effectiveness of these programmes was also undermined by a failure to adapt the content and approaches to local contexts and markets – meaning that the hard skills taught would not necessarily prove economically useful to young people.

### **Teaching and learning approaches**

The more successful programmes discussed in the country reports (in terms of enhancing rural livelihoods) had promoted a holistic and embedded approach to adult learning, sensitive to context. The pig-rearing project in Cambodia mentioned above involved on-the-job individualized training, which included not only technical expertise but also soft-skill training in keeping accounts, records and organization. Similarly the SoS Sahel training programme for pastoralist women in Yabello, Ethiopia, to make soap from the locally grown aloe vera plant included literacy skills to develop the capacity of members to effectively record transactions, read and understand agreements and business contracts, and manage and control their accounts. Unlike traditional functional literacy programmes, literacy and numeracy learning in both these projects was directly related to the tasks that farmers needed to undertake. Significantly, teaching and learning was viewed as only one element within a programme that also provided other necessary support, including access to credit, materials and visits to see similar initiatives. Although some teaching took place in a formal classroom (literacy was taught three times a week as a class approach in the SoS Sahel project, Ethiopia), the dominant approach was to engage farmers in informal learning directly related to their (new) livelihood activities.

The assumption that learning vocational and literacy skills in a group is the most sustainable approach to enterprise development informs many of the

programmes in the field sites, but it was challenged by some youth respondents. The Basona Werana TVEDO in Ethiopia insisted that young people should form a team or user group to access its services. A similar approach was used to establish common interest groups for income-generation activities under the AGP. In Yabello, providers considered young people as a homogeneous group, and brought together those with different kinds of aspiration, different access to resources, different educational levels, and of both genders. Although the aim was to develop skills of cooperation and collaboration, creating a new group in this way proved problematic for some young people, who felt that others were 'free riders'.

Similar assumptions about how people would learn and disseminate knowledge can be seen in the dominant approach by agricultural extension services, illustrated by the FFS in Cambodia. As mentioned earlier, the idea of the 'model farmer' was not straightforward in a context where people did not want to acknowledge openly that they had adopted ideas from a neighbour. In Ethiopia too, there were similar observations about the difficulty of employing this cascade model. A development agent (extension worker) commented, 'There are not clearly defined mechanisms for ensuring whether the demonstrated methods get through to the majority of farmers thorough the model farmers.' Informal interaction directly with agricultural experts was perhaps more effective: a pastoralist in Yabello explained that he had gained knowledge about how to manage livestock in the face of declining availability of fodder. Like the women in Popis, Cambodia, who asked for advice from fertilizer sellers, it seemed that this kind of individualized support from an expert was more valued than demonstration of new techniques by a peer who had been trained.

These findings point to certain principles of good practice given by the providers and young people who were interviewed. The more effective programmes took an embedded approach to learning – whether this was literacy learning within a particular livelihood activity, or learning agricultural techniques and knowledge through introducing practical on-the-job experience into vocational training courses. Significantly some of the providers had moved learning out of the classroom, although this did not necessarily mean that extension teaching was less 'formal' in approach. Respondents had learned useful knowledge from extension workers and traders through individual and informal interaction. Many providers (government, NGOs and private) believed that learning would be more sustainable if the learners formed groups. However, the findings concerning

young people's move away from communal values and ambitions suggested the need to take more account of their individual viewpoints and new social practices. This also supports the analysis in the literature review regarding the general tendency for policy-makers and programmes to fail to take account of differences between young people as a target group.

### **The bigger picture**

The studies from all three countries revealed wider issues around the challenges of good governance and sustainability that the government and its partners, including NGOs, faced in implementing educational and agricultural development programmes in rural areas. The Egypt report shows how strongly respondents felt about the ineffectiveness of extension programmes in their village. Young farmers commented, 'No one helps us, we do not know the agriculture extension workers or their names even,' and 'This village is totally forgotten, no one looks at us.' Others remarked that NGOs only celebrated Farmer's Day and invited some officials to visit the village.

Respondents faced particular difficulties in accessing services from the government cooperatives: 'The agriculture cooperative does not provide anything for us. They take all the goods to themselves and sell it for their own benefit. We have to buy from the black market and pay three times the price.' In Cambodia too, all the respondents said that they had never met an agricultural extension worker in their village. In Ethiopia, discussions with woreda officials revealed that the agricultural extension workers (called 'development agents') were engaged in distance learning programmes in areas other than agriculture (such as accounting, economics, management) in the hope of moving away from the sector. These findings on systemic problems relating to agricultural extension and cooperative services indicate that young people's disillusionment with rural livelihoods needs to be considered as just one part of this much larger picture.

# 6.

## Conclusion

This conclusion begins by returning to the initial questions posed by the IFAD-UNESCO team to see what answers this project has provided, including follow-up actions proposed by stakeholders. The second part of the conclusion identifies four specific contributions to knowledge from the project, which have particular implications for future research and policy development.

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## **6.1. Summary of main findings and proposed actions**

The first two research questions focused on ‘what skills are in demand?’ and the ‘kinds of knowledge and skills specific to agriculture and rural livelihoods currently being acquired by young women and men’. The findings from the ethnographic-style research revealed that parents and other family members had effectively passed on indigenous knowledge and skills related to agricultural livelihoods to younger people. Respondents identified specific hard skills (for instance, specific agricultural techniques) and soft skills (for instance, organizational skills and the attributes listed by pastoralists) that they had learned informally within the family or community. However, both older and younger respondents and employers emphasized the limits of traditional knowledge in responding to the current challenges of globalized economies, new forms of communication, climate change and environmental degradation. As well as wanting better access to new technological expertise within this sector, respondents recognized the importance of entrepreneurial knowledge (backed up by necessary access to credit, land and other core inputs) and acquiring negotiation skills and confidence-building to enable them to move into more profitable areas of activity and to counter exploitation.

Data on the kinds of skills and knowledge currently acquired suggested that poorer people found it difficult to access new technological expertise. Richer farmers with access to land and assets had sometimes picked up new techniques from extension programmes, from experiences in other parts of the region, and in the Cambodian case, from private companies. The data suggested little priority was attached by young people or providers to ‘green skills’ and environmental awareness, largely because of the necessity to find ways of alleviating poverty

in the immediate future. For instance, the popularity of eucalyptus trees as a source of cash income in Basona Werana *woreda* was not accompanied by concerns about the possible long-term environmental impact on the land.

There was little evidence that respondents wanted to learn or enhance basic literacy and numeracy skills, although some employers and training providers saw the lack of basic education as a barrier to engaging in agricultural skill development programmes. School education was discussed in terms of the value of qualifications and the confidence and status acquired, rather than specific skills or knowledge that young people wanted to learn. The data suggested that livelihood skills and knowledge learned in formal training institutions, adult programmes or schools were often not valued, because either young people had already acquired this knowledge at home, or the skills were not relevant or marketable in the local area. All young people interviewed recognized the value of learning to use a mobile phone, and had learned these skills informally, even if they were not literate.

The next set of research questions relate to the ‘specific modes of learning and teaching of knowledge and skills for agriculture and rural livelihoods (informal, non-formal and formal) and the dynamics between them; how such knowledge and skills are communicated, who provides such learning and how such learning is transmitted from generation to generation’. The studies all provide strong evidence that respondents learned traditional and new knowledge and skills informally within their communities, through interaction and observation, and that the older generation modelled practice for peers and children. A few examples were given of people learning new knowledge informally through migration or from others who had lived in different areas.

Analysis of how knowledge was transferred between generations revealed that the older generation developed approaches to teaching and learning which might be considered similar to methods in formal education. Examples included Yabello pastoralists scaffolding activities so that children gradually learned skills for dealing with larger animals and bigger herds, reciting or repeating numbers up to 100, and parents in Popis village Cambodia demonstrating, then correcting their children when weaving pots. Overall, the data demonstrated that respondents learned informally when they perceived the need, and developed effective strategies for doing this (including learning literacy and numeracy when using mobile phones or in marketing).

There were strong gender differences in the skills and knowledge that girls and boys learned informally, which intensified as they grew older. The evidence of rapidly changing social values in some communities (such as more emphasis on individual rather than communal priorities, and growing awareness of women's rights among younger respondents) could influence intergenerational transfer of skills and knowledge in future.

Non-formal learning investigated in the study included agricultural extension services, adult literacy programmes, commercial agricultural programmes and on-the-job training. The findings suggested that although such non-formal learning took place outside formal educational institutions, the instruction was often formalized and – particularly in the case of adult literacy – was characterized by elements of school education (including a one-size-fits-all curriculum, reliance on textbooks and a fixed schedule). Exceptions were some private and NGO providers who developed embedded approaches to literacy and numeracy instruction (such as tailor-made support for account keeping). Similarly, agricultural extension programmes in this study tended to have predetermined curricula and aims, which meant that agents or extension workers took a 'top-down' approach to instructing farmers and were less likely to respond to their specific situation or needs.

However, the cascade approach to extension seemed to assume that informal learning would take place, relying on model farmers to disseminate new knowledge not only through formal instruction or demonstration, but also through other farmers learning from informal observation of their practice. The theoretical model of a continuum ranging from informal to formal learning (see Section 3) is particularly valuable for interpreting these findings. Non-formal interventions drew on both formal and informal learning processes, and it was unhelpful to characterize non-formal learning as a discrete category between the two.

Insights into formal learning (and to some extent, non-formal learning) were limited in terms of the data, which did not include observation in formal institutions, skills training programmes or adult literacy classes. However, findings from interviews and FGDs pointed to the important symbolic value of schooling to young people in all the communities. There were significant differences between research sites in this respect. In Basona Werana young respondents saw economic advantages in attending school, whereas young people in Yabello emphasized the cultural and social capital gained. Older people in Yabello, in contrast to young people,

saw school as disrupting the traditional pastoral way of life that they valued. Supporting the literature findings, many respondents saw schooling as a way out of agricultural and rural livelihoods. Young women in the Egypt study were however more positive about agricultural livelihoods.

Indicating widespread gender inequalities, young women in all the sites had particularly strong aspirations to be educated in school, but had faced enormous barriers, and many respondents had been unable to continue. Respondents commented on the perceived differences between 'schooled' and 'unschooled' young people (which was often associated with being literate or illiterate), particularly in the Ethiopian field sites. Although there was little data on the actual knowledge and skills learned in schools and how this related to agricultural livelihoods, respondents associated school education as providing enhanced confidence and status in their community. The findings about young people's differing attitudes to formal education from those of their parents (particularly young women's growing aspirations) could be seen as evidence of informal learning about their rights to education and gender equality.

Overall, the studies indicated strong interrelations between the different modes of learning – for instance, schooling involved much informal learning in terms of confidence-building. Knowledge and skills related to rural livelihoods were being communicated primarily through face-to-face oral interaction, sometimes supported by written texts in the form of teaching materials in formal and non-formal programmes, and informal learning drew on electronic communication too. The data suggested that multimedia approaches (particularly television and radio) had focused on conveying new technical knowledge rather than soft skills, but there was little evidence that such programmes had been effective in reaching poorer farmers.

The final research questions related to who provides this learning and the perceptions of those who teach and learn knowledge and skills on the effectiveness of learning for agriculture and rural livelihoods. The studies covered a wide range of providers in government educational institutions (schools and technical colleges), adult literacy providers (NGOs and the government), employers (including private companies) and employment agencies. The data from the country studies revealed that the most effective provision took a holistic, client-oriented 'hands on' educational approach, recognizing the constraints and opportunities in the local context, and prioritizing soft skill development.



This meant providing additional non-educational support where required (such as access to credit and organizational support) and drawing in expertise from outside the education sector. There were no examples of providers taking account of informal learning through accreditation of prior experience, although in Basona Werana education officials noted that students from farming families performed better in agricultural courses.

What emerged more strongly in all the sites was that most providers regarded a lack of formal schooling as a reason to exclude young people, based on the belief that they required at least basic literacy and numeracy skills to participate in agricultural skill development programmes. Young people commented on the ineffectiveness of training courses in providing relevant and high-quality skills and knowledge for making an enhanced living in an agricultural livelihoods. Interviews with district educational and agricultural officials, extension workers and college principals revealed disillusion too – in the face of inadequate resources and frustration with institutional governance, which influenced how far intrasectoral and poverty-focused approaches could be implemented. The data revealed a gender divide: young men had greater access to formal skills development and support (for instance, in the cooperatives in Ethiopian sites), while young women faced issues around mobility and gender stereotyping in the kinds of skills training offered.

These summary findings need to be treated with caution, as the country studies were undertaken in a very short time frame, and should be regarded as scoping ethnographic-style studies. They point to potential future areas of research, both probing specific processes in more depth through ethnographic research (such as the interrelationships between informal, non-formal and formal learning, or mediation processes (including scaffolding by others) in informal learning in rural communities). Some of the findings could also form the starting point for a quantitative survey of a wider population (for instance, to investigate the activity of agricultural extension workers or participation in formal agricultural training courses, disaggregated by gender and income).

The studies revealed much about the micro-level experiences of young people and providers, which now needs to be complemented by meso and macro-level analysis of the economic, political and social factors influencing agricultural development and rural livelihoods in these three countries and globally. The project demonstrates however the value of conducting research into young

people's perspectives on agriculture, rural livelihoods and learning, and the possibility of building on its insights to enhance educational and agricultural development programmes.

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## 6.2. Policy recommendations from the global seminar

A major purpose of the concluding global seminar in Paris was to discuss the actions needed in order to ensure that these findings could be taken forward into policy and practice. Based on breakout discussion groups, the following specific activities were proposed to IFAD and UNESCO at the seminar:

- Develop a pilot educational project to build directly on the findings in each of the countries where the studies were developed. The process could begin with a concept note to determine the project context and aims, with the country team developing an action plan, identifying areas for training and suggestions for partnering with other countries.<sup>10</sup>
- Prepare policy briefs in different languages at the country and international level with key thematic areas in order to communicate the findings of the studies to relevant national and international organizations (including those who attended the global seminar and national workshops).
- The full set of life histories collected in each country should be translated into English, edited/anonymized and made available as a rich source of insights into young people's perspectives as expressed in their own words.
- National launches for the country and synthesis reports should be held in each of the three countries to share findings, gain responses from stakeholders and mobilize potential partners for follow-up initiatives.
- The contribution of the project to capacity-building could be harnessed through initiatives such as a publication run by potential journalists from rural youth communities and a training/mentoring programme for young

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<sup>10</sup> The Egypt research team prepared two proposals for follow-up projects (shared at the final session of the seminar) for consideration by potential funding partners.

researchers interested in this kind of research approach and issues facing rural young people.

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## 6.3. Implications for programmes and future research

The studies conducted in Cambodia, Egypt and Ethiopia give a rich insight into how people are learning skills and knowledge for rural livelihoods and the changes taking place in the communities researched. The very diversity of contexts and livelihoods described in the country reports presents the greatest challenge for policy-makers. The findings illustrate the difficulties faced by providers and young people involved in programmes that adopt a 'one size fits all' approach. For this reason, the project took a 'situated' approach to developing programme recommendations through the final workshops to draw out specific issues and suggested strategies for each country (detailed in the separate country reports). This section aims to draw out the main points from the synthesis analysis above that have particular implications for educational programmes, international policy directions and future research.

### **A more complex view of learning, schooling and farming**

Schooling and agriculture carried very different meanings for the people in these studies, according to their gender, age, socioeconomic and cultural contexts. Young people emphasized the social status and confidence associated with having attended school. The analysis suggested that formal schooling for basic education was associated with transforming social values – not necessarily through the curriculum but by removing students from their communities' everyday activities involved with making a living. People's views of farming also indicated the importance of work as providing a conducive social environment and source of informal learning, and that this also influenced their choice of occupational activities. By contrast, from the literature reviews and interview data, we can see that policy-makers and providers in each country adopted an economic and instrumental perspective – looking at formal education as the

main source of basic skills and learning, and viewing rural occupations largely in terms of income. Policy debates need to take account of how young people make decisions about their future livelihoods and educational opportunities. The study shows that they view learning and farming, not only in terms of outcomes (such as increased income), but also as processes shaping their social identities and relationships. This more complex model for exploring the interconnections between schooling, learning, agriculture and social change is an important area for future research – which might be conducted in a wider range of countries.

### **Recognizing and valuing informal learning in programmes and international educational policy**

The analysis reveals the importance of informal learning in relation to new technologies, and the transfer of agricultural skills and knowledge both between generations and through formal training programmes. When people were motivated to learn a new skill, they sought support from others and devised their own learning strategies. Parents and elders also demonstrated their knowledge about how to facilitate and support children's informal learning at home and in the fields. The findings challenge the dependence of policy on formal learning. For instance, although cascade models of agricultural extension or group formation for income generating rely on processes of informal learning for sustainability, providers promoted a more formalized approach to learning and teaching these skills. Research evidence suggested that extension services and contract farming training had been successful when they actively encouraged informal learning through practical experiences, facilitated critical interaction, built on existing skills and practices, and offered a client-led individualized approach.

The country policy reviews offered few examples of prior learning or experience being recognized through development of formal accreditation frameworks. International educational policy could move beyond the dominant focus on school learning, as measured by formal tests and league tables, to recognize the importance of informal learning, particularly in relation to new technologies, indigenous knowledge and lifelong learning. Educational programmes need to take greater account of processes of informal learning, not only through assessment and accreditation mechanisms, but also maximizing opportunities for informal learning in agricultural extension activities, adult learning programmes and the media. Adopting a more holistic and flexible programming

approach would also help to tackle the issues around targeting raised in this report, particularly the exclusion of illiterate farmers – thus moving away from the assumption that formal learning of basic literacy should precede other kinds of learning.

## **Prioritizing soft skill development**

The rapid changes affecting rural livelihoods in the research areas mean that young people had already engaged in many different off-farm and on-farm activities, and recognized their need for skills to adapt to and create new opportunities. This notion of lifelong learning, and the priority that young people attached to gaining confidence and enterprise skills, were not reflected in the kinds of skill development and educational programmes on offer. With the problems faced by small farmers in the face of large-scale foreign investment projects, skills of negotiation are likely to be of increasing importance. Providers in the study areas tended to focus on development of skills for specific professions, and in agricultural extension activities, on technical expertise (also reflecting the formalization of learning noted above).

Policy for the educational and agricultural sectors should encourage the development of transferable skills. Skills development programmes could also embrace a wider range of soft skills. ‘Green’ skills and knowledge were needed in the study areas to minimize the negative impact on health and livelihoods of chemical fertilizers, and it will become increasingly important to take up the challenge of sustainable development. The rapid expansion of access to mobile phones through informal learning suggested the potential to integrate such technology into soft skill training around marketing and negotiation, beyond learning technical knowledge and skills. From a gendered perspective, the severe problems around sexual harassment reported by young women in Ethiopia might be alleviated to some extent by campaigns to raise awareness amongst communities, and supportive programmes for women to challenge and report abuse.

## **Challenging policy (and research) silos**

The holistic approach that young people took towards enhancing their own livelihoods contrasted with the approach of many providers, who seemed constrained to working within their own sector (this fragmentation is referred to in the literature reviewed as ‘silos’: Froy and Giguere, 2010). In particular, the strong interconnections between off-farm and on-farm activities emphasized by young respondents challenged the divide that seemed to shape skills development policy and programmes around rural and urban, agricultural and non-agricultural employment. Where policy had promoted intersectoral linkages, this seemed to involve complementary activities or stages, rather than developing integrated approaches to learning or enhancing skills.

The exclusion of the poorest young people from the more effective skills-development and income-generating programmes reviewed in the country reports emphasizes the importance of providing longer-term additional support alongside initial skills training. An intersectoral approach would be required to offer credit facilities and relevant technology support to set up and sustain small businesses after completion of training. Problems faced by young people, particularly women, with regard to land ownership suggest the urgent need for legal reform to ensure equitable access. This project has also illuminated the ways in which educational researchers could work more closely with researchers investigating agricultural development, to break down research ‘silos’<sup>11</sup> too in future.

## **Gender, education and rural livelihoods: moving beyond access**

The young women and young men in this study give an insight into how strongly their learning and livelihood experiences are influenced by gender. Earlier research in this area has focused on whether young women and men have equal access to formal schooling, gendered constraints on participation in training courses and gendered hierarchies of occupational skills. The data from this study revealed how young women made livelihood and educational decisions based on considerations around gender violence and abuse, and community expectations of gender roles (including mobility). Processes of informal as well

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11 The literature review noted that the research fields of youth, rural livelihoods and informal learning had rarely been considered in relation to each other.

as formal learning were highly gendered, influencing both men's and women's aspirations and capacities. The project pointed to the importance of taking a gendered approach to research on agricultural learning and livelihoods – not simply analysing where women need to 'catch up' on skills, basic education or employment, but also to develop greater understanding of how gendered identities and gender relations shape people's livelihoods, learning and outlook on life. This important area could be investigated through in-depth ethnographic research.

## **6.4. Concluding reflections**

Through the vibrant and often critical voices of respondents in the country reports, this research project provides strong evidence that young people can offer valuable ideas about a way forward for more equitable and sustainable rural development, as well as an understanding of the constraints. Engaged in diverse livelihood activities, they are already active in learning and developing strategies to improve their lives, yet they face very real barriers in accessing new knowledge, technology, training and resources. Their strong aspirations for a better future need to be matched by providers' recognition of the existing attributes, knowledge and experience that young people bring to agricultural skill development programmes. A more holistic approach to agricultural development is required, as is a determination to ensure that resources reach the poorest in these communities.

Current international debates on education within the 2030 Agenda for Sustainable Development present the opportunity to ensure that universal primary schooling is recognized as only one element of lifelong learning for young people in rural areas. The research findings on the important role played by informal learning with peers and families, as well as the underestimation of prior knowledge by providers of structured learning, point to the need for a comprehensive approach to enhancing the quality of education. The international community looks likely to focus narrowly on the assessment of learning outcomes as an indicator of quality. By contrast, this research study gives strong evidence that the relevance of the knowledge and skills acquired by learners, inputs, dynamic processes of learning and learning/literacy environments are all

important ingredients for ensuring the quality of learning. The study also points to the importance of recognizing the development of 'green skills' as a key element in the 2030 Agenda for Sustainable Development.

Finally, through developing a cross-sectoral, gendered and interdisciplinary approach, this project has made an important contribution to developing research capacity on learning knowledge and skills for agriculture and improving rural livelihoods. In the host institutions, the project has helped to develop and/or strengthen ethnographic research expertise which can enrich future research endeavours. Institutional partnerships established in the three countries through the project offer the opportunity for future collaboration across the education and agriculture sectors. At an international level, the sharing of knowledge and approaches between IFAD and UNESCO (and within UNESCO between adult basic education and literacy, and TVET) has helped to strengthen a community of stakeholders committed to finding ways of addressing rural poverty. While these changes made are positive in themselves, this project has also demonstrated the potential of this type of research and its possible follow-up to close the gap between macro-level policy debates and micro-level research findings by connecting efforts of different partners in different thematic areas at global, regional, country and local levels.



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**W**hat and how young people learn in rural areas, especially girls and women, is key for creating inclusive sustainable societies. This publication, *Learning Knowledge and Skills for Agriculture to Improve Rural Livelihoods*, offers rich insights into young peoples' learning, livelihoods and aspirations. The publication is the result of a joint qualitative research project implemented by the International Fund for Agricultural Development and UNESCO in Cambodia, Egypt and Ethiopia. For the young people who took part, schooling, other forms of learning, skills development and literacy, agriculture, livelihoods, social identities, social change and rural transformation, are all closely connected, regardless of policy and administrative boundaries. Their perceptions illustrate why expanding the current form of schooling alone is inadequate if learning is to be more meaningful and beneficial for their lives. Recommendations offered will be valuable for those who are rethinking policies and practice for enhancing learning for young people in rural areas, within and beyond the 2030 Agenda for Sustainable Development.



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